

SOUTHWEST

Green Line LRT Extension



Corridor Management Committee Meeting

February 20, 2014



Today's Topics

- Welcome
- February Town Hall Community Meeting Update
- Project Update
 - Water Resources Draft Report Discussion
 - Freight Rail Relocation Draft Report Discussion
- Adjourn



February Town Hall Community Meetings

February 10 & 12 Town Hall Community Meetings

- Opportunity to:
 - Ask questions and provide verbal testimony on draft water resources and freight rail relocation studies
 - Share community concerns with public officials
- 625+ attendees
- 75+ written comments received

February 10 and 12 Town Hall Meetings



Minneapolis Feb 10

February 10 and 12 Town Hall Meetings



St. Louis Park Feb 12

Comments on Draft Reports Due March 3, 2014

- Online:
www.SWLRT.org
- Email:
SWLRT@metrotransit.org
- U.S. Mail
- Filling out a comment card

Water Resources Draft Report Discussion

Independent Consultant's Draft Conclusions / Recommendations

- No fatal flaws with the shallow LRT tunnel design
- Add lateral and nested piezometers
- Collect seasonal water level data
- Complete a comprehensive capacity analysis for sanitary and storm sewer systems
- Design the underground infiltration chambers for the 100-year design storm event

Independent Consultant's Draft Recommendations (continued)

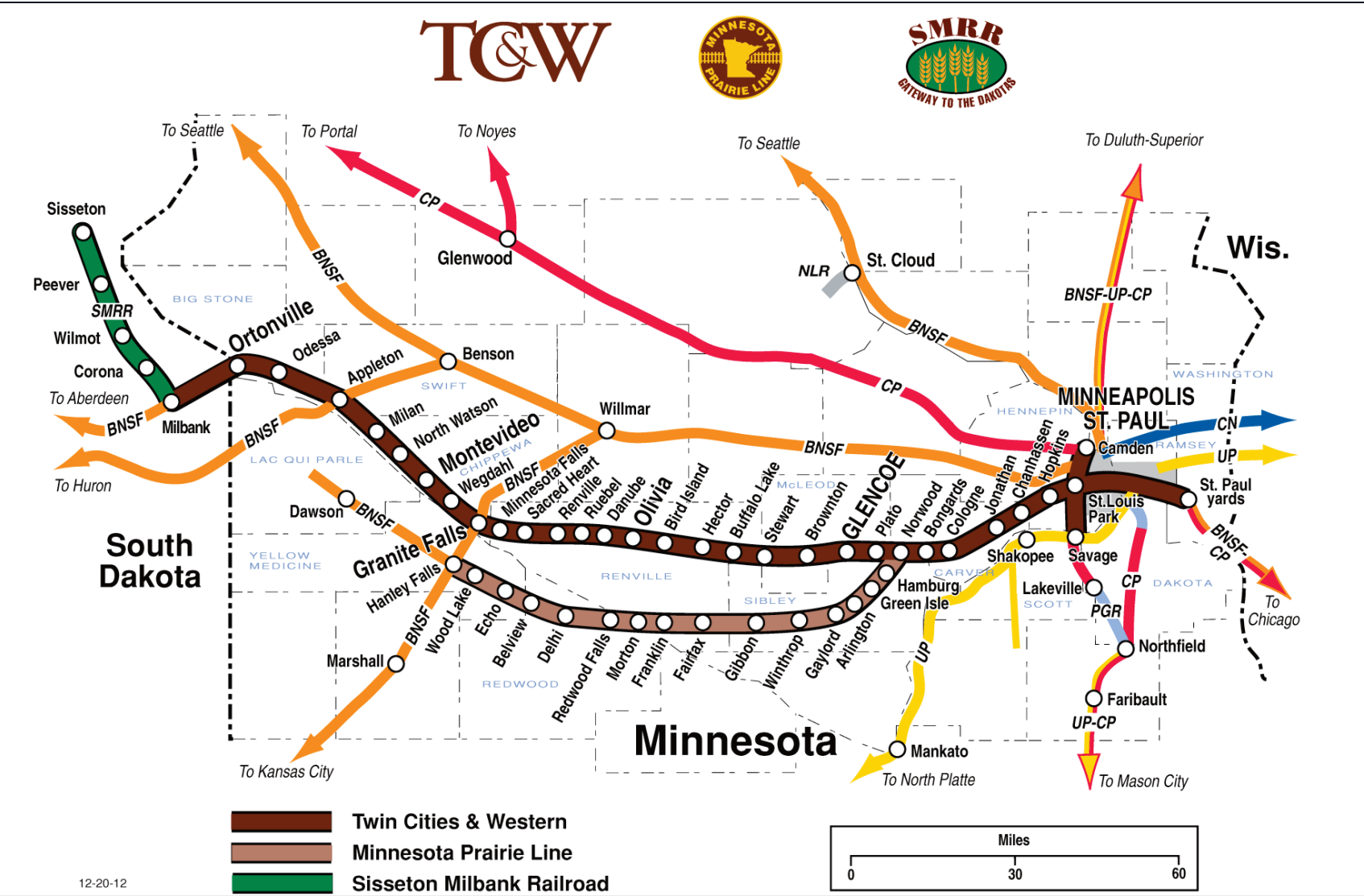
- Incorporate stormwater pre-treatment devices in the design
- Complete a Phase II Environmental Site Assessment
- Revise the draft Water Monitoring Plan
 - Determine key monitoring locations
 - Define parameter and threshold criteria
 - Monitor infiltration chamber system
 - Sample groundwater quality near chambers and sites in the corridor away from the chambers
- Sample and analyze groundwater for hydrocarbons, chlorides, other potential contaminants

