Today’s Topics

• Outreach Update
• TI #1 and 2: Target Field Station Connection to I-94: Recommendation
• 85\textsuperscript{th} Station Configuration
• 93\textsuperscript{rd} Station Configuration
• DEIS Scope and Cost Estimate Update
Outreach Update
June 2 Business Advisory Committee
June 4 Minneapolis/Golden Valley Open House
June 11 Robbinsdale Open House
June 17 Brooklyn Park Open House
Station area planning update
Community Advisory Committee – July 6, 2015
Business Advisory Committee – July 7, 2015
What is station area planning?
Station area planning

“Sets the table” for the look, feel and fit of the station into the community

AND …

Results in recommendations for local communities and agencies to consider
Station area planning is...

Community-based planning that considers:

- ½ mile area surrounding proposed LRT station
Station area planning is ...

Transit supportive plans that consider:

- Land use
- Types and character of buildings
- Access and circulation (bike, walk, car, bus)
- Public spaces, including streets and trails
Station area planning and health equity

Strive to improve community health and health equity by planning for:

Housing, transportation, jobs, parks, and land uses that are safe, accessible and affordable to all.
Station area planning

» Local effort with Hennepin County and partners

» 11 stations total
  • Minneapolis – 2
  • Golden Valley/Minneapolis – 2
  • Brooklyn Park – 5
  • Robbinsdale – 1
  • Crystal – 1
Technical Issues
Technical Issue #1 and #2: Target Field Station Connection to I-94 Interchange: Recommendation
Technical Issue #1: Target Field Station Connection Background

• Plan view from Target Field Station through I-94 Interchange
Technical Issue #1: Target Field Station Connection

• Key Issues:
  - Connection requires coordination with SWLRT
  - 7th Street intersection has a unique geometry
  - Intersection is challenging for safe pedestrian and bike access
Technical Issue #1: Target Field Station Connection - Existing Configuration
Technical Issue #1: Target Field Station SWLRT Connection
Technical Issue #1: Target Field Station SWLRT and BLRT Connection
Technical Issue #1: Target Field Station Connection viewed through 7th St. Intersection
Technical Issue #1: 7th St and Olson Memorial Highway Intersection

• Key movements are Olson Memorial Highway EB right-turn in the AM and 7th Street NB left-turn in the PM
• Existing signal operations have 2-stage pedestrian crossings
• With recommended lane geometry, LRT will operate on its own phase
• EB right-turn will be allowed to be green with LRT phase
• All other phases will be red
• Pedestrian crossings are proposed to be 1-stage
• Intersection is expected to have acceptable operations in 2040 with recommended geometric changes and the addition of LRT
Technical Issue #1: 7th St and Olson Memorial Highway Intersection
Technical Issue #1: 7th St and Olson Memorial Highway Intersection

- 7th Street design to include:
  - 7th Street intersection design as proposed in presentation
  - BLRT crossing east of 7th Street to center median
  - Center running LRT on TH55/Olson Memorial Highway
Technical Issue #2: I-94 Interchange

• Key Issues:
  ß LRT center running on existing bridge
  ß Bridge requires structural reinforcement under LRT guideway
  ß Bridge left intact outside of guideway
  ß New signals systems installed at intersections
Technical Issue #2: I-94 Interchange
Technical Issue #2: I-94 Interchange

- Cross section of existing bridge
Technical Issue #2: I-94 Interchange

- Cross section of proposed improvements (removal)
Technical Issue #2: I-94 Interchange

- Cross section of proposed improvements
Technical Issue #2: I-94 Interchange Recommendation

• Center running LRT on existing I-94 bridge
• Continue coordination with the MnDOT and City of Minneapolis on final design of interchange
85th Station Configuration
85th Station from DEIS
85th Station Configuration

• Issues to be resolved:
  - Platform configuration
  - Pedestrian access
  - Bus stop locations
  - Passenger drop off
85th Station Configuration

