

I-70 Traffic and Revenue Study  
Project Leadership Team (PLT) Meeting #3  
Meeting Minutes  
June 26, 2013  
Silverthorne, CO – Pavilions Conference Room

Handouts for the meeting included:

Agenda

June - August PLT / TT Agendas – Draft

Context Overview (6-19-13) – I-70 Mountain Corridor T&R Study

Core Values and Critical Issues for Review and Ratification (6-26-13)

Critical Success Factors for Review and Ratification (6-26-13)

Graphic/Map - depicting the Base Case – Minimum / Maximum Program of Improvements.

I-70 Mountain Corridor Draft Traffic and Revenue Screening Process

### **Agenda Item 1 – Introductions**

Wendy Wallach (Parsons) opened the Project Leadership Team's (PLT) third meeting with welcoming remarks and a request for self-introductions. Zane Znamenacek (as an alternate for Dave Eller) is representing CDOT Region 3 and will be added to the invitee list.

### **Agenda Item 2 – Agenda Items for Next PLT Meetings**

Wendy went over the agendas for the upcoming PLT and Technical Team (TT) meetings scheduled for July 24, 2013. There will not be a PLT meeting August 28, only a TT Meeting. See handout for detailed agenda items for the July and August meetings.

### **Agenda Item 3 – Ratification of Context Overview**

Joe Kracum (Parsons) reviewed the revised context statement with the group (see the attached Powerpoint). Based on suggestions made at the May 29, 2013 PLT meeting, the following changes were incorporated:

- Revise the last bullet to say “All build scenarios WILL impact...” (instead of “may”)
- Revise the 4<sup>th</sup> bullet – to say “multi-modal”
- Revise title to say “overview” instead of “Final Draft”

One additional revision to be made in the first bullet is to change “..primarily access route...” to “primary access route.”

The Context Overview was ratified.

### **Agenda Item 4 – Review and Ratification of Critical Success Factors**

Joe began to review the Critical Success Factors. There was discussion whether the group should review the Core Values and Critical Issues before continuing with the Critical Success Factors. The group decided to move to Agenda Item 5 – Review and Ratification of Core Values and Critical Issues first and then return to the Critical Success Factors.

**Agenda Item 5 – Review and Ratification of Core Values and Critical Issues**

Joe Kracum (Parsons) and Wendy Wallach (Parsons) reviewed the Core Values. The Core Values were derived from I-70 CSS with several of the values that are non-negotiable. Other core values were pulled from minutes from the first Project Leadership Team (PLT) meeting. The Core Values are the foundation of the CSS process and help define the project goals and objectives. The alternatives that advance through the process will be measured against the Critical Success Factors which are derived from these Core Values.

There was discussion about adding Feasibility / Fiscal Responsibility as a separate Core Value as suggested by from Casey Tighe (Jefferson County Commissioner). Tim Mauck (Clear Creek) would like to get the most “bang for the buck,” but does not want to have to be “forced” to select the least expensive project elements based on this value. . Wendy suggested that this value may be inherent in the Constructability Core Value. About half of the Core Values have ties to fiscal responsibility.

Wendy Wallach (Parsons) moved the group into discussion of Critical Issues (see Review and Ratification of Core Values and Critical Issues slide in the Powerpoint). The Critical Issues are derived from each Core Value and used as a basis for developing performance measures.

After much discussion, a number of changes were recommended, and are included in the revised table below:

| Core Values                                   | Critical Issues  |
|---|--|
| Safety  | Safe Traffic Operations<br>Emergency Response<br>Incident Management                                     |
| Mobility                                      | Travel Time Reliability<br>Slow Moving Vehicles<br>Modal Choice<br>Local Mobility<br>Incident Management |
| Constructability                              | Funding<br><br>Efficiency of Operations & Maintenance  |
| Engineering Criteria and Aesthetic Guidelines | Aesthetics<br>Adherence to Accepted Design Standards   |
| Sustainability                                | Preserve Future Transportation Options<br>Energy Use<br>Maintenance<br>Impact of No Action               |

|   |  |
|---|--|
| Decision Making Process                   | CSS Guidance<br><br>Stakeholder Support<br>Public Acceptance<br>Identify & Prioritize Mitigation and<br>Enhancement Opportunities                    |
| Community<br>(Local, Regional, Statewide) | Stakeholder Support<br>Public Acceptance<br>Enhance Recreational Opportunities<br>Enhance Community Values<br>Improve Economic Vitality & Livability |
| Historic Context                          | Preservation & Enhancement of<br>Historic Elements & Landscape   |
| Healthy Environment                       | Environmental Sensitivity<br><br>Ability to Mitigate   |
| Fiscal Responsibility                     | Life Cycle Considerations<br><br>Benefit - Cost  |

PLT members would like to see the Critical Success Factors added to this table in a 3<sup>rd</sup> column. Objective is to be able to cross check across the table for process consistency.

