



FRPR

***F R O N T R A N G E
P A S S E N G E R
R A I L***



COLORADO
Department of Transportation

Segment Coalition Meeting

Central Segment

Denver, Colorado – April 29, 2020



Welcome

FRPR FRONT RANGE
PASSENGER RAIL

Zoom Instructions



Headphones



Video



Chat



Mute



Gallery View



Breakout Rooms

Interactive Poll

Does pineapple belong on pizza?

Agenda



- Welcome and introductions
- Agenda review and meeting purpose
- Project status
- Level 1 evaluation results
- Level 2 alternatives and evaluation
- Public involvement
- Next steps, thank you, and close

Meeting Purpose



The purpose of this meeting is to:

- Provide project update
- Response to COVID-19
- Discuss results of Level 1 Fatal Flaw Corridors Evaluation
- Introduce Level 2 Alternatives and refinement / evaluation process
- Solicit Coalition Members' ideas on Level 2 Alternatives' constraints, refinements, and criteria for comparisons

Project Status

COVID – Working through Uncertainty

- Remain committed to safety, quality and communication
- Maintain continuity of project work
- Stakeholder engagement while
 - Staying safe
 - Maintaining social distance
 - Keeping the project on task
- FRPR is part of Colorado's future
 - Can't stop planning, but now looking through a broader lens

Project Status

- Pleasantly productive during COVID quarantine
- Present Level 1 analysis and conclusions
- Introduce Level 2 alternatives and get input



Legislative Update



- Legislature reconvenes May 18
- Significant budget impacts from COVID 19
- Strategies for 2021 evolving
- Federal Stimulus packages
- Possible FAST ACT Reauthorization

Level 1 Evaluation Results

Evaluation Process

STEP 1

PROJECT INITIATION AND SCOPING

What do we want
Front Range
Passenger Rail to
be?

STEP 2

LEVEL 1 EVALUATION

What are the
possibilities for
corridors and
operations?

STEP 3

LEVEL 2 EVALUATION

How do alternatives
compare?

STEP 4

ADVANCE TO NEPA

Federally required
process to advance
major infrastructure
projects

STAKEHOLDER ENGAGEMENT AND GOVERNANCE



Vision Statement

Developing passenger rail that serves Front Range communities from Fort Collins to Pueblo is a critical component of Colorado's future. FRPR will provide a safe, efficient, and reliable transportation option for travel between major population centers and destinations along the Front Range and create a backbone for connecting and expanding rail and transit options in the state and region.



Range of Alternatives Considered

- No Action (best bus)
- Possible Rail Alternatives with focus on Existing Transportation Corridors
 - BNSF Rail Corridor
 - Union Pacific Rail Corridor/Great Western
 - BNSF/RTD North Metro (N Line) Corridor
 - I-25 Highway Corridor
 - I-25 / E470 Highway Corridor



Fatal Flaw Evaluation



- **Operational Characteristics**

- Serve 2045 population and employment centers
- Provide connections with other modes (existing or planned transit)