Barr Engineering Memo

- Prepared for City of Minneapolis and MPRB
- Received by SPO Jan. 16, 2014
- Issues and Questions in Memo
 - Effectiveness of sheet pile sealing and seal pour performance
 - Groundwater and surface water
 - Proposed bored twin tunnels
 - Ground movements and impacts to adjacent structures
 - Vibration impacts of freight and LRT on shallow LRT tunnels
 - Maintenance considerations
- Response sent to City and MPRB Feb. 14, 2014

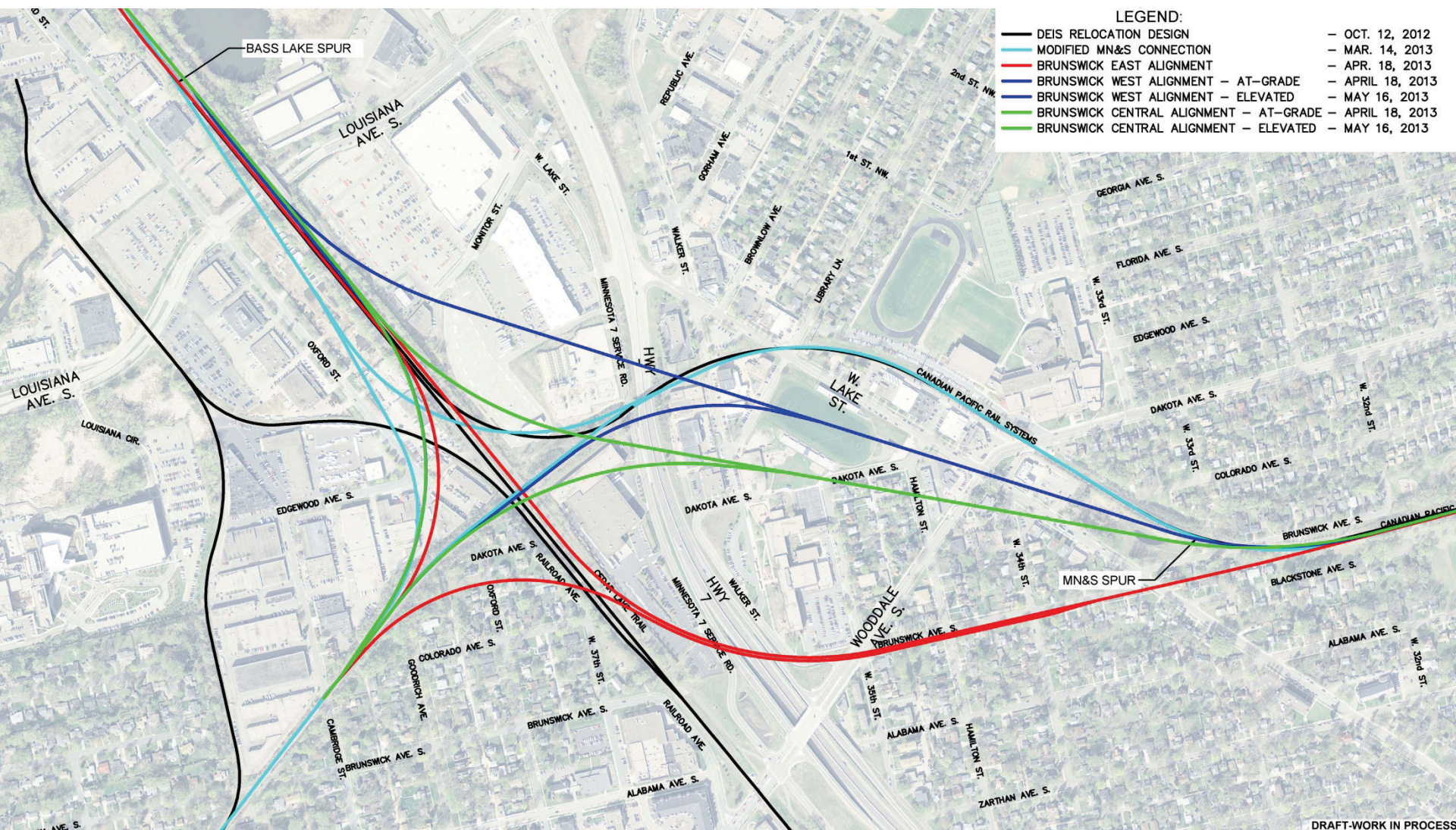
Freight Rail Relocation Draft Report Discussion