Due to the number of changes that need to be incorporated into the Core Values and Critical Issues table, it was determined to move the discussion and ratification of the Critical Success Factors to the July 24, 2013 meeting. The meeting will be held at 1:00 pm at the Elks Club in Idaho Springs, 1600 Colorado Boulevard, Idaho Springs, CO, 80452.

**Agenda Item 6 - Review and Ratification of Alternative Screening Methodology**

Ralph Trapani (Parsons) summarized an overview of the the Alternative Screening Methodology. The study is a 2-tiered process with Level 1 and Level 2 screening. Transit needs will be analyzed and included in all options. There are no public subsidies for any of the alternatives and each alternative will need to pay for itself in order to be considered a Candidate Option. Louis Berger Group’s analysis will be included in the Level 1 Screening. Ernst and Young will be on-board to do the financial analysis. All the criteria used in the analysis will be transparent with the PLT. The Technical Team and the Project Team will identify the performance measures.

## **Agenda Item 7 - Review of T&R Level 1 Options**

Options to be considered:

55 mph min/max

65 mph min/max

Existing 4-lane – all tolled

Reversible express lanes (2 lanes)

Managed lanes at 65 mph

55 mph for free

65 mph for free

Reversible express lanes (3 lanes)

Managed lanes at 65 mph

55 mph for free

65 mph for free

This agenda item included a discussion regarding modeling the min/max with and without the 3<sup>rd</sup> bore at Eisenhower-Johnson Memorial Tunnels(EJMT). The group decided that the third bore would be modeled with both options. There will also be a model run of the Minimum and Maximum Program of Improvements without a third bore at EJMT.

The group would like to have a matrix created with sub-options. A basic set of assumptions to be developed for the July meeting. The Technical Team is here to provide assistance to the PLT.

The PLT advised the Project Team to include considerations of designing for the future and to include the political paradigm shifts. This is a dynamic process. There have already been shifts from “old data” from 2002-2004.

The PLT agreed to ratify the process presented for the T&R analysis.

## **Agenda Item 8 – Discussion of Technical Team Make Up**

Wendy Wallach (Parsons) and Ralph Trapani (Parsons) asked the PLT group to review the categories listed on the slide for “Review of Technical Team Make Up” (see attached Power Point). Suggestions need to be made for specific people in each category that could serve to be a representative for the Technical Team. PLT members would like to add CDOT Division of Transit and Rail as Technical Team group and also suggested Thad Nols, Assistant County Manager for Summit County as a potential representative.

The July 24 Technical Team will be focusing on a draft of the assumptions and performance measure

## **Agenda Item 9 – Critical Success Factors and Core Values**

Ratification was tabled until the July 24, 2013 meeting until all changes could be incorporated.

## **Agenda Item 10 – Improvement Packages**

The Alternatives/Options to be considered were presented as part of the T and R Screening Methodology, (See attached PowerPoint)

### **Agenda Item 11 – Project Status**

Based on review from the PLT, the Meeting Minutes from May 29, 2013 will be finalized and distributed prior to next PLT.

12a - Ben Acimovic gave a brief Twin Tunnels project update regarding lane closures changes effective July 1. Lane closure strategies have been working well. Blasting at the tunnel is on schedule and communication is good. Peak period shoulder is kicking off next week. The need to develop the concept of operations is a first critical decision.

12b - David Singer announced an Open House for the Hard Shoulder Running Project on Wednesday, July 17 that will reach out to the local community and will summarize the corridor-wide interpretive plan included as part of the project.

12c – AGS status - Responses have been received on statements of financial interest. There is an AGS / PLT meeting scheduled for July 17, from 10:00am – 1:00pm in the Denver metro area. Location: to be determined. Three agenda items will be modeling, cost estimate refinements, and preliminary review of statements of financial interest.

### **Agenda Item 12 – Final Remarks and Next Steps**

The next PLT meeting will be July 24, 2013 (4<sup>th</sup> Wednesday of the month) at 1:00 pm at the Elks Club in Idaho Springs, 1600 Colorado Boulevard, Idaho Springs, CO, 80452.

