STUDY SESSION
June 30, 2020 at 3:00 PM
REMOTE MEETING
Join Zoom Meeting Link:
https://us02web.zoom.us/j/88040445990
Call in #669 900 6833
Meeting ID: 880 4044 5990

I. Call to Order

II. Presentation - Reimagine RTD
   A. Mentimeter Polling Exercise

III. CU Leeds Forecast Discussion
   A. Comparison of Forecasts

IV. Other Matters

V. Next Meeting Date - July 7, 2020

VI. Adjourn

The following communication assistance is available for public meetings:

- Language Interpreters
- Sign-language Interpreters
- Assisted listening devices

Please notify RTD of the communication assistance you require at least 48 business hours in advance of a RTD meeting you wish to attend by calling 303.299.2307

THE CHAIR REQUESTS THAT ALL PAGERS AND CELL PHONES BE SILENCED DURING THE BOARD OF DIRECTORS MEETING FOR THE REGIONAL TRANSPORTATION DISTRICT.
BOARD OF DIRECTORS REPORT

To: Paul J. Ballard, Interim General Manager and CEO
From: William C. Van Meter, Assistant General Manager, Planning

Date:

Subject: Reimagine Board Presentation

ATTACHMENTS:
- Board Presentation 063020 (PDF)

Prepared by:
William Van Meter, Assistant General Manager, Planning
Bill Sirois, Senior Manager, Transit Oriented Communities

Approved by:
REIMAGINE RTD
TOGETHER, LET’S EXPLORE AND REDESIGN TRANSPORTATION

RTD Board of Directors

June 30, 2020
Agenda

- Reimagine RTD Overview
- System Optimization Plan Process
- Next Steps

www.RTD-Denver.com/Reimagine
Reimagine RTD: Short-Term and Long-Term Objectives

• **Reimagine RTD** is a two-year process to answer “what’s next” for RTD
  
  o **System Optimization Plan**: Redesign RTD’s services to balance short- and mid-term regional mobility needs and fiscal limitations (to be implemented in 2021)

  o **Mobility Plan for the Future**: Identify long-term strategies (i.e., between now and 2050) to address the future mobility needs of the region
System Optimization Plan
System Optimization Plan Steps

1. What does a successful transit system look like?
2. How best to measure success?
3. Develop and evaluate scenarios to understand tradeoffs
4. Develop service investment philosophies to balance competing interests
5. Develop recommendations for System Optimization Plan
What We Have Covered To Date

Technical Working Group (TWG)
Advisory Committee (AC)
Citizens' Advisory Committee (CAC)
Step 1 – What Does Success Look Like?

TWG, AC and CAC key takeaways:

• Competitive and reliable service
• Frequent service
• Mobility options for transit dependent populations
• Partnerships and connections for the first and last mile
• High ridership
• Ability to travel throughout the District
• Reduced/low bus emissions
TWG and AC key takeaways:

- Reviewed about 30 metrics
- Voted for those there are key to measuring success
- Used as the basis for the preliminary evaluation of scenarios

**Metrics for Measuring Plan Results**

1. Percent of population served by 15-minute or better service
2. Transit versus auto travel times
3. Percent of equity zone population served
4. Percent of equity zone population served by 15-minute or better service
5. Cost per boarding
6. Boardings per service hour
7. Percent of district population served
8. Percent of district employment served
Step 3 - Develop Scenarios

- Scenarios provide an opportunity to evaluate tradeoffs while constrained to available dollars
- Ultimate objective is to find an appropriate balance between alternative approaches to resource allocation
TWG, AC key takeaways:

- Partner partner partner!
- Focus on regional service
- Identify additional hubs that better enable suburb-to-suburb travel
- Prioritize poor low-density over affluent low-density
- Match service type to land use
- Provide longer spans of service to better serve shift workers
- Focus on access to jobs and social opportunities
Step 3 Develop Scenarios – 1. Service Quality

**Definition:**
*Focus on providing very frequent and fast service on a select set of transit supportive corridors*

**Scenario Objectives:**
- Prioritize improvements to frequencies, speeds, reliability, span of service, connections, and facilities in select areas
- Maintain one-seat rides to ensure travel time competitiveness
- Round out frequency improvements to additional key corridors with remaining resources available
Step 3 Develop Scenarios – 2. Social Equity