TC&W Railroad Network



12-20-12

DEIS & SPO Freight Rail Relocation Designs Alternatives

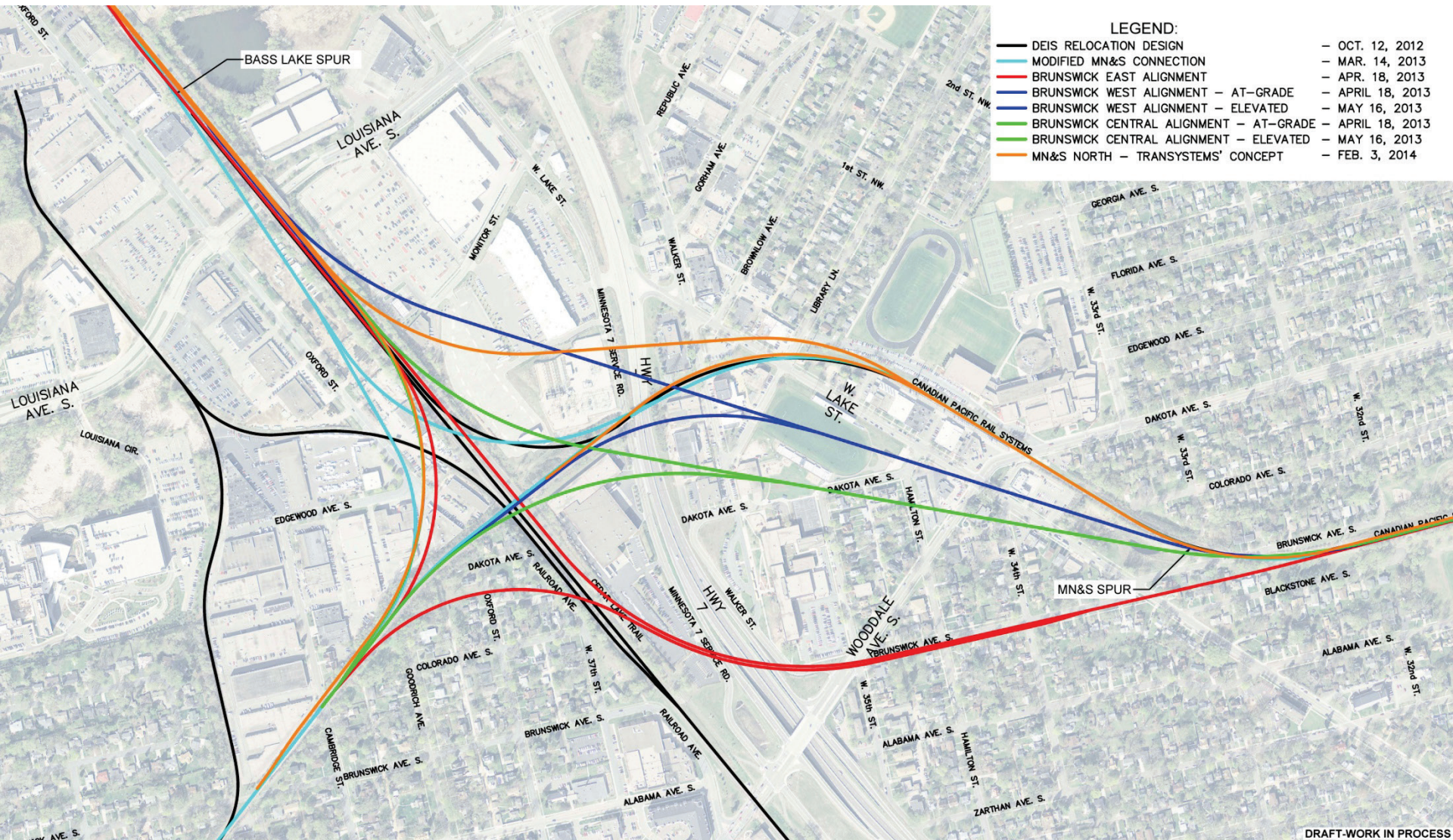


LEGEND:

— DEIS RELOCATION DESIGN	— OCT. 12, 2012
— MODIFIED MN&S CONNECTION	— MAR. 14, 2013
— BRUNSWICK EAST ALIGNMENT	— APR. 18, 2013
— BRUNSWICK WEST ALIGNMENT — AT-GRADE	— APRIL 18, 2013
— BRUNSWICK WEST ALIGNMENT — ELEVATED	— MAY 16, 2013
— BRUNSWICK CENTRAL ALIGNMENT — AT-GRADE	— APRIL 18, 2013
— BRUNSWICK CENTRAL ALIGNMENT — ELEVATED	— MAY 16, 2013

DRAFT-WORK IN PROCESS

TranSystems' MN&S North Concept



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— MN&S NORTH — TRANSSYSTEMS' CONCEPT	— FEB. 3, 2014