- **Community and Environmental Impacts**

- Severe community disruption
- Severe impacts to natural resources



- **Financial and Economic Factors**

- Potential to be cost-effective

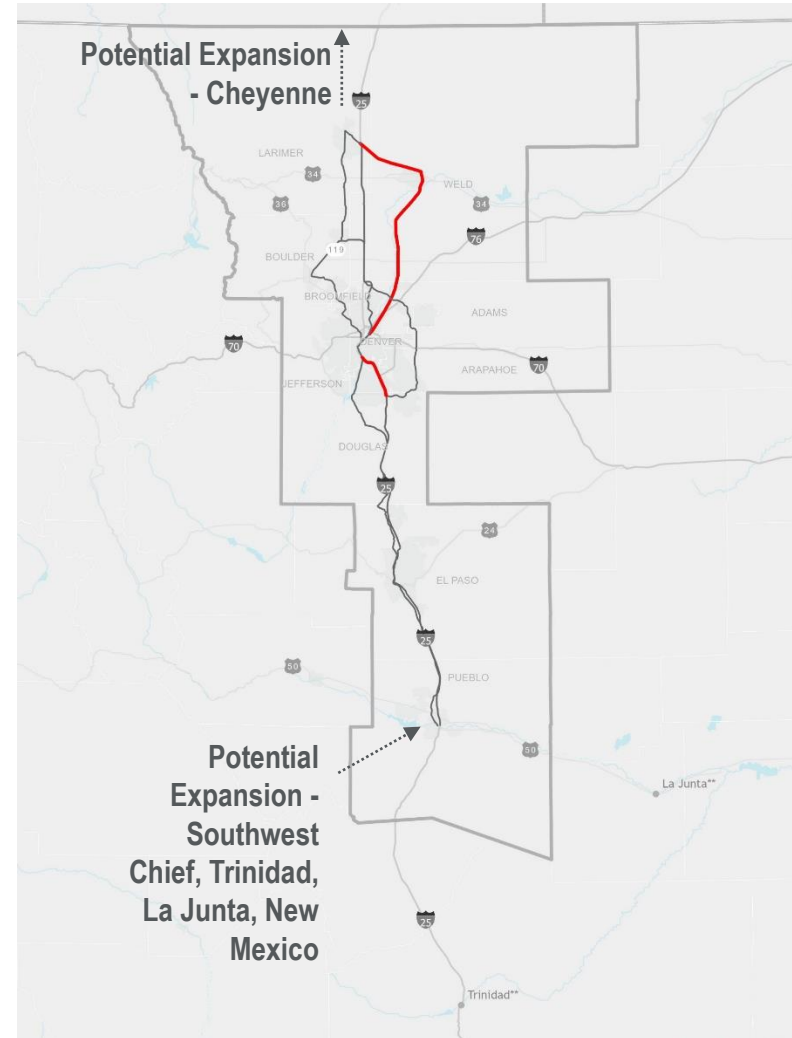


- **Feasibility and Implementation**

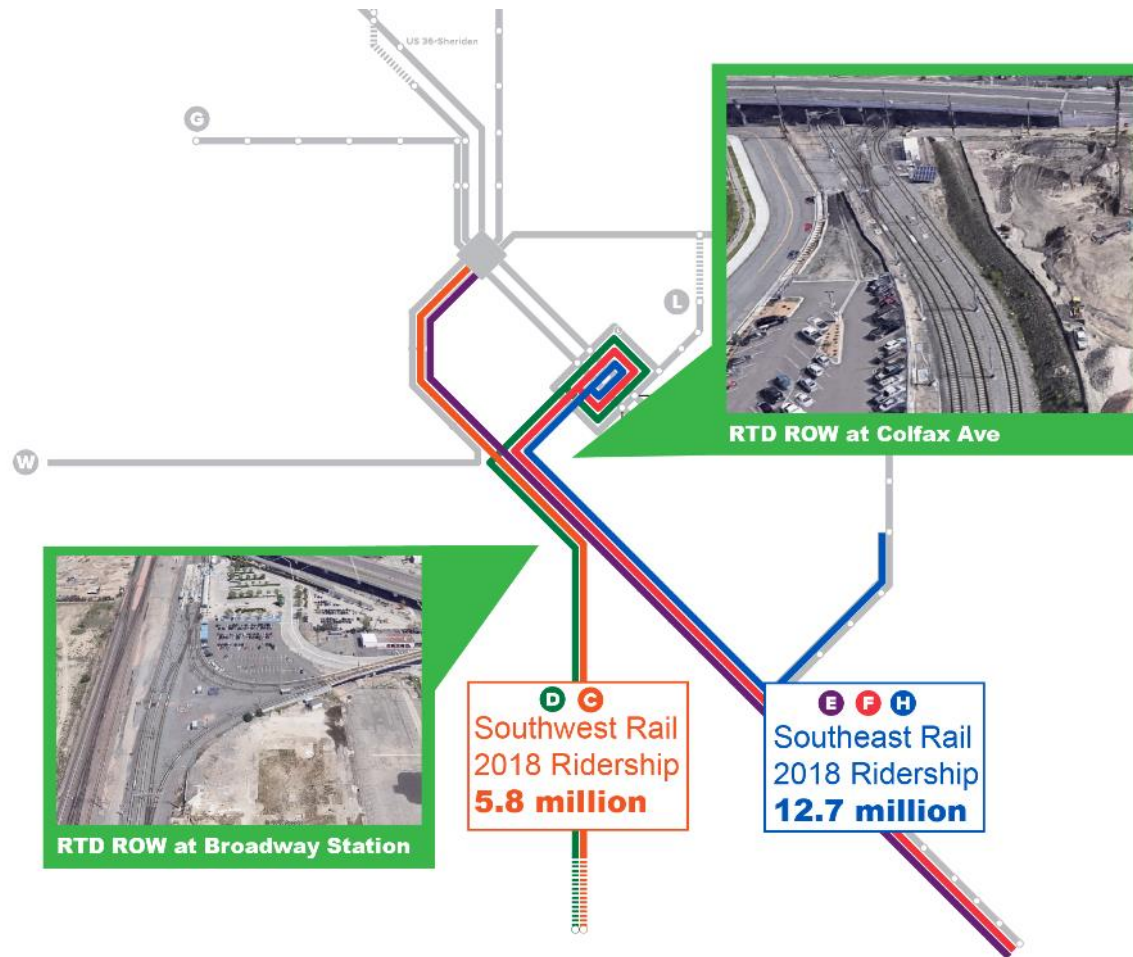
- Constructible
- Compatible with existing transportation uses
- Some level of support

