Special Joint Business and Community Advisory Committee Meeting

June 6, 2013
Today’s Topics

• Welcome and Introductions

• Technical Issue Presentations:
  ▪ Freight Rail: Co-location and Relocation Options
  ▪ SWLRT Stations: Louisiana, Beltline, West Lake and 21st
  ▪ TH 100 and Cedar Lake Parkway
  ▪ Next Steps/Open Houses

• Technical Issues Workshop/Discussion

• Adjourn
SWLRT Project Development Technical Issues

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
Technical Issue #21: Freight Rail Co-location / Relocation
Freight Rail Technical Issue #21

• Background:
  - Co-location and relocation analysis required by FTA as a condition to enter PE
  - Part of the Metropolitan Council’s due diligence and responsibility as project sponsor
Freight Rail Technical Issue #21

• Review existing information
  ▪ Freight Rail lines
  ▪ Train volumes

• Technical Issue overview

• Freight Rail co-location design options

• Freight Rail relocation design options
Freight Rail Technical Issue #21
# Freight Rail Technical Issue #21
## Existing Train Volumes

<table>
<thead>
<tr>
<th>Railroad and Route</th>
<th>Avg. Weekly Trains</th>
<th>Avg. Number of Cars Per Train</th>
<th>Typical Commodities</th>
</tr>
</thead>
<tbody>
<tr>
<td>TC&amp;W/ Bass Lake and Kenilworth</td>
<td>14</td>
<td>65 – 75</td>
<td>Agri-goods</td>
</tr>
<tr>
<td></td>
<td>5 – 6</td>
<td>80 – 125</td>
<td>Ethanol, Grain, Coal</td>
</tr>
<tr>
<td>CP/ MN&amp;S</td>
<td>10</td>
<td>10 – 25</td>
<td>Local Services</td>
</tr>
<tr>
<td>BNSF/ Wayzata Subdivision</td>
<td>91</td>
<td>80 – 125</td>
<td>Wide Variety</td>
</tr>
</tbody>
</table>
Freight Rail Technical Issue #21 - Overview

Wayzata Subdivision
Owner: BNSF
Operator: BNSF

MN&S Spur
Owner: CP
Operator: CP/TC&W

Bass Lake Spur
Owner: CP
Operator: TC&W/CP

Kenilworth Corridor
Owner: HCRRA
Operator: TC&W

Map showing various rail stations and corridors with their respective owners and operators.
Freight Rail Co-Location – Kenilworth Corridor

Kenilworth Corridor
Owner: HCRRA
Operator: TC&W
Kenilworth – Existing Right-of-Way Widths

Kenilworth Corridor
Owner: HCRRRA
Operator: TC&W

42' + 56' (BNSF) = 98'

139'
49'
98'
Freight Rail Technical Issue #21

- Freight Rail Co-location Design Options
  - All modes at-grade
  - Trail relocated
  - Trail elevated
  - LRT elevated
  - LRT in tunnel
    - Shallow tunnel
    - Deep bored tunnels
All Modes At-Grade - 94 ft Section
All Modes At-Grade – 94 ft Typical Sections
All Modes At-Grade - Typical Section A-A’
All Modes At-Grade - Typical Section B-B’
All Modes At-Grade - Typical Section C-C’
All Modes At-Grade - Typical Section D-D’
Freight Rail Technical Issue #21

- Freight Rail Co-location Design Options
  - All modes at-grade
  - Trail relocated – Midtown Greenway to Cedar Lake Pkwy.
  - Trail elevated – West Lake Station to North side of Burnham Bridge
  - LRT elevated – Lake Street Bridge to North side of Burnham Bridge
  - LRT in tunnel
    - Shallow tunnel: Lake Street Bridge to North of Cedar Lake Pkwy.
    - Deep twin bored tunnels: West of West Lake Station to South of 21st Street Station
Additional Design Options – Typical Section B-B’
Trail Relocated - Typical Section B-B’
Trail Elevated - Typical Section B-B’

EXISTING ROW | EXISTING ROW
---|---
16.0’ | 5.5’
12.5’ | 11.9’
19.1’ | 3.0’
5.5’ | 3.7’

