Technical Working Group
November 15, 2017
Welcome and Introductions
Project Partners

- Regional Transportation District (RTD)
- Colorado Department of Transportation (CDOT)
- Denver Regional Council of Governments (DRCOG)
- City of Aurora
Meeting Purpose and Agenda
Meeting Purpose

- Update on activities and progress since the last meeting
- Present and gather feedback on preliminary center-running BRT recommendation
- Preview broad-based outreach process and community preference survey
- Review near-term RTD 15L improvements
Agenda

- Project update
- Preliminary recommendation of center-running BRT
- Community outreach and preference survey
- Near-term RTD 15L improvements
- Next steps and path forward
Project Update
GO Bond Election Results

- Referred Question 2A (Transportation & Mobility System) includes:
  - $55 million for Colfax BRT
  - $20 million for Colfax Corridor Improvements

- 2A passed with 75.1% in favor

- Funding secured for detailed design, initial implementation and matching federal funds
Corridor Development Timeline

Opportunity for Stakeholders and Public To Influence Project Design

- Broad Definition of Project
- Design Detail

Alternatives Analysis
- Locally Preferred Alternative
  - Definition of mode & alignment
  - Conceptual station locations
  - Operating plan
  - Local decision

Conceptual Design & Environmental Analysis
- 12-18 months
- Federal Transit Administration Project Development

Engineering & Design
- 18 months
- 18 months
- 18-24 months

Construction

Revenue Service
- Ongoing

We Are Here

- Concept Design & Environmental Clearances
  - Design detail determined
  - Environmental impacts identified
- Fully Designed and Funded Project
  - Design complete
  - Finance package

colfax corridor connections
Preliminary Recommendation of Center-Running BRT
Basis for Decision and Decision-Making Process

- Screening criteria/evaluation
- Technical requirements
- Community input:
  - Task Force
  - Technical Working Group
  - Broader public feedback

Factors influencing the decision

Technical Viability
Mobility Benefits
Community Values
## RESULTS SUMMARY

<table>
<thead>
<tr>
<th>Category</th>
<th>Side-Running</th>
<th>Center-Running</th>
<th>Key</th>
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<td>Ridership</td>
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<td>Construction Impact</td>
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<td>Agency + Community Support</td>
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<td>Overall Results</td>
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### Key

- **GOOD**
- **GOOD/FAIR**
- **FAIR**
- **FAIR/POOR**
- **POOR**
- **TBD**

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colfax corridor connections
Basis: Safety and Accessibility

- Island stations calm traffic
- Pedestrian refuges reduce crossing distance
- Shorter crossing distances = less exposure to vehicle traffic
- Eliminating unprotected lefts improves pedestrian, bicycle, and vehicular safety
- Station lighting enhances security
Center-running BRT results in an increase in daily person trips on Colfax of 14%.

Provides the greatest expansion capacity allowing neighborhoods and businesses to grow around reliable, high-capacity transit.
Basis: Investing in Transit Performance

- Ridership more than doubles to 50,000 daily rides by 2035
- Transit travel time improved by 15 minutes compared to future baseline
- Optimal reliability for surface running transit

In 2035:

- Up to 50,000 daily riders
- Access to 280,000 jobs
- Up to 15 minute travel time improvement

Future proofing from delay as land-use, traffic, and curb uses change
Basis: Building Vital Neighborhoods Around Transit

Opportunity for Street Trees

Unique lighting

Wider sidewalks

Attractive, vertical features distinguish street

Expanded Furniture Zone
Project Features: Street Design

EXCEPTIONS:

• Major arterial crossings w/ large truck turns
• Terminal locations

Pedestrian crossings at signalized crossings every 700’ or less

Left turn lanes at signalized intersections

Prioritize curb parking/loading and expanded sidewalks

Far-side of intersection stations

Center running way; median to vary in width
Project Features: Full Transit Stations

- High Quality Shelters
- Off Board Payment
- Line Level Branding
- Lighting and Security
- Public Art Features
- System Traveler Information
- Protection from Traffic
Project Features: Integrated Operations