**Traffic and Revenue  
Project Leadership Team  
PLT Meeting #3  
June 26, 2013  
1 PM-5 PM  
Silverthorne Pavilion  
400 Blue River Parkway**

**List of Meeting Participants (add list)**

- 1. Introduction to the Meeting (Wallach)**
- 2. Agenda Items for Next PLT Meetings (Wallach)**
- 3. Ratification of Context Overview (Kracum)**
- 4. Review and Ratification of Critical Success Factors (Kracum)**
- 5. Review and Ratification of Core Values & Critical Issues (Wallach)**
- 6. Review and Ratification of Alternative Screening Methodology (Trapani)**
- 7. Review of T&R Level 1 Options (Trapani)**
- 8. Discussion of Technical Team Make up (Trapani)**
- 9. Critical Success Factors and Core Values (Wallach)**
- 10. Improvement Packages (Wallach)**
- 11. Project status (Acimovic)**
- 12. Final Remarks and Next Steps (Wallach)**

## **June - August PLT / TT Agendas DRAFT**

### **26 June PLT Meeting**

Agenda Items for Next PLT Meetings

Ratification of Context Overview

Review and Ratification of Core Values & Critical Issues

Review and Ratification of Critical Success Factors

Review and Ratification of Alternative Screening Methodology

Review of T&R Level 1 Options

Discussion of Technical Team Make up

### **24 July PLT Meeting**

Review of Roles & Responsibilities of Technical Team

Review and Ratification of Alternatives/Options to be evaluated

Review of Initial Performance Measures, Level 1 and Level 2 (in concert with Berger and Technical Team)

Presentation of T&R Schedule Milestones

### **24 July Technical Team Meeting**

Review of Roles & Responsibilities of Technical Team

Review of CSS Process

Review of Context Statement, Core Values, Critical Issues

Review of draft Level 1 and Level 2 Performance Measures

Review of Alternatives/Options to be evaluated

Review of Consultants Scopes of Work

Discussion of T&R Schedule Milestones

### **28 August No PLT Meeting**

## **28 August Technical Team Meeting**

T&R Study Update

Review of Data and Assumptions to be used in Level 1 screening

Review and Status Update on Schedule and Critical Milestones for PLT and TT

TBD

# **I-70 Mountain Corridor T&R Study**

## **Context Overview**

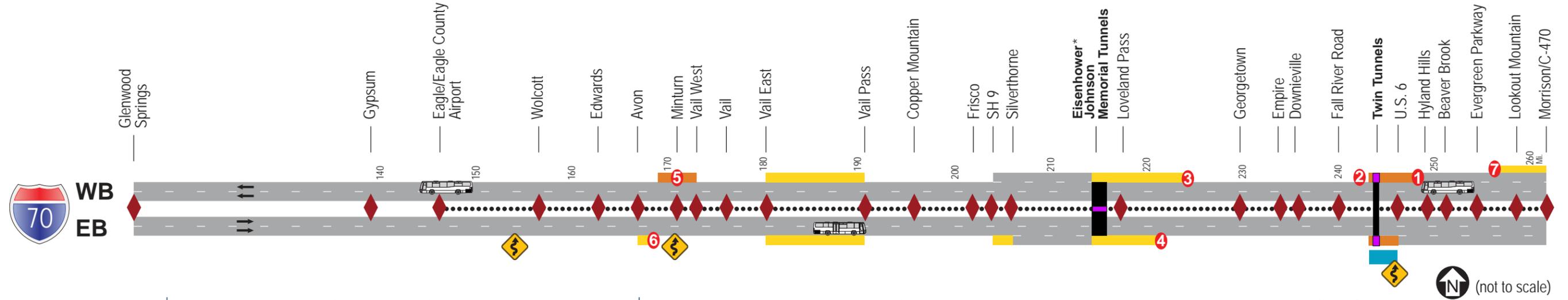
**8-13-13**

- The I-70 Mountain Corridor is Colorado's only east-west interstate and the primary access route from Denver to the commercial and recreational destinations of the Colorado mountains.
- Current I-70 roadway geometry is constrained, with narrow shoulders and tight curves resulting in decreased safety, mobility, accessibility and capacity for travelers.
- Traditional funding sources are not adequate to construct the minimum or maximum programs identified in the I-70 Mountain Corridor PEIS Record of Decision.
- To advance multimodal facilities that address transportation needs while respecting the unique communities and environmental resources of the corridor, CDOT must identify non-traditional funding programs that could include express lanes.
- Sound decision-making requires the consistent application of industry standard traffic, impact and cost data across all potential programs.
- All build scenarios will impact narrow mountain valleys where the Interstate is tightly bound by topographic constraints including creeks, which support recreation and supplies drinking water to the Region and the corridor bisects some of Colorado's oldest heritage communities. Travel through the area provides scenic vistas of Colorado Rockies and the Continental Divide.