PROPOSED ROW

EXISTING ROW

PROPOSED FREIGHT ROW

EXISTING ROW

PROPOSED AERIAL TRAIL

TOTAL AERIAL TRAIL LENGTH = 4,900’
LRT Elevated - Typical Section B-B’
LRT in Shallow Tunnel - Typical Section B-B’

EXISTING TOWNHOME

EXISTING TOWNHOME

PROPOSED SHALLOW TUNNEL LENGTH = 2,800’
LRT in Deep Twin Tunnels-Typical Section B-B’

- **TOTAL TUNNEL LENGTH** = 6,400’
- **BORED TUNNEL LENGTH** = 4,100’

**EXISTING TOWNHOME**
- 16.0’
- 12.5’
- 11.3’
- 5.1’
- 3.0’

**EXISTING ROW**
- 49.0’
- 19.1’
- 11.9’
- 5.5’

**EXISTING FREIGHT**
- 25.0’
- 33.0’
- 10.0’

**EXISTING TRAIL**
- 21.0’
- 30.0’

**PROPOSED ROW**
- 19.0’
- 49.0’
- 25.0’
- 16.0’

**PROPOSED FREIGHT**
- 68.0’

**PROPOSED TRAIL**
- 30’

**PROPOSED BORED TUNNEL**
- 30’
- 50’ MAX UNDER CHANNEL
Freight Rail Co-Location – Kenilworth Corridor

- Proposed SWLRT Tracks
- Proposed Freight Tracks
- West Lake Street
- Proposed Midtown Corridor (by others)
- Limits of Excavation of Bored Tunnel Pit
- Cedar Lake Trail Proposed to be Re-aligned
- Begin Excavation Bored Tunnels
- Begin Elevated Trail
- Begin Bored Tunnels
Freight Rail Co-Location – Kenilworth Corridor

- Begin Bored Tunnels
- Proposed SWLRT Tracks
- Proposed Midtown Corridor (by others)
- End Shallow Tunnel
- Begin Shallow Tunnel
- Begin Elevated LRT
- Midtown Greenway Trail
- Cedar Lake
- Cedar Lake Pkwy
- Proposed to be Re-aligned
- Freight Tracks

LEGEND:
- EXISTING RIGHT-OF-WAY
- CENTERLINE FREIGHT
- CENTERLINE LRT
- SECTION LIMITS
- PROPOSED RIGHT-OF-WAY
- PARTIAL PROPERTY ACQUISITION
- TOTAL PROPERTY ACQUISITION

SOUTHWEST LIGHT RAIL
94th CO-LOCATION ROUTE - FRANCE AVE TO CEDAR LAKE JUNCTION
CO-LOCATION SHEET 2 OF 4

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Freight Rail Co-Location – Kenilworth Corridor

- Proposed SWLRT Tracks
- Proposed to be Re-aligned
- Kenilworth Trail
  - Proposed to be Re-aligned
- Cedad Lake
- Limits of Excavation for Bored Tunnels
- End Bored Tunnels
- Burnham Rd.
- End Elevated LRT
- End Elevated Trail
- 21st Street Station
- 21st Street
- End Excavation Bored Tunnels
- Limits of Excavation for Bored Tunnels
Freight Rail Co-Location – Kenilworth Corridor

- Proposed SWLRT Tracks
- Proposed Trail Bridge Over Freight and LRT Tracks
- Proposed Access to Penn Station
- BNSF Wayzata Subdivision Freight Tracks
- Freight Tracks Proposed to be Re-aligned
- Kenilworth Trail Proposed to be Re-aligned
Freight Rail Technical Issue #21

- Freight Rail Relocation Design Options
  - Modified MN&S connection
  - Brunswick West
  - Brunswick Central
Modified MN&S Connection
Brunswick West Alignment
Brunswick Central Alignment
Brunswick West Alignment