• Platform configuration
  ß Changed from split side platform to center platform

• Pedestrian access from 85th Ave and from pedestrian crossing at southern end of station platform

• Bus stops on West Broadway and on 85th Ave

• Passenger drop off
  ß Continue to analyze in conjunction with City
85th Station Configuration
93rd Station Configuration
93rd Station from DEIS
93rd Station Configuration

• Issues to be resolved:
  § Track layout and platform location
    o Private development on DEIS park and ride location
      ‡ Track continuing on West Broadway
      ‡ Modified station platform location
  § Pedestrian access
  § Bus stop locations
  § Passenger drop off without park and ride
93rd Station Configuration

- Track layout and platform location
  - Track remains on West Broadway
  - Center platform on south side of 93rd

- Pedestrian access from 93rd and from pedestrian crossing at southern end of station platform near 92nd Ave

- Bus stops on West Broadway and on 93rd Ave

- Passenger drop off
  - Continue to analyze in conjunction with City
93rd Station Configuration
Overview of DEIS Scope and Cost Estimate
Cost Uncertainty By Project Phase

- DEIS: 1% Design Complete, 99% Cost Uncertainty
- Municipal Consent: 15% Design Complete, 85% Cost Uncertainty
- Project Development: 30% Design Complete, 70% Cost Uncertainty
- Engineering: 60% Design Complete, 40% Cost Uncertainty
- Construction: 100% Design Complete, 0% Cost Uncertainty
Cost Estimate vs. Budget

• Cost Estimate
  ø Preliminary cost of project based on DEIS scope, minimal engineering, and initial risk identification
  ø As level of design increases and risks are further defined the cost estimate is updated and refined
  ø Includes soft costs (engineering, project office, etc.), right-of-way, construction (YOE$), vehicles, and contingency

• Project Budget
  ø Cost of the project based on:
    o Scope - revised and approved
    o Risk - identified and accounted for
    o Contingency – unknown unknowns
  ø Prepared for FTA New Starts application into Engineering Phase (anticipated June 2016)
## Project Delivery Process

<table>
<thead>
<tr>
<th>% Design</th>
<th>DEIS</th>
<th>Municipal Consent</th>
<th>Project Development</th>
<th>Engineering</th>
<th>Construction Bid Packages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1%</td>
<td>15%</td>
<td>30%</td>
<td>60%</td>
<td>90-100%</td>
<td></td>
</tr>
</tbody>
</table>

### Level of Design Detail

<table>
<thead>
<tr>
<th>Survey Work</th>
<th>Aerial mapping</th>
<th>Phase I: Desk review and field observation – Geotechnical Borings</th>
<th>Phase II: Technical field work – Preliminary Soils Analysis</th>
<th>Final soils analysis</th>
<th>Archaeological recovery, mitigation measures</th>
</tr>
</thead>
</table>

- **General station locations, route and cost allowances**
- **Station footprints, general track location and grade, and OMF location**
- **Stations, track, facilities and structure dimensions**
- **Station types, track, facilities and structure detail**
- **Electrical and communications systems**
- **Color and texture of facilities**
- **Construction methods**
## Capital Cost Overview: DEIS Assumptions

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEIS Cost Estimate</td>
<td>$1.002 B</td>
</tr>
<tr>
<td>Total Project Contingency</td>
<td>34%</td>
</tr>
<tr>
<td>Escalation Factor</td>
<td>3%</td>
</tr>
<tr>
<td>Base Year Estimate</td>
<td>2012</td>
</tr>
<tr>
<td>Forecast Year</td>
<td>2017 (mid-point of construction)</td>
</tr>
</tbody>
</table>
**Contingency and Risk**

- Contingency is budget set aside to account for project risks

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Design</th>
<th>Market</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xcel Transmission Towers</td>
<td>Floodplains</td>
<td>Construction Bids</td>
<td>Unforeseen Conditions</td>
</tr>
<tr>
<td>BNSF Negotiations</td>
<td>Poor Soils</td>
<td>Right-of-Way</td>
<td>Contaminated Soils</td>
</tr>
<tr>
<td>Municipal Consent</td>
<td>Wetlands</td>
<td>Finance Costs</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Schedule Delay</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Light Rail Vehicles</td>
<td></td>
</tr>
</tbody>
</table>
Cost Contingency Targets