**Definition:**
Focus resources in a manner that emphasizes transit service to equity-focused populations and zero-car households

**Scenario Objectives:**
- Focus service on identified high density equity areas
- Concentrate on service that best addresses observed travel patterns
- Round out coverage to remaining equity neighborhoods as resources available, using combination of fixed routes and flex zones
Step 3 Develop Scenarios – 3. Service Productivity

**Definition:**
*Focus resources on travel markets and patterns to achieve the highest potential ridership per service hour*

**Scenario Objectives:**
- Identify potential route efficiencies in the Service Quality network
- Allocate resources to areas most likely to generate high ridership
**Definition:**
The Geographic Coverage Scenario focuses on spreading service out across the district to maximize the population's access to transit.

**Scenario Objectives:**
- Maximize accessibility to District residents
- Provide strong connectivity to the core network
- Fill in gaps within the core network with any remaining available financial resources
Questions
Step 3 Evaluate Scenarios to Understand Tradeoffs

Percent of population served by 15-minute or better service

- Existing Service: 19%
- Service Productivity: 32%
- Service Quality: 35%
- Geographic Coverage: 28%
- Social Equity: 18%

Percent of equity zone population served

- Existing Service: 78%
- Service Productivity: 72%
- Service Quality: 75%
- Geographic Coverage: 72%
- Social Equity: 90%

Percent of district population served

- Existing Service: 70%
- Service Productivity: 52%
- Service Quality: 54%
- Geographic Coverage: 51%
- Social Equity: 83%

Percent of district employment served

- Existing Service: 80%
- Service Productivity: 65%
- Service Quality: 66%
- Geographic Coverage: 65%
- Social Equity: 88%
Step 3 Evaluate Scenarios to Understand Tradeoffs

Transit versus auto travel times

<table>
<thead>
<tr>
<th>Travel Time Ratio</th>
<th>2.5</th>
<th>3.0</th>
<th>3.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Service</td>
<td>2.96</td>
<td>3.01</td>
<td>3.20</td>
</tr>
<tr>
<td>Service Quality</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Social Equity</td>
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<td>Service Productivity</td>
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<tr>
<td>Geographic Coverage</td>
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</tbody>
</table>

Cost per boarding - bus only

<table>
<thead>
<tr>
<th>Dollars</th>
<th>$3</th>
<th>$4</th>
<th>$5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Service</td>
<td>$3.66</td>
<td>$3.69</td>
<td>$3.80</td>
</tr>
<tr>
<td>Service Quality</td>
<td></td>
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<tr>
<td>Social Equity</td>
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<tr>
<td>Geographic Coverage</td>
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</tbody>
</table>

Boardings per service hour - bus only

<table>
<thead>
<tr>
<th>Boardings</th>
<th>25</th>
<th>30</th>
<th>35</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Service</td>
<td>28.0</td>
<td>31.9</td>
<td>32.1</td>
</tr>
<tr>
<td>Service Quality</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Social Equity</td>
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<td>Service Productivity</td>
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<tr>
<td>Geographic Coverage</td>
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</tbody>
</table>

Weekday Boardings

<table>
<thead>
<tr>
<th>Boardings</th>
<th>250</th>
<th>350</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Service</td>
<td>361,000</td>
<td>399,000</td>
</tr>
<tr>
<td>Service Quality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Equity</td>
<td></td>
<td></td>
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<tr>
<td>Service Productivity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geographic Coverage</td>
<td></td>
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</tbody>
</table>

*2020 modeled boardings. Model calibrated to 3.8% of the observed boardings of approximately 370,000 daily
Step 3 Evaluate Scenarios to Understand Tradeoffs

Key Takeaways

• Existing metrics are based on 2019 service
• All 4 scenarios reflect an 8% reduction from existing
• Service Quality results in the:
  • Most boardings
  • Lowest cost per boarding
  • Best travel time ratio
• Social Equity results in the:
  • Most social equity population service by 15-minute or better service
  • Highest bus boardings per service hour
• Service Productivity results:
  • Similar to social equity in most categories
• Geographic Coverage results in the:
  • Most population and employment served
  • Fewest boardings
  • Lowest equity population served by 15-minute or better service
  • Highest cost per boarding
Questions
Step 3 Develop and Evaluate Scenarios
Consider COVID-19’s Impact on Reimagine RTD