Proposed Freight Relocation Connection

Proposed Southerly Freight Connection

Proposed Southwest LRT

Brunswick West Alignment

Proposed Freight Relocation Connection

Proposed Southerly Freight Connection

Proposed Southwest LRT
Brunswick West Alignment

Proposed Southwest LRT

Proposed Southerly Freight Connection

Cedar Lake Trail
Existing Bass Lake Spur – Proposed to be Removed

Proposed Walker St. Connection

Proposed West Lake St. Re-alignment

Proposed Dakota Ave Re-alignment

Proposed Freight Relocation Connection

Proposed MN&S Freight Connection

Proposed Cul-de-Sac

SOUTHWEST LIGHT RAIL
PROPOSED BRUNSWICK WEST ALIGNMENT
RELOCATION
SHEET 2 OF 5

DRAFT WORK IN PROGRESS
Brunswick West Alignment

- Proposed West Lake St. Re-alignment
- Proposed Dakota Ave Re-alignment
- Proposed Wooddale Ave Re-alignment
- Existing MN&S Spur: Proposed to be Relocated Between the Cedar Lake Trail and W. 33rd Street
- Proposed MN&S Freight Connection
- MN&S Spur: Proposed to be Re-aligned
- Proposed Dakota Ave Re-alignment
Brunswick West Alignment – Typical Section A-A’
Brunswick West Alignment – Typical Section B-B'
Brunswick West Alignment – Typical Section C-C’
Brunswick Central Alignment

Proposed Southerly Freight Connection

Oxford St.

BASS LAKE SPUR

Louisiana Ave.
Brunswick Central Alignment

- Proposed Southwest LRT
- Proposed Walker St. Connection
- Proposed Frequent Re-location Connection
- Proposed Roadway Re-alignment
- Proposed Roadway Re-grading
- Proposed Dakota Ave Re-alignment
- Existing Bass Lake Spur Proposed to be Removed
- Proposed Southerly Freight Connection
- Proposed MN&S Freight Connection
- Cedar Lake Trail
- TH 7
- W. Lake St.
- Library Ln.
- Frontage Road
- Proposed Dakota Ave Re-alignment
Brunswick Central Alignment

Existing MN&S Spur: Proposed to be Relocated Between the Cedar Lake Trail and W. 33rd Street

Proposed Dakota Ave Re-alignment

Proposed Road Closure

Proposed MN&S Freight Connection

Proposed Wooddale Ave S. Re-grading
Brunswick Central Alignment – Typical Section A-A’

SECTION A-A’
Brunswick Central Alignment – Typical Section B-B’
Brunswick Central Alignment – Typical Section C-C’
Brunswick Central Alignment – Typical Section D-D’
Brunswick Central Alignment – Typical Section E-E'
Brunswick West/Central Alignments: Property Impacts Common to Both Options
Brunswick Alignment:
Segment Common to Both West and Central Options

- MN&S Spur: Proposed to be Re-aligned
- Roadways Proposed to be Re-graded to Accommodate At-grade Crossing at Freight Tracks
Brunswick Alignment
Segment Common to Both West and Central Options
Brunswick Alignment – Typical Section F-F’
Brunswick Alignment – Typical Section G-G’
Brunswick Alignment – Typical Section I-I’

Existing Row

Proposed Freight

62.8’

Existing Row

Existing Garage

 Existing Trail

 SECTION I-I’
Feedback from You

- Please think about:
  - Potential opportunities of the freight options
  - Potential challenges of the freight options
  - Other ideas
Freight Rail Technical Issue #21

Next Steps

• Review co-location and relocation designs / seek input
  ▪ St. Louis Park School Board – May 28
  ▪ Minneapolis Transportation & Public Works Committee – June 4
  ▪ Special Joint SWLRT Business/Community Advisory Cmt. – June 6
  ▪ SWLRT Corridor Management Committee – June 12
  ▪ Public Open Houses – June 13

• Develop cost estimates / Continue design refinement – environmental evaluation – June/July

• Present recommended design option
  ▪ Business Advisory Committee – July 24
  ▪ Community Advisory Committee – July 25
  ▪ SWLRT Corridor Management Committee – August 7
  ▪ Metropolitan Council – August

• Continue design refinement – environmental evaluation
Technical Issues 13, 16, 17, 18: Louisiana, Beltline, West Lake and 21st Street Stations
SITE DATA

SITE AREA (NORTH OF PLATFORM): 2.6 ACRES

SURFACE PARKING:
- 216 SPACES (EXISTING)
- 131 SPACES (REMAINING)
- 86 SPACES (REMOVED)

SITE AREA (EAST OF LRT TRACK): 4.4 ACRES (USING PARTS OF 3 PARCELS)

