Appendix A.

Context Sensitive Solutions Process

Acronyms and Abbreviations

ALIVE	A Valued Landscape-Level Inventory of Ecological Values
CSS	Context Sensitive Solutions
CDOT	Colorado Department of Transportation
FHWA	Federal Highway Administration
ITF	Issue Task Force
PLT	Project Leadership Team
PPSL	Peak Period Shoulder Lane
ROD	Record of Decision
SWEEP	Stream and Wetland Ecological Enhancement Program
TT	Technical Team
WB PPSL	Westbound Peak Period Shoulder Lane
WB	Westbound

CONTEXT SENSITIVE SOLUTIONS PROCESS

The Westbound Peak Period Shoulder Lane (WB PPSL) decision-making process was conducted through the I-70 Mountain Corridor Context Sensitive Solutions process. As defined by the Federal Highway Administration (FHWA), the Context Sensitive Solution (CSS) is an interdisciplinary approach to developing a transportation facility that involves all stakeholders and is responsive to the physical and social context of the area through which the transportation facility passes. All Colorado Department of Transportation (CDOT) projects in the I-70 Mountain Corridor are required to follow the I-70 Mountain Corridor-specific CSS process and Aesthetics Guidelines as outlined in the 2011 Record of Decision (ROD). This project followed the CSS process and Aesthetic Guidelines and utilized the 6-Step Decision-Making Process as described in Table 1.

Table 1. Six-Step Decision-Making Process

Steps	Purpose
Step 1: Define Desired Outcomes and Actions	Using the Context Sensitive Solution Guidance and other relevant materials, this step establishes the project goals and actions. It also defines the terms to be used and decisions to be made.
Step 2: Endorse the Process	This step establishes participants, roles, and responsibilities for each team. The process is endorsed by discussing, possibly modifying, and then finalizing with all teams the desired outcomes and actions to be taken.
Step 3: Establish Criteria	This step establishes criteria, which provides the basis for making decisions consistent with the desired outcomes and project goals. The criteria measure support for the Core Values for the I-70 Mountain Corridor.
Step 4: Develop Alternatives or Options	The Project Staff works with the Project Leadership Team, stakeholders, and the public to identify alternatives or options relevant to the desired outcomes, project-specific vision, and goals.
Step 5: Evaluate, Select, and Refine Alternative or Option	The process of analyzing and evaluating alternatives applies the criteria to the alternatives or options in a way that facilitates decision-making. This may be a one-step or multi-step process depending on the complexity of the alternatives and the decision.

Table 1. Six-Step Decision-Making Process

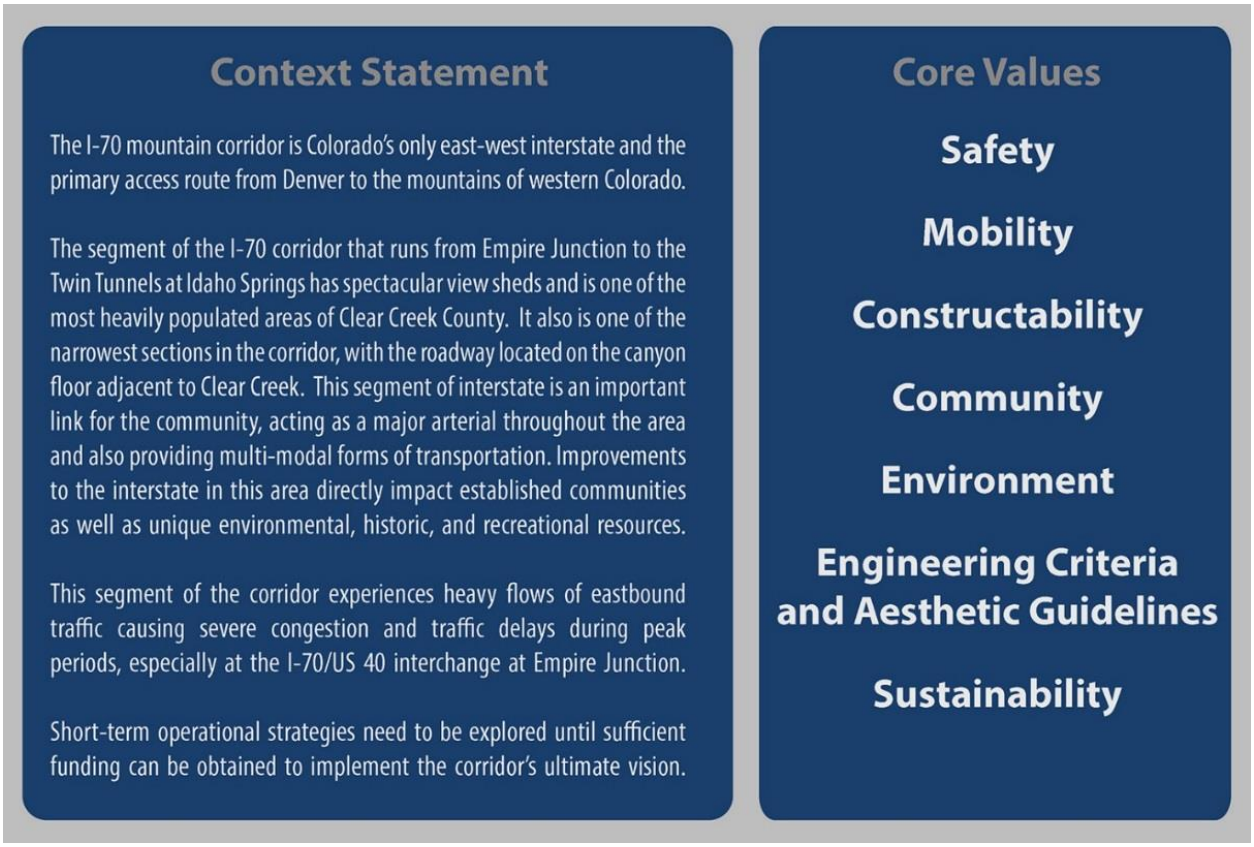
Steps	Purpose
Step 6: Finalize Documentation and Evaluate Process	Documentation should be continuous throughout the process. Final documentation would include each of the previous steps, final recommendations, and the process evaluation.

Source: CDOT 2013.

Context Statement and Core Values

Development of the Proposed Action strictly followed the I-70 Mountain Corridor CSS Guidance. A Project Leadership Team (PLT) and a Technical Team (TT) were formed. The PLT developed a Context Statement and Core Values for the project (Figure 1). These were then reviewed and modified by the TT, and re-reviewed and endorsed by the PLT. The two teams followed the 6-Step Decision-Making Process.

Figure 1. Context Statement and Core Values



The PLT and TT worked together to evaluate all design solutions against the Core Values and evaluation criteria. Attachment 1 includes a summary of issues discussed at PLT and TT meetings (*meeting minutes available at https://www.codot.gov/projects/i-70-westbound-peak-period-shoulder-lane/context-sensitive-solutions-process*). Table 2 shows the Core Values and their influence in the design process.

Table 2. Summary of Core Values and Design Elements for Westbound Peak Period Shoulder Lane

PPSL Stakeholders' Core Values	Realizing the Core Values
Safe travel for people and goods.	▪ The Proposed Action provides for safe travel and safety of emergency responders. ▪ The Proposed Action reduces time required for incident response. ▪ The Proposed Action provides safer travel for motorists by reducing congestion and travel time. ▪ The Proposed Action includes emergency pull-outs, signage, and camera coverage that is actively monitored by Colorado Department of Transportation staff to enhance safety. ▪ The Proposed Action improves sight distance at points along the corridor. ▪ Rock mesh and buttresses are added to stabilize the face of rocks to prevent rockfall along the corridor.
Increase **mobility** and **accessibility** through safe and reliable travel, operations, maintenance and management.	▪ The improvements address congestion by adding a Westbound Peak Period Shoulder Lane from the Veterans Memorial Tunnels to U.S. Highway 40. ▪ The improvements improve travel times during peak periods and reduce the duration of the congested peak period by removing the bottleneck from the Veterans Memorial Tunnels to U.S. Highway 40. ▪ The Proposed Action improves mobility on the local road network by removing some traffic during peak periods. ▪ The Westbound Peak Period Shoulder Lane provides a more consistently reliable trip in the westbound direction during peak periods.
Implementability of the Proposed Action.	▪ The improvements meet the identified budget and the project is funded. ▪ The design considers feasibility during construction.
Efficient **constructability** by considering life cycle costs, eliminating throw away work, minimizing adverse impacts to community/environment, adding infrastructure improvements, and keeping to an operations project.	▪ Future roadway improvement projects are considered throughout the design and construction of the Proposed Action. ▪ National Environmental Policy Act processes are closely followed, which assures that any potential adverse impacts are minimized as much as possible. ▪ The Proposed Action provides improvements needed to minimize community and environmental impacts. ▪ The Proposed Action minimizes throw-away work by providing for various features such as rockfall mitigation, which are useful even as the WB I-70 capacity gets expanded in the future. ▪ The Proposed Action is an interim project, adding minimal operational improvements.
Develop a greater sense of **community** through recreation, historical and cultural resources, tourism/economy, access, and	▪ Stakeholders are included throughout project design and construction to ensure that community values and requests are communicated and incorporated into the Proposed Action.