Contingency

BLRT Cost Contingency

DEIS  Project Development  Entry into Engineering  Engineering Bids  Construction  Mid Construction  End Construction/Rev Ops
Guideway and Track: Included in DEIS Cost Estimate

• Ballasted track

• Guideway structures
  - TH 610 LRT bridge (Brooklyn Park)
  - TH 100 LRT bridge (Robbinsdale)
  - TH 100 BNSF bridge (Robbinsdale)
  - LRT bridge over existing CP Rail Line (Crystal)
  - I-94 bridge modifications
  - HERC LRT bridge (Minneapolis)

• Soil mitigation costs: at exploration level
Guideway and Track: Not Included in DEIS Cost Estimate

• Embedded track
• Grade separation at intersections
  β 42nd Ave
  β 73rd Ave
• Corridor protection: BNSF
Stations

• Included in DEIS cost estimate:
  10 stations
  1 elevator at Golden Valley Rd Station

• Not included in DEIS cost estimate:
  Plymouth Ave Station that requires vertical circulation and bridge replacement
  Pedestrian Overpass at 63\textsuperscript{rd} Ave Station
Support Facilities

• Included in DEIS cost estimate:
  β Operations and Maintenance Facility (OMF) for routine maintenance
  β Storage space for 26 vehicles

• Not included in DEIS cost estimate:
  β OMF site roadway realignment
  β Space and equipment for major repairs
Sitework and Special Conditions: Included in DEIS Cost Estimate

• Roadway bridge reconstruction
  ß TH 55

• Roadway bridge minor modifications
  ß 36th Ave
  ß Golden Valley Rd
  ß Theodore Wirth Pkwy
  ß Plymouth Ave

• Partial reconstruction of Olson Memorial Highway

• Reconstruction of all at-grade crossings
Sitework and Special Conditions: Included in DEIS Cost Estimate (cont.)

• Park-and-Ride sites
  • 93rd Ave(structure)/Oak Grove Parkway (surface ): 800 stalls
  • 63rd Ave: 725 stalls
    ß 565 existing
    ß 160 additional stalls with a 3rd level to existing facility
  • Robbinsdale: 500 structured stalls
• Xcel Energy Transmission relocation of 14 towers
Sitework and Special Conditions: Not Included in DEIS Cost Estimate

• Park and Ride
  § Golden Valley Rd Station
  § Bass Lake Rd Station

• Roadway reconstruction on West Broadway
  § Candlewood to 93rd Ave (Funded by Hennepin County Capital Improvement Program)

• Full reconstruction of Olson Memorial Highway

• Grade separated pedestrian crossings
Systems

• Included in DEIS Cost Estimate:
  ß 13 Traction Power Substations
  ß Grade crossing protection gates for LRT and/or freight
    o 10 at-grade crossing
    o 12 signalized intersections

• Not Included in DEIS Cost Estimate:
  ß Gated crossings along West Broadway
Right-of-Way

• Included in DEIS Cost Estimate:
  17 full acquisitions
  56 partial acquisitions
  Acquisition of 50-feet of BNSF right-of-way

• Not Included in DEIS Cost Estimate:
  Acquisition for additional Park and Ride sites
Vehicles

• Included in DEIS Cost Estimate:
  β 26 vehicles
  β 15% spare ratio
  β Assumption of 2-car consists

• Not Included in DEIS Cost Estimate:
  β 3-car gap train
  β 20% spare ratio
Next Steps

• July-Aug 2015: Review DEIS cost estimate and scope with advisory committees, Met Council

• Nov 2015: Refine project scope for Municipal Consent and update cost estimate

• June 2016: Prepare project budget for request to enter engineering
Next Meeting: August 3, 2015
More Information

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