METRO Gold Line BRT
Corridor Management Committee

June 3, 2021
A MOMENT TO CELEBRATE!

GOLD LINE ADVANCES TO ENGINEERING PHASE!
A MOMENT TO CELEBRATE!

FTA RECOMMENDS GOLD LINE FOR $100,000,000 FY22 NEW STARTS FUNDS!
### Proposed Fiscal Year 2022 Funding for the Capital Investment Grants and Expedited Project Delivery Pilot Program (May 28, 2021)

<table>
<thead>
<tr>
<th>Proposed Projects</th>
<th>Location</th>
<th>Funding</th>
</tr>
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<tbody>
<tr>
<td><strong>Existing New Starts Full Funding Grant Agreements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Central/Downtown Hub</td>
<td>Phoenix, AZ</td>
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<tr>
<td>Westside Subway Section 1</td>
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<td>$100.0</td>
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<tr>
<td>Westside Subway Section 2</td>
<td>Los Angeles, CA</td>
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<tr>
<td>Westside Subway Section 3</td>
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<td>Double Track</td>
<td>Northern Indiana</td>
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<td>West Lake</td>
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<td>Green Line Extension</td>
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<tr>
<td>National Capital Purple Line</td>
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<td>Southwest Light Rail</td>
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<td>Streetcar Main Street Extension</td>
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<td>Federal Way Link Extension</td>
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<td>Lynwood Link Extension</td>
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<td><strong>Subtotal Existing New Starts Full Funding Grant Agreements</strong></td>
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<td>$1,117.6</td>
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<td><strong>Existing Core Capacity Full Funding Grant Agreements</strong></td>
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<td>Peninsula Corridor Electrification Project</td>
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<td>BART Transbay Core Capacity Project</td>
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<td>Portal North Bridge</td>
<td>Secaucus, NJ</td>
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<td>Red and Purple Line Modernization Project Phase 1</td>
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<td><strong>Subtotal Existing Core Capacity Full Funding Grant Agreements</strong></td>
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<td><strong>Recommended New Starts Projects</strong></td>
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<tr>
<td>Northwest Extension Phase 2</td>
<td>Phoenix, AZ</td>
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<td><strong>METRO Gold Line Bus Rapid Transit</strong></td>
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<td><strong>Subtotal Recommended New Starts Projects</strong></td>
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<td><strong>Recommended Small Starts Projects</strong></td>
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<td>Rapid Transit</td>
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<td>East-West Bus Rapid Transit</td>
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<td><strong>Subtotal Recommended Small Starts Projects</strong></td>
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<td><strong>Projects That May Become Ready for Capital Investment Grants or Expedited Project Delivery Pilot Program Funds (projects listed are illustrative)</strong></td>
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<td>BART Silicon Valley Phase II Extension</td>
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<td>Hudson Tunnels</td>
<td>New York-New Jersey</td>
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<td>Second Avenue Subway Phase 2</td>
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<td>RapidRide Roosevelt Project</td>
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<td><strong>Overnight Activities</strong></td>
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<td><strong>Grand Total</strong></td>
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## CMC Membership

<table>
<thead>
<tr>
<th>Representative</th>
<th>Agency/County/City</th>
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<tbody>
<tr>
<td>Chair Charlie Zelle</td>
<td>Metropolitan Council</td>
</tr>
<tr>
<td>Councilmember Francisco Gonzalez</td>
<td>Metropolitan Council</td>
</tr>
<tr>
<td>Commissioner Jim McDonough</td>
<td>Ramsey County</td>
</tr>
<tr>
<td>Commissioner Rafael Ortega</td>
<td>Ramsey County</td>
</tr>
<tr>
<td>Commissioner Stan Karwoski</td>
<td>Washington County</td>
</tr>
<tr>
<td>Commissioner Lisa Weik</td>
<td>Washington County</td>
</tr>
<tr>
<td>Councilmember Jane Prince</td>
<td>Saint Paul</td>
</tr>
<tr>
<td>Councilmember Rebecca Cave</td>
<td>Maplewood</td>
</tr>
<tr>
<td>Mayor Stan Suedkamp</td>
<td>Landfall</td>
</tr>
<tr>
<td>Mayor Paul Reinke</td>
<td>Oakdale</td>
</tr>
<tr>
<td>Mayor Anne Burt</td>
<td>Woodbury</td>
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<tr>
<td>General Manager Wes Kooistra</td>
<td>Metro Transit</td>
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<tr>
<td>Deputy District Engineer Sheila Kauppi</td>
<td>MnDOT</td>
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<tr>
<td>Co-Chair Mary Brandt</td>
<td>Community and Business Advisory Committee (CBAC)</td>
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<tr>
<td>Co-Chair Darrell Paulsen</td>
<td>Community and Business Advisory Committee (CBAC)</td>
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CMC Agenda