Table 2. Summary of Core Values and Design Elements for Westbound Peak Period Shoulder Lane

PPSL Stakeholders' Core Values	Realizing the Core Values
involving stakeholders through the planning process.	▪ Important resources are protected and maintained during construction. ▪ No adverse effects occur to any historic properties. ▪ The Proposed Action increases economic vitality of the region and provides better local access for residents.
Preserving and enhancing **Recreation** resources.	▪ The Proposed Action improves recreation tourism and economic draw of the region. ▪ The Proposed Action enhances the recreational experience by reducing congestion in the westbound direction for those traveling to recreational destinations. ▪ The Proposed Action protects and enhances recreational resources. ▪ The Proposed Action improves safety of the East Idaho Springs trail crossing by adding lighting and making drainage improvements. ▪ The Proposed Action improves the user experience at the Greenway trail crossing east of City Hall by improving the visual character of the fill slope.
Preserving the **Environment** through maintaining the integrity of Clear Creek, wildlife habitat and movement, mining, water quality, and sediment control.	▪ Water quality impacts, fisheries, and aquatic habitat impacts have been analyzed and effects minimized. ▪ Coordination has occurred with Colorado Parks and Wildlife, U.S. Forest Service, and U.S. Fish and Wildlife Service representatives. ▪ Mitigation efforts are incorporated to address impacts. ▪ The improvements address issues identified through the Stream and Wetland Ecological Enhancement Program Issue Task Force and incorporate appropriate elements from the Clear Creek Sediment Control Action Plan, including: – New sediment control facilities to treat stormwater runoff from the highway ▪ The improvements address issues identified through the A Valued Landscape-Level Inventory of Ecological Values Issue Task Force and incorporate wildlife mitigation developed by that group.
Engineering Criteria and **Aesthetic** Guidelines	▪ The design and construction of the project is following the I-70 Mountain Corridor Context Sensitive Solutions process. Exceptions to the Engineering Design Criteria were discussed with the Technical Team and endorse by the Project Leadership Team on August 29, 2018. ▪ The following design exceptions have been or are being discussed with Federal Highway Administration: – Highway super elevation – Highway horizontal sight offset (Stopping Sight Distance)

Table 2. Summary of Core Values and Design Elements for Westbound Peak Period Shoulder Lane

PPSL Stakeholders' Core Values	Realizing the Core Values
	– Acceleration Ramp Lengths – Width/Typical Section – Horizontal Curves
Sustainability by creating a project for today that blends with future possibilities including Advanced Guideway System, transit, and greenway	▪ Future projects are considered throughout the development and construction of the Proposed Action to ensure there are no wasted efforts. ▪ The Advanced Guideway System alignment was used during the design process to make sure it can be accommodated in the future.
Providing **Historic Context** for the region	▪ Historical and cultural resource effects are minimized. No adverse effects occur. ▪ The improvements address issues identified through the Section 106 Issue Task Force.
Developing an effective **decision-making** process.	▪ Lessons learned from the Eastbound Peak Period Shoulder Lane project have been used and considered while moving forward with Westbound Peak Period Shoulder Lane. ▪ Continued partnership among stakeholders ensures decisions have buy-in. ▪ Decision making is transparent and a clear process for the public. ▪ Communication techniques were adapted to the context sensitive solutions challenges.

Design Criteria

Table 3 details the elements of the I-70 Mountain Corridor CSS process that were incorporated during development of the Proposed Action.

Table 3. Application of I-70 Mountain Corridor Design Criteria

Criteria	Results
Corridor Design Character	Pavement widening is minimized to reduce overall impact of the Proposed Action. Sign placement minimizes impacts to historic resources and visual character.
Integrated and Complete Design	The Proposed Action includes wildlife crossing mitigation, sediment basins for water quality, barriers with glare screens to provide incidental noise reduction benefits, one additional foot in the inside shoulder for safety reasons, emergency pull-outs, rockfall mitigation and other features to assure the design is integrated and complete.

Table 3. Application of I-70 Mountain Corridor Design Criteria

Criteria	Results
Partnerships to Create the Corridor	The Technical Team includes local elected officials, local, state, and federal agencies, and other interested parties. The Proposed Action includes such partnerships as pedestrian lighting in two locations and pedestrian enhancements on the SH 103 bridge. The Infrastructure For Rebuilding America grant which provides some funding for this project also includes portions of the Clear Creek Greenway, County Road 314 Phase II, and Fall River Road Bridge projects.
Use of the Programmatic Environmental Impact Statement	The I-70 Mountain Corridor Record of Decision identifies a category of improvements included in the Preferred Alternative Minimum Program. This category is called "*Expanded use of existing transportation infrastructure in and adjacent to the Corridor*." The Westbound Peak Period Shoulder Lane project fits within this category of projects.
Corridor Wide Projects—Integrated with Corridor Wide efforts	Collaboration with the Section 106, A Valued Landscape-Level Inventory of Ecological Values, and Stream and Wetland Ecological Enhancement Program Issues Task Forces; the Clear Creek Greenway, County Road 314 Phase II, and Fall River Road Bridge projects; and the I-70 Mountain Corridor-wide Variable Speed Limit study. In addition, the Proposed Action is incorporating appropriate elements of the Clear Creek Sediment Control Action Plan
Design Speed	There is no impact on design speed. The Westbound Peak Period Shoulder Lane maintains a 45 miles per hour target speed through dynamic pricing.
Alignment	Minimal widening required. This widening was shifted towards the median in some areas after Context Sensitive Solutions discussions and agreements.
Slope, Cut, and Fill	All slopes will be 2.5:1 or flatter. All walls are located below the roadway height, with the exception of the median walls.
Disturbance	All work occurs in areas of previous disturbance.
Rock Cut	Rock cut is naturalized as much as possible to blend into the existing landscape. Rockfall mitigation is chosen to blend into the landscape.
Bridge Structures	No new bridges are required for the Westbound Peak Period Shoulder Lane. The Fall River Road Bridge is added as mitigation for bicycle circulation impacts, but is being constructed as a separate project.
Sound Attenuations	There is no sound attenuation associated with the Proposed Action; however, the outside barrier in Idaho Springs includes a glare screen which provides incidental noise reduction benefits. Minor changes to the noise wall in Idaho Springs are included, but the sound attenuation provided is identical to the existing situation.

Agency and Stakeholder Coordination Meetings

Table 4 outlines the meetings held between agencies and public stakeholders involved in the WB PPSL process. These meetings were used to develop and refine the Proposed Action, assess environmental impacts, and receive stakeholder input.

Table 4. Agency, CSS, and Public Meetings

Date	Meeting
June 27, 2017	Section 106 Issues Task Force Meeting #1
July 26, 2017	Public Meeting #1 (scoping for National Environmental Policy Act purposes)
July 27, 2017	Project Leadership Team Meeting #1
August 16, 2017	Technical Team Meeting #1
August 29, 2017	Project Leadership Team Meeting #2
August 30, 2017	Technical Team Meeting #2
August 31, 2017	ALIVE Issue Task Force Meeting #1
September 11, 2017	SWEEP Issue Task Force Meeting #1
September 13, 2017	Technical Team Meeting #3
September 27, 2017	Technical Team Meeting #4
October 11, 2017	Technical Team Meeting #5
October 25, 2017	Technical Team Meeting #6
November 8, 2017	Technical Team Meeting #7
November 29, 2017	Technical Team Meeting #8
December 13, 2017	Technical Team Meeting #9
January 10, 2018	Technical Team Meeting #10
January 18, 2018	ALIVE Issue Task Force Meeting #2
January 24, 2018	Technical Team Meeting #11
January 30, 2018	Focus Area 2 Issue Task Force Meeting
February 12, 2018	Project Leadership Team Meeting #3
February 14, 2018	Technical Team Meeting #12
March 14, 2018	Technical Team Meeting #13
March 28, 2018	Focus Area 1 Issue Task Force Meeting #1
April 10, 2018	Focus Area 1 Issue Task Force Meeting #2
April 10, 2018	Design Workshop
April 10, 2018	ALIVE Issue Task Force Meeting #3
April 10, 2018	SWEEP Issue Task Force Meeting #2

Table 4. Agency, CSS, and Public Meetings

Date	Meeting
May 14, 2018	Technical Team Meeting #14
May 23, 2018	Technical Team Meeting #15
May 26 to July 2, 2018	Online Public Meeting #2
June 4, 2018	Idaho Springs Community Meeting
June 12, 2018	Floyd Hill Public Meeting (table for Westbound Peak Period Shoulder Lane project)
June 22, 2018	Water Quality/Drainage Issue Task Force
July 11, 2018	Technical Team Meeting #16
July 13, 2018	ALIVE Issue Task Force Meeting #4
August 8, 2018	Technical Team Meeting #17
August 9, 2018	Section 106 Issue Task Force #2
August 29, 2018	Project Leadership Team Meeting #4
September 12, 2018	Technical Team Meeting #18
September 13, 2018	Public Meeting #3
October 10, 2018	Stakeholder Check-in Call
October 22, 2018	Technical Team Meeting #19
November 14, 2018	Technical Team Meeting #20/Project Leadership Team Meeting #5

Technical Team Meetings

The TT meetings provided input that helped develop and refine the Proposed Action. Specific critical issues used a matrix for decision making, which compared design options against one another. These matrices were developed by the project team and refined based on TT input, resulting in concurrence on a specific design option. The design issues discussed included the following:

- Shoulder width
- Empire Junction ultimate interchange layout
- Recreation access and parking
- Bighorn sheep and large mammal movement
- Walls and barrier locations
- Off-ramp lengths
- Idaho Springs exits
- Right-of-Way impacts
- Truck chain down locations

- Rumble strips
- Wildlife signage installations
- Rock cuts and rockfall treatment
- Median alignment options
- Static signage locations and needs
- Truck signage
- Pull-out locations

For additional information about these issues and agreements reached at each meeting, see Attachment 1.

Issue Task Forces Involvement

The CSS process used for the Westbound Peak Period Shoulder Lane Project included formation of seven Issue Task Forces (ITFs) to delve into specific technical issues in more detail. Initially, the County Road 314 and Greenway ITF was formed and met as a part of the WB PPSL project. A later decision was made to remove those two project elements from the WB PPSL project, so the remaining six Issue Task Forces, formed specifically for the WB PPSL project, were:

- Water quality, wetlands, and aquatics (SWEEP)
- Wildlife issues (ALIVE)
- Historic resources (Section 106)
- Project design elements in Focus Area 1
- Assurances
- Water Quality/Drainage

Carrying CSS into the Final Design and Construction Phases

The CSS process led to modifications of the Proposed Action through a collaborative approach to project development. Modifications will continue to occur after the National Environmental Policy Act process is finalized—during final design, which will include participation by the PLT, TT, and other stakeholders as needed. The CSS process will continue into the construction phase of the project.

Planning Objectives and Commitments from the SWEEP and ALIVE Meetings

ALIVE Issue Task Force Recommendations

Table 5 includes the concerns identified by the ALIVE ITF in response to the core value of "environment", which includes wildlife; how the concerns were evaluated; and the associated mitigation.

