Today’s Topics

• Call to Order/Introductions
• Approval of Minutes
• Project Overview
• Traffic Signal Coordination
• 60% Plans Update
  ▪ Advanced Construction: Bassett Creek Storm Sewer Relocation
Project Overview
• Light Rail Transit
  - Blue Line (2004)
  - Green Line (2014)
  - Green Line Extension (2021)
  - Blue Line Extension (2021)
• Bus Rapid Transit
  - Red Line (2013)
  - Orange Line (2019)
  - Gold Line (TBD)
Project Overview

- 11 new LRT stations
- 13.5 miles of double track
- 27,000 est. rides by 2040
- Serving Brooklyn Park, Crystal, Robbinsdale, Golden Valley & Minneapolis
- One seat ride from Brooklyn Park to Bloomington
BLRT Alignment Video
Funding Sources: $1.536 Billion Budget

- **Counties Transit Improvement Board**: 30.19% ($463.76M)
- **Hennepin County RRA**: 9.74% ($149.6M)
- **State**: 9.74% ($149.6M)
- **Federal Transit Administration**: 49% ($752.73M)
- **Hennepin County MnDOT**: 0.53% ($8.19M)
- **Brooklyn Park**: 0.53% ($8.18M)

* Committed Local Funding
How Does Decision-making Occur?

Issue Resolution Process

- Issue Resolution Teams (IRT)
- Technical Project Advisory Committee (TPAC)
- Business and Community Advisory Committees (BAC/CAC)
- Corridor Management Committee (CMC)
- Met Council
Roles, Responsibilities and Resources
Advisory Committees

- Metropolitan Council
  - Blue Line Extension LRT Corridor Mgmt Committee
  - Blue Line Extension Project Office
- Shared Advisory Committees
  - CAC, BAC
- Supporting Committees
- Hennepin County
  - Community Works Steering Committee
  - Technical Implementation Committee
Business and Community Advisory Committees

• Serve as a voice for the community
• Advise Corridor Management and Community Works Steering Committees
• Provide input on design: stations, operations and maintenance facility, bike, pedestrian, and park-and-ride facilities
• Serve as information resource and liaison to the community
Business and Community Advisory Committees

IRTs  TPAC  BAC/CAC  CMC  Met Council

Advisory committee discussion and input
Accountability

• Serve a 2-year term and attend meetings
• Actively participate in discussions; be a voice to advance the broader interests of community
• Report back to entity represented
• Provide feedback on communication and public involvement efforts
• Listen to and respect the viewpoints of others
• Accept outcomes of Met Council decisions
Advisory Committee Leadership

• Co-Chair appointments:
  - Corridor-wide perspective

• Co-Chair roles/responsibilities:
  - Lead committees through their tasks and ensure charter compliance
  - Identify topics/issues of committee concern
  - Develop meeting agendas with BPO and Hennepin County staff
BPO Staff

• Identify topics/issues for advisory committee feedback and CMC guidance
• Develop meeting agendas with Advisory Committee Co-chairs
• Distribute agendas and meeting summaries
• Post committee presentations/meeting materials on BlueLineExt.ORG
CAC Membership

• Community appoints members:
  - Minneapolis: 3 members
  - Golden Valley: 2 members
  - Robbinsdale: 2 members
  - Crystal: 2 members
  - Brooklyn Park: 3 members
  - Minneapolis Park and Recreation Board: 2 members

• Corridors of Opportunity Engagement Grantees: 10

• At-large representation appointed by Met Council and Hennepin County Community Works: 2
BAC Membership

• Community appoints 2 members each:
  ▪ Minneapolis
  ▪ Golden Valley
  ▪ Robbinsdale
  ▪ Crystal
  ▪ Brooklyn Park

• Chambers of Commerce appoint 1 member each:
  ▪ Minneapolis Regional
  ▪ TwinWest
  ▪ Robbinsdale
  ▪ North Hennepin Area

• At-large representation appointed by Met Council and Hennepin County Community Works: 3
Committee Resources

- Committee Pages: BlueLineExt.org
  - agendas
  - meeting summaries
  - presentations
- E-newsletter
- Text and/or email alerts
- One-pagers
- Maps/plans
- Documents
Community Outreach Coordinators

• Brooklyn Park:
  - Juan Rangel
    - Juan.rangel@metrotransit.org
    - 612-373-5338

• Crystal, Robbinsdale & Golden Valley:
  - David Davies
    - David.davies@metrotransit.org
    - 612-373-5336

• Minneapolis:
  - Sophia Ginis
    - Sophia.ginis@metrotransit.org
    - 612-373-3895
Communication & Outreach Tools

- Advisory committees
- Project website
- Newsletters/factsheets/one-pagers
- Social media
- Media briefings/tours
- Video/animations
- Community meetings
- Property owner meetings
- Door-to-door canvassing
Traffic Signal Coordination
Introduction