• Welcome & Announcements
  – Review notes from December 3, 2020 meeting

• CBAC Update

• Project Update
  – Engineering Phase (60% Design) Scope, Schedule, and Budget

• Roadmap to Full Funding Grant Agreement (FFGA)
  – Discussion of inputs to 90% Scope, Schedule and Budget

• Engagement Update

• Next Steps
CBAC Update
Darrell Paulsen and Mary Brandt
CBAC Co-Chairs
Project Update

Engineering Phase (60% Design)
Scope, Schedule, and Budget

Chris Beckwith, Gold Line Project Director
New Starts Status/Entry to Engineering Update

FTA Postponed
Entry into Engineering

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

- ENVIRONMENTAL ASSESSMENT
- ONGOING EVALUATION, MONITORING AND MITIGATION
- DESIGN & ENGINEERING ADVANCEMENT
- CONSTRUCTION
- ONGOING PUBLIC ENGAGEMENT

June 2021
<table>
<thead>
<tr>
<th></th>
<th>Entry to Engineering (60% Cost Estimate - Entry to Engineering)</th>
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<tbody>
<tr>
<td>Project Budget</td>
<td>$531.9 M</td>
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<tr>
<td>Total Project Contingency</td>
<td>32.7%</td>
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<td>Escalation Factor</td>
<td>3.5%</td>
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<td>Base Year Estimate</td>
<td>2019</td>
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<tr>
<td>Forecast Year</td>
<td>$YOE (2022-2024)</td>
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Design and Environmental Update

• Environmental Re-evaluation signed by FTA based on 90% design
• Field work is complete (geotechnical and survey)
• Right of way acquisition process continues to advance
• 90% plans in March 2021
• Final design coordination meetings in April and May
• Scope and Cost Refresh in June
• 100% plans in Q3 2021
Real Estate Overview

- ~170 Parcels identified that require property rights
- Total ROW budget is ~$53M
Real Estate Update (as of 6/1/21)

- Authorized by Joint Powers Board (99 parcels): $15,090,157
- Offers Made (44 parcels): $323,850
- Offers Accepted/Funds Expended (27 parcels): $21,650
Roadmap to Full Funding Grant Agreement (FFGA)

Chris Beckwith, Gold Line Project Director
Charles Carlson, Director of BRT Projects
Brian Funk, Deputy Chief Operating Officer - Bus
Summer 2021 inputs for FFGA application*

- Removal of Joint Development
- 494 Park and Ride Site Design
- Timing of Federal Appropriations required for FFGA
- FTA Risk Assessment Recommendations
- Bus Propulsion Recommendation
- Scope and schedule inputs to updated cost
- Cost contingency drawdown

*will inform the 90% Design Scope, Schedule and Budget
494 Station/Park-and-Ride Update

- Joint Development Update
  - County Service Center will not be pursued within the Gold Line Project
  - 90% Design cost update will remove Service Center costs

- 494 Park and Ride Design
  - Ongoing coordination with Woodbury, Washington Co & Metro Transit to advance site design
  - Structured parking and 512 stalls required at the site to maintain Medium-High project rating
  - Flexibility for future consolidation of express route park and rides
  - Separate design schedule and construction package
FFY22 Federal Budget and Annual Report
(published May 28, 2021)

- METRO Gold Line is one of just two New Starts projects recommended for new funding agreements in FFY2022
- $100M recommended
- Medium-High rating
Full Funding Grant Timeline

- Funding recommendation critical first step towards Full Funding Grant Agreement
- Grant application will follow congressional appropriations and FTA allocation process
- After allocation, grant review begins
- Expected duration into 2022

May 2021: Proposed Funding (FTA)

Late 2021: FFY 2022 Appropriations (Congress)

Early 2022: Funding Allocation (FTA)

2022: Grant Review and Award (FTA)
Path to Full Funding Grant Agreement

100% Plans

Ongoing Project/FTA readiness review and grant preparation

Anticipated timeline shift – FFGA application & construction advertisement to await Congress, FFY22 allocation
Ongoing Readiness for Funding

- FTA coordination and project review continues
  - Project management plans
  - Financial plans and capacity assessments
  - Risk reviews and plans
  - Cost estimate updates
- Completing design in summer 2021 remains a critical strategy to demonstrate project readiness for funding
  - Final issue resolution and agreement development will demonstrate project readiness
Metro Transit 60-foot Electric Bus Pilot (C Line)

www.metrotransit.org/electric-buses

VEHICLES

Manufacturer:
NEW FLYER OF NORTH AMERICA, ST. CLOUD

Fleet size:
(8) 60-FOOT "ARTICULATED" BUSES

Cost:
C LINE BATTERY ELECTRIC BUSES COST $1,390,000 PER BUS, NOT INCLUDING CHARGING EQUIPMENT (FOR COMPARISON C LINE DIESEL BUSES COST $834,000 PER BUS)