Table 5. ALIVE ITF Recommendations

Issue	Evaluation	Resolution
Bighorn sheep mortality	Meetings with ALIVE ITF	▪ Install static signs with a targeted message, at two locations, e.g., "Caution: Bighorn Sheep on ramp next *XX (Distance)*" with flashing lights: ▪ Location #1—Off-ramp from I-70 to US 40 at Empire (where on-ramp merges with CR 308). The sign will be placed after merge point of US 40 off-ramp and CR 308 (Flip-down "Caution: Bighorn Sheep" and "Bighorn Sheep Crossing"). Seasonal for April to July and October to November. Specific location of sign will be shown on final plans. ▪ Location # 2 CR 308 on the north side of I-70, west of Lawson, facing westbound traffic. Place WB sign north of CR 308 (Flip-down "Caution: Bighorn sheep" and 'Bighorn Sheep Crossing: *XX (Distance)*". Seasonal for April to July and October to November. ▪ Location #3---Located on CR 257, approximately 750' west of the CR 257/US40 intersection (Flip Down "Caution: Big Horn Sheep and Big Horn Sheep Crossing") Note: Completed as advanced mitigation
Bighorn sheep mortality	Meetings with ALIVE ITF	▪ Speed limit reduction on west side of Empire Junction (US 40/CR 257) on-ramp to WB I-70. Speed limit will be reduced from 55 mph to 45 mph.
Mule deer	Meetings with ALIVE ITF	▪ Removal of the portion of the fence along the dirt pathway, near MP 241.8, to the north from the gate to creek to improve wildlife connectivity
Carnivore	Meetings with ALIVE ITF	▪ Minimize highway lighting throughout the project area. Use shielded or downward lighting to minimize lighting impacts.
Carnivore	Meetings with ALIVE ITF	▪ Add Median barrier gaps for passages in the following locations: Stations 402+, 410+, 420+, 440+, 455+, 470+, 515+ and 530+.

Table 5. ALIVE ITF Recommendations

Issue	Evaluation	Resolution
Birds	Meetings with ALIVE ITF	▪ Install rockfall netting with open gaps at the top of the netting rather than keeping it tight to allow raptors to escape in the event that they become trapped. Use nets with larger mesh sizes (4”) wherever possible.

SWEEP Issue Task Force Recommendations

Table 6 includes the concerns identified by the SWEEP ITF in response to the core value of “environment”, which includes streams and wetlands, how the concerns were evaluated and the associated mitigation.

Table 6. SWEEP ITF Recommendations

Issue	Evaluation	Resolution
Sediment management	The Clear Creek SCAP was used to determine what features are appropriate to install as part of the Proposed Action.	▪ Manage erosion and surface water away from water sources and ensure BMPs, such as wattles, silt fence, or temporary berms, are in place to prevent migration and sediment from waste piles, slopes and excavations. ▪ Implement BMPs, such as vehicle tracking pads, wattles, and mulching, for stormwater runoff. ▪ Apply for and comply with a Colorado Department of Public Health and Environment Construction Activities Stormwater Discharge Permit.
Mine workings in the I-70 Right-of-Way	Avoid intercepting underground mines and remediate contaminate mine water where possible.	▪ Voids will be backfilled, or concreted as encountered. Awareness will be maintained when near previously encountered voids and/or mapped historical mine workings. Information awareness and warnings will be instituted since historical workings may not all be mapped or known in areas undergoing construction.
Wetlands	Wetlands were delineated throughout the study area.	▪ Refuel equipment within designated refueling containment areas away from the ordinary high-water mark and wetlands.

Attachment 1.
PLT and TT Meeting Summaries

Acronyms and Abbreviations:

AGS—Advanced Guideway System
ALIVE—A Landscape Level Inventory of Valued Ecosystem Components
CatEx—Categorical Exclusion
CCC—Clear Creek County
CDOT—Colorado Department of Transportation
CDP—Concept Development Process
CMCA—Colorado Motor Carriers Association
CPW—Colorado Parks and Wildlife
CR—County Road
CSS—Context sensitive solutions
DLD—Downieville Lawson Dumont
EB—Eastbound
FHWA—Federal Highway Administration
HPTE—High Performance Transportation Enterprise
INFRA— Infrastructure For Rebuilding America Grant
ITF—Issues Task Force
MOU—Memorandum of Understanding
NEPA—National Environmental Policy Act
PLT—Project Leadership Team
PPSL—Peak Period Shoulder Lane
ROD—record of decision
SCAP—Sediment Control Action Plan
SWEEP—Stream and Wetland Ecological Enhancement Program
TT—Technical Team
USFS—U.S. Forest Service
WB—Westbound

SUMMARY OF ISSUES RAISED AT PROJECT LEADERSHIP TEAM AND TECHNICAL TEAM MEETINGS

Meeting	Date	Primary Agenda Items	Summary of Major Issues/Discussion	Agreements Reached
PLT #1 (Kickoff)	27-Jul-17	▪ PLT kick-off. ▪ Step 1 of 6-Step Decision Making Process: ▪ Discuss goals of project and project schedule. ▪ Discuss/Refine context statement, core values, and critical issues. ▪ Assign roles and responsibilities. ▪ Review elements of PLT Charter.	▪ Clear Creek County is concerned about induced demand, AGS, larger sustainability-type issues (climate change, energy efficiency), Empire Junction ultimate interchange layout, Contractor selection and implications of that to quality of final product. ▪ The Core Values should supplement the context statement to address community needs, need to replace aging highway, local mobility and that this is a corridor of national significance. Should add recreation as a core value. Make sure that economic vitality is added to the critical issues.	▪ PLT and TT membership. ▪ Modify context statement, core values and critical issues. ▪ SWEEP and ALIVE meetings will be held early on in the process. ▪ Induced and latent demand will be considered in the travel demand modeling.

SUMMARY OF ISSUES RAISED AT PROJECT LEADERSHIP TEAM AND TECHNICAL TEAM MEETINGS

Meeting	Date	Primary Agenda Items	Summary of Major Issues/Discussion	Agreements Reached
			▪ USFS is concerned that we need to bring wildlife movements and crossings into the process as early as possible. There are also concerns about latent travel demand and indirect effects on USFS lands—will the project bring more traffic into sensitive Forest lands. USFS noted possible induced and latent demand issues and asked for assurance that these would be included in the travel projections/modeling. ▪ USFS pointed out the need to consider the environment with increased capacity of the roadway. The USFS lands are impacted with more dispersed campsites, garbage, parking at trailheads. These are the secondary impacts of adding more people. The USFS wants to control where people are let into National Forest to better control where they disperse to protect the resource and the landscape.	▪ Concerns about recreation management will be captured in the critical issues and evaluation matrix. ▪ Recreation was added to the list of Core Values.
TT #1 (Kickoff)	16-Aug-17	▪ TT kick-off. ▪ Review July 26 Public Meeting and July 27 PLT Kickoff Meeting Outcomes. ▪ Discuss goals of project and project schedule. ▪ Discuss and provide feedback on context	▪ The Core Values should supplement the context statement to address the following: – Corridor is in close proximity to Denver – Clear Creek is a rafting destination – Endangered species, unique and diverse wildlife communities (Gina noted that the term environmental is used in a broad sense—it includes	▪ The context statement will be modified to reflect TT suggestions. ▪ Core Values accepted public health issues and monitoring were added to the Project Parking Lot for future

SUMMARY OF ISSUES RAISED AT PROJECT LEADERSHIP TEAM AND TECHNICAL TEAM MEETINGS

Meeting	Date	Primary Agenda Items	Summary of Major Issues/Discussion	Agreements Reached
		statement, core values, and critical issues. ▪ Understand TT role and responsibilities. ▪ Draft TT Charter.	natural resources, community, socioeconomic, and historic) – This section of the corridor is part of a much bigger network – Need to talk about improving safety for all travelers. Corridor's proximity to Denver that this corridor is part of a much bigger network, and safety challenges. ▪ The following Core Values were discussed and accepted by the TT: Safety, Mobility and Accessibility, Implementability, Community, Recreation, Environment, Engineering Criteria and Aesthetics, Sustainability, Historic Context, and Decision Making. ▪ The TT discussed desire to include public health impacts into the Evaluation Criteria to ensure alternatives address public health, water quality, air quality and noise. Clear Creek County wants to understand how air quality is impacted as more cars roll through the community and the possibility of air quality monitoring was discussed. ▪ The TT discussed issues associated with construction on the EB PPSL project: lack of communication, quality of construction, quality of traffic control. ▪ USFS discussed their concern about the effect of increased transportation capacity on the sensitive USFS lands -	discussion by the PLT/TT. ▪ These issues will be added to the Technical Team Issues schedule for the Construction Phase of the CSS process. ▪ Add Circulation Management Symposium to the list of Project Updates.

SUMMARY OF ISSUES RAISED AT PROJECT LEADERSHIP TEAM AND TECHNICAL TEAM MEETINGS

Meeting	Date	Primary Agenda Items	Summary of Major Issues/Discussion	Agreements Reached
			and requested discussion of partnerships to address circulation management in on public lands.	
PLT Meeting #2	29-Aug-17	▪ Step 2 of 6-Step Decision Making Process: Finalize PLT Charter and Endorse Process. ▪ Review updated Context Statement, Core Values and Critical Issues. ▪ Review and provide feedback/endorse upcoming TT Meetings agendas/substance.	▪ The PLT revised the Context Statement and Community Considerations. The PLT updated and finalized the PLT Charter Discussion on Evaluation Criteria. ▪ The PLT suggested specific questions in the Evaluation Criteria. This was a problem in the CDP process and is still something that the PLT would like to improve. ▪ The PLT suggested that the Evaluation Criteria refer back to the Critical Issues instead of Core Values. ▪ The level of NEPA classification was discussed. It was clarified that FHWA determines the NEPA class of action and made the decision to have the WB PPSL fall within a CatEx classification based on the example of EB PPSL and the initial understanding of impacts. The NEPA classification can be changed from a CatEx if impacts are uncovered that warrant a higher level of documentation. FHWA offered to discuss the NEPA class of action with Trout Unlimited and other PLT members outside of the meeting, if there is still a concern.	PLT ratified updated Context Statement. PLT Charter Ratified

