Joint Business and Community Advisory Committee Meeting

July 25, 2013
Today’s Topics

• Welcome and Introductions
• Supplemental Draft Environmental Impact Statement (SDEIS) Update
• Project Scope and Cost Estimate Presentation
• Summary of BAC/CAC Comments
• Adjourn
Supplemental Draft Environmental Impact Statement Update
Project Scope and Cost Estimates
Project Scope and Cost Estimate

• Project scope refinement during Project Development
  • Reflects input and coordination:
    • DEIS comments – received 900+ public comments
    • City/Agency input – held 100+ Issue Resolution Team meetings
    • Project advisory input - BAC, CAC, SWCMC
    • Public input received from 13 public open houses (1000+ public comments) and 155+ community/stakeholder meetings
    • TSAAP coordination
  • Follows guiding principles for major scoping decisions
  • Establishes scope for Municipal Consent Plans
  • Provides context for continued discussions with stakeholders as project moves forward
SWLRT Project Development Technical Issues

Revision 04: 28 May 2013

Technical Issues:
1. Eden Prairie Alignment
2. Nine Mile Creek Crossing
3. Golden Triangle Station
4. Shady Oak Road & TH 212 Crossing
5. City West Station & TH 62 Crossing
6. Opus Station
7. Opus Hill/Minnetonka-Hopkins Bridge
8. Shady Oak Station

9. PEC West/PEC East Interface Point

System-wide Technical Issues (not shown):
22. Traction Power Substation and Signal Bungalow Locations
23. Operation & Maintenance Facility (OMF) Location
24. Park & Ride, Kiss & Ride and Bus Layover Locations
25. Trails and LRT Interface Coordination
SWLRT PD Technical Issues
Principles for SWLRT Major Scoping Decisions (see handout)

• **Purpose**

  • Establish a set of decision-making principles that are clear and transparent
  
  • Address concerns raised in the DEIS public comment process
  
  • Evaluate project elements in a consistent manner
Project Scope and Cost Rollout

- Design adjustments and cost estimates
  - Technical Issues (TI) #2 – 20, 22, 24 and 25
  - Big three TI’s
    - TI #23 Operations and Maintenance Facility (OMF)
    - TI #1 Eden Prairie Alignment
    - TI #21 Freight Rail Co-location/Relocation
Overall Cost Estimate Methodology

• Cost Estimates
  • Total Project costs include capital improvements, ROW acquisition, contingency and design related costs
  • Based on 2013 Costs
  • Costs are cited in Year of Expenditure ($YOE)
Technical Issues
#2 – 20, 22, 24 and 25
TI #2: 9-Mile Creek Crossing

• Design adjustment:
  • Bridge structure over Flying Cloud Drive
• Benefits:
  • Minimizes property acquisition
  • Avoids modifications to Flying Cloud Drive and impacts to charter school
• Revised design cost estimate: $33 M (LPA Δ +$17 M)
• Primary cost driver:
  • Bridge structure over Flying Cloud Drive
TI #2: 9-Mile Creek Crossing
TI #3: Golden Triangle Station

• Design adjustments:
  • Station platform
  • P&R – 275 surface spaces

• Benefits:
  • Station location accommodates future development

• Revised design cost estimate: $15 M (LPA Δ +$3 M)

• Primary cost drivers:
  • Land bridge for track/station over soft soils
  • ROW acquisition
TI #3: Golden Triangle Station
TI #4: Shady Oak Road & TH 212 Crossings

• Design adjustment:
  • Change in type and location of LRT crossing of Shady Oak Road and TH 212

• Benefits:
  • Coordinates with City-led Shady Oak Road improvements
  • Combines Shady Oak Road and TH 212 crossings into single bridge
TI #4: Shady Oak Road & TH 212 Crossings
TI #5: City West Station & TH 62 Crossing

• Design adjustments:
  • Station and alignment location
  • TH 62 crossing to cut and cover tunnel
  • P&R: 190 surface spaces

• Benefits:
  • At-grade station provides improved access and capital cost savings over LPA
  • Tunnel preserves future opportunities for development infill within Opus
  • Tunnel provides capital cost savings over LPA bridge
TI #5: City West Station & TH 62 Crossing
TI #4: Shady Oak Road & TH 212 Crossings
TI #5: City West Station & TH 62 Crossing

