METRO Gold Line BRT
CMC Meeting

October 4, 2018
Today’s Topics

• Welcome
• CBAC Update
• Update on Downtown Alternatives
• Next Meeting
• Adjourn
CBAC Update
CBAC and TAC Tour

• Joint bus tour of alignment with TAC and CBAC on 9/25
Review of Project Baseline and Issue Resolution Process
**Background: Project Baseline “1% Design”**

- **Project Baseline**
  - Presented to CMC on 4/26/18
  - Represents 1% Concept Design

### Baseline Project Scope - Stations

- **6 Enhanced Downtown Stops**
  - WB Minnesota Station
  - WB Landmark Station
  - Smith Avenue Transit Center
  - Station amenities include: Pylon Sign, Off-Board Fare Collection, Small Shelter
  - EB 7th Street Station
  - EB Landmark Station
  - EB Minnesota Station

- **Union Depot Stop**
  - Pylon Sign & Off-Board Fare Collection

- **Wacouta Stop**
  - Pylon Sign & Off-Board Fare Collection
  - Includes Civil Improvements
Background: Project Baseline “1% Design”

- Alignment A-B-C-D3
- Peak: Downtown Routing to Smith
- Off-peak: Union Depot Bus Deck only

Figure 10. Refined LPA Recommendation in 2016 (Alternative ABC-D3)

December 2016 LPA

METRO
Gold Line

Metro Transit, a service of the Metropolitan Council
Gold Line Committee Structure

- Issue Resolution Teams (IRTs)
- Technical Advisory Committee (TAC)
- Community and Business Advisory Committee (CBAC)
- Corridor Management Committee (CMC)
- Counties
- Metropolitan Council

Follows LRT project precedents and Transitway Guidelines
# Gold Line Bus Rapid Transit Project Timeline

## PRE-PROJECT DEVELOPMENT

<table>
<thead>
<tr>
<th>PROJECT DEVELOPMENT</th>
<th>ENGINEERING</th>
<th>CONSTRUCTION</th>
<th>REVENUE SERVICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 2018-January 2020</td>
<td>1-2 Years</td>
<td>2-3 Years</td>
<td>2024</td>
</tr>
</tbody>
</table>

### ONGOING PUBLIC ENGAGEMENT

- **ENVIRONMENTAL REVIEW**

- **DESIGN ADVANCEMENT**

- **WE ARE HERE**
Downtown St. Paul: Issue Resolution Team

Representation on St. Paul Issue Resolution Team

- Ramsey County Regional Railroad Staff
- St. Paul Planning and Economic Development
- St. Paul Public Works
- MnDOT Cultural Resources
- MnDOT Metro District
- Metro Transit Service Development
- Metro Transit Engineering and Facilities
- Metro Transit Street Operations
- Gold Line Project Office

Summary of Issue Resolution Team Participation

- 13 Meetings
- 26 Meeting Hours
- 28 Attendees
Downtown St. Paul: Issue Resolution

• Focus Areas:
  – Downtown routing and service planning
  – Develop downtown station concepts
  – Interface with current planning topics
    • Broadway Street detour routing/Wacouta St consideration
    • Metro Transit downtown facilities planning
    • Xcel Center- event staging and curbside management
  – Interface with future projects
    • Rush Line
    • Riverview
  – Evaluate layover capacity
    • Smith Ramp
    • Union Depot
  – Review traffic impacts
  – Develop BRT travel time and operating cost and capital cost
  – Identify historic resources
  – Consider ridership/connections to population and jobs
Routing Options During IRT Process

Baseline/LPA

Bus Deck + Downtown

Deck WB Slip Ramp + DT

Front of Union Depot + DT
Conclusion

May 22: IRT recommended a refinement of LPA

- All-day service downtown
- Relocation of Union Depot stop from bus deck to front
- Modified downtown route due to special event closures
- Upgraded stations (similar to A Line stations) for premium BRT service

July 12: TAC confirmed IRT recommendation

- Also added a Union Depot bus deck terminus alternative to the Environmental Assessment (EA) Scope

August 23: CBAC reviewed full EA Scope

Sept 6: CMC confirmed EA Scope recommended by TAC/CBAC/IRT

- Downtown all-day service to Smith Avenue terminus
- Union Depot bus deck terminus
FTA Feedback on Environmental Review

Aug 2018
GPO reviewed all design options with FTA

Aug 2018
FTA advised that downtown routing options constitute two distinct project “alternatives”

Sept 2018
FTA confirmed that EA must reflect a “preferred” alternative

Q4 2018
Preferred alternative must be included in EA draft for FTA review

DEFINITIONS

“Options” reflect minor design choices within the project, such as the location of White Bear Ave station or the 4th Street bridge consideration.

