



# I-25 Central PEL

## MEETING SUMMARY

### Stakeholder Focus Group Meeting #4

Location: CDOT, 2829 W Howard Place (Auditorium)

Date/Time: Thursday, November 14, 2019 / 5:30 p.m. - 7:30 p.m.

#### SFG Members

Miguel Aguilar, RTD

Chad Ashley, Denver Aquarium

Tim Boers, Highland United Neighbors

Erik Carlson, Foster Graham

Lee Cryer, RTD

Aldo Delpiccolo, CEI

Jim Graebner, Union Station Advocates

Jeanne Granville, Sun Valley Community Coalition

Michael Guiietz, Jefferson Park United Neighbors

Jon Handwork, Denver Children's Museum

Steve Harley, Baker Historic Neighborhood Association

Mike Hughes, West Corridor TMA

Andrew Iltis, Downtown Denver Partnership

Danny Katz, CoPIRG

Dave Keough, La Alma / Lincoln Park Neighborhood Association

Jill Locantore, WalkDenver

Tim Lopez, Baker Historic Neighborhood Association

Maureen McCanna, Valverde Neighborhood Association

Carl Meese, Auraria Campus

Tracy Sakaguchi, CMCA

David Shah, West Colfax BID

Jack Tone, LoDo Neighborhood Association

Austin Zillis, Denver Broncos

#### Project Team Members/Agency Representatives

Jamie Archambeau, Atkins

Jonathan Bartsch, CDR Associates

Sean Brewer, CDOT

Austin Curry, CDOT

Chris Enright, CDOT

Karen Good, City and County of Denver

Stephen Harris, Atkins

Jay Hendrickson, CDOT

Jason Longsdorf, HDR

Devin Louie, Atkins

Joann Mattson, CDOT

Jessica Myklebust, CDOT

Bruce Naylor, CDOT

Chau Nguyen, HDR

Chris Primus, HDR

Tamara Rollison, CDOT

Paul Scherner, CDOT

Steve Sherman, CDOT

Emily Zmak, CDR Associates

## Meeting Summary

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The following summary was developed based on the agenda and general discussions held at the table sessions following the introductory presentation. Attachments to this summary include: agenda, presentation, sign-in sheet, alternatives overview.

### Welcome and Introductions

Jonathan Bartsch, Project Team, opened the meeting and welcomed the SFG to their fourth and final meeting. Jonathan reviewed the objectives and agenda for the meeting, explained how the table sessions would provide in-depth information following the presentation, and thanked the attendees for their participation. He prompted each SFG and project team member to introduce themselves and their affiliation.

### Project Review and Update

Steve Sherman, CDOT Project Manager for the I-25 Central PEL (the Study), provided an update on the Study, including its public involvement, the Level 3 evaluation process, and recent media attention.

### Public Involvement Update

Steve Sherman briefed the SFG on the breadth of public input received. Approximately 1,452 survey responses, 110 web or written comments, and the 50 SFG members provided feedback and were involved over the course of the Study.

### Level 3 Alternatives Evaluation Process

Steve Sherman provided the SFG with an overview of the evaluation process and noted that, to-date, the SFG members and public had seen the results of the Level 1 and Level 2 evaluations. The purpose of this final SFG meeting was to review the results of the Level 3 evaluation. The Level 3 evaluation examines quantitative data and qualitative discussion to answer the question: "Does the alternative address the needs, goals, and objectives to a satisfactory level and balance trade-offs?" Steve noted that all three levels of evaluation will inform the Study's Action Plan which will guide the development of future projects and help prepare for future National Environmental Policy Act (NEPA) studies.

In the Level 3 evaluation, four representative alternatives were evaluated which each included a different combination of improvements identified in the previous levels of evaluation. The four alternatives included:

1. **No Action:** Baseline condition, no improvements to I-25 Central beyond standard maintenance
2. **Bring the Corridor to Standard:** includes adding/improving shoulders, smoothing curves, adding/improving acceleration and deceleration lanes, improving sight distances, and improving on- and off-ramp spacing through the elimination of access at 8th Avenue and 17th Avenue

3. **Braided Ramps and Collector/Distributor Roads:** includes the engineering improvements proposed in the Bring the Corridor to Standard alternative (excluding the access closures) with the addition of parallel collector/distributor roads and braided ramps to accommodate traffic entering and exiting the highway
4. **Managed Lanes:** includes the engineering improvements proposed in the Bring the Corridor to Standard alternative (including the eliminated access) with the addition of one managed lane in each direction and direct connections at select locations

In addition to these four representative alternatives, there are still some additional opportunities for improvements which will be evaluated in future studies including congestion pricing; operations and demand management; new transit facilities; shoulder lane use; and lane conversion, as well as segment-specific opportunities to realign and splitting the corridor, construct a multi-level highway, and realign the highway adjacent to RTD.