Core Values and Critical Issues for Review and Ratification, 6.26.13

| Core Values                                   | Critical Issues                                      |
|---|--|
| Safety  | Safe Traffic Operations<br>Emergency Response        |
| Mobility                                      | Travel Time Reliability<br>Slow Moving Vehicles      |
| Constructability                              | Funding<br>Operations and Maintenance                |
| Engineering Criteria and Aesthetic Guidelines | Aesthetics<br>Adherence to Accepted Design Standards |
| Sustainability                                | Preserve Future Transportation Options               |
| Decision Making Process                       | CSS Guidance<br>Enhance Community Values             |
| Community                                     | Stakeholder Support<br>Public Acceptance             |
| Historic Context                              | Preservation of Historic Elements                    |
| Healthy Environment                           | Environmental Sensitivity<br>Address Past Damage     |

# BASE CASE - MINIMUM PROGRAM OF IMPROVEMENTS

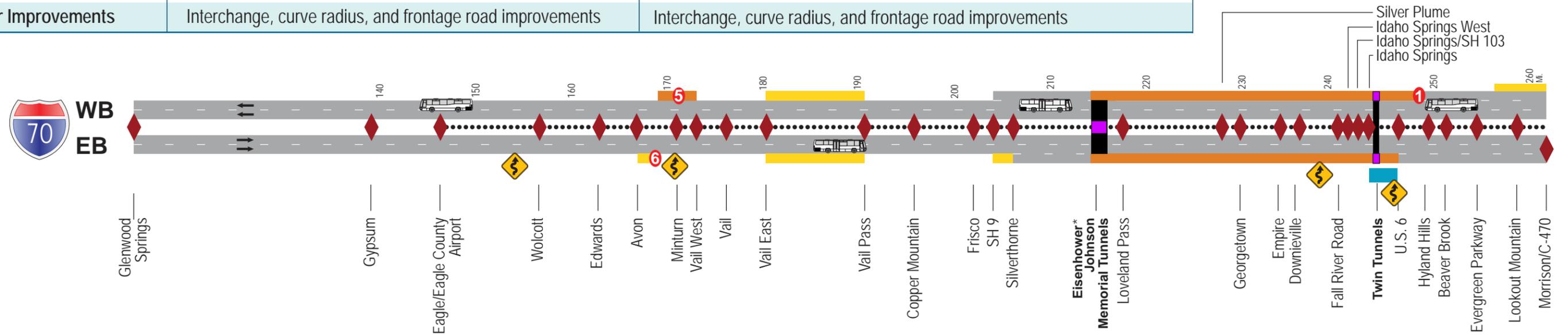


|                                | <i>Minimum Program of Improvements</i>  | <i>Maximum Program of Improvements</i>                                       |
|--------------------------------|---|--|
| <b>Highway Capacity Limits</b> | Floyd Hill through the Twin Tunnels   | Floyd Hill through the Eisenhower Johnson Memorial Tunnel                    |
| <b>Lane Configuration</b>      | One additional general purpose lane both eastbound and westbound (two total) near Twin Tunnels only | One additional general purpose lane both eastbound and westbound (two total) |
| <b>Tunnel – EJMT</b>           | New third bore may be needed  | New third bore to accommodate AGS and Automobile Traffic                     |
| <b>Tunnel – Twin</b>           | New third bore or widen existing  | New third bore or widen existing   |
| <b>Tunnel – Floyd Hill</b>     | Included for 65 mph option only   | Included for 65 mph option only  |
| <b>Tunnel – Dowd Canyon</b>    | Included for 65 mph option only   | Included for 65 mph option only  |
| <b>Transit</b>                 | AGS from C-470 to Eagle   | AGS from C-470 to Eagle County Airport                                       |
| <b>Auxiliary Lanes</b>         | Only in specified locations   | Auxiliary lanes are replaced by the general purpose lanes                    |
| <b>Other Improvements</b>      | Interchange, curve radius, and frontage road improvements   | Interchange, curve radius, and frontage road improvements                    |

**LEGEND**

- Frontage Road Improvements
- ① Floyd Hill
- ⚡ Curve Improvements
- ② Idaho Springs
- ⋯ Advanced Guideway System (AGS)
- ③ Bakerville
- Auxiliary Lanes
- ④ Herman gulch
- Providing Six Lane Highway Capacity
- ⑤ Dowd Canyon
- New Tunnel – Location and Size TBD
- ⑥ Post Boulevard
- ◆ Interchange Improvements
- ⑦ Chief Hosa
- Locations Specified in Specific Highway Improvements

Note: Non-Infrastructure components are included in both Programs.