“Alternatives” constitute major differences between project scope elements and potential outcomes and a preferred alternative must be declared in the Environmental Assessment.
Comparison of Downtown Alternatives
The METRO Gold Line BRT will begin (eastbound) or end (westbound) at Smith Avenue Transit Center, providing a one-seat ride through downtown that will also have a stop in front of Union Depot on Wacouta and Sibley streets. Between the stops at Union Depot and Smith Avenue Transit Center, the Gold Line will route down 5th Street or 6th Street.
## Review of Downtown Alternatives: DT Routing

### Baseline Comparison

<table>
<thead>
<tr>
<th>Baseline (1%)</th>
<th>Downtown All-Day Routing Alternative (IRT Recommendation)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Union Depot Bus Deck Station</strong></td>
<td><strong>Station relocated from Union Depot bus deck to front of Depot at Sibley and at Wacouta</strong></td>
</tr>
<tr>
<td>• Pylon Sign &amp; Off-Board Fare Collection</td>
<td></td>
</tr>
<tr>
<td><strong>7 Enhanced Downtown Stops</strong></td>
<td><strong>9 Full Amenity Downtown Stations</strong></td>
</tr>
<tr>
<td>Station amenities include:</td>
<td>• Upgrade to full amenity platforms (like A Line) as part of the premium BRT service</td>
</tr>
<tr>
<td>• Pylon Sign</td>
<td>• Relocated Union Depot station to front of Depot</td>
</tr>
<tr>
<td>• Off-Board Fare Collection</td>
<td></td>
</tr>
<tr>
<td>• Small Shelter</td>
<td></td>
</tr>
<tr>
<td>• Civil Improvements at Wacouta</td>
<td></td>
</tr>
<tr>
<td>+ $0</td>
<td>+ $5.8M (1.4%)</td>
</tr>
</tbody>
</table>
The METRO Gold Line BRT will begin (eastbound) or end (westbound) on the bus deck at the Union Depot, a multimodal transportation hub that provides transfer connections to the METRO Green Line and local bus service throughout downtown Saint Paul, as well as Amtrak, Jefferson Lines, Greyhound and Megabus services. Union Depot is also the planned terminus for additional future transitways.
### Baseline Comparison

<table>
<thead>
<tr>
<th>Baseline (1%)</th>
<th>Union Depot Bus Deck Alternative</th>
</tr>
</thead>
</table>
| Union Depot Bus Deck Station  
  - Pylon Sign & Off-Board Fare Collection | Upgrade to full amenity platform (like A Line) as part of the premium BRT service |
| 7 Enhanced Downtown Stops  
  Station amenities include:  
  - Pylon Sign  
  - Off-Board Fare Collection  
  - Small Shelter  
  - Civil Improvements at Wacouta | No additional downtown stops included |

| + $0 | - $7.6M (- 1.8%) |
## Gold Line Project Goals and Objectives

- Goals and Objectives developed and reviewed by project partners during Alternatives Analysis

<table>
<thead>
<tr>
<th>Goals</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal 1: Improve Mobility</strong></td>
<td>1. Maximize number of people served (future)</td>
</tr>
<tr>
<td></td>
<td>2. Maximize transit ridership</td>
</tr>
<tr>
<td></td>
<td>3. Maximize travel time savings</td>
</tr>
<tr>
<td></td>
<td>4. Minimize traffic mobility impacts</td>
</tr>
<tr>
<td><strong>Goal 2: Provide a Cost-Effective, Economically Viable Transit Option</strong></td>
<td>5. Minimize costs and maximize cost-effectiveness</td>
</tr>
<tr>
<td><strong>Goal 3: Support Economic Development</strong></td>
<td>6. Maximize number of people served (existing)</td>
</tr>
<tr>
<td></td>
<td>7. Maximize future development opportunities</td>
</tr>
<tr>
<td><strong>Goal 4: Protect the Natural Environmental Features of the Corridor</strong></td>
<td>8. Minimize potential environmental impacts</td>
</tr>
<tr>
<td><strong>Goal 5: Preserve and Protect Individual and Community Quality of Life</strong></td>
<td>9. Maximize potential benefits to and minimize potential impacts on the community</td>
</tr>
<tr>
<td></td>
<td>10. Minimize adverse parking, circulation, and safety impacts</td>
</tr>
</tbody>
</table>
## Downtown Alternatives Summary Data