• Revised design cost estimate: $94 M (LPA Δ -$2 M)
• Primary cost savers:
  • Tunnel under TH 62
  • ROW acquisition
  • Platform at-grade
TI #6: Opus Station

• Design adjustments:
  • Station location
  • Trail connections
  • P&R: 90 surface spaces

• Benefits:
  • Station location accommodates future development

• Revised design cost estimate: $13 M (LPA Δ +$0 M)
TI #6: Opus Station
TL #7: Opus Hill

• Design adjustments:
  • Track alignment
  • Roadway connection at Feltl Road and Smetana Road

• Benefits:
  • Avoids wetland
  • Improves crossing at Smetana Road
TI #7: Opus Hill
TI #7: Minnetonka/Hopkins Bridge

- Design adjustment:
  - Define bridge type

- Benefits:
  - Efficient and simple construction
TI #7: Minnetonka/Hopkins Bridge
TI #7: Minnetonka/Hopkins Bridge
TI #7: Opus Hill & Minnetonka/Hopkins Bridge

• Revised design cost estimate: $74 M (LPA Δ -$13 M)
• Primary cost saver:
  • Bridge structure over CP’s Bass Lake Spur tracks and wetlands
TI #8: Shady Oak Station

- **Design adjustments:**
  - Adjust alignment and station
  - Extends 17th Avenue South
  - P&R: 500 surface spaces

- **Benefits:**
  - Station location accommodates future development
  - Design adjustment cost estimate: $49 M (LPA $6 M)

- **Primary cost saver:**
  - ROW acquisition
TI #8: Shady Oak Station
TI #9: PEC-West & PEC-East Interface

- Design adjustments:
  - No adjustments; engineering coordination point
TI #10: Downtown Hopkins Station

- **Design adjustments:**
  - Bus facilities
  - Preserves space for civic plaza

- **Benefits:**
  - Provides convenient connection to downtown Hopkins
TI #10: Downtown Hopkins Station
TI #11: Excelsior Boulevard Crossing

• Design adjustment:
  • Location of freight rail tracks and LRT tracks

• Benefits:
  • Allows stations east of Excelsior Boulevard to be located on south side of corridor
TI #11: Excelsior Boulevard Crossing
TI #12: Blake Station

• Design adjustments:
  • Location of freight rail tracks and LRT tracks
  • P&R: 445 structured spaces

• Benefits:
  • Station and P&R location accommodate future/joint development
TI #12: Blake Station

SITE DATA
SITE AREA: 2.91 ACRES
PARKING STRUCTURE:
AT 3 LEVELS = 359 SPACES
AT 4 LEVELS = 477 SPACES
POTENTIAL DEVELOPMENT: 29,000 SQ. FT. (FOOTPRINT)
PARKING PROVIDED UNDER BUILDING
TI #10: Downtown Hopkins Station
TI #11: Excelsior Boulevard Crossing
TI #12: Blake Station

- Revised design cost estimate: $85 M (LPA Δ +$22 M)
- Primary cost drivers:
  - Structured parking and ROW acquisition for Blake Station P&R
  - Longer bridge structure over Excelsior Boulevard to swap freight rail and LRT
TI #13: Louisiana Station

• Design adjustments:
  • Location of freight rail tracks and LRT tracks
  • Grade of station location
  • P&R: 225 surface spaces

• Benefits:
  • Station located closer to hospital and housing
  • Provides better access to station
TI #13: Louisiana Station
TI #13: Louisiana Station

SITE DATA

SITE AREA: 4.8 ACRES

SURFACE PARKING (WITH BRIDGE PIERS): 455 SPACES

*PARKING REQUIRED TO BE DETERMINED BY NUMBER OF PARK AND RID LOCATIONS AND POTENTIAL DEVELOPMENT
TI #14: Wooddale Station

• Design adjustments:
  • Location of freight rail tracks and LRT tracks
  • Change in trail alignment (trail underpass not included in cost estimate)

• Benefits:
  • Accommodates future development
TI #14: Wooddale Station
TI #14: Wooddale Station
TI #15: TH 100 Crossing

• Design adjustment:
  • Location of freight rail tracks and LRT tracks

• Benefits:
  • Allows stations to be located on south side of corridor
  • Minimizes overall project costs for both MnDOT TH 100 and SWLRT projects
TI #15: TH 100 Crossing
TI #15: TH 100 Crossing
TI 13: Louisiana Station
TI 14: Wooddale Station
TI 15: TH 100 Crossing