SPECIFIC HIGHWAY IMPROVEMENTS + "OTHER" HIGHWAY IMPROVEMENTS +  
 ADVANCED GUIDEWAY SYSTEM + NON-INFRASTRUCTURE COMPONENTS  
 = MINIMUM PROGRAM

MINIMUM PROGRAM + ADDITIONAL HIGHWAY CAPACITY IMPROVEMENTS =  
 MAXIMUM PROGRAM

## Traffic and Revenue Study Process-

### I -70 Mountain Corridor 6-17-13

The Traffic and Revenue Study (T&R) is being conducted to evaluate the technical and financial feasibility of the recommendations included in the Record of Decision (ROD) for the I-70 Mountain Corridor. The study includes a two-tiered process, Level 1 and Level 2 Screening (please see attached graphic).

The process reduces the range of financially feasible options for improvements to I-70 to a set of Candidate Options that best meet performance measures related to the Core Values and the Critical Success Factors. Those options that best meet study objectives can be carried forward into Level 3; NEPA processes and an Investment Grade Study..

The I-70 Mountain Corridor CSS process also includes establishing Critical Success Factors. Using community values established by the PLT and project team, Critical Success Factors were developed to guide the development of alternatives and establishment of the project evaluation criteria by the Technical Teams. The DRAFT Critical Success Factors for the Traffic and Revenue Study are listed below:

- Provide a multimodal, financially feasible solution that is consistent with the Record of Decision
- Maintain the collaboration and communication successes of recent projects
- Balance the needs of capacity and safety improvements with the least impacts
- Get the most robust, reliable, and defensible data collection set, consistent with previous studies
- Reconcile any differences between data collection set and previous studies
- Develop a realistic picture of all of the options
- Provide validation of the options
- Develop and utilize a consistent set of assumptions for all options

**LEVEL 1 STUDY (previously known as “Sketch level”)-** Current options under consideration by the Colorado of Department of Transportation will be evaluated in the Level 1 Study . “Broad-brush” analyses will be performed on variations of the Minimum and Maximum Program, the 2 and 3 lane reversible, multimodal express lane options under consideration by CDOT as well as new options recommended by the Project Team, in concert with the Project Leadership Team. These options under consideration will be screened against the Level 1 evaluation criteria.

The Level 1 evaluation criteria will be more qualitative in nature and will be derived from corridor specific critical issues related to the Core Values and the Critical Success Factors. The I-70 Mountain Corridor has established Core Values, in addition to the established values, the Project team in concert with the Project Leadership Team may establish additional Core Values, relative to the specific study. The values are used to guide the future development of the I-70 Mountain Corridor and include:

|   |                         |
|---|-------------------------|
| Safety  | Decision Making Process |
| Mobility                                      | Community               |
| Constructability                              | Historic Context        |
| Engineering Criteria and Aesthetic Guidelines | Healthy Community       |
| Sustainability                                |                         |

Critical issues specific to the Core Values are problems specific to the Corridor and related to the study objectives. Once the issues are identified and agreed upon, we can measure the ability of the current options under consideration to address these issues utilizing performance measures or measures of effectiveness related to project evaluation criteria.

The evaluation criteria and measures of effectiveness will be devised by the Project Team and the Technical Team. There will be two sets of measures related to a singular evaluation criterion, one for use at Level 1 and one for use at Level 2. The basis for Level 1 screening decisions will be the criteria developed for this project and the measures of effectiveness selected for each of the evaluation criteria.

At Level 1 only very limited engineering and readily-available data are used to address each of the evaluation criteria and measures of effectiveness. Only those criteria and measures that identify differences between the options are used to make screening decisions. Because this is a “Traffic and Revenue” Study, financial feasibility for the project to pay for itself, is of paramount importance. Therefore, any option which cannot pay for itself will not be forwarded to Level 2.

After Level 1 screening only those options, which perform best by showing advantages in meeting criteria, will be analyzed in greater detail in the Level 2 Study. Results of this Level 1 Study will identify “Candidate Corridor Options” for further analysis.

**LEVEL 2 STUDY**-Candidate Corridor options will undergo a “Level 2 Study”. These remaining options will be analyzed, evaluated and compared to each other using a more detailed level of analysis and using more defined measures of effectiveness related to the project evaluation criteria. Evaluation criteria does not change between Level 1 and Level 2, however the measures of effectiveness will change and rely on more detailed data. Updated data will be used to perform analyses that are more extensive, including modeling the remaining options.