Level 1 Results

- Two corridor segments eliminated for one or more fatal flaw
- The remaining carried forward for refinement
 - Constraints identified for each corridor and each segment
 - Constraints include limited rights-of-way, areas of capacity limitations, and geometric issues (curves)



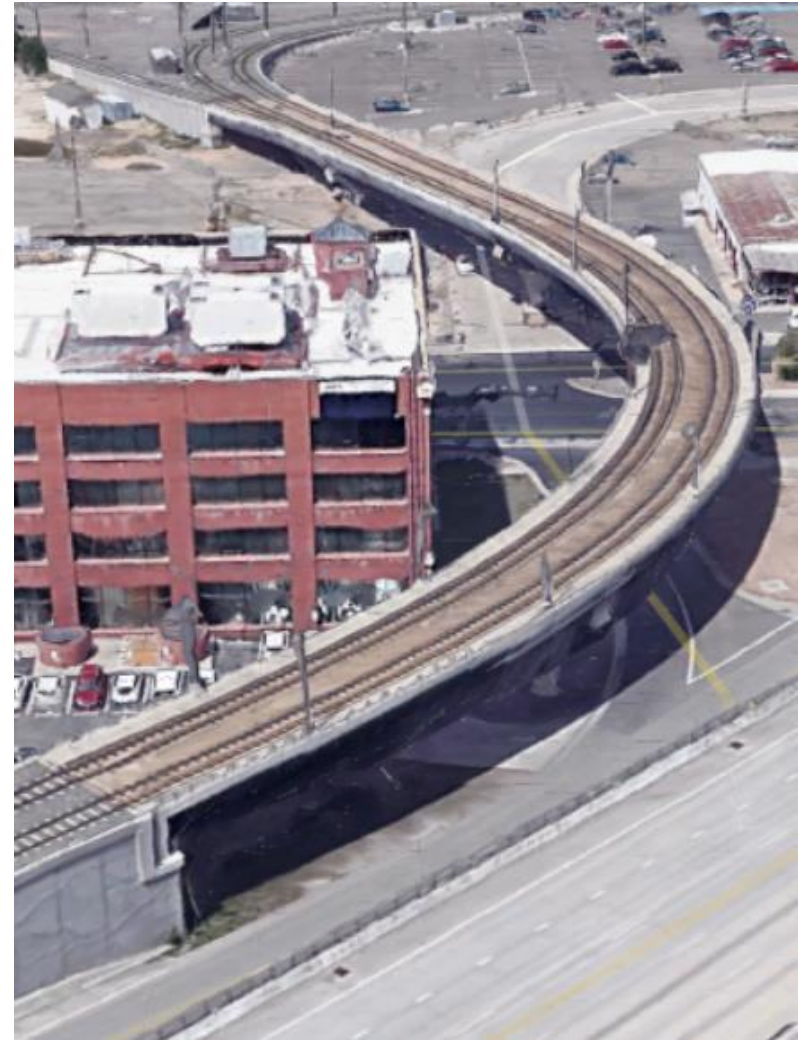
Eliminated: I-25 RTD LRT Retrofit



No available right-of-way | Severe community disruption | Interrupt RTD service for 6 years

Eliminated: I-25 RTD LRT Retrofit

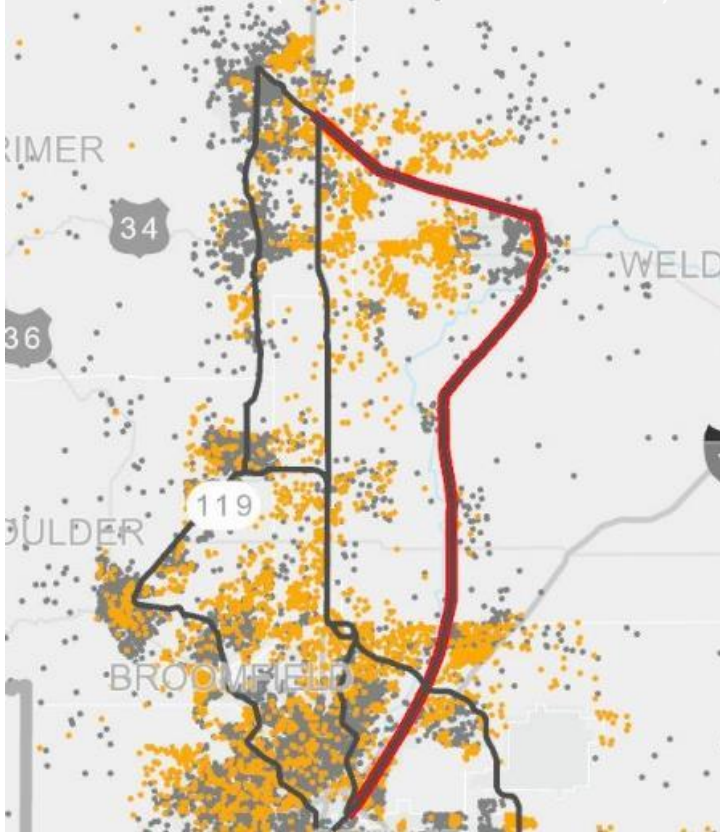
- 12 locations of vertical grades greater than 3 percent
 - Requires reconstruction
- 4 locations of horizontal clearance lower than 16 feet
 - Could potentially handle with design variance
- Platform modifications to accommodate wider vehicles (every station)
 - Modification to high-block structures for boarding for persons with disabilities
 - Gap/height difference at edge of platform needs hazard analysis