### Recent Media Attention

One SFG member asked for an update about CDOT's interest in and bid to purchase Burnham Yard—a former train facility along the corridor near the 10th & Osage RTD light rail station—and its potential impacts to the PEL Study. Steve Sherman informed the group that CDOT was proceeding with negotiations to purchase the Yard and had requested the budget from state legislature in SB 267. At this time, there are no impacts to the PEL Study.

### **Alternatives Evaluation and Results**

Devin Louie, Project Team, presented traffic data that informed the Level 3 evaluation to the SFG. Key findings included:

- **Safety:** All three alternatives are anticipated to reduce the number of crashes as compared to the No Action Alternative. In some cases, this can be by as much as a 50 percent reduction.
- **Congestion:** No single alternative provided a clear answer to congestion and operations. All have advantages and disadvantages to highway congestion, the local roadway network, and future flexibility.
- **Travel Time Reliability:** Managed lanes provided large travel time improvements through the Study area and would provide an option for a reliable travel time.
- **Local Roadway Network:** All three alternatives reduced volumes on parallel routes as compared to the No Action Alternative. Braided Ramps and CD Roads resulted in the greatest volume reduction on the local network.

### Multi-Modal Connectivity Analysis

Jason Longsdorf, Project Team, presented on documentation showing already planned improvements and potential new crossings of the highway. It was recognized that while some existing crossings do permit bicycle and pedestrian traffic, many of these crossings are not appealing and/or safe for nonvehicular travel.

Lee Cryer, RTD, recommended modifying the connectivity analysis to include the W-Line Light Rail crossing and specifically call-out bridges used by transit vehicles.

## Impact to the Surrounding Environment

Jason Longsdorf discussed the potential impacts of the three alternatives. PEL-level findings included:

- No Action: no impact
- Bring the Corridor to Standard: least impact (10 to 15 acres)
- Braided Ramps and CD Roads: more impact (35 to 45 acres)
- Managed Lanes: more impact (30 to 40 acres)

The location and magnitude of impacts will be determined during future studies.

## Sensitivity Analysis

In addition to evaluating the identified alternatives, the Project Team also undertook a series of additional analyses to dive deeper into specific topics that were of key interest to study stakeholders. These are referred to as “Sensitivity Analyses” and were the way in which additional “what if” scenarios were analyzed. The Sensitivity Analyses included:

- **Additional Land Use:** This analysis examined how much additional travel demand could come if large development areas near the I-25 Central corridor were to fully build out. These development areas include I-25 and Broadway Station, Burnham Yard, Sun Valley, the Stadium District, River Mile, RINO, and 41<sup>st</sup> and Fox. Only a portion of this growth is captured in the quantitative analysis efforts used for the Level 3 evaluation due to regulations surrounding how future travel demand must be forecasted. This sensitivity analysis allows the study to examine what might happen if additional growth, beyond what is officially forecasted, were to come to fruition.
- **Additional Transit Ridership:** This analysis, which was presented and discussed at previous SFG meetings, examined how many vehicular trips could be removed from I-25 Central if improvements to the surrounding public transit network were made. The results of this analysis show that, although improvements to the transit network would remove some vehicle trips from I-25, the order of magnitude would not be enough to reduce the need to provide improvements to the highway.
- **Connected and Autonomous Vehicles:** This analysis examined the potential impacts connected and autonomous vehicles (CAVs) could have on the freeway. Specifically, this sensitivity analysis tried to answer the question, “Could CAVs provide enough benefit to change the need for improvements on I-25 Central?” The results of the CAV sensitivity analysis show that it would require a relatively high rate of CAV adoption (about 75 percent of all vehicles on I-25) to achieve notable gains (about 15 percent) in capacity and operations.