This analysis and screening will consider modes; time of day travel, seasonal variations etc. and will includes extensive modeling. The Level 2 Study will include an analysis of the forces of pricing along the study corridor, and a specific understanding of toll revenue streams and traffic composition. Another important component of the Level 2 Study is an understanding of the sensitivity of pricing factors such as the differences in seasonal value of time for travelers (if any), and the perceived value

of time for different trip types. The overall T&R Study will conclude with the reporting of the Level 2 Traffic and Revenue results, with a comparison to the overall costs (both capital and operations and maintenance) and other measures of effectiveness using the evaluation criteria. The T&R Study will conclude with the reporting of the Level 2 results and will include recommendations to advance the candidate options that best meet study objectives into Level 3; Tier 2 NEPA processes and (Investment Grade) Study.

### **BASIC TOLLING OPTIONS FOR STUDY (other options TBD)**

- Minimum Program of improvements
  - 55 mph design speeds
  - 65 mph design speeds
- Maximum Program of improvements
  - 55 mph design speeds
  - 65 mph design speeds
- Existing 4-lane facility (all-tolled to assess available potential revenues only)
- Reversible Express lanes
  - 2 lanes additional
    - 55 mph design speed for free lanes, 65 mph for express lanes
    - 65 mph design speed for free lanes, 65 mph for express lanes
  - 3 lanes additional
    - 55 mph design speed for free lanes, 65 mph for express lanes
    - 65 mph design speed for free lanes, 65 mph for express lanes

# Welcome

I 70 Traffic and Revenue Study

Project Leadership Team

Meeting #3

June 26, 2013



# Agenda

- **Introductions**
- **Agenda Items for Next PLT Meetings**
- **Ratification of Context Overview**
- **Review and Ratification of Critical Success Factors**
- **Review and Ratification of Core Values & Critical Issues**



# Agenda

- **Review and Ratification of Alternative Screening Methodology**
- **Review of T&R Level 1 Options**
- **Discussion of Technical Team Make up**
- **Next Steps**



# Agenda for Next PLT/TT Meetings

## July 24 PLT Meeting

- Review of Roles & Responsibilities of Technical Team
- Review and Ratification of Alternatives/Options to be evaluated
- Review of Initial Performance Measures, Level 1 and Level 2 (in concert with Berger and Technical Team)
- Presentation of T&R Schedule Milestones



# Agenda for Next PLT/TT Meetings

## July 24 Technical Team Meeting

- Review of Roles & Responsibilities of Technical Team
- Review of CSS Process
- Review of Context Statement, Core Values, Critical Issues
- Review of Draft Level 1 and Level 2 Performance Measures
- Review of Alternatives/Options to be evaluated
- Review of Consultants Scopes of Work
- Discussion of T&R Schedule Milestones
- Review of Roles & Responsibilities of Technical Team



# Agenda for Next PLT/TT Meetings

- **28 August No PLT Meeting**
- **28 August Technical Team Meeting**
- T&R Study Update
- Review of Data and Assumptions to be used in Level 1 screening
- Review and Status Update on Schedule and Critical Milestones for PLT and TT
- TBD



# Ratification of Context Overview

- The I-70 Mountain Corridor is Colorado's only east-west interstate and the primary access route from Denver to the commercial and recreational destinations of the Colorado mountains.
- Current I-70 roadway geometry is constrained, with narrow shoulders and tight curves resulting in decreased safety, mobility, accessibility and capacity for travelers.
- Traditional funding sources are not adequate to construct the minimum or maximum programs identified in the I-70 Mountain Corridor PEIS Record of Decision.
- To advance multimodal facilities that address transportation needs while respecting the unique communities and environmental resources of the corridor, CDOT must identify non-traditional funding programs that could include express lanes.
- Sound decision-making requires the consistent application of industry standard traffic, impact and cost data across all potential programs.
- All build scenarios will impact narrow mountain valleys where the Interstate is tightly bound by topographic constraints including creeks, which support recreation and supplies drinking water to the Region and the corridor bisects some of Colorado's oldest heritage communities. Travel through the area provides scenic vistas of Colorado Rockies and the Continental Divide.