SUMMARY OF ISSUES RAISED AT PROJECT LEADERSHIP TEAM AND TECHNICAL TEAM MEETINGS

Meeting	Date	Primary Agenda Items	Summary of Major Issues/Discussion	Agreements Reached
TT Meeting #2	30-Aug-17	▪ Step 2 of 6-Step Decision Making Process: Finalize TT Charter. ▪ Presentation on Roadway Design Considerations. ▪ Existing Conditions.	▪ TT reviewed Context Statement. ▪ TT provided input on modeling and monitoring requests. These relate primarily to future traffic projections that consider all recently constructed and future transportation projects. ▪ The level of NEPA classification was discussed. It was clarified that FHWA determines the NEPA class of action and made the decision to have the WB PPSL fall within a CatEx classification based on the example of EB PPSL. FHWA CatExes included mitigation. ▪ TT provided clarification related to some critical issues (recreation access and parking and bighorn sheep. TT requested feedback regarding the use of speed limits as a tool to slow traffic in tight areas. The need for better enforcement in the PPSL was discussed.	TT ratification of Context Statement and charter. TT endorsed the process (Step 2)
TT Meeting #3	13-Sep-17	▪ Step #3 of 6-Step Decision-Making process– Establish Criteria ▪ ALIVE and SWEEP Meeting debrief ▪ Foot by Foot video presentation of Segment 2 of WB PPSL Corridor	▪ Sustainability Definition Discussion. TT members want to make sure that economic viability is not emphasized over other types of sustainability. ▪ TT discussed evaluation criteria, including how to ensure the explicit connection of how the Core Values and Critical Issues influence decision making. TT members have a responsibility to connect their specific community consideration to the evaluation of	▪ TT ratified the following definition: “Sustainable Development—is the organizing principle for meeting human development goals, while at the same time sustaining the ability of natural, economic and social systems to provide

SUMMARY OF ISSUES RAISED AT PROJECT LEADERSHIP TEAM AND TECHNICAL TEAM MEETINGS

Meeting	Date	Primary Agenda Items	Summary of Major Issues/Discussion	Agreements Reached
			alternatives in meetings. Some community considerations are really site specific design ideas, so have been removed from evaluation criteria. ▪ TT discussed very specific design issues during the video presentation. Possible changes in the interchange at Exit 239 were discussed. Idaho Springs commented that exit 240 WB entrance feels short. Existing glare screen will be evaluated. Drainage issues were discussed. Parking impacts were flagged on the video. Walls and barriers were discussed. ▪ Outcomes from SWEEP and ALIVE meetings were presented to the TT. ▪ Public Outreach Plan Draft was presented to the TT. The TT added the business community, chamber of commerce, and other economic groups to small group meetings during Public Outreach Plan. ▪ The TT asked if the project would trigger noise mitigation. No. The FHWA has determined this will be treated like EB PPSL as a CatEx. It is not in a category of type of project that requires a full analysis that would look at mitigation, so no noise analysis or mitigation will be done	the natural resources and ecosystem services upon which the economy, society, and the environment depends." ▪ Step #3 of 6-Step Decision-Making process—Establish Criteria - is completed. Issues specific criteria will be developed as specific issues are considered. ▪ Entrance ramps shall include recovery area where possible in WB PPSL design. ▪ Evaluate the proper jersey barrier dimensions in Idaho Springs as part of the design phase.

SUMMARY OF ISSUES RAISED AT PROJECT LEADERSHIP TEAM AND TECHNICAL TEAM MEETINGS

Meeting	Date	Primary Agenda Items	Summary of Major Issues/Discussion	Agreements Reached
TT Meeting #4	27-Sep-17	▪ Establish issues specific Criteria for roadway alignment options ▪ Third segment of the study area was reviewed by video presentation. The video was stopped and general discussion occurred to flag issues associated with adding the PPSL in the WB direction. The video started at the western end of Idaho Springs, where the last video ended.	▪ TT discussed safety, drainage, sediment control, maintenance and noise as new agenda items. ▪ CCC noted that the Commissioners put conditions in EB PPSL 1041 permit, including noise considerations—noise is supposed to get measured annually during peak hours in summer/winter. This data gathering was off due to logistics. CCC also noted that noise is an issue and to say “don’t do anything” in the 1041 will “cook the frog slowly” and result in continually increasing noise. Noise issues require a response. ▪ HDR clarified that the noise monitoring study did not attribute noise increase to the PPSL, rather, these were due to overall traffic increases. A presentation on noise will be planned for a later TT meeting. ▪ During the video, Cassandra Patton made several comments noting the lack of space on the current shoulder and the narrowness of a future lane particularly for motor coaches. She also asked about wall aesthetics. Other input received during the video presentation was from CPW - that bighorn sheep prefer open areas when compared to areas with trees. Also a desire to look at variable speed limits. . The safety issues of rock fall was discussed in detail with all TT	▪ Issues specific criteria for roadway alignments identified. CCC to come back to the TT with whether it is possible to make operational changes with the challenges. ▪ Noise was added to the TT issues schedule. ▪ Randy Wheelock to ride with emergency vehicles on I-70 to understand core concerns of emergency vehicle operators. ▪ TT agreed that ROD compliance is essential to the project.

SUMMARY OF ISSUES RAISED AT PROJECT LEADERSHIP TEAM AND TECHNICAL TEAM MEETINGS

Meeting	Date	Primary Agenda Items	Summary of Major Issues/Discussion	Agreements Reached
			members agreeing this needed to be made safer. ▪ It was noted that netting for rock mitigation could be unfriendly to raptors. CDOT noted that they were looking at alternatives that would not impact raptors. ▪ TT agreed with additional issues specific criteria for roadway alignments - context sensitivity, rock falls, comfort of motorist, implementability, area of impact, chain up areas, truck design specifications - they have different needs related to lane width and stopping sight distance. Related to road width, the TT discussed staying within the ROD, addressing issues with the EB PPSL, the shy distance is too narrow, truckers prefer 12' lanes, and speed differential is an issue with EB PPSL. The team discussed the importance of staying within the ROD. TT would like to further discuss ROD compliance at the next TT Meeting.	
TT Meeting #5	11-Oct-17	Categories of decisions to be made ROD compliance criteria and questions Roadway striping alternatives development - what concepts should be evaluated?	▪ CDOT is applying for the INFRA grant and requests letters of support for the INFRA. The scope of the INFRA will include: Elements of Greenway; Phase II CR 314 ; Rockfall Mitigation; Fall River Road Bridge; WB PPSL; SH 103 Intersection, Drainage, Sight Distance and Ramp Improvements	▪ The TT agreed that their goal was to stay within the ROD and MOU. ▪ The TT agreed to evaluate the six striping proposals at the next TT meeting.

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		Describe roadway alignment options	▪ Clear Creek School District submitted comments on construction impacts. These will be addressed in the Community Considerations. ▪ CCC mentioned that branding the PPSL as a "Mountain Express Lane," may give people the wrong psychological impression of the use of the lane. There needs to be more education of drivers about the purpose and use of the lane—it is not a fulltime express lane. Request to move away from the "express" element. ▪ Five buckets of types of decisions were discussed - ROD compatibility, roadway striping, roadway alignments, roadside uses and space available and other (Fall River, US 40, Idaho Springs). ▪ Gary Frey asked how and when mitigation is considered. Mitigation can be added to the Technical Team Schedule with Summary of Impacts. ▪ The five ROD compatibility questions were discussed and a sixth was added which is to check to make sure all context is considered in making this decision. FHWA is comfortable that because there is no intention of having the lane be open all the time, this is not a capacity improvement and is thus consistent with the ROD. ▪ Questions were asked about why we are looking to widen lanes and whether or	▪ The TT agreed that no one wants a full-time express lane, this project will be focused on a part-time PPSL. ▪ The TT agreed that mitigation would be an iterative process that would occur in tandem with concept development.

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			not FHWA wants to reopen the ROD to go to the Collaborative Effort. FHWA assured the TT that is not their intent. ▪ New safety data was presented indicating a 40% increase in accidents with only a 5% increase in traffic volumes. Jo Ann asked if using variable speed limits would help with safety. This only works if the speeds are enforced. Six roadway striping alternatives were suggested and 8 issues specific criteria were added for this purpose. ▪ The roadway alignments on the tables were not discussed and will be left for the next TT meeting.	
TT Meeting #6	25-Oct-17	Listening and understanding various TT perspectives and concerns. Introduction of alignment options (moving the highway left into the median, right toward the mountain or hybrid)	▪ Clear Creek County presented a handout outlining their concerns including: – General roadway striping options are without regard for the context of the area. – Staying within existing infrastructure based on the ROD; e.g. the possibilities of three 12-foot lanes starts to fit within a definition of adding capacity to the highway, which is not an allowable improvement in the ROD. – Need to a foot by foot analysis of the highway to find a temporary, interim solution—examining foot by foot to see what was necessary.	The TT greed to examine further the following issues: **Process Considerations:** ▪ How does this connect to CDP ▪ CSS process and tradeoffs – Capacity – Mobility – Infrastructure – Interim – Context

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			– A "wider is better" argument at the TT meetings. – The need for an existing infrastructure definition. – Striping issues adding to additional capacity. – Need definitions of capacity and mobility. – It is a problem to go beyond the existing pavement at this time. CCC doesn't want to have discussions about width—this goes beyond the ROD; need to talk about project elements first. CCC expressed concern about widening the roadway. Although CCC is supportive of different design option discussions, they are not supportive of widening the highway before knowing why each section does or does not need to be widened. They want to stick with no more than 39 feet. ▪ USFS also expressed concern about potential pavement widening before understanding the rationale of widening needs. ▪ The I-70 Coalition feels it is too early in the process to draw lines in the sand. We should consider multiple options and go through the process. ▪ CMCA believes in the CSS process. There are a lot of safety problems that	**Design Considerations:** ▪ Pavement—amount of pavement and width of pavement ▪ Speed differential ▪ Interim Project—how does this impact design? **Agreement:** The TT agreed to go through a context mapping and foot by foot exercise at the next TT meeting to look at design elements.

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			need to be addressed. We need to design the safest option possible in this context. ▪ The TT members discussed the importance of the CSS process and including the needs of all stakeholders. ▪ Public comments have indicated that some people feel that EB PPSL is too narrow. Others have pointed out that the center barrier is too close. ▪ The plan moving forward is to take the individual components (i.e. width of each lane, buffer, etc.) into the footprint and then go into a foot-by-foot analysis.	
TT Meeting #7	8-Nov-17	▪ Introduce Purpose and Need ▪ Segment by Segment TT Map exercise.	▪ Purpose and Need elements (travel time reliability, travel time, crashes, crash clearance times, deficient highway elements and rock falls) were reviewed with the TT. No additions at this time. ▪ Numerous ideas were captured on the large map using post-it-notes and on-map drawings. The TT and CDOT staff marked where existing pavement would meet the EB PPSL 39' footprint and where existing pavement would not be enough due to contextual constraints (e.g. no existing shoulder to work with, on and off-ramps, current pavement is below 39'). ▪ The TT provided the following input:	▪ The TT agreed on which areas needed to be widened because they did not meet the EB PPSL baseline. ▪ Next step is for the staff to prepare a draft contextual design with recommendations for walls, turn-outs, parking enforcements areas, alignment locations (move into median?), AGS, Greenway, etc.