## **Table Sessions**

Following the presentation, SFG members split into small groups to engage with the Project Team on three topics: Traffic and Safety; Potential Community Benefits and Impacts; and Engineering Feasibility and Potential Implementation Options. The three tables rotated after 15 minutes of presentation and Q&A. There was an additional feedback table for comments.

- **Traffic and Safety:** Devin Louie, Project Team, facilitated discussion of the traffic models, safety analysis, and process of understanding trade-offs between alternatives. SFG discussion included:
  - There are safety implications of speeding up and slowing down. For the PEL study, this is captured in both a quantitative way—through the safety analysis— and in a qualitative way. Both will be documented in the final PEL report. Additional safety analysis will be completed in future NEPA studies.
  - Alternatives evaluated in Level 3 were created to provide different combinations of improvements so a variety of options could be tested. Some presume closures or limitations of access at certain locations. All assumptions used to model these alternatives will be detailed in the final PEL report.
  - The traffic models and forecasted traffic demand are based on the most current likely scenario given existing population growth and policy direction. They do not account for potential future policy shifts, such as parking reductions, congestion pricing, and mode-share and mode-change incentives. If a major policy shift were to occur in the future that significantly changed travel choices, then the traffic forecasts and traffic analysis would need to be revised.
  - The Managed Lane alternative would allow for potential use by transit vehicles; however, RTD does not see I-25 Central as a priority area for future use at this time.
  - The traffic analysis results show that making improvements to I-25 will pull more traffic to the highway and off the local roadway network. However, it is also understood that the reduction in traffic on the local roadway network will likely be at least partially offset by other traffic moving to those facilities as a result of reduced congestion.
  - For the PEL, it was assumed that any managed lanes added to the corridor would include an HOV aspect. This could promote an increase in ridesharing.
  - The safety analysis completed as part of the PEL focused on the mainline freeway and ramps. It did not extend to the local roadway network. Future studies will examine site-specific safety considerations, such as at ramp-terminals where bicycle and pedestrian traffic must cross vehicle traffic.
  - Future traffic projections are based on the Denver Regional Council of Governments (DRCOG) data, which uses demographic data from the State Demographer's office to estimate future growth for the Denver Metro area. Use of these projections is a Federal requirement for NEPA studies and was therefore also used for this PEL study to ensure compatibility.
  
- **Potential Community Benefits and Impacts:** Jason Longsdorf, Project Team, facilitated discussion of cross-connectivity, right-of-way impacts, and sensitivity analyses completed as part of the Study. SFG discussion included:
  - The congestion of the No Action alternative will likely create more air pollution and increased noise impacts.
  - Projects moving forward that were originally identified in the Valley Highway Environmental Impact Statement (EIS) or tied to improvements that were identified in the EIS will have their impacts fully evaluated as part of that study.
  - Realignment of the highway would result in major property impacts.

- Multimodal crossings in the Downtown Area Plan may have highway crossings represented in its plan that are not shown in CDOT's connectivity analysis.
  - There was interest in seeing the impacts of different alternatives on potential or existing multimodal crossings as a differentiator. For example, if managed lanes have ramp connections at Speer, would this further impede bicyclists and pedestrians? The I-25 facility is a major barrier, and the alternatives should mitigate it as best possible.
  - The Study assumes no significant mode-share and mode-shifts in its projections, which, while supported by current data, does not account for social and policy changes.
  - Development is occurring now and CDOT needs to be proactive in its response. Future development is included traffic projections and current development is a consideration in the PEL Study. The land-use sensitivity analysis is intended to capture additional growth, beyond what is already included the DRCOG projections.
  - The Collector/Distributor Roads and Braided Ramps alternative has greater property and land use impacts than other alternatives and are creates a larger barrier to other modes of transportation.
  - The 23<sup>rd</sup> Avenue and Speer Boulevard bridge improvements could preclude future highway improvements without consideration of the PEL vision and all alternatives.
  - The potential acquirement of Burnham Yard could influence the direction and sequencing of implementing the final recommendations of the PEL.
  - Environmental justice impacts should be fully considered when comparing alternatives.
- **Engineering Feasibility and Potential Implementation Options:** Steve Sherman, CDOT Project Manager, facilitated discussion of the engineering analysis completed to date and the project implementation and action plan. SFG discussion included:
    - The three alternatives could impact a range of acreage, depending on the solution applied to different segments of the highway.
    - The Collector/Distributor Roads and Braided Ramps alternative and Managed Lanes alternatives include all geometric deficiency upgrades as the Bring Corridor to Standard alternative. The primary difference between the Bring the Corridor to Standard alternative and the other two alternatives is how they address improving weave distances between interchanges and the accommodation of necessary acceleration and deceleration lanes. The Bring the Corridor to Standard alternative and Managed Lanes alternative address this issue through the closure of the 17<sup>th</sup> Avenue and 8<sup>th</sup> Avenue interchanges, while the Collector/Distributor Roads and Braided Ramps alternative adds collector/distributor roads, pulling the direct I-25 access onto a separate facility.
    - The 23<sup>rd</sup> Avenue and Speer Boulevard bridges will be replaced with a standard vertical clearance between I-25 and the bottom of the bridges. The environmental clearance process will commence after the PEL is finished, with the procurement of a designer.
    - It is anticipated that pieces of the various alternatives will be combined to address segment-specific challenges. However, additional analysis is needed to understand the benefits and impacts of such combinations. Within the northern part of the corridor, this analysis will occur during the environmental clearance phase of the 23<sup>rd</sup> Avenue and Speer Boulevard bridge replacement.