# Review and Ratification of Critical Success Factors

- Provide a multimodal, financially feasible solution that is consistent with the Record of Decision
- Maintain the collaboration and communication successes of recent projects
- Balance the needs of capacity and safety improvements with the least impacts
- Get the most robust, reliable, and defensible data collection set, consistent with previous studies
- Reconcile any differences between data collection set and previous studies
- Develop a realistic picture of all of the options
- Provide validation of the options
- Develop and utilize a consistent set of assumptions for all options



# Review and Ratification of Core Values

## Core Values

- Safety
- Decision Making Process
- Mobility
- Community
- Constructability
- Historic Context
- Engineering Criteria and Aesthetic Guidelines
- Healthy Community
- Sustainability



# Review and Ratification of Core Values and Critical Issues

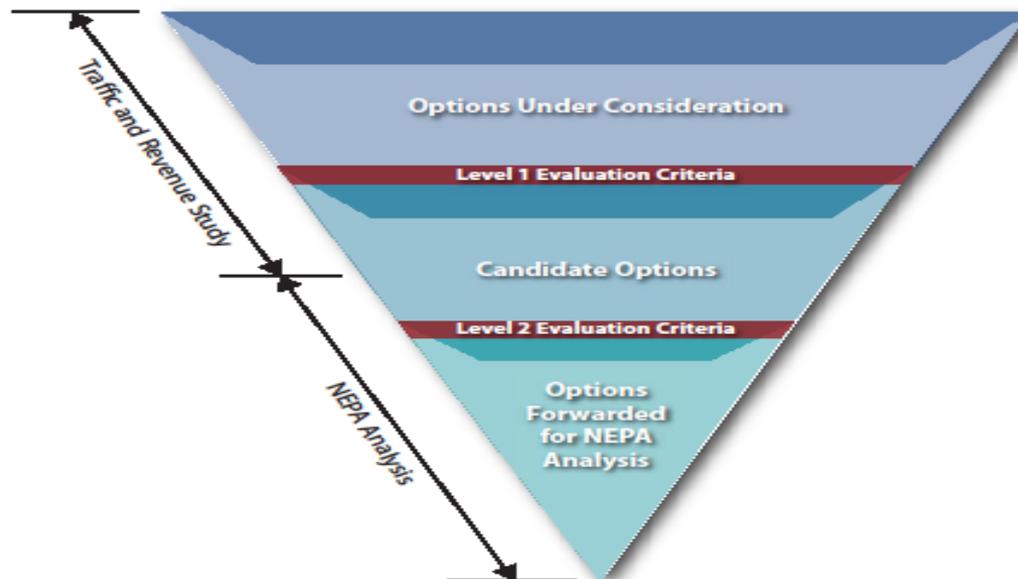
| Core Values                                      | Critical Issues   |
|--|---|
| Safety   | Safe Traffic Operations<br>Emergency Response             |
| Mobility   | Travel Time Reliability<br>Slow Moving Vehicles           |
| Constructability                                 | Funding<br>Operations and Maintenance                     |
| Engineering Criteria and<br>Aesthetic Guidelines | Aesthetics<br>Adherence to Accepted Road Design Standards |
| Sustainability                                   | Preserve Future Transportation Options                    |
| Decision Making Process                          | CSS Guidance<br>Enhance Community Values                  |
| Community  | Stakeholder Support<br>Public Acceptance                  |
| Historic Context                                 | Preservation of Historic Elements                         |
| Healthy Environment                              | Environmental Sensitivity<br>Address Past Damage          |

# Review and Ratification of Alternative Screening Methodology

- Study includes a two-tiered process, Level 1 and Level 2 Screening



## I-70 Mountain Corridor Draft Traffic and Revenue Screening Process



### Options Under Consideration

- Minimum Improvements (55/65)
- Maximum Improvements (55/65)
- 2 Lane Reversible Lanes
- 3 Lane Reversible Lanes
- Toll All Existing Lanes
- Other

# Review and Ratification of Alternative Screening Methodology

- This process will reduce the range of financially feasible options for improvements to I-70
- Resulting in Candidate Options that best meet measures related to the **Core Values** and the **Critical Success Factors**.



# Review and Ratification of Core Values

## Core Values

- Safety
- Decision Making Process
- Mobility
- Community
- Constructability
- Historic Context
- Engineering Criteria and Aesthetic Guidelines
- Healthy Community
- Sustainability



# Review and Ratification of Alternative Screening Methodology

## Critical Success Factors

The Project Team will use agreed upon  
Critical Success Factors to measure the  
ideas and Options Under Consideration

# Critical Success Factors

- Provide a multimodal, financially feasible solution that is consistent with the Record of Decision
- Maintain the collaboration and communication successes of recent projects
- Balance the needs of capacity and safety improvements with the least impacts
- Get the most robust, reliable, and defensible data collection set, consistent with previous studies
- Reconcile any differences between data collection set and previous studies
- Develop a realistic picture of all of the options
- Provide validation of the options
- Develop and utilize a consistent set of assumptions for all options