Range:
<100 MILES

Top speed:
65 MPH

Includes:
6 BATTERY STRINGS CONSISTING OF 42 BATTERY MODULES, PROVIDING A TOTAL BATTERY CAPACITY OF 466 KWH DIESEL-FIRED AUXILIARY HEATER TO PRESERVE RANGE IN COLD WEATHER

Power:
8 PLUG-IN STYLE AT HEYWOOD GARAGE

2 RAPID OVERHEAD CHARGERS FOR QUICK BOOSTS DURING BREAKS
National Trends

- Focus on advancements in electric, not hybrid
- Significant ongoing evolution in electric bus technology
  - Interest and support at Federal and State level to continue progress towards zero-emissions
- Future transit industry direction remains unknown:
  - Charging locations - in field (on-route) or at garage?
  - Range of vehicles - today and in the future (5 years, 10+ years)
  - Current reliability/availability of electric vs. diesel buses
- Not comparable to electric automobile ownership:
  - Higher maintenance costs and needs compared to diesel
  - Higher energy costs – especially for peak/on-route charging
  - Likely battery replacement- $300,000+ per bus at midlife
- Limited resale or redeployment of diesel vehicles in the future
Electric Buses at Metro Transit: Next Steps

**2021**
Return existing electric buses to service

- All buses/chargers in-service only 10 of 732 service days since June 2019
- All chargers out of service since early 2021
- All chargers planned for replacement

**May 2021**
Zero emission bus transition master contracts

- Contracts awarded May 2021
- On-demand expertise and support for transition planning to zero emission buses
- Principles and guidance, assessment and evaluation, inputs to capital program

**Ongoing**
Continue electric bus pilot projects

- 40-foot bus pilots. Low/No funding requested
- Xcel energy, Congressional actions, and other future partnerships
- Project-specific purchases, including additional Gold Line buses
Evaluation of Electric Bus “Fit” for Gold Line

• Six weekday scenarios reviewed
  – Diesel, Hybrid and Electric Fleet Combinations
  – Battery Electric Buses (EVs) – Garage charging only
  – Battery Electric Buses (EVs) – Garage and field charging

• Technical Analysis included:
  – Capital cost (vehicles & infrastructure)
  – Operating cost (hours/miles/power)
  – Operational considerations
    • Fit with operator duty rules
    • Managing pull-ins/pull-outs
  • Reliability and brand promise
  • Environmental sustainability
Gold Line service requires 9 peak and 3 spare buses

<table>
<thead>
<tr>
<th>9 peak buses</th>
<th>3 spare</th>
</tr>
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<tbody>
<tr>
<td><img src="image1" alt="Buses" /></td>
<td><img src="image2" alt="Buses" /></td>
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</tbody>
</table>

Proposed approach for 90% scope and cost estimate:

- Ensure reliability of base fleet need with diesel buses (12)
- Invest in additional electric buses (5) and garage chargers (5) to continue technology development toward electrification
- Ensure additional scope does not change FTA project rating

<table>
<thead>
<tr>
<th>9 diesel buses</th>
<th>3 diesel spares</th>
<th>5 electric buses</th>
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<tbody>
<tr>
<td><img src="image3" alt="Buses" /></td>
<td><img src="image4" alt="Buses" /></td>
<td><img src="image5" alt="Buses" /></td>
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Summary of inputs to 90% Cost Estimate

- Remove Joint Development from scope
- Schedule Assumptions
  - Start of construction remains in 2022, partial year of construction
  - Additional inflation costs to account for construction schedule risk
- Bus Propulsion
  - Add 5 electric buses and charging equipment to project scope
  - Maintain 12 diesel buses as project baseline
  - Evaluate both 40-foot and/or 60-foot buses for Gold Line
- Contingency
  - Assumed contingency is 23-28%, dependent on risk assessment
  - Subject to FTA review and determination for final 90% Cost
Engagement Update
Liz Jones, Gold Line Outreach Coordinator
Engineering Phase Engagement

• Activities:
  – Right-of-Way acquisition and property owner engagement
  – Community/neighborhood/business organizations engagement
  – Develop plan for pre-construction engagement
Pre-Construction Communications and Outreach Goals:

- Share station and route design to help the public visualize the line
- Provide information on the construction activities, schedule, and anticipated impacts
- Communicate where the public can get construction updates
- Share who to contact with questions and concerns during construction
- Coordinate with property owners on permanent and temporary easements and work with them to minimize and/or mitigate property and construction impacts
- Communicate public concerns to construction staff to minimize and/or mitigate construction impacts to public, property owners, businesses.
CMC Next Steps

• Gold Line Project Office (GPO) to finalize design resolution with project partners

• Preparation of 90% cost estimate with FTA and project partners over summer

• Next CMC Quarterly Meeting September 2, 2021