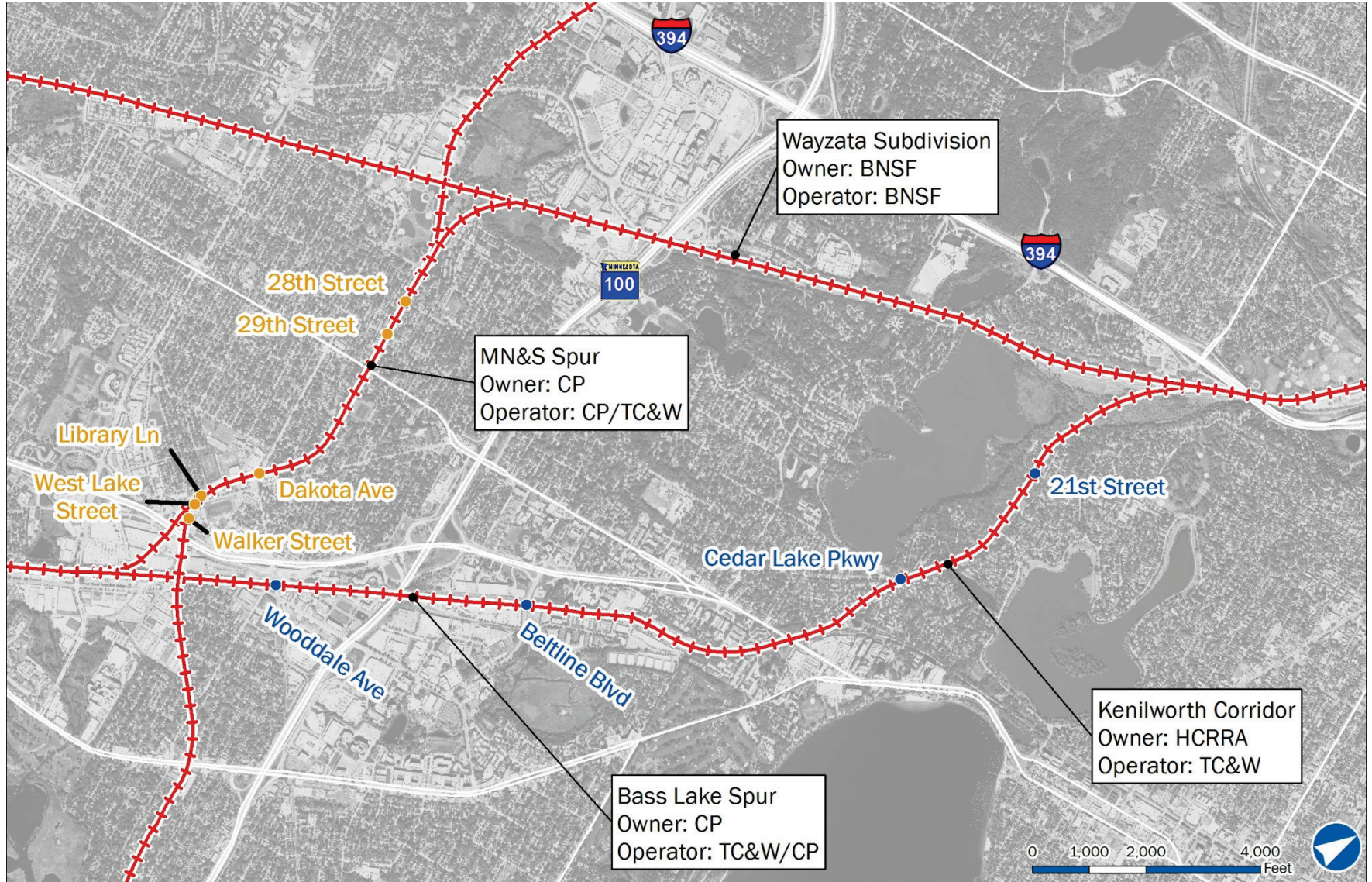
DRAFT-WORK IN PROCESS

Freight Rail Relocation Draft Report Discussion

- Safety considerations
- Property impacts
- Cost
- Operational considerations

Safety Considerations

At-Grade Freight Rail Crossings Map



At-Grade Freight Rail Crossings Comparison

Element	Kenilworth Route	MN&S North Route
Existing No. Crossings	<p style="text-align: center;">4</p> <ul style="list-style-type: none"> • Wooddale • Beltline • Cedar Lake • 21st 	<p style="text-align: center;">6</p> <ul style="list-style-type: none"> • Walker • Library • Lake • Dakota • 29th • 28th
Proposed No. Crossings	<p style="text-align: center;">4</p> <ul style="list-style-type: none"> • Wooddale • Beltline • Cedar Lake • 21st 	<p style="text-align: center;">2</p> <ul style="list-style-type: none"> • Library • Dakota