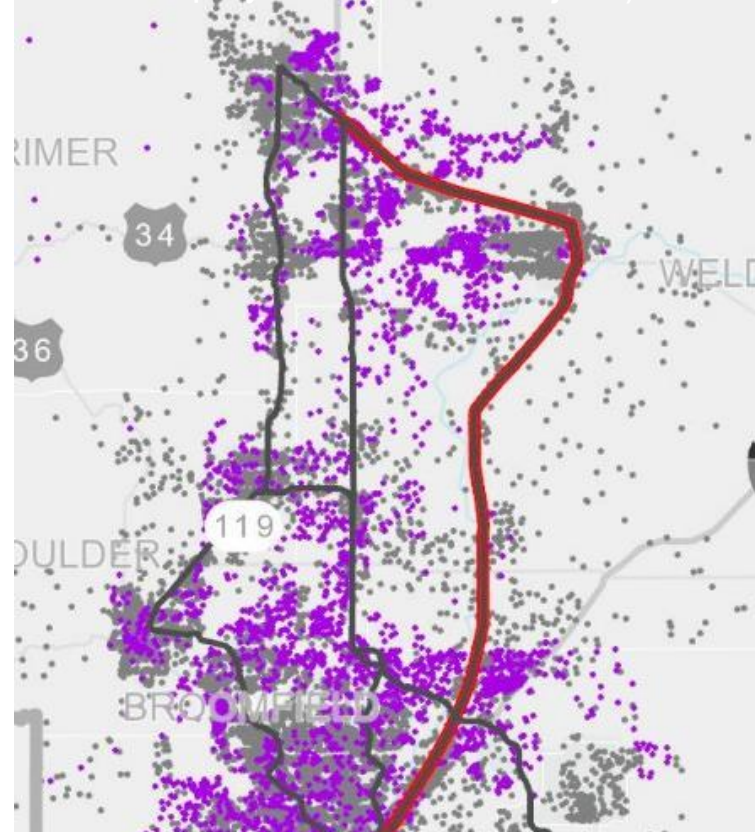
Eliminated: Union Pacific/Great Western

- Does not serve 2045 population or employment centers
- Does not provide backbone for connections with other modes
- Limited public support or benefit as a backbone alignment

Households (dot = 100 households)



Employment (dot = 100 jobs)



Level 2 Alternatives & Evaluation

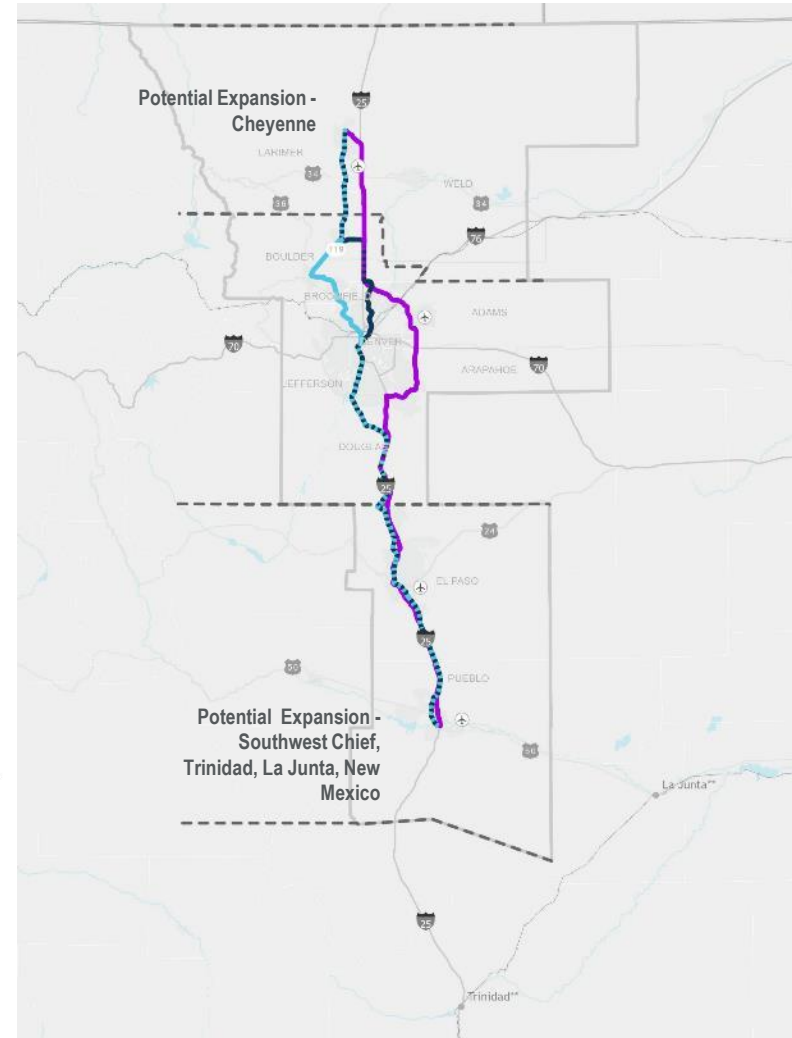
Alternatives Carried Forward for Level 2 Evaluation