All corridor buses use one set of stations between Yosemite and Civic Center.
Areas for Further Refinement

- Station Locations
- Branding
- Station Design
- Corridor Bus Operating Plan
- Curb Use and Mitigations
- Median Treatments
- Sidewalk Expansion & ADA Improvements
- Bike Facility Crossing
- Traffic Operations and Mitigations
Center-Running BRT: Community Outreach Process and Preference Survey
Community Outreach Process: Late 2017-Early 2018

- Traditional tools
  - Partner outreach
  - Roadshow presentations
  - Media relations
  - Digital engagement

- Innovative outreach
  - Office hours
  - Pop-up events
  - Project info and input kiosk

- Community preference survey
15L ROUTE IMPROVEMENTS

Colfax Corridor Connections Technical Working Group
November 15, 2017
15L Project Overview

• RTD grant funded project to improve 15L stops and operations

• Short-term opportunity to improve passenger experience on East Colfax
  • Total project budget: $11 million
  • FTA Ladders of Opportunity Grant: $5 million

• East Colfax bus routes 15/15L serve as many passengers per day (over 20K) as some rail corridors

• First major capital investment since stops were constructed 30+ years ago
15L Project Area

Civic Center Station Rehabilitation
- Currently under construction
- Set to open later this year
- 15/15L connection with the Broadway stops

I-225 Corridor (R Line)
- Opened Feb 2017
- Colfax is the iconic station on the line and provides transfers to the 15/15L at the Potomac Stop
15L Project Status

• Defined project scope with Aurora and Denver
  • 37 total stop locations
  • 12 bus bulbs / curb extensions
  • 8 queue bypass lanes
• Received environmental clearance from FTA
• Began implementation of Transit Signal Priority (TSP)
• Developed enhanced bus shelter design
  • Incorporated feedback from an onboard passenger survey
Survey Bus Stop Elements

Shelter Options

- Glass Walls
- Metal and Glass Walls
- No Walls

Security & Comfort Elements

- Cameras
- Security Patrols
- Lighting
- Benches

Passenger Information

- Printed Schedules
- Digital Schedules with Ads
- Real-Time Schedule Information with Ads
Survey Results

• Most valued elements:
  • Glass bus shelter walls
  • Real-time information
  • Benches

• Least valued elements:
  • Metal and glass shelter walls
  • Shelters with no walls

• Most and least valued elements consistent between demographics and onboard vs stakeholder version

Utility Values for Bus Stop Elements

<table>
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<tr>
<th>Element</th>
<th>Utility Value</th>
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<tr>
<td>Glass bus shelter walls</td>
<td>1.68**</td>
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<tr>
<td>Real-time route and schedule information</td>
<td>1.30**</td>
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<tr>
<td>Shelter benches</td>
<td>1.26**</td>
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<tr>
<td>Digital schedules and route maps</td>
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<td>Security cameras</td>
<td>1.00^</td>
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<tr>
<td>Security patrols</td>
<td>0.89*</td>
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<tr>
<td>Printed schedules and route maps</td>
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<tr>
<td>Shelter lighting</td>
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<td>Bus shelters with roof only (no walls)</td>
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<tr>
<td>Perforated metal and glass bus shelter walls</td>
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15L Enhanced Shelter Design

• All stops will include shelters with:
  • Transparent Weather Protection
  • Security cameras
  • Lighting
  • Passenger information

• Look for opportunities to add additional benches

• Electronic passenger information will be implemented at a minimum of 6 locations as a pilot project
15L Next Steps / Project Schedule

• Current Tasks:
  • Work through CDOT and Denver/Aurora design review and approval processes
  • Stakeholder updates

• Mid 2018: Issue RFP for a contractor

• End of 2019: Construction complete
Civic Center Stop Renderings
Center-Running BRT: Next Steps and Path Forward
Where Do We Go From Here?

- Broad-based community outreach – we need your help:
  - Community survey
  - Roadshow presentations
  - Neighborhood events
  - Newsletters
  - Other ideas?