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Ridership Difference</th>
<th>Capital Cost Difference</th>
<th>Annual O&amp;M Net Cost Difference</th>
<th>FTA Rating</th>
<th>Public Input Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downtown Routing to Smith Ave</td>
<td>+ 950 daily riders</td>
<td>+ $5.8M* from baseline</td>
<td>+ $70K**</td>
<td>Medium-High</td>
<td>~ 81%****</td>
</tr>
<tr>
<td>Union Depot Bus Deck Terminus</td>
<td>- $7.6M* from baseline</td>
<td></td>
<td></td>
<td>Medium-Low***</td>
<td>~ 19%****</td>
</tr>
</tbody>
</table>

* Includes Upgraded Stations (like A Line), Level boarding is $11.1M over baseline
**$450K in additional operating costs less $380K in increased fare collection
***If ridership would increase by 5% for Union Depot Alternative, rating could move to Medium-High
****Public outreach input collected through 10/4
# Outreach Update for Downtown Alternatives

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Prefer Downtown Routing</th>
<th>Prefer Depot Bus Deck</th>
<th>Total Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dayton’s Bluff Elementary</td>
<td>Sept. 11, 2-4PM</td>
<td>1</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Sun Ray Library</td>
<td>Sept. 13, 4-6PM</td>
<td>4</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Woodbury Central Park/Library</td>
<td>Sept. 25</td>
<td>16</td>
<td>1</td>
<td>31</td>
</tr>
<tr>
<td>Securian Farmer’s Market</td>
<td>Sept. 26</td>
<td>11</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>Woodbury Lutheran Park and Ride</td>
<td>Sept. 28, 6:30-8:30AM</td>
<td>18</td>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td>Yoga at Union Depot</td>
<td>Sept. 29, 9-10:30AM</td>
<td>7</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>Sun Ray Transit Center</td>
<td>Oct. 4, 2-4PM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Line Central Station</td>
<td>Oct. 5, 11AM-1PM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oakdale Library</td>
<td>Oct 8, 4-6pm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open House 1 (Skyway, Alliance Bank)</td>
<td>Oct 9, 11AM-1PM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open House 2 (Union Depot)</td>
<td>Oct 9, 4-6PM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online Survey</td>
<td>Open until Oct 15</td>
<td>36</td>
<td>13</td>
<td>51</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td></td>
<td><strong>93</strong></td>
<td><strong>22</strong></td>
<td><strong>163</strong></td>
</tr>
</tbody>
</table>
Next Steps

• Next scheduled CMC meeting is November 1
  – Update on Downtown Routing Outreach

• Fall/Winter Meetings:
  – Ongoing design discussions and updates
  – Update of Issues Resolution at Woodbury Theater
  – Review updated project costs at 15% design
  – Refine scope if possible, where options exist

• 2019
  – Review 30% Design, Cost Estimate and Funding
  – Confirm final Gold Line Scope
Reference Slides
# Existing Transit Service to Union Depot

<table>
<thead>
<tr>
<th>Location</th>
<th>Routes*</th>
<th>Weekday Transit Vehicle Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Union Depot Bus Deck</td>
<td>3, 16, 21, 54, 94, 262, 417, 480, 484, 489</td>
<td>470 Trips</td>
</tr>
<tr>
<td>Green Line- Union Depot Station</td>
<td>Green Line LRT</td>
<td>230 Trips</td>
</tr>
<tr>
<td>Kellogg/Broadway</td>
<td>63, 70, 294, 350, 351, 353, 361, 364</td>
<td>209 Trips</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19 Transit Routes</strong></td>
<td><strong>909 Total Trips</strong></td>
</tr>
<tr>
<td>Gold Line Proposed</td>
<td>Union Depot Station</td>
<td>~160 Trips</td>
</tr>
</tbody>
</table>

*Does not include Amtrak, Intercity Bus, and Private service connections*
Projected Hourly Bus Volumes - Downtown