- Possible closures of accesses would require deeper analysis to understand the alternative routes traffic could use to access their destinations.
- Local neighborhood representatives expressed a desire to see the range of the potential highway's width as part of the alternatives' descriptions.
- Burnham Yard offers multiple potentialities that have not been analyzed nor considered in the study. Future evaluation would consider width of the corridor, noise concerns, and cross-connectivity. Burnham Yard requires funding before it could potentially proceed to NEPA.
- This study focused on the necessary connections and potential improvements to the highway. Future analysis would examine how the alternatives can be designed and constructed with minimal right-of-way acquisition.
- At this level of analysis, pedestrian access and cross-connectivity impacts or benefits of the Collector/Distributor Roads and Braided Ramps alternative have not been reviewed in detail but will be furthered analyzed in future studies.
- If the 8th Avenue and 17th Avenue accesses are closed, additional analysis will be required to determine possible temporary access solutions during special events.

### **Key Quantifiable Outcomes**

Steve Sherman summarized the presentation with a few key quantifiable outcomes, including:

- Geometric improvements common to all three alternatives provide a reduction in crashes and an opportunity to enhance crossings for pedestrians, bicycles, and local vehicular circulation.
- Improving on- and off-ramp locations via braided ramps and/or collector/distributor roads further improves safety.
- Managed lanes provide travel time reliability and additional through capacity.

### **Action Plan**

An action plan will identify individually beneficial projects and provide information on anticipated benefits, potential impacts, prerequisite projects or actions, partners and stakeholders, and potential funding sources. This will inform future determination of projects to move forward, NEPA analysis for individual or bundled projects, and final design and permitting.

### **Next Steps**

Steve Sherman updated the SFG on anticipated next steps. This included:

- Publication of the final PEL Study document in March 2020
- NEPA analysis and 30% design of 23<sup>rd</sup> Avenue and Speer Boulevard bridges
- Potential revival of the Valley Highway EIS analysis from Santa Fe to US 6/6<sup>th</sup> Avenue
- Completion of design and construction to replace the Alameda Bridge over the South Platte River

### **Moving Forward**

Jonathan Bartsch concluded the meeting with a review of the table sessions and asked if there were any remaining questions or thoughts.

- There were some questions about the potential impacts of direct connections between local roadway facilities and potential managed lanes. This was specifically regarding Colfax Avenue which the SFG noted was already congested. There was interest in further study of any future direct connection ramps to understand how they could affect circulation into and out of the downtown area.
- There was a discussion about how DRCOG forecasts future travel demand and how accurate these forecasts are. Chris Primus, project team, responded that the DRCOG forecasts, like any modeling effort, are a best guess at future conditions and likely do not perfectly predict what will happen. However, these forecasts are based on the best available information we have at this time and are the best tool we have to understand and plan for the future.
- SFG members expressed a desire clearer labels/names of alternatives. Specifically, they noted it would be helpful to call-out the fact that the Managed Lanes alternative proposes adding new lanes to the highway as opposed to converting existing lanes.

Jonathan Bartsch and Steve Sherman concluded the meeting and thanked the SFG members for their time commitment to the PEL study.