- Nine potential corridors to mix and match
 - Two in the South Segment
 - Five in the Central Segment
 - Two in the North Segment
- Optimization and Refinement
 - Geometric refinements such as smoothing out curves
 - Understanding of highest activity station areas and how to connect them

- ✈ Airport
- Front Range Counties
- I-25/E-470 Highway Corridor
- BNSF Rail Corridor
- BNSF/RTD N Line Rail Corridor

*The State of Wyoming is examining potential passenger rail to Cheyenne and Wyoming (separate study)

**The Rail Commission is developing a feasibility study to extend Amtrak's Southwest Chief to Pueblo and Colorado Springs; additional studies may examine extensions to New Mexico (separate studies)



Criteria for Level 2 Evaluation

Operational Considerations	Community / Environmental Impacts	Economic Considerations	Feasibility / Implementation
▪ Travel Time ▪ Ridership ▪ Operating Speed ▪ Reduction in Vehicle Miles Traveled (VMT) ▪ Ability to Interconnect with Other Modes (Existing or Planned Transit) ▪ 2045 Population Served	▪ Community Disruption ▪ Utilities and Energy ▪ Air Quality ▪ Natural Environment ▪ Historic ▪ Hazardous Materials ▪ Recreational Resources ▪ Noise and Vibration	▪ Capital Cost ▪ Operating Cost ▪ Revenue Potential ▪ Cost Effectiveness ▪ Employment Centers	▪ Interaction with Freight Railroad Operations / ▪ Customer Access ▪ Ease of Implementation ▪ Constructability ▪ System Flexibility ▪ Public Support

Interactive Poll

Rate the **top three** most important operating characteristics for FRPR.

- Fare recovery (O&M costs)
- Ridership/maximize use and mode shift
- Reasonable total travel times
- Availability and cost of parking
- Station locations close to my origin and destination
- One seat ride/in vehicle travel times
- On board amenities, such as dining or Wi-Fi
- Other (e.g., schedule reliability, ease of purchasing tickets / assigned seat)

Discussion: Why are these the most important to you? (Raise hand in Zoom)