Maximum capacity: approx. 80 buses per hour

<table>
<thead>
<tr>
<th>Street</th>
<th>AM</th>
<th>PM</th>
<th>AM</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>5th Street</td>
<td>38.7</td>
<td>39.7</td>
<td>44.7</td>
<td>43.1</td>
</tr>
<tr>
<td>6th Street</td>
<td>44.7</td>
<td>45.4</td>
<td>50.7</td>
<td>43.1</td>
</tr>
</tbody>
</table>

# of buses per hour

Existing  | With Gold Line Downtown Routing

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Metro Transit
a service of the Metropolitan Council
Gold Line Project Travel Markets

- ~80% of riders are peak trips to/from Downtown St. Paul stations and the suburbs
- ~10% of riders are traveling within St. Paul
- ~10% of riders are dispersed throughout corridor
Ridership Modeling Key Points:

- Union Depot Bus Deck Alternative results in approximately 950 fewer riders
  - Connecting service has been optimized in the FTA’s STOPS model
- Overall Gold Line STOPS ridership model still being refined
  - Updated overall ridership and remaining per station ridership along corridor not yet available
- FTA still needs to review and concur with model results
How are Transfers Modeled by FTA?

• Compared to traditional models, the FTA STOPS model better reflects the actual time needed to make the transfer
  – STOPS uses the actual Metro timetables rather than average headways
• While there is still a transfer penalty for the Union Depot Bus Deck terminus, the STOPS model reduces that penalty

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Traditional Model</th>
<th>STOPS Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time between alighting &amp; boarding</td>
<td>½ of the average headway of the 2nd route</td>
<td>The actual scheduled time between bus arrival and departure</td>
</tr>
<tr>
<td>Time to walk between the two routes</td>
<td>Walking time between the two routes (if any)</td>
<td></td>
</tr>
<tr>
<td>Time penalty</td>
<td>Perceived time penalty assessed for each transfer</td>
<td></td>
</tr>
</tbody>
</table>
Distribution of Reduction in Ridership

**Origin of 950 Lost Rides**
without Gold Line Downtown Routing

- St. Paul-Downtown: 34%
- St. Paul-Other: 33%
- Woodbury: 22%
- Maplewood, Oakdale, Landfall: 11%

*50% of the lost rides would choose to drive instead*
## Distribution of Downtown Trips

<table>
<thead>
<tr>
<th>Downtown Zone</th>
<th>Ridership Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Union Depot Station (Front)</td>
<td>40%</td>
</tr>
<tr>
<td>Central Downtown</td>
<td>30%</td>
</tr>
<tr>
<td>Rice Park/Xcel Energy Center Area</td>
<td>30%</td>
</tr>
</tbody>
</table>
Costs for Downtown Alternatives

$420M Estimate

Project Baseline

Cost Comparison

+$5.8M

+$11.1M

-$7.6M

Downtown Routing - Upgraded Stations

Downtown Routing - Full Stations & Level Boarding

Union Depot Bus Deck Terminus - Upgraded Station
$70,000 annual Net Service Cost to travel through Downtown to Smith vs. terminate at Union Depot Bus Deck

- Additional Operating Costs
  - -$0.38M
  - +$0.45M

- Increased Fare Collection
  - +$0.07M
BRT Station Infrastructure Program Elements

• Platform
  – Raised platform
  – Tactile warning strip
  – Bump out
  – Light
  – Bench

• Waiting Shelter
  – Light
  – Heat
  – Bench

• Health, Safety, and Security
  – Trash/Recycling
  – Security Cameras
  – Emergency Phone

• Fare collection
  – Ticket vending machines
  – Validators

• Customer communication
  – Station Pylon
  – Station Sign
  – Route/Schedule Display
  – Digital Info Panel Area
  – Wayfinding
  – Real Time Sign
  – Push-button Annunciator

• Pedestrian/Customer access
BRT Station Elements

- Platform Shelter (A-Line shown)
- Emergency Telephone (A-Line shown)
- Shelter Light & Heaters (A-Line shown)
- Security Camera (A-Line shown)
- Pylon (A-Line shown)
- Light Fixture (A-Line shown)
- Variable Message Sign (VMS) (METRO Green Line shown)
- Ticket Vending Machine (TVM) (METRO Blue Line shown)
- Ticket Validator (A-Line shown)
- Bench (C-Line shown)
- Bicycle Rack (A-Line shown)
- Waste & Recycling Receptacle (A-Line shown)