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			– Need to make sure there is a long deceleration for those wanting to get off at Exit 241 – Need to determine where on the east side the PPSL will start – Look at various drainage improvements – Look at a decorative wall and signage – Can improvements to the Greenway next to the ball fields and at the Soda Creek bridge be made? – Maintain the view of the town but also reduce noise if possible – Need a more comfortable exit ramp at Exit 240 – Putting a parking structure on top of I-70 would preclude future options – Consider adding a separate pedestrian bridge at Exit 240 – Could Exit 239 be shifted west? – Definitely need rock catchment areas – Need to consider trailheads for Greenway – Improvements definitely needed at the Port of Entry	
TT Meeting #8	29-Nov-17	▪ Review Project Greenway Map ▪ Review Baseline Contextual Design with	▪ The TT reviewed and commented on the corridor-wide Draft Baseline Concept Design maps. ▪ Comments included:	▪ The next meeting will go over Focus Area 1 (Idaho Springs). And look at safety measures on a

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		TT Concepts from Nov 8 Meeting	– It looks like AGS can fit in elevated 30 feet above the lanes. It requires a narrow width. – Turn-out locations look reasonable – Are steel W-beam rails as much of a shy distance problem as concrete barriers? – Improving the merge area at the Port of Entry is supported by CMCA – If we move into the median, the PLT needs to approve – A bigger clear zone is needed in rockfall areas – Should consider moving the Exit 239 ramp – Improvements to both sides of I-70 at SH 103 are needed – A taller concrete barrier on the outside in Idaho Springs will provide incidental noise reduction benefits ▪ USFS would like to consider how culverts could work for wildlife issues if designed properly. If we are going to extend the box culvert, it would be good to look at how this would impact wildlife issues (e.g. tapered at one end to improve visibility for wildlife). ▪ Issues and decision points that will need to be discussed at future TT meetings include: Median widening locations,	corridor wide level, including all of those in the FHU Safety Report. ▪ A separate meeting will be held to discuss the Greenway north alignment.

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			rockfall mitigation, turnout locations, truck parking locations and chain down, shy distance to steel W-beam barrier (1' v. 2'), rumble strip buffer and lane widths, improvements to EB acceleration lane adjacent to Water Wheel Park, Greenway between Lawson East and Lawson West Bridge, safety options and mitigation issues from previously prepared reports. CDOT requested that CCC provide these reports.	
TT Meeting #9	13-Dec-17	▪ Foot by Foot review of Focus Area #1 ▪ Presentation and review of the Safety Tool Box	▪ Variable Speed Limit Concept of Operations and Development of Algorithm Project—TT members suggested adding this project to the list of project updates. This project area is from Copper Mountain to C-470. The purpose of the project is to improve safety and travel reliability time by looking at variable speed limits. ▪ The TT did a foot by foot review of Focus Area #1 Map. The TT identified the following decision points that will need to be discussed and evaluated: turn out locations and size; possibility of new sediment basins; PPSL starting location; off-ramp lengths; truck chain down locations; walls and guardrails; Idaho Springs exits; walls and guardrails; exit 240 parking spaces; noise mitigation and Idaho Springs view shed; ROW impacts;	▪ Design Team to draft different roadway solutions for Focus Area #1. ▪ TT to evaluate all the solutions while using the safety tools. Look foot-by-foot at different road widths - 39' up to 42' - with safety tools overlaid over corridor widths to see how mainline alignment and safety toolbox work together. TT to evaluate different design options to provide variance rationale for FHWA. Develop matrix

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			AGS impacts; Idaho Springs parking structure. ▪ TT asked for consideration to not use the name "Express Lane." How do we balance the idea of "express" with speeds? Driver expectation is important to consider too since "Express Lane" was used in the EB. ▪ TT noted that the signs on EB were not too bright for the community on EB. Need to consider the number of signs that are erected, the potential to block sight distance and other critical views. The TT would like to look at how existing billboards might be used to educate drivers. How can we integrate existing infrastructure to help with a campaign to enforce and educate drivers? ▪ The TT reviewed and provided feedback and suggestions on the Safety Toolbox. Suggestions included: – Maintenance of PPSL during off-peak – Traction—enforcement of treads, chains, 4WD – Choice of speed limits – Driver education, public education campaigns, websites – Over the lane signage to indicate when the lane is open or closed—need to balance this with aesthetics.	showing these options.

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			– The TT noted that it is important to assess these safety tools and find a way to work with different TT members' pre-determined positions as we move forward. ▪ FHWA noted that the TT will need to evaluate different safety tools, widths and elements to provide a rationale to get any variances needed from FHWA. FHWA needs documentation and adequate information to be able to approve anything not meeting current standards. ▪ The TT directed the design team to draft different Focus Area 1 solutions using the safety tools. Look foot-by-foot at different road widths with safety tools overlaid over the corridor widths to see how mainline alignment and safety toolbox work together.	
TT Meeting #10	10-Jan-18	▪ Review Design options using safety tools for Focus Area 1 ▪ Preliminary Review of Focus Area 1 Options Matrix ▪ Preliminary Review of Focus Area 2 Map	▪ TT discussed design options and elements including: – Rumble strips and the width needed for placement of rumble strips between GP and PPSL lanes; TT members expressed the need for rumble strips to alert drivers – Operational plan and the need for clarity around the process for changing operational plans based on traffic and congestion ▪ CCC expressed concerns around:	▪ CDOT to look at hours of operation and operations plan ▪ The TT will comment on Focus Area #1 Matrix for discussion at the 1/24/18 TT meeting. ▪ Focus Area 2 Matrices of roadway alignment options will

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			– Project creep—scabbing onto the highway in the future due to change in policy, administration or funding problems. This would become the final project and an inferior solution for 50 years. – Want to be sure that the project design fits into the ROD and MOU commitments. ▪ CCC asked about the process for determining the number of hours that the PPSL could operate. In EB PPSL, FHWA expanded the hours. What is the process for FHWA to expand hours and do they talk to local jurisdictions? The FHWA responded that in EB PPSL, the signatories to the MOU - CDOT, HPTE and FHWA, were consulted to change the number of hours. This was a lesson learned. In the future, it would be better to reach out to local jurisdictions and look beyond the names on the MOU. ▪ Idaho Springs expressed a need to lessen the impact of construction down the road and a desire to do more now. It is impactful to the community and businesses if this project is all throw-away and is being re-done in 10 years. ▪ The TT provided some input into the Matrix, but would be taking it home as homework to provide additional comment	be initiated by Project Staff. ▪ TT will talk about project branding at a February TT.

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			and discussion at the following TT meeting	
TT Meeting #11	24-Jan-18	▪ Review Evaluation Matrix for Focus Area #1 ▪ Begin review of Focus Area #2 and decision point areas ▪ Review of Rock fall Toolbox ▪ Develop Site Specific Issues Criteria for Focus Area #2	▪ Clear Creek County circulated a memo requesting that the TT members receive direction from the PLT before working on the Focus Area 1 Evaluation Matrix or any further evaluation of roadway widths. CCC noted that they need direction from the PLT relative to the purpose and definition of the project: lane and shoulder width, hours of operation, compatibility with the ROD, project branding, speed differentials, and project life. ▪ CDOT debriefed the ALIVE meeting and highlighted key themes from the meeting including: – CPW and USFS suggestion that it may be better to move into the median for some locations because of wildlife that already are too close to the roadway in some areas – Wildlife signage installation – Big horn sheep, mule deer and carnivore findings. ▪ TT discussed PPSL in relation to the travel demand forecasting (out to 2035). I-70 Coalition noted that the WB PPSL may need to be open for a longer period on Saturday and less on Sunday based on current traffic congestion.	▪ PLT meeting to be scheduled to confirm process moving forward and outline the project parameters. ▪ Schedule an ITF with TT members and Project Staff to review and fill out the Evaluation Matrix for Focus Area #2 ▪ CDOT will design site specific cross sections at each Focus Area #2 decision point location to show where a retaining wall would be, rock cut and what is left in median.

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			▪ CDOT reviewed the "median versus mountain" alignments options and decision points for Focus Area #2. TT decision points will include: – Hukill Gulch to Fall River Road—research still needs to be done on access requirements for Hukill Gulch – Types of median barriers and aesthetics – Rock treatments from the rockfall toolbox: Freestanding Wall; Rock Bolting; Mesh; Fences; Landing and Catchment areas. – CDOT will design site specific cross sections at each location to show where a retaining wall would be, rock cut and what is left in median. ▪ The TT identified the following site specific criteria for Focus Area #2: – Mineralized Rock – Aesthetic Impact—consistency versus patchwork rock treatments, viewshed and new rock cuts – More consistent with interim solution – Headlight glare – How much grassy median remains? – Construction Impact – Recreation Impacts—rafting and fishing	

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			– Uncertainty of rock removal due to geological conditions	
PLT Meeting #3	12-Feb-18	▪ Provide responses to TT questions ▪ Reconfirm the scope of the project ▪ Outline agreed upon process ▪ Determine next steps	▪ The group reviewed and agreed on the following TT issues and themes brought up over the last 11 TT Meetings: – Importance of following the CSS process, ROD, MOU and other agreements – Importance of being listened to and respected – Ensuring all perspectives are brought to the table and heard so the right decision can be made. Concern around project scope creep and infrastructural improvements. This is a non-infrastructure project. – No preclusion of AGS. – Concern about building a project now that doesn't anticipate future needs in Idaho Springs—meaning more construction in 10-15 years in Idaho Springs—disturbance to businesses and the community. Cost of construction will continue to rise. Need to consider opportunities and needs for the future to mitigate future impacts. – Width of the pavement – Safety and mobility of the corridor – Wildlife, environmental and community impacts	PLT agreements and direction to TT: ▪ Foot by foot review of a design concept for the corridor with the goals of 2' shy, 12' GPs, and 11 foot PPSL - we will accomplish this where feasible, but this is not the standard that will carry through the entire corridor. ▪ The agreement is that there will NOT be a consistent width for the 17 miles through corridor. ▪ Set aside the Focus Area #1 Matrix at this point. It will be needed as a tool to document any variances from the standards by CDOT and FHWA but will be used after the corridor foot by foot review.