• Revised design cost estimate: $63 M (LPA Δ +$18 M)
• Primary cost drivers:
  • ROW acquisition for P&R, station and tracks at Louisiana Station
  • Louisiana Station P&R facility
  • Track alignment at Louisiana Station
TI #16: Beltline Station

- **Design adjustments:**
  - Location of freight rail tracks and LRT tracks
  - P&R: 545 surface spaces
  - Change in trail alignment (trail bridge over Beltline Road not included in cost estimate)

- **Benefits:**
  - Accommodates future development
  - P&R location avoids prime corner redevelopment potential

- **Revised design cost estimate:** $29 M (LPA Δ +$15 M)

- **Primary cost drivers:**
  - ROW acquisition for P&R
  - P&R facility
TI #16: Beltline Station
TI #16: Beltline Station
TI #17: West Lake Station

• Design adjustments:
  • Bus connections/facilities

• Benefits:
  • Accommodates future Midtown Corridor
  • Flexible design to accommodate future development
TI #17: West Lake Station
TI #17: West Lake Station
TI #18: Kenilworth Corridor: Cedar Lake Parkway Crossing

- Design adjustment:
  - Cedar Lake Parkway LRT and trail crossing to underpass

- Benefits:
  - Addresses Minneapolis Park and Recreation Board concerns for Grand Rounds crossing
TI #18: Kenilworth Corridor: Cedar Lake Parkway Crossing
TI #18: Kenilworth Corridor: 21st St. Station

• Design adjustment:
  • Eliminated P&R
  • Station would not be included under tunnel scenarios

• Benefits:
  • Provides direct access to bus connection
TI #18: Kenilworth Corridor: 21st St. Station
TI #18: Kenilworth Corridor: 21st St. Station
TI #17: West Lake Station
TI #18: Kenilworth Corridor – Cedar Lake Parkway & 21st St. Station

- Revised design cost estimate: $48 M \( (\text{LPA} -\Delta -$4 M) \)
- Primary cost saver:
  - Underpass vs. bridge at Cedar Lake Parkway
TI #19: Bassett Creek Valley Corridor - Penn Station

• Design Adjustments:
  • Station location
  • Trail alignment and connections

• Benefits:
  • Provides improved pedestrian connection to Penn Avenue/I-394
TI #19: Bassett Creek Valley Corridor – Penn Station
TI #19: Bassett Creek Valley Corridor - Penn Station
TI #19: Bassett Creek Valley Corridor – Van White Station

• Design adjustments:
  • Station location
  • Trail alignment and connections
  • Pedestrian vertical circulation

• Benefits:
  • Design accommodates potential future development
TI #19: Bassett Creek Valley Corridor – Van White Station
TI #20: Royalston Station

- **Design adjustments:**
  - LRT alignment and station location
  - Bridge structure over North 7th Street
- **Benefits:**
  - Accommodates truck delivery access to local businesses
  - Accommodates future development
  - Coordinates with HCRRA’s Interchange Project
  - Accommodates future Bottineau Project
TI #20: Royalston Station
TI #19: Bassett Creek Valley Corridor – Penn Station & Van White Station

TI #20: Royalston Station

- Revised design cost estimate: $96 M (LPAΔ +$1 M)
- Primary cost drivers:
  - Vertical circulation at Van White Station
  - Vertical circulation at Penn Station
  - Bridge structure over North 7th Street
Technical Issue #23
Operations and Maintenance Facility
## TI #23 OMF Site Location:
Two Candidate Site Finalists

<table>
<thead>
<tr>
<th>Site Number</th>
<th>Name (City)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4</td>
<td>City Garage (Eden Prairie)</td>
</tr>
<tr>
<td>9A</td>
<td>K-Tel East (Hopkins)</td>
</tr>
</tbody>
</table>
TI #23 OMF Site Location: Site Number 3/4
TI #23 OMF Site Location: Site Number 9A
## TI #23 OMF Site Location

<table>
<thead>
<tr>
<th>Site No.</th>
<th>Name (City)</th>
<th>OMF Site Cost Estimate (M)</th>
<th>LPA Δ M</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4</td>
<td>City Garage (Eden Prairie)</td>
<td>$95 - $100</td>
<td>$30 - $35</td>
</tr>
<tr>
<td>9A</td>
<td>K-Tel East (Hopkins)</td>
<td>$100 - $105</td>
<td>$35 - $40</td>
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</tbody>
</table>
## TI #23 OMF Site Location