# Review of Draft Core Values and Critical Issues

| Core Values                                   | Critical Issues   | Project Criteria | Performance Measures |
|---|---|------------------|----------------------|
| Safety  | Safe Traffic Operations<br>Emergency Response   |                  |                      |
| Mobility                                      | Travel Time Reliability<br>Slow Moving Vehicles                                       |                  |                      |
| Constructability                              | Funding<br>Operations and Maintenance   |                  |                      |
| Engineering Criteria and Aesthetic Guidelines | I-70 Mountain Aesthetic Guidelines<br>Adherence to Accepted Roadway Design Guidelines |                  |                      |
| Sustainability                                | Preserve<br>Future Transportation Options   |                  |                      |
| Decision Making Process                       | CSS Guidance<br>Enhance Community Values  |                  |                      |
| Community                                     | Stakeholder Support<br>Public Acceptance  |                  |                      |
| Historic Context                              | Preservation of Historic Elements   |                  |                      |
| Healthy Environment                           | Address past damage<br>Environmental Sensitivity                                      |                  |                      |

# Review of Draft Core Values and Critical Issues

| Core Values                                   | Critical Issues   | Project Criteria   | Performance Measures |
|---|---|--|----------------------|
| Safety  | Safe Traffic Operations<br>Emergency Response   | Improve Emergency response<br>Reduction of hazardous Locations                 |                      |
| Mobility                                      | Travel Time Reliability<br>Slow Moving Vehicles                                       | Improve Multi-Modal options<br>Improve Reliability                             |                      |
| Constructability                              | Funding<br>Operations and Maintenance   | Financial Feasibility  |                      |
| Engineering Criteria and Aesthetic Guidelines | I-70 Mountain Aesthetic Guidelines<br>Adherence to Accepted Roadway Design Guidelines |  |                      |
| Sustainability                                | Preserve<br>Future Transportation Options   | Consistency with Engineering Criteria<br>Consistency with Aesthetic Guidelines |                      |
| Decision Making Process                       | Enhance Community Values  |  |                      |
| Community                                     | Stakeholder Support<br>Public Acceptance  | Local Regional National Engagement<br>Public Acceptance<br>Ability to enhance  |                      |
| Historic Context                              | Preservation of Historic Elements   |  |                      |
| Healthy Environment                           | Address past damage<br>Environmental Sensitivity                                      | Ability to mitigate  |                      |

# Review and Ratification of Alternative Screening Methodology

- There will be two sets of measures related to a singular evaluation criterion, one for use at Level 1 and one for use at Level 2.
- The Level 1 evaluation criteria will be more qualitative in nature and will be derived from corridor specific critical issues related to the Core Values and the Critical Success Factors.



# Review and Ratification of Alternative Screening Methodology

- At Level 1 only very limited engineering and readily-available data are used
- Only those criteria and measures that identify differences between the options are used to make screening decisions.
- Financial feasibility is of paramount importance. Therefore, any option which cannot pay for itself will not be forwarded to Level 2.



# Review and Ratification of Alternative Screening Methodology

## LEVEL 2 STUDY-

- Candidate Corridor options will be analyzed, evaluated and compared to each other.
- A more detailed level of analysis and more defined measures of effectiveness will be used
- Updated data will be used to perform analyses that are more extensive, including modeling the remaining options



# Review and Ratification of Alternative Screening Methodology

- The Level 2 Study will include an analysis of the forces of pricing along the study corridor, and a specific understanding of toll revenue streams and traffic composition.
- Level 2 Study also examines is the sensitivity of pricing factors including seasonal value of time for travelers and the perceived value of time for different trips



# Review and Ratification of Alternative Screening Methodology

Level 2 results will include recommendations to advance the candidate options that best meet study objectives into Level 3; NEPA processes and (Investment Grade) Study.

# Review of T&R Level 1 Options

- Minimum Program of improvements
  - 55 mph design speeds
  - 65 mph design speeds
- Maximum Program of improvements
  - 55 mph design speeds
  - 65 mph design speeds
- Existing 4-lane facility (all-tolled to assess available potential revenues only)
- Reversible Express lanes
  - 2 lanes additional
    - 55 mph design speed for free lanes, 65 mph for express lanes
    - 65 mph design speed for free lanes, 65 mph for express lanes
  - 3 lanes additional
    - 55 mph design speed for free lanes, 65 mph for express lanes
    - 65 mph design speed for free lanes, 65 mph for express lanes



# Review of Technical Team Make-Up

- Environmental Group Coping danny katz
- Trucking Industry CMCA
- Emergency Providers
- CDOT Traffic Engineer Zane???
- CDOT modeler Erik sabine or DRCOG
- Forest Service carol kruse
- SWEEP/ALIVE/106
- Ski Industry



# Next Steps

- Convene Technical Team
- Identify Performance Measures