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			– This is an interim, temporary project; not a permanent solution. – Ensuring that this project does not pre-determine the maximum program. – TT would like a foot-by-foot review and assessment process. ▪ The purpose of the PLT meeting today is to determine whether and how we move forward with this project. The objective is to define and narrow down what the project scope is and how we will achieve that scope. ▪ In particular, the TT is stuck on the issue of how to look at roadway width. They have asked the PLT to recommend a way to proceed with the width analysis.	▪ Design Concept Plans will be developed over the next couple of weeks and we will distribute to the TT in early March ▪ Cancel the February 28th TT meeting to give TT time to review design concepts. ▪ A follow up concept design review workshop (foot by foot review) will be scheduled by doodle poll in early April
TT Meeting #12	14-Feb-18	▪ Focus Area 2 Mountain vs. Median Evaluation Matrix ▪ WB PPSL Branding ▪ PLT Meeting Outcomes ▪ Focus Area #3 Foot by Foot Map Review	▪ CDOT explained that there are numerous rockfall issues in Focus Area #2. The TT asked how rock fall mitigation will be addressed. CDOT responded that some existing rockfall will be cleaned up, but mechanical stabilization will be needed. The recommendation from the geotechnical engineer is to avoid cutting into the mountain, and just address existing rockfall area. Existing rockfall problems exist near Spring Gulch and west of Fall River Road. ▪ CDOT walked through the various cross-sections for Focus Area #2, showing	▪ The TT gave a thumbs up to the Focus Area #2 Matrix and recommended the design team move forward with the median alignment. ▪ CDOT's branding and educational suggestions are sufficient at this time. The WB PPSL

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			what it would look like if the highway moved toward the median or the mountain. ▪ The TT asked for more data around Focus Area 2 Wildlife movements and collision data. It is still being determined whether rockfall netting is a hazard. CDOT will reach out to ALIVE Committee and CPW to get Wildlife movement data and data on wildlife/vehicle collisions for Focus Area 2. ▪ The TT modified the Evaluation Matrix text and color-coded the cells to assist with ranking the mountain vs. median options for Focus Area #2. The Evaluation Matrix and related discussions indicated that the median is the better option so long as aesthetics and wildlife are accommodated. CCC noted that if the decision is to go into the median, there will need to be a formal variance request to the PLT. There was also a request for mitigation if this variance was needed. CDOT noted that that the design for this section of the corridor will proceed with the intent of trying to avoid rock cutting. CCC suggested that opportunities for a shorter wall should be investigated. Idaho Springs requested that aesthetic treatments for the wall be considered. CDOT reviewed the branding and educational campaign around the PPSL	"Express Lane" will not be renamed.

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			including speeding, safety, and weaving. Outreach could include: 1) VMS—signage around tunnels; 2) Temporary signage; 3) Traditional media—press releases, media, print, radio, TV; 4) Social media. TT members asked if there will be additional enforcement. CDOT responded that there will be during construction. Further, the WB PPSL is adding more pull-outs and expanding EB PPSL pull-outs. ▪ The PLT meeting was reviewed and the direction from the PLT to the TT was to use the existing infrastructure to create an interim, part-time PPSL, with 2' shy, 11' PPSL, 12' GP', 12' GP where feasible. The design team will move forward with conceptual plans based on these goals and present to the TT for review and comment. ▪ Foot by Foot review of Focus Area #3: TT developed the following issue specific criteria: 1) Restriping at Port-of-Entry; 2) Truck operations at the Port-of-Entry; 3) Rockfall; 4) Use of median (no median walls); 5) Terminus/weave distance at US 40	
TT Meeting # 13	14-Mar-18	▪ Ingress, Egress Locations Striping and Signage ▪ Concept Design Plan Introduction	▪ Apex, HDR and THK reviewed the plans for striping, signage and ingress/egress locations. ▪ The TT asked for static signs to be added to the designs in the next iteration.	▪ The TT agreed that the median barrier used will need to consider functionality,

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			General input from the TT around signage, egress/ingress: – Adequate access to Idaho Springs and DLD (rafting, adventure parks, Dumont/Lawson) – Static signage locations and needs – Truck signage—restricting trucks – Limiting throwaways and replacements—what is necessary? – Limiting signage clutter – Local Residents and CCC traffic: how do local residents benefit from an express lane? ▪ The TT also asked to see the Concept of Operations prior to the 1041 submittal. TT members noted that there is a need to memorialize the definition of interim and the operations agreements (i.e. 2-axle only in the PPSL). ▪ The Concept Design Plans were introduced to the TT. These will be reviewed with the TT on April 10th during the design workshop.	drainage, aesthetics, and wildlife. ▪ TT accepted the Median v. Mountain Evaluation Matrix summary statement. ▪ J posts will be used when feasible (not T-posts) to blend in with the curves of the landscape.
April 10 Design Workshop	10-Apr-18	Review of Corridor Concept Design Plans	▪ Clear Creek County expressed concerns about future “scabbing on” to the corridor and affirmed that they do not want to end up with three full-time lanes that are suboptimal and not consistent with other areas of the corridor. There is a concern about making decisions now that will	▪ CCC will provide an answer to the TT/PLT by April 24 on whether or not the team can proceed, or if the project will not work for them.

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			make it easier for a wider highway to be squeezed through in the future - one that is not consistent with the I-70 Design Criteria and Aesthetic Guidance. ▪ CCC also noted that if the current infrastructure needs to be expanded, they are questioning whether they want to do a PPSL. ▪ The TT discussed the 4 foot shoulder on the right side of the highway. Clear Creek County asked if the shoulder could be narrowed. CDOT and FHWA noted that the 4' right shoulder is as narrow as they can go given the agencies' engineering safety standards. CMCA noted their preference for a 4' shoulder and 12 foot general purpose lanes as a minimum to ensure the safety of truck drivers and to give recovery room and room for error. ▪ The TT reviewed the median versus the mountain rock cut for Focus Area 2. Another option, rock fencing, was also suggested. It was highlighted that a 20' clear zone was needed along the corridor. After the discussion, the TT agreed that the design should tend toward the median (with rock fences or rock cut if needed) for Focus Area #2. ▪ The TT noted that they do not want a "hodge-podge" look of all different barrier types and guardrails.	▪ Agreement to move forward with 4 foot outside shoulder in the corridor design. Note that this is not possible over bridges and in areas transitioning to bridges. ▪ Agreement for the median alignment for Focus Area #2 roadway design. ▪ All new guardrail for median side of PPSL. ▪ An Assurances ITF will be scheduled in the next week focused on MOU, documentation and other options to memorialize the assurances. CCC would like to understand the tools available for assurances.

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			▪ Clear Creek County requested the development of additional assurances to ensure the project will not be "scabbed-onto" in the future.	
TT Meeting #14	14-May-18	▪ ITF Report Outs and Assurances ▪ Focus Area 2 &3 Foot By Foot Review ▪ Median Barriers and Walls	▪ Report-out: The April 10th SWEEP and ALIVE ITFs outcomes were reviewed with the TT. SWEEP members had received a report-out around the use of sediment basins in lieu of inlets, and the need to balance visual impacts with water quality. ALIVE noted that long-term infrastructure would not be included in this project. ALIVE also focused on the big horn sheep populations in the area. ▪ Report-out: An Assurances ITF was held on April 19th with CDOT and Clear Creek County to develop and evaluate options to provide assurances if physical or operational changes or improvements are made in Clear Creek County in the future. Clear Creek County's Summary of the Assurances ITF was adopted by the CCC Commissioners, which means they are supportive of the project. ▪ Foot by foot review of the Concept Design Plans for Focus Area #2 and Focus Area #3.	▪ The WB PPSL project team will continue to coordinate with Clear Creek County on water quality mitigation features and coordinate between ALIVE and the Design Team to integrate wildlife features on the corridor (i.e. gaps for carnivores). ▪ There will be follow up Section 106 and ALIVE meetings in July to look at the preliminary corridor design. ▪ The next TT will focus on the SCAP and drainage issues. ▪ CDOT and Clear Creek will be working on CCC's companion projects. CDOT was also assured that the process can move

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				more quickly around decision-making. TT/CDOT will ensure guardrail conformity and avoid hodge-podge guardrail. The TT will move forward with the Concept Design Plans as presented and would like to dive into specific discussion points at future TTs.
TT Meeting #15	23-May-18	▪ SCAP Plans ▪ WB PPSL draft pull-out locations ▪ Focus Area #2 Median Barrier Options	▪ CDOT presented a slide show on various SCAP and water quality pond options. See SCAP Presentation attached. The presentation was a high-level introduction on what types of technology is available. ▪ The TT reviewed the 2012 CatEx SCAP Map and the Draft SCAP from the Concept Plans Review. ▪ There will be 4 Westbound and 2 additional Eastbound pullouts as part of the WB PPSL project. ▪ The TT discussed the various options of Type 7, Type 7 with Glare Screen and Type 10 Barriers. This conversation focused on aesthetics and possible glare	HDR to create 3 SCAP Maps using the following criteria: ▪ The aesthetics of sediment basins, ▪ The number of sediment basins, ▪ The impact on wildlife, ▪ Offsite major issue areas, and ▪ The amount and type of sediment that a given basin catches

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			from oncoming headlights (a possible issue for Type 10). The barrier type for Focus Area #1 will be determined at the upcoming community meeting in Idaho Springs on June 11. ▪ Upcoming 30% Design FIR Meeting. TT members were invited to join and CDOT will coordinate.	as the SCAP is remodeled. Type 7 barrier is recommended for Focus Area #1
TT Meeting #16	11-Jul-18	▪ Project Elements/ Schedule Review ▪ Public Outreach and Public Input Review ▪ ITF Report Outs (CR 314, Idaho Springs Community Meetings, Water Quality ITF) ▪ Pullouts and Pavement in FIR ▪ Median Design Exception Memo ▪ Rock Cut ▪ Rockfall Mitigation	▪ The project schedule and elements were reviewed with the TT. TT members provided feedback. – CDOT will provide clarity and discuss with TT how the attached "micro-projects" and companion projects are going to be defined in the CatEx. – There will be a CatEx report out in August/September. – The Construction CSS element will be broadened to include communication and implementation. – The TT will be presented the Concept of Operations in August. ▪ The TT discussed the messaging and communication campaign for WB PPSL. It was noted that there needs to be communication about the project from the beginning, including where does toll money go? How are rates determined? An "I-70 ROD 101" Communication to the Public campaign would be helpful. It was noted that the Twin Tunnels	▪ During the September TT meeting—HDR/CDOT (Stacia Sellers) to present to TT the Twin Tunnels communication campaign. ▪ The TT agreed to the proposal from Project Staff as it related to pavement and pullouts and will move forward with these designs. ▪ The TT agreed with the DRAFT Median Shift Design Exception memo and advanced it to the PLT.