<table>
<thead>
<tr>
<th>Site No.</th>
<th>Name (City)</th>
<th>Cost Drivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4</td>
<td>City Garage (Eden Prairie)</td>
<td>• Site demolition/clearing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Yard tracks on structure</td>
</tr>
<tr>
<td>9A</td>
<td>K-Tel East (Hopkins)</td>
<td>• Site demolition/clearing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Site grading/earthwork</td>
</tr>
</tbody>
</table>
Technical Issue #1
Eden Prairie Alignment Adjustment
TI #1 Eden Prairie Alignment: Three Alignment Adjustment Finalists

Description

Mitchell Station & Comp Plan Station via Technology Drive

Mitchell Station & Singletree Station via Technology Drive

Mitchell Station & Singletree Station via TH 212 frontage
TI #1 Eden Prairie Alignment: Mitchell Station & Comp Plan Station via Technology Drive
TI #1 Eden Prairie Alignment: Mitchell Station & Singletree Station via Technology Drive
TI #1 Eden Prairie Alignment: Mitchell Station & Singletree Station via TH 212 frontage
## TI #1 Eden Prairie Alignment

<table>
<thead>
<tr>
<th>Description</th>
<th>Eden Prairie Alignment Cost Estimate (M)</th>
<th>LPA Δ M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mitchell Station &amp; Comp Plan Station via Technology Drive</td>
<td>$195 - $205</td>
<td>$30 - $35</td>
</tr>
<tr>
<td>Mitchell Station &amp; Singletree Station via Technology Drive</td>
<td>$195 - $205</td>
<td>$30 - $35</td>
</tr>
<tr>
<td>Mitchell Station &amp; Singletree Station via TH 212 frontage</td>
<td>$195 - $205</td>
<td>$30 - $35</td>
</tr>
</tbody>
</table>
## TI #1 Eden Prairie Alignment

<table>
<thead>
<tr>
<th>Description</th>
<th>Primary Cost Drivers</th>
</tr>
</thead>
</table>
| Mitchell Station & Comp Plan Station via Technology Dr | • Bridge structure over Prairie Center Dr.  
  • Increased length of corridor by 1/3 mile  
  • ROW acquisition |
| Mitchell Station & Singletree Station via Technology Drive | • Increased length of corridor by 1/3 mile  
  • ROW acquisition |
| Mitchell Station & Singletree Station via TH 212 frontage | • Increased length of corridor by 1/2 mile  
  • ROW acquisition |
Technical Issue #21
Freight Rail
# TI #21 Freight Rail Design Options Summary

**Description**

<table>
<thead>
<tr>
<th>Option</th>
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<tbody>
<tr>
<td>Brunswick Central Freight Rail Relocation</td>
</tr>
<tr>
<td>Kenilworth Deep Bore LRT Tunnel</td>
</tr>
<tr>
<td>Kenilworth Shallow LRT Tunnel</td>
</tr>
</tbody>
</table>
Brunswick Central Freight Rail Relocation
Kenilworth Deep Bore LRT Tunnel
Kenilworth Shallow LRT Tunnel
Freight Rail – Cost Estimate Limits
Brunswick Central – Freight Rail Relocation

• Primary cost drivers:
  • Acquisition of homes and businesses
  • Freight rail bridge structures and retained fill/berms
  • Pedestrian underpasses
  • Lowering of TH 7 and frontage road
  • Reconfiguration of existing street network
Kenilworth Deep Bore LRT Tunnel

• Primary cost drivers:
  • Tunnel boring machine and access pits
  • Tunnel boring operations & ground settlement control
  • Subway tunnel station at West Lake
  • Vertical circulation at West Lake station
  • Ventilation systems
  • West Lake Street bridge reconstruction
  • Ground water management systems
Kenilworth Shallow LRT Tunnel

- Primary cost drivers:
  - Cut and cover excavation
  - Restricted construction area west of Channel Creek crossing
  - Ground stabilization at Burnham Road bridge piers
Freight Rail Common Scope Elements:

• Primary cost drivers:
  • Freight rail track
  • Freight rail bridge over Minnehaha Creek
  • Freight rail bridge over Louisiana Avenue
  • CP ROW swap
  • Southerly connection (Bass Lake Spur to MN&S Spur)

• Common scope elements cost: $85M - $90M
  • Cost of common scope elements is additive to each design option
# Freight Rail Cost Estimate Summary