- TWG and AC were asked: Does the impact of COVID-19 change your perception of what success for RTD looks like? If so, how?
- TWG and AC were asked: How do you feel Reimagine RTD can be used to maintain the relevance of transit through COVID-19?
  - Long-term goal of Reimagine RTD doesn’t look different, but COVID-19 impacts the short-term focus
  - Focus on serving transit-dependent populations
  - Consider potential long-term impacts to commute behavior/patterns post COVID-19
  - Coordinate closely with local agencies and public health officials
  - This is an opportunity for RTD to be flexible and innovative
  - Funding is a critical element to consider in more detail
  - Need to focus on getting riders to feel safe using transit
TWG was asked: With scarce resource due to COVID-19, what are the two most important transit metrics to support our region's recovery?
Step 4 Develop Service Investment Philosophies

TWG was asked: Thinking into the future (beyond the immediate COVID-19 Response) help us frame transit service priorities for the District (allocate 100 pts)

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>36%</td>
<td>Providing service to those that rely on transit (social equity)</td>
</tr>
<tr>
<td>30%</td>
<td>Providing high-quality service (fast and frequent)</td>
</tr>
<tr>
<td>21%</td>
<td>Providing highly productive services (cost effective)</td>
</tr>
<tr>
<td>13%</td>
<td>Providing some level of service to as many people/jobs in the district as possible (coverage)</td>
</tr>
</tbody>
</table>
Questions and Discussion
Step 4 Develop Service Investment Philosophies

With Scares Resources due to COVID-19, identify how strongly you agree with the following service philosophy statements.

<table>
<thead>
<tr>
<th>TWG</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maximize ridership regardless of who is riding or trip purpose over service that maximizes accessibility to social equity populations</strong></td>
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<td><strong>Prioritize service in areas with transit-supportive land use over service that is distributed throughout the district</strong></td>
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</tr>
<tr>
<td><strong>Prioritize coverage throughout the District over a high-quality and high-frequency network with more competitive travel times</strong></td>
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</tr>
<tr>
<td><strong>Prioritize service for equity populations over achieving a low-cost per boarding metric</strong></td>
<td>Prioritize service for equity populations over achieving a low-cost per boarding metric</td>
</tr>
<tr>
<td><strong>Maximize the number of people and jobs with access to transit services over high-quality/high-frequency service to social equity populations</strong></td>
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</tr>
<tr>
<td><strong>Prioritize providing the regional transit backbone and support partnerships where local communities pay for/operate local services</strong></td>
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</tr>
</tbody>
</table>

**Strongly disagree**

<table>
<thead>
<tr>
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<th>AC</th>
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<tbody>
<tr>
<td>26</td>
<td>22</td>
</tr>
<tr>
<td>17</td>
<td>3</td>
</tr>
<tr>
<td>3.2</td>
<td>19</td>
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<tr>
<td>2.5</td>
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</tr>
<tr>
<td>2.7</td>
<td>3.2</td>
</tr>
<tr>
<td>2.4</td>
<td>3.2</td>
</tr>
</tbody>
</table>
Step 4 Develop Service Investment Philosophies

Thinking into the future (beyond the immediate COVID response) identify how strongly you agree with the following service philosophy statements:

**TWG**

- Maximize ridership regardless of who is riding or trip purpose over service that maximizes accessibility to social equity populations
- Prioritize service in areas with transit-supportive land use over service that is distributed throughout the district
- Prioritize coverage throughout the District over a high-quality and high-frequency network with more competitive travel times
- Prioritize service for equity populations over achieving a low-cost per boarding metric
- Maximize the number of people and jobs with access to transit services over high-quality/high-frequency service to social equity populations
- Prioritize providing the regional transit backbone and support partnerships where local communities pay for/operate local services

**AC**

- Maximize ridership regardless of who is riding or trip purpose over service that maximizes accessibility to social equity populations
- Prioritize service in areas with transit-supportive land use over service that is distributed throughout the district
- Prioritize coverage throughout the District over a high-quality and high-frequency network with more competitive travel times
- Prioritize service for equity populations over achieving a low-cost per boarding metric
- Maximize the number of people and jobs with access to transit services over high-quality/high-frequency service to social equity populations
- Prioritize providing the regional transit backbone and support partnerships where local communities pay for/operate local services
Step 4 Develop Service Development Philosophies
AC and TWG Key Takeaways

Near-term Priorities (During COVID Response)

