Today’s Topics

• Approval of Meeting Minutes
• Chair’s Update
• Traffic Signal Coordination
• 60% Plans Update
  ▪ Advanced Construction: Bassett Creek Storm Sewer Relocation
• Project Schedule Update
Chair’s Update
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><strong>Project Budget</strong></td>
<td>$1.536 B</td>
<td>$1.536 B</td>
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<td>(Met Council Approved 9/28/2016)</td>
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<tr>
<td><strong>Total Project Contingency</strong></td>
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<td><strong>Forecast Year</strong></td>
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<td>$YOE (2018, 2019 and 2020)</td>
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Cost Uncertainty By Project Phase

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<tr>
<th>Phase</th>
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<tr>
<td>DEIS</td>
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<td>Municipal Consent</td>
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<td>Project Development</td>
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<tr>
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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
Project Schedule Update
Major Project Milestones Achieved

• September 2016
  - Completed NEPA environmental process
  - Completed Project Development phase of the New Starts process
  - Set project scope and budget at $1.536 B

• January 2017
  - FTA granted Entry into Engineering

• March 2017
  - Completed 60% Civil and OMF design

• May 2017
  - Completed 60% Systems design
Next Steps

• Complete 90% design

• Secure full local funding commitment
  ▪ CTIB dissolution and increase in Hennepin County sales tax allows for Hennepin County to assume remaining local funding share
  ▪ FTA completes Financial Capacity Assessment

• Negotiate freight rail agreements
  ▪ Conclude negotiations with BNSF

• Secure Federal funding
  ▪ Recognized as one of five projects in Engineering in the May 2017 Annual FTA report with Medium-High rating
  ▪ Seek congressional appropriations in FY2018 budget

• Submit FFGA application in May 2018
## Schedule Update

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<th>Milestone</th>
<th>Previous</th>
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<tr>
<td>Advanced Utility Work</td>
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<td>October 2017</td>
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<tr>
<td>90% Plans</td>
<td>August 2017</td>
<td>November 2017</td>
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<td>100% Plans</td>
<td>December 2017</td>
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<tr>
<td>Advanced Construction</td>
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<td>May 2018</td>
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<tr>
<td>Apply For FFGA</td>
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<td>Receive FFGA</td>
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<td>Heavy Construction</td>
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<tr>
<td>Revenue Service Date</td>
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More Information

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