<table>
<thead>
<tr>
<th>Design Option</th>
<th>Freight Rail Cost Estimate (M)</th>
<th>LPA Δ M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freight Rail Common Elements</td>
<td>$85 - $90</td>
<td>$85 - $90</td>
</tr>
<tr>
<td>Brunswick Central Freight Rail</td>
<td>$190 - $200</td>
<td>$190 - $200</td>
</tr>
<tr>
<td>Kenilworth Deep Bore LRT Tunnel</td>
<td>$320 - $330</td>
<td>$320 - $330</td>
</tr>
<tr>
<td>Kenilworth Shallow LRT Tunnel</td>
<td>$150 - $160</td>
<td>$150 - $160</td>
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</tbody>
</table>
LRT and Freight Rail
Cost Estimate Summary
# LRT Subtotal Cost Estimate Summary

LRT Project Cost LPA = $1,250 M

<table>
<thead>
<tr>
<th>Description</th>
<th>Revised Design Cost Estimate (M)</th>
<th>LPA Δ M</th>
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</thead>
<tbody>
<tr>
<td>Design adjustments</td>
<td>$885 - $915</td>
<td>$100 - $130</td>
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<tr>
<td>TI #1 – 20, 22 - 25</td>
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<tr>
<td>Vehicles</td>
<td>$115 - $125</td>
<td>$0 - $10</td>
</tr>
<tr>
<td>Design Related Costs</td>
<td>$350 - $360</td>
<td>$0 - $10</td>
</tr>
<tr>
<td><strong>LRT Subtotal</strong></td>
<td><strong>$1,350 - $1,400</strong></td>
<td><strong>$100 - $150</strong></td>
</tr>
</tbody>
</table>
### Total Project Cost Estimate Summary (LRT + Freight)

LRT Project Cost LPA = $1,250 M

<table>
<thead>
<tr>
<th>Description</th>
<th>Revised Design Cost Estimate (M)</th>
<th>LPA Δ M</th>
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</thead>
<tbody>
<tr>
<td>Design adjustment cost estimate (LRT Subtotal)</td>
<td>$1,350 - $1,400</td>
<td>$100 - $150</td>
</tr>
<tr>
<td>Freight rail common costs</td>
<td>$85 - $90</td>
<td>$85 - $90</td>
</tr>
<tr>
<td>Freight rail cost estimate</td>
<td>$150 - $330</td>
<td>$150 - $330</td>
</tr>
<tr>
<td>SWLRT Total Project Costs</td>
<td>$1,585 – $1,820</td>
<td>$335 - $570</td>
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Ridership Refresh

<table>
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<tr>
<th>Description</th>
<th>2030 Ridership</th>
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<tbody>
<tr>
<td>LPA</td>
<td>29,660</td>
</tr>
<tr>
<td>LPA Refresh*</td>
<td>34,000 – 36,000</td>
</tr>
</tbody>
</table>

*Ridership drivers:
- 2010 Census data
- 2010 On-board survey
- Regional socio-economic forecasts
Summary

- Project scope and costs reflect 1000’s of hours of stakeholder meetings and comments received from cities, agencies, businesses and the public

- Ridership projections are trending upwards; 4,000+ additional trips by 2030; FTA reviewing refreshed forecast
Project Scope and Cost Rollout: Next Steps

• Present / seek input
  • Business and Community Advisory Committees – July 25
  • SWLRT Corridor Management Committee – August 7
  • HCRRRA – August 13

• Present recommended scope and cost / seek input
  • SWLRT Corridor Management Committee – August 14
  • Metropolitan Council – August 14

• Request approval on scope and cost
  • Transportation Committee – August 26
  • Metropolitan Council – August 28
A Look Ahead: Design & Engineering

• Q3 2013: Submit Municipal Consent SWLRT Plans for City and County Review

• Q4 2013: Complete Municipal Consent Approval Process

• Q1 2014: Finalize 30% Design Plans and Specs
Summary of BAC and CAC Comments
Next Meeting

- **BAC:** Wednesday, August 28
  - **Time:** 8:00 – 9:30 AM
  - **Location:** Southwest Project Office

- **CAC:** Thursday, August 29
  - **Time:** 6:00 – 8:30 PM
  - **Location:** Southwest Project Office
More Information

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SWLRT@metrotransit.org

Twitter:
www.twitter.com/southwestlrt