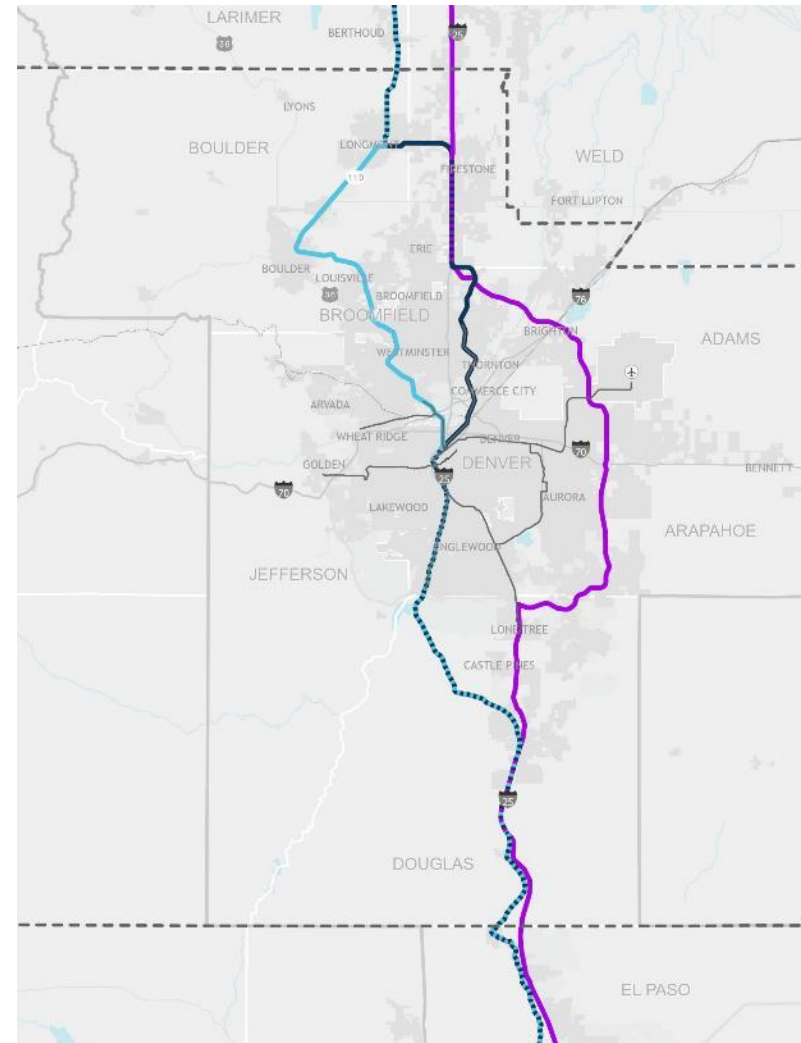
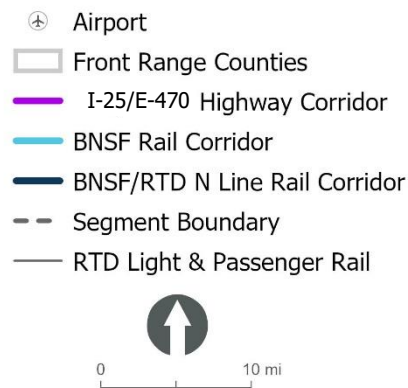
Level 2 Alternatives: Central Segment

- Castle Rock to Denver : I-25 to E470 (with transfer to RTD)
- Castle Rock to Denver : Freight corridor (US 85/RTD Southwest LRT) to Burnham Yard/Denver Union Station
- Denver to Longmont: RTD North Metro + I-25 corridor
- Denver to Longmont: BNSF corridor (through Boulder)
- Denver to Longmont: E470 + I-25 corridor



Central Segment Considerations for Refinements

- Constrained right-of-way and community impacts
- Access to major destinations and interactions with RTD, particularly from south
- Divergent routes to serve communities in north Denver metro
- Burnham Yard and Denver Union Station interaction and opportunities



Solo Work Questions (Central Segment)

Instructions:

- Check out the webinar chat box for a link to a questionnaire
- Copy the questionnaire link and paste in to a new browser window
- Answer the two questions over the next 15 minutes
- Recap of the results will be provided in the meeting summaries

How can we integrate with RTD to serve major destinations of DEN Airport, Denver Union Station, and the Denver Tech Center?

How fast is it reasonable for passenger rail to traverse established communities, particularly between Littleton to central Denver on the freight corridor?

Ridership – Preliminary Baseline Results

- Preliminary modeling has been completed for six baseline scenarios, five passenger rail scenarios and a best bus scenario
 - Results are favorable and have room for improvement
 - Ridership is expected to increase under all Rail Scenarios
 - Ridership may increase under Best Bus scenario also but not as much room for improvement
- Refinements will improve ridership
 - Engineering improvements to changes in horizontal and vertical geometry to increase speeds and travel times
 - Refinements to operating characteristics, such as improved connections or station locations
 - Mix and match best performing segments with hybrid corridors/alternatives
- Rail is projected to have higher ridership than bus
- Rail ridership projections (even these conservative early forecasts) compare favorably to existing passenger rail services around the United States.



Public Involvement

Public Involvement



- Why Public Involvement
- What's been done?
- Then: Pre-COVID Plan
- Now: COVID Impacts
- What are your Public Involvement interests?

Interactive Poll

Given COVID-19, how should we best proceed in your community with Public Involvement?

Closing

Next Steps



Summarize:

- Key meeting points
- Action items
- Next meeting

Thank You!



FRPR

***F R O N T R A N G E
P A S S E N G E R
R A I L***