At-Grade Freight Rail Crossings Comparison

Element	Kenilworth Route	MN&S North Route
TranSystems Average Daily Traffic (ADT)	22,000	14,000
SPO 2013 ADT	33,600	15,000
TranSystems Average Daily Trains One Way	5	7
SPO Average Daily Trains One Way	3	5

Proximity to Schools and Residential Units

Element	Kenilworth Route	MN&S North Route
TranSystems No. of schools within 150' of tracks	0	2
SPO No. of schools within 150' of tracks	0	2
TranSystems No. of residential units within 150' of tracks	367	140
SPO No. of residential units within 150' of tracks	SLP: 250 MPLS: 500	SLP: 230 MPLS: 10

Property Impacts

Property Impacts Requiring Relocation Comparison

Full Permanent Acquisition*	Kenilworth Route	MN&S North Route
Residential	0	6
Private Business**	0	7
School***	0	1

* Numbers do not include acquisitions required for Southerly Connection, which are common to both routes

** Includes STEP Food Shelf property

*** Metropolitan Open School

Cost

Cost Terminology

- \$2013: Capital improvement costs
 - Based on 2013 unit costs
- \$YOE: Year of expenditure costs
 - Includes:
 - Capital improvements and ROW based on 2013 unit costs
 - Contingency costs
 - Design related costs

Kenilworth Corridor Shallow LRT Tunnels

Element	\$YOE (M)
Base Costs	\$150 – \$160
Common Elements	\$85 - \$90
TOTAL	\$235 - \$250

- Common elements' primary cost drivers:
 - Freight rail track
 - Freight rail bridges
 - CP ROW swap
 - Southerly connection (Bass Lake Spur to MN&S Spur)

TranSystems' MN&S North Concept Cost Estimate

Element	\$2013 (M)
Capital Improvements	\$60
Common Elements	\$26
Right-of-Way	\$0*
Engineering (5%)	\$4
Contingency (25%)	\$22
TOTAL	\$112

* TranSystems' estimate does not include ROW costs

TranSystems' MN&S North Concept Cost Estimate: SPO Identified Additions and Adjustments

- Right-of-Way in \$2013:
 - Add \$20-\$25M
- Additional Common Elements in \$2013:
 - Add \$40-\$45M:
 - Freight track from TH 169 to Blake
 - CP ROW swap (ROW cost)
 - Southerly connection (ROW cost)
- Adjust engineering and contingency:
 - Add \$35-\$40M
- Adjust to \$YOE:
 - Add \$15-\$20M

TranSystems' MN&S North Concept Cost Estimate

Element	Original \$2013 (M)	Adjusted (M)
Capital Improvements	\$60	\$60*
Common Elements	\$26	\$65-\$70*
Right-of-Way	\$0	\$20-\$25*
Engineering/Contingency	\$26	\$60-\$65*
YOE	\$0	\$15-\$20
TOTAL	\$112	\$220 - \$240

* 2013 Costs

TranSystems' MN&S North Concept Unaccounted Costs

- Additional retaining walls for LRT
 - Blake to Louisiana
- Additional Right-of-Way
 - Skunk Hollow Rail Customer
 - Property along North Frontage Road
 - 27th Street Properties
- Freight track removal – Bass Lake Spur/Kenilworth
 - MN&S to Cedar Lake Junction
- North Cedar Lake Trail Bridge (Iron Triangle)
- Xcel Substation Impacts

Cost of Project Delay

- The cost of project delay assumptions:
 - \$1.553 B project
 - 3% escalation per year
 - \$45 - \$50 M

Freight Rail Cost Comparison (\$YOE)

Element	Kenilworth Route (M)	MN&S North Route (M)
Base Costs	\$150 – \$160	\$130 – \$140
Common Elements	\$85 - \$90	\$90 - \$100
TOTAL	\$235 - \$250	\$220 - \$240

Freight Rail Relocation Draft Report Discussion

- Safety considerations
- Property impacts
- Cost
- Operational considerations

More Information

Online:

www.SWLRT.org

Email:

SWLRT@metrotransit.org

Twitter:

www.twitter.com/southwestlrt