SUMMARY OF ISSUES RAISED AT PROJECT LEADERSHIP TEAM AND TECHNICAL TEAM MEETINGS

Meeting	Date	Primary Agenda Items	Summary of Major Issues/Discussion	Agreements Reached
			communication/messaging campaign is a good example. ▪ A report out on the Idaho Springs Community Meeting (6/4/18) was provided. The community recommendation was a Type 7 Barrier with a glare screen (now this is a Type 9 Barrier). ▪ Report outs of the CR 314 ITF #1 and Water Quality ITF were also provided to the TT. There will be additional meetings on these issues and final decisions have not yet been made. The TT noted that wider shoulder areas will likely be used by drivers to pull over. The TT asked if other pullouts could be eliminated—CDOT responded that other pullouts could not be eliminated as they are needed for breakdown, trucks, enforcement, and safety. ▪ The TT reviewed the Median Shift Design Exception Memo. No comment was given—the memo will be advanced to the PLT. ▪ Rockfall/Rock Cut ▪ Clear Creek County requested a Communication/Emergency Protocol—what happens when there is an incident that the County is unprepared for. CCC would also like to continue to follow up on a programmatic rockfall agreement around aesthetic treatments related to	

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			rockfall. The goal is to hold the next Geohazard PLT in August 2018. ▪ Howard Hume presented rockfall/rock cut analysis methodology and different rockfall treatments.	
PLT Meeting #4	29-Aug-18	▪ Update on project status ▪ Approve median design exception ▪ Review public meeting materials ▪ SB 1041 process	▪ The 1041 process shown on the simplified schedule is too short. Clear Creek County needs 90 days and Idaho Springs needs 60 days. CDOT should set up meetings with the planning departments of these agencies. ▪ January 2019 is the earliest the project will be advertised. ▪ Clear Creek County wants to review the MOU before signing off on 1041. Issues are what vehicles can use the PPSL and need to notify locals before changing hours of operations. ▪ Clear Creek County is concerned about ROD compatibility and has legal questions which they will send to CDOT in the next few weeks ▪ Clear Creek County disagrees with the agreement from the April 10 meeting that 4 feet should be the outside shoulder. They request that agreement be changed to “4 feet where available.” The agreement was changed to note that the 4 foot outside shoulder is not possible on bridges or along the transition to bridges.	▪ CDOT to meet with Idaho Springs and CCC planning departments to get the 1041 process started. ▪ CDOT to look into what procedural language should be added to the MOU to get the locals involved if there is a change. ▪ Include tolling prices and billings in the pre-operations educational campaign. ▪ The Design Exception Memo was approved. ▪ Present EB vs. WB construction impacts to public.

SUMMARY OF ISSUES RAISED AT PROJECT LEADERSHIP TEAM AND TECHNICAL TEAM MEETINGS

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			▪ Clarification of status on NEPA documentation was made. Fall River Road Bridge has a Cat Ex in process. CR 314 has a state Cat Ex that will be changed to a federal Cat Ex. Greenway has a Cat Ex already approved that will be reevaluation in sections. ▪ The signage and access review was discussed. HDR will change the public meeting graphic to show a dashed line for egress. ▪ At the public meeting, should emphasize that the construction period of time and disruption for WB will be much less than it was for EB. ▪ Is the median shift a significant impact? No, the memo actually shows that moving toward the median has fewer environmental impacts. ▪ Make sure people on the east end of the county are invited to the public meeting ▪ What is the tracking device to carry forward these decisions to the next phase of CSS?	
TT Meeting #18	12-Sept-18	▪ Reports outs on the Section 106 ITF meeting and the PLT meeting ▪ Discussion of the SB 1041 approvals needed.	▪ The Historic Survey that was done is of very high quality ▪ Recommend providing specifics related to mitigation to be provided—for the 1041 process. ▪ Design refinements were that the remaining guardrail outside of the	▪ The project team will set a meeting with Idaho Springs to review signage ▪ The project team will prepare a construction CSS

SUMMARY OF ISSUES RAISED AT PROJECT LEADERSHIP TEAM AND TECHNICAL TEAM MEETINGS

Meeting	Date	Primary Agenda Items	Summary of Major Issues/Discussion	Agreements Reached
		▪ Updates on design refinements ▪ Discussion of preliminary findings of the environmental analysis to date. ▪ Discussion of Assurances ▪ Presentation of likely construction impacts and plans for construction phase CSS and public information during construction	shoulder will be replaced in Idaho Springs; an alignment shift is being implemented near Soda Creek Road because of slope instability issues; an auxiliary lane is being included between Exit 240 and Exit 239 and we are adding an egress point for the PPSL near Dumont. ▪ Can CDOT do AQ monitoring to make sure AQ impacts during construction are not a problem? ▪ Need to make sure we do not impact any archaeological resources. ▪ What can we do to avoid delays if contaminated groundwater is encountered? ▪ Can the project team look at drainage improvements for the trail through the box culvert and slope and lighting improvements for the Greenway adjacent to City Hall? ▪ Disagreement related to whether or not positive economic impacts will occur in CCC. ▪ Recommend contacting transit providers during construction ▪ What is the role of HPTE? ▪ How involved will CDOT be during construction? ▪ Details for construction phase CSS need to be determined	plan, indicating who will be involved, when and how often. ▪ The project team will prepare a CSS tracking tool

SUMMARY OF ISSUES RAISED AT PROJECT LEADERSHIP TEAM AND TECHNICAL TEAM MEETINGS

Meeting	Date	Primary Agenda Items	Summary of Major Issues/Discussion	Agreements Reached
			▪ Need robust public involvement during construction	
Stakeholder Check-in Call	10-Oct-2018	▪ Review draft MOU ▪ Discuss ROD compatibility	▪ Recommendations made for specific text to add to the draft MOU ▪ ROD compatibility is really a Collaborative Effort responsibility ▪ Construction phase CSS will likely just have a PLT—no Tech Team ▪ Recommend an operations phase CSS process ▪ The TT will be provided with the construction bid package for review	▪ The name of the MOU should be Third Amended ▪ A vehicle length of 25 feet maximum is appropriate for the PPSL
TT Meeting #19	22-Oct-2018	▪ Report outs on WB PPSL Public Meeting (9/13/180; CR314 ITF #3 (9/19/18) Stakeholder check-in (10/10/18) ▪ Air Quality Report ▪ Box Culvert Design ▪ Greenway Under I-70 Design ▪ Idaho Springs Signage ▪ MOU/Con Ops Review ▪ HPTE's Role in WB I-70 PPSL ▪ Discuss ROD compatibility ▪ 1041 Schedule	▪ CCGA is working with the County on analyzing Greenway/CR 314 roadway easements. This is a long process and there are hundreds of pages to review. ▪ Clear Creek County will work with APCD/CDPHE to obtain an air quality baseline—this is outside of CDOT's jurisdiction and the project scope at this time. ▪ FHWA reviewed federal regulations and process associated with determining ROD Compatibility and significant impacts including 23 CFR 771.117 and 40 CFR 1508. ▪ Greenway Under I-70 will be on the November TT agenda to finalize the plan re: pedestrian rail terminus and whether the highway shoulder barrier with glare	▪ Air quality monitoring and baseline is not warranted at this time, and outside of the scope of the WB I-70 PPSL project given the analogous data presented from I-25/Yuma, I-25/9th, 49th/Acoma, Twin Tunnels, Swansea Air Monitoring Station. Clear Creek County will work with CDPHE for baseline air quality monitors. ▪ The TT is supportive of the WB I-70 PPSL.

SUMMARY OF ISSUES RAISED AT PROJECT LEADERSHIP TEAM AND TECHNICAL TEAM MEETINGS

Meeting	Date	Primary Agenda Items	Summary of Major Issues/Discussion	Agreements Reached
		▪ CSS Tracking Tool Overview	screen will meet the safety needs that the existing chain link fence has been serving. Idaho Springs would like to consider maintenance, aesthetics and safety in re-designing this area. ▪ Idaho Springs signage plan is wrapping up, CDOT is analyzing egress options and signage for Downieville and Dumont. ▪ TT recommendation to add more specificity and detail to CSS Tracking Tool to ensure communication with the Construction teams.	▪ The CSS Tracking Tool is not a legally binding document, but it will be used to ensure the Construction team understands the design agreements that were made during the Project Development and Design life cycle of the CSS process. ▪ There will be a PLT or TT during the Construction Life Cycle of the CSS process. The composition of the PLT/TT will be discussed at the November PLT/TT meeting.