SURFACE PARKING: 220 SPACES

*PARKING REQUIRED TO BE DETERMINED BY NUMBER OF PARK-AND-RIDE LOCATIONS AND POTENTIAL DEVELOPMENT
SITE DATA

SITE AREA (NORTH OF PLATFORM): 2.6 ACRES

SURFACE PARKING:
- 216 SPACES (EXISTING)
- 131 SPACES (REMAINING)
- 86 SPACES (REMOVED)

SITE AREA (EAST OF LRT TRACK): 4.4 ACRES (USING PARTS OF 3 PARCELS)

SURFACE PARKING: 220 SPACES

*PARKING REQUIRED TO BE DETERMINED BY NUMBER OF PARK-AND-RIDE LOCATIONS AND POTENTIAL DEVELOPMENT
SITE DATA

SITE AREA (OPTION 1): 4.8 ACRES
SURFACE PARKING: 477 SPACES
SURFACE PARKING (OPTION 2): 220 SPACES

*PARKING REQUIRED TO BE DETERMINED BY NUMBER OF PARK-AND-RIDE LOCATIONS AND POTENTIAL DEVELOPMENT
SITE DATA

SITE AREA (OPTION 1): 4.8 ACRES
SURFACE PARKING (WITH BRIDGE PIERS): 455 SPACES
SURFACE PARKING (OPTION 2): 220 SPACES

*PARKING REQUIRED TO BE DETERMINED BY NUMBER OF PARK-AND-RIDE LOCATIONS AND POTENTIAL DEVELOPMENT
Feedback from You

• Please think about:
  - Location of the station and platforms
  - Bus, pedestrian and bike connections/access to the station
  - Parking and kiss and ride locations
  - Other ideas
Technical Issues 15 and 18: TH 100 and Cedar Lake Parkway
PEDESTRIAN BRIDGE
14' WIDE, MN54 PCB

EXISTING TRAIL

FREIGHT BRIDGE
22' WIDE, TPG

FREIGHT TRACK

EXISTING FREIGHT TRACK

ABUTMENT (TYP.)

WB LRT TRACK

EB LRT TRACK

EXISTING PROPERTY LINE
(TYP.)

LRT BRIDGE
32' WIDE, MN54 PCB

PIER (TYP.)

SOUTHWEST LIGHT RAIL
T.H. 100 BRIDGE EXHIBIT
CO-LOCATION

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Feedback from You

• Please think about:
  ▪ Potential opportunities of the proposed options
  ▪ Potential challenges of the proposed options
  ▪ Other ideas
Next Steps/Look Ahead: Design & Engineering

• June 2013: Hold Freight Rail and Station Public Open Houses

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

• Q4 2013: Complete Municipal Consent Approval Process

• Q1 2014: Finalize 30% Design Plans and Specs
SWLRT Open Houses

• Freight Rail Open Houses: June 13
  ▪ Location: Benilde-St. Margaret’s School
  ▪ 8:00 – 9:30 AM
  ▪ 4:30 – 7:00 PM

• Station Open Houses: June 17 – June 26
  ▪ June 17: Minneapolis/Royalston (8:00 – 9:30 AM)
  ▪ June 17: Minneapolis/Harrison (4:30 – 7:00 PM)
  ▪ June 18: Minnetonka/Hopkins (4:30 – 7:00 PM)
  ▪ June 20: St. Louis Park (4:30 – 7:00 PM)
  ▪ June 24: Minneapolis/Kenilworth (4:30 – 7:00 PM)
  ▪ June 26: Eden Prairie (4:30 – 7:00 PM)
Next Meeting

• BAC: June 26
  ▪ Time: 8:00 – 9:30 AM
  ▪ Location: Southwest Project Office

• CAC: June 27
  ▪ Time: 6:00 – 8:30 PM
  ▪ Location: Southwest Project Office
St. Louis Park & Minneapolis
Stations: Royalston, Van White, Penn, 21st St, West Lake, Beltline, Wooddale, Louisiana

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Minnetonka, Hopkins & Edina
Stations: Blake, Hopkins, Shady Oak, Opus

Dan Pfeiffer
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Eden Prairie
Stations: City West, Golden Triangle, Eden Prairie Town Center, Southwest, Mitchell

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Updated February 2013
More Information

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