• Automatic Block Signaling (ABS) LRT Operation
  ▪ Freight railroad corridor
  ▪ Corridor is separated into sections or “blocks” and LRV spacing and movements are controlled with a series of automatic rail signals

• Bar Signals: Line-of-Sight LRT Operation
  ▪ Olson Memorial Hwy and W Broadway Ave
  ▪ Bars signals, which are part of the traffic signal system, control LRV movements through intersections
Transit Signal Priority and Preemption

• Transit Signal Priority (TSP)
  ▪ Changes to traffic signal timing to assist the efficient movement of transit vehicles

• Preemption
  ▪ Typically associated with Emergency Vehicle Preemption (EVP) or Railroad Preemption
Transit Signal Priority and Preemption

A spectrum from priority to preemption

Priority
- Coordinated Timings
- Early/Extended Green
- Modified Signal Sequence

Preemption
- Disrupted Coordination
- Skipped Left-Turn or Pedestrian Movements
- Automatic Gates
Transit Signal Priority and Preemption

• 23 intersections controlled by bar signals
  ▪ Example: Olson Memorial Hwy and Penn Ave

• 8 highway-railroad grade crossings with automatic gates
  ▪ Example: Corvallis Ave-railroad grade crossing

• 3 highway-railroad grade crossings with automatic gates and traffic signal preemption
  ▪ Example: Bass Lake Rd-railroad grade crossing
Transit Signal Priority and Preemption

• TSP Goal: Provide **efficient** and **reliable** transit travel times without unduly impacting other modes

• Each intersection is evaluated to determine the appropriate level of priority
  - LRT needs
  - Pedestrian and bicycle needs
  - Vehicle traffic needs

• Technology advances continue to improve TSP capabilities
BLRT Operations

LRT system connected to traffic signals

TSP calls sent between traffic signals

Signals are interconnected via fiber network

LRT detection along the corridor
Predictive Priority

• Use LRT detection upstream

• Serve LRT phase when the LRV arrives at the intersection, if possible
  ▪ EVP overrides LRT call
  ▪ Pedestrian clearance always served
  ▪ Minimum vehicle phases always served

• Controllers can serve other phases with demand immediately after LRV clears
  ▪ Gives left-turn and cross street traffic more opportunities to be served, especially during longer cycle lengths
Next Steps

• Design a robust detection system
  ▪ Provides flexibility in operations

• Investigate signal controller capabilities during design and operations planning

• Work with operating agencies to identify operational priorities and understand tradeoffs

• Use a data-driven approach to identify impacts and determine if adjustments are needed
60% Plans Update
Design: 60% Plans Update

- Completed May 10
- Plans shared with project partners for review and comment
- Comments are being addressed and changes will be included in 90% plans
- Design details to resolve prior to 90% plan production
  - Robbinsdale Park and Ride
  - Oak Grove Park and Ride
  - West Broadway streetscape
  - Olson Memorial Highway streetscape
## Project Budget: 60% Engineering

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<tr>
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<th>30% Estimate</th>
<th>60% Estimate</th>
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<tr>
<td>Project Budget</td>
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<tr>
<td>(Met Council Approved 9/28/2016)</td>
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<tr>
<td>Total Project Contingency</td>
<td>29%</td>
<td>25%</td>
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<td>Escalation Factor</td>
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<td>Base Year Estimate</td>
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<td>2017</td>
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Cost Uncertainty By Project Phase

- **DEIS Municipal Consent**
  - % Design Complete: 1%
  - Cost Uncertainty: 15%

- **Project Development**
  - % Design Complete: 30%
  - Cost Uncertainty: 60%

- **Engineering**
  - % Design Complete: 60%
  - Cost Uncertainty: 100%

- **Construction**
  - % Design Complete: 100%
  - Cost Uncertainty: 100%
Advanced Construction: Bassett Creek Storm Sewer Relocation
Bassett Creek Culvert: Circa 1884
Bassett Creek Storm Sewer Relocation

- Storm sewer conflicts with Van White Station and LRT guideway
- Critical path element: reduces construction staging and phasing of Olson Memorial Highway (OMH)
- Relocation needs to occur during storm water low flow time period: Fall/Winter
- Identified on MnDOT structurally deficient list
Bassett Creek Storm Water Overview
Bassett Creek Storm Water Overview
Bassett Creek Storm Sewer Utility Relocation

- June: Two bid packages released
  - Material procurement
  - Tunnel construction bid package
- July: Award material procurement contract
- September: Award construction package
- Fall 2017: Construction begins
  - Closure of OMH to start after Oct 27, 2017 allowing completion of I-94 work
  - Up to 12 day closure of OMH
- Estimated project cost: $4.4M
More Information

Website: BlueLineExt.org
Email: BlueLineExt@metrotransit.org
Twitter: @BlueLineExt