Attachment 2.
Evaluation Matrices Used in the CSS Process

COLORADO Department of Transportation

1/8/18 DRAFT

ID	Criteria	Focus Area 1 - Idaho Springs				
		Options Ranking (Fair / Better / Best)				
		A: Existing Pavement (37' Min.) + Operational Improvments*	B: Baseline (38' - 40' with 2' shy distance)*	C: 38' -41' (with 2' shy distance and 1' rumble strip buffer)*	D: 38'-42' (with 2' shy distance, 1' rumble strip buffer and 12' center lane)*	E: 38'-43'(with 2' shy distance, 1' rumble strip buffer and three 12' lanes)*
	Evaluation Criteria					
	HOW DOES THE ALTERNATIVE…					
1	Accommodates safety during peak times?	5 substandard cross-sectional design elements (1' shy distance to barrier, shoulder lane 11', rumble strip encroaching on lanes, GP lane width only 11', RT shoulder only 4ft) Compounding all issues results in least forgiveness of driver error.	4 substandard cross-sectional design elements (shoulder lane 11', rumble strip encroaching on lanes, GP lane width only 11', RT shoulder only 4ft) Compounding all issues results in less forgiveness of driver error.	3 substandard cross-sectional design elements (shoulder lane 11', center GP lane width only 11', RT shoulder only 4ft)	2 substandard cross-sectional design elements (shoulder lane 11', RT shoulder only 4ft)	1 substandard cross-sectional design element (RT shoulder only 4ft)
2	Maintain safety during non peak times?	3 substandard cross-sectional design elements (rumble strip encroaching on lane, GP lane width only 11', RT shoulder only 4ft) Compounding all issues results in least forgiveness of driver error.	3 substandard cross-sectional design elements (rumble strip encroaching on lane, GP lane width only 11', RT shoulder only 4ft) Compounding all issues results in least forgiveness of driver error.	2 substandard cross-sectional design elements (GP lane width only 11', RT shoulder only 4ft)	1 substandard cross-sectional design element (RT shoulder only 4ft)	1 substandard cross-sectional design element (RT shoulder only 4ft)
3	Improve local and regional mobility and reliability	narrowest space increases frequency of accidents and reduces reliability	narrow space with reliability similar to Eastbound performance	additional space increases mobility and reliability	additional space increases mobility and reliability	additional space increases mobility and reliability
4	Minimize the effort required to maintain the option?	Not a differentiator				
5	Create infrastructure investments that are reasonable to construct and provide the best value for their life cycle, function and purpose?	Least new project elements. Least responsive to Purpose and Need.	Additional investment resulting in increased benefit	Additional investment resulting in increased benefit	Additional investment resulting in increased benefit	Additional investment resulting in increased benefit
6	Create opportunities to "correct past damage"?	No opportunities	Opportunities for sight line and drainage improvements.	Opportunities for sight line and drainage improvements.	Opportunities for sight line and drainage improvements.	Opportunities for sight line and drainage improvements.
7	Provide access and protect opportunities for enhancements to tourist destinations, community facilities, interstate commerce and also limit disproportionate effects to the community?	Not a differentiator (criteria needs clarification)				
8	Protect or enhances recreational opportunities?	11' GP lane is less comfortable for recreational vehicles. Rumble strip encroaches on lane.	11' GP lane is less comfortable for recreational vehicles. Rumble strip encroaches on lane.	11' GP lane is less comfortable for recreational vehicles. Adds buffer.	12' center lane is more comfortable for recreational vehicles.	All 12' lanes are most comfortable for recreational vehicles.
9	Protect wildlife needs?	No additional barriers	3000 LF of retaining wall above town	3000 LF of retaining wall above town	3000 LF of retaining wall above town	3000 LF of retaining wall above town
10	Protect natural features and Clear Creek?	No drainage or water quality improvements	Drainage and water quality improvements	Drainage and water quality improvements	Drainage and water quality improvements	Drainage and water quality improvements
11	Address noise and air quality?	No noise reduction benefit.	Incidental noise reduction benefit	Incidental noise reduction benefit	Incidental noise reduction benefit	Incidental noise reduction benefit
12	Meet CDOT and industry standards?	Highest number of design exceptions	High number of design exceptions	High number of design exceptions	Lower number of design exceptions	Least number of design exceptions
13	Meet the I-70 Mountain Corridor Design Criteria and Aesthetic Guidance?	No opportunity for Aesthetic improvements.	Opportunity for Aesthetic improvements.	Opportunity for Aesthetic improvements.	Opportunity for Aesthetic improvements.	Opportunity for Aesthetic improvements.
14	Preserve opportunities for the AGS and the ultimate preferred alternative?	Not a differentiator				
15	Incorporate sustainability by using locally available materials and environmentally-friendly processes?	Not a differentiator				
16	Meet the needs of the present without compromising the future?	Not a differentiator. None of the options affect the future determination of an ultimate I-70 or AGS location.				
17	Protect the defining historical elements of Clear Creek County? ADD AVG. & MAX. HEIGHT OF WALLS	No new retaining walls - signage required	Retaining walls above town with average height = ___, signage required	Retaining walls above town with average height = ___, signage required	Retaining walls above town with average height = ___, signage required	Retaining walls above town with average height = ___, signage required
18	Provide opportunities for Partnership?	No potential for partnerships	Potential for partnerships	Potential for partnerships	Potential for partnerships	Potential for partnerships
19	Meets measures of success? (ROD, MOU, purpose and need, and local visioning)	ROD: Not a differentiator MOU: Not a differentiator Visioning: Inconsistent being only operational Purpose and Need: Least responsive to Purpose and Need.	ROD: Not a differentiator MOU: Not a differentiator Visioning: Somewhat consistent Purpose and Need: Somewhat responsive to Purpose and Need.	ROD: Not a differentiator MOU: Not a differentiator Visioning: Somewhat consistent Purpose and Need: More responsive to Purpose and Need.	ROD: Not a differentiator MOU: Not a differentiator Visioning: Somewhat consistent Purpose and Need: More responsive to Purpose and Need.	ROD: Not a differentiator MOU: Not a differentiator Visioning: Somewhat consistent Purpose and Need: Most responsive to Purpose and Need.
ID	Criteria				Options Ranking (Fair / Better / Best)	
		A: Existing Conditions	B: Baseline (38' - 40')	C: (38' -41')	D: (38'-42')	E: (38'-43')
Iss						
H						
	Utilize existing pavement (amount of additional pavement)?	no increase in pavement area	2.2% increase in pavement area	2.5% increase in pavement area	2.9% increase in pavement area	3.6% increase in pavement area
	Impact to existing bridges?	No bridges impacted.	No bridges impacted.	No bridges impacted.	No bridges impacted.	No bridges impacted, greatest width taper at bridges
	Impact to snow removal?	Not a differentiator				
	Avoids GP vehicles driving on the rumble strip?	Rumble strip width encroaches into 11' GP and shoulder lanes	Rumble strip width encroaches into 11' GP and shoulder lanes	Rumble strip is along edge of 11' GP lane	Rumble strip is along edge of 12' GP lane	Rumble strip is along edge of 12' GP lane

COLORADO Department of Transportation

02/23/18 DRAFT

Focus Area 2: Mountain vs. Median

Fair | Better | Best

ID	Criteria	Option A: Mountain Impacts: Rock blasting and Install Rockfall Mitigation	Option B: Median Impacts: Construct Retaining Wall in I-70 Median to Avoid Rock Issues
	Evaluation Criteria		
	HOW DOES THE OPTION…		
1	Accommodates safety during peak times?	Not a differentiator.	
2	Maintain safety during non-peak times (PPSL closed)?	Not a differentiator.	
3	Improve local and regional mobility and reliability?	Not a differentiator.	
4	Minimize the effort required to maintain the option?	Additional use and maintenance potential of rock fall toolbox items (i.e., fences, netting, bolts, walls, unknown new condition, etc.). Potentially additional rockfall clean-up. Potential to be most costly and requires most time.	Less maintenance for retaining wall and median barrier. Potential to be least costly and requires least amount of time.
5	Create infrastructure investments that are reasonable to construct and provide the best value for their life cycle, function and purpose?	Big effort for an interim solution. Interim rock cut may or may not be sufficent for the maximum program.	More appropriate response to an interim project. Does not preclude or predetermine maximum program. Median improvements are more easily removed.
6	Create opportunities to "correct past damage" to the community?	More impact to the corridor.	Less impact to the corridor. Assumes reasonable consideration of wildlife and aesthetics.
7	Provide access and protect opportunities for enhancements to tourist destinations, community facilities, interstate commerce and also limit disproportionate effects to the community?	More impacts during construction (potential for EB and WB lane closures, and 2 lane closures, especially at North Spring Gulch and access to Philadelphia Mills recreation site, less potential for night time construction). Longer construction timeline. No long term operational differences.	Less impacts during construction (single lane closures, no closure to access under I-70 at Spring Gulch, more potential for night time construction). Shorter construction timeline. No long term operational differences.
8	Protect or enhances recreational opportunities?	Temporary construction impacts (i.e., blasting may close rafting). No long term recreational impacts.	No short or long term recreational impacts.
9	Protect wildlife needs?	May create some new wildlife barriers. Blasting operations may be negative for wildlife. Rockfall netting may be hazardous for birds. Coordinate with ALIVE.	May create new wildlife barriers in the median. Minimizes refuge areas. Coordinate with ALIVE.
10	Protect natural features and Clear Creek?	Impact to natural mountain sides. Potential exposure of mineralized rock may negatively impact water quality.	Minimal impact to natural features.
11	Address noise and air quality?	Construction blasting impacts including noise and dust.	Construction noise impacts.
12	Meet CDOT and industry standards?	Not a differentiator.	
13	Meet the I-70 Mountain Corridor Design Criteria and Aesthetic Guidance?	Can meet Design Criteria and Aesthetic Guidance.	Does not meet Design Criteria or Aesthetic Guidance. Exception required.
14	Preserve opportunities for the AGS and the ultimate preferred alternative?	Not a differentiator.	
15	Incorporate sustainability by using locally available materials and environmentally-friendly processes?	Not a differentiator.	
16	Meet the needs of the present without compromising the future?	Most impact to the valley. Blasting removes rock that can not be replaced.	Less impact to the valley. Changes are reversible.

17	Protect the defining historical elements of Clear Creek County?	More impacts to mining sites. May include visible mining shafts.	Less impacts. May have mining features under median.
18	Provide opportunities for Partnership?	Not a differentiator.	
19	Meets measures of success? (ROD, MOU, purpose and need, and local visioning)	Not a differentiator. WHAT IS PLT GUIDANCE??	
	Focus Area 2: Mountain vs. Median	Fair / Better / Best	
ID	**Criteria**	**Option A: Mountain Impacts: Rock blasting and Install Rockfall Mitigation**	**Option B: Median Impacts: Construct Retaining Wall in I-70 Median to Avoid Rock Issues**
	Issue Specific Criteria		
	HOW DOES THE OPTION…		
1	Is the viewshed affected?	Slightly more rockfall mitigation toolbox usage will have visual impacts.	Up to 60% of Focus Area 2 could have a median wall (worst case). Exposed wall heights have a maximum height 6' plus a barrier. Barrier does not have to be solid.
2	Effect of headlight glare?	Not a differentiator.	
3	Will median width remain?	No change	Existing median is 20-22' wide, widening may impact up to 10'.
4	Will existing rock cuts be modified?	20' horizontal, and 50-100' vertical rock cuts would be expected in multiple locations in Focus Area 2. Rock stability is unpredictable and is a significant technical challenge. Exit 239 and Exit 238 rock cut is not a differentiator.	Exit 239 and Exit 238 rock cut is not a differentiator.
	RECOMMENDATION		
	TT Recommendation	***In general, widening to the median is recommended to avoid rock cutting. It is more consistent with an interim definition for the project, has fewer impacts to the traveling public and fewer visual impacts. Opportunities to lower the height of the median barrier and reduce the amount of encroachment in the median will be explored. During design, each specific location will be evaluated based on context and impacts specific to that location. Any locations that are determined favorable to shift into the median will be presented to the PLT for their review as this would be a variance from the I-70 design criteria.***	