• High Priorities:
  • Service to equity populations
  • Service to transit supportive land uses
  • High-quality high-frequency service

• Low Priorities:
  • Wide-spread service coverage
  • Achieving a low cost (to RTD) per boarding metric

Mid-term Priorities (Beyond Immediate COVID Response)

• Similar priorities to the near-term but TWG has slightly more focus on achieving a lower cost per boarding (cost to RTD not fares)

• RTD providing a regional backbone of service and supporting partnership where local communities pay for/operate local service – the group stated that partnership may be more viable beyond the immediate COVID response timeframe when funding levels are restored

• AC generally more strongly supportive of RTD providing a regional backbone of service with local partnerships
Questions and Discussion
Step 5 Develop Recommended SOP

Location-based Services Data Example
**EXAMPLE**

**Downtown Denver**

**Trips:** 475,000 trips to/from the CBD  
**Transit Market Share:** 20%  
**Mileage:** 45% of trips under 2 miles  

39% of trips occur within the area  
26% of trips to Downtown Denver are Home-based Regular trips

**Transit Competitiveness**  
21% of trips are transit competitive (less than 1.5x auto travel)  
6% of trips are faster on transit than auto
Trips Between Subdistricts

Between Subdistricts

![Graph showing trips between subdistricts]
Northern Aurora

**Trips:** 300,000 trips from North Aurora

**Transit Market Share:** 3%

**Mileage:** 31% of trips under 2 miles

**Transit Competitiveness**

0.9% of trips are transit competitive (less than 1.5x auto travel)
EXAMPLE

Northern Aurora

Trips: 300,000 trips from North Aurora
Transit Market Share: 3%
Mileage: 31% of trips under 2 miles

40% of trips occur within the area

Transit Competitiveness
0.7% of trips within Aurora are transit competitive (less than 1.5x auto travel)
**EXAMPLE**

**Northern Aurora**

**Trips:** 300,000 trips from North Aurora

**Transit Market Share:** 3%

**Mileage:** 31% of trips under 2 miles

40% of trips occur within the area

12% of trips go to Southern Aurora

9% of trips go to Park Hill/Stapleton

5% of trips go to Southeast Denver

**Transit Competitiveness**

0.2% of trips to these areas are transit competitive (less than 1.5x auto travel)
EXAMPLE

Northern Aurora

Trips: 300,000 trips from North Aurora
Transit Market Share: 3%
Mileage: 31% of trips under 2 miles

40% of trips occur within the area
12% of trips go to Southern Aurora
9% of trips go to Park Hill/Stapleton
5% of trips go to Southeast Denver
2% of trips go to Downtown Denver

Transit Competitiveness
8% of trips to these areas are transit competitive (less than 1.5x auto travel)
Existing Conditions

Likelihood to Use Transit
- Market segments
- Travel demand

Competitiveness
- Market types

Service Performance
- Performance
- Productivity
- Frequency
- Bus stop spacing

Service Design Considerations

Network Design

Attachment: Board Presentation 063020 (4242 : Reimagine RTD)
Questions
Step 5 Develop Service Design Philosophy

• Provide a well-defined, high frequency rail and corridor-focused bus network that serves as the “backbone” of the regional transit network

• Utilize existing RTD rail and bus transit center facilities as hubs that provide connectivity between sub-regional and community routes and the regional, high frequency network

• Develop a plan that is scalable, with phased implementation as demand and available revenues improve

• Utilize ridership, demographic and LBS travel information to inform route definition

• Embrace alternative service delivery approaches to provide lower cost options for connectivity
Step 5 – Develop Recommended System Optimization Plan
Redefine the Family of Services

- **Tier 1**
  - Rail Lines
  - All-Day Regional Services
  - High Frequency Regionally-Focused Local Routes

- **Tier 2**
  - Peak Period Regional Services
  - Moderate Frequency Local Routes

- **Tier 3**
  - Community-Focused Local Routes
  - FlexRide Services
  - Subsidy Programs / Partnerships With Ridehailing and Other Transportation Services
Next Steps

• RTD Board Ops Committee – July 14th
  • Light Rail Optimization/Consolidation
  • Constrained and Unconstrained SOP Process

• Technical Working Group – July 15th

• Advisory Committee – July 16th
  • 3-Tier Approach
  • Partnerships
  • Innovative Service Delivery