

SOUTHWEST

Green Line LRT Extension



# Corridor Management Committee

September 4, 2013



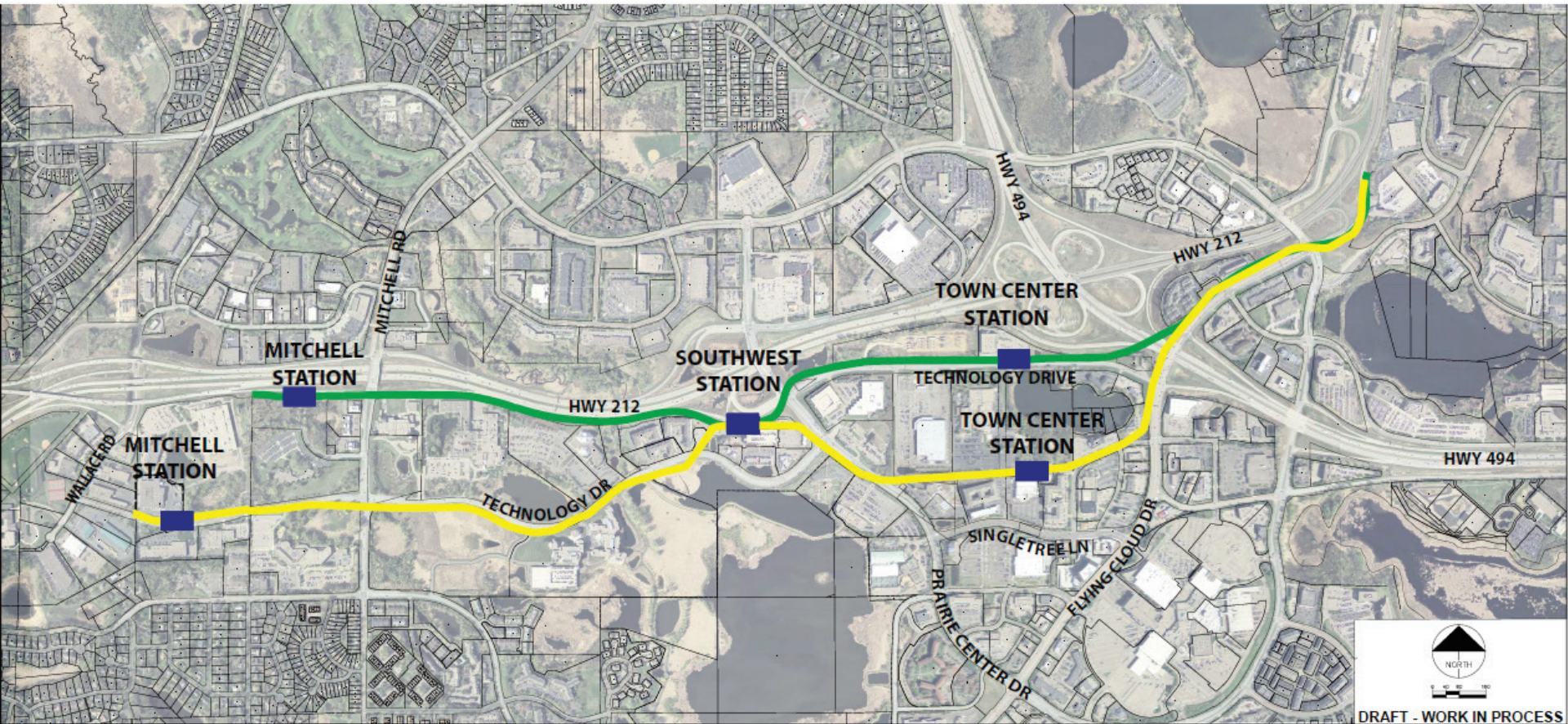
# Today's Topics

- SWCMC Member Discussion
- September 11, 2013 SWCMC Meeting
- Adjourn



# **SWCMC Member Discussion: Technical Issue #1 Eden Prairie Alignment Adjustment**

# TI #1 Eden Prairie Alignment: Mitchell Station & Comp Plan Station via Technology Drive



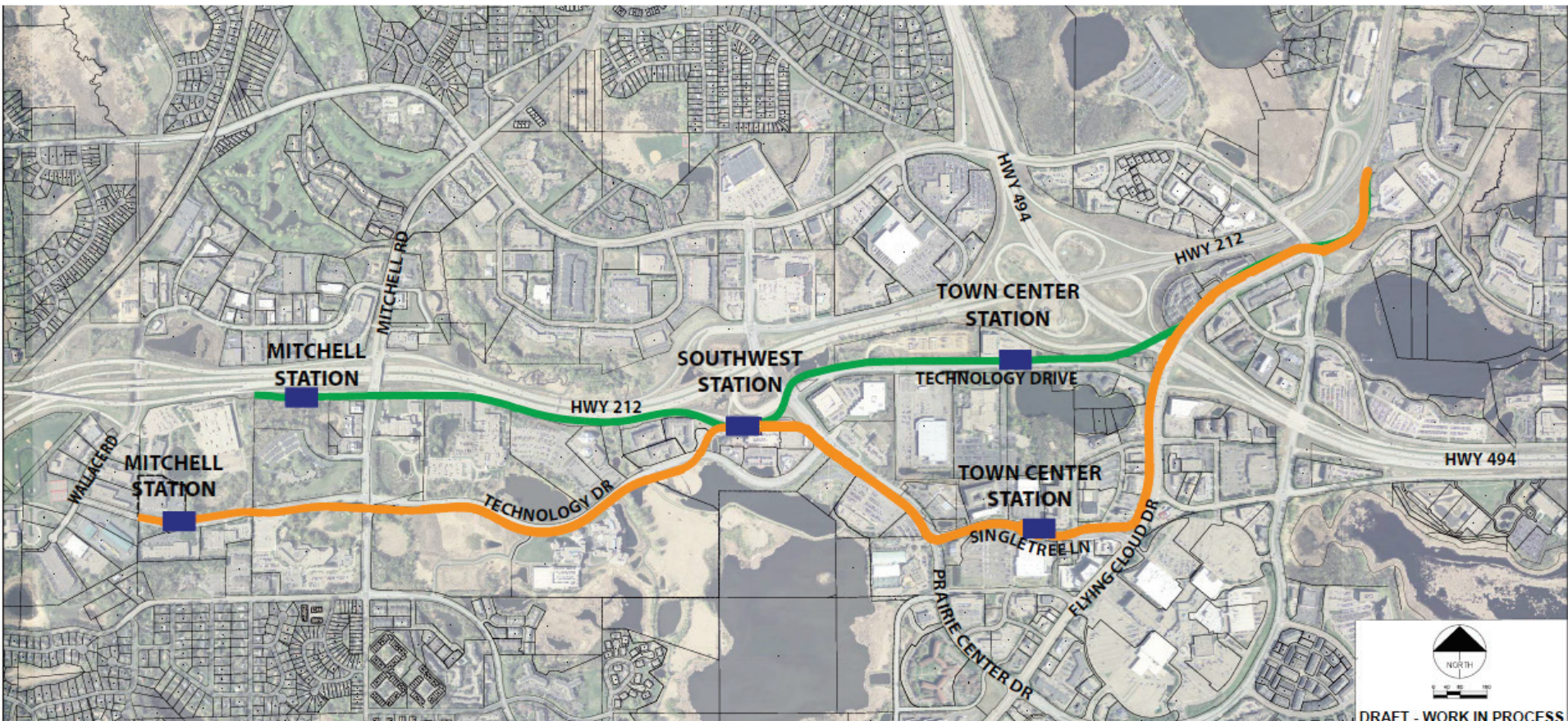
DRAFT - WORK IN PROCESS

**AECOM**

**METROPOLITAN**




	<p><b>SOUTHWEST LRT</b>  <b>TI-1: EDEN PRAIRIE - ALIGNMENT</b>  <b>TIER 2 ANALYSIS</b></p>	<p> <b>OPTION 1 MITCHELL:</b>          (TECH DR / COMP PLAN)</p>	<p> <b>LPA ALIGNMENT</b></p>	<p>IRT #1          DATE: 6/17/2013</p>	<p><b>AECOM</b></p> <p><b>METROPOLITAN</b></p>
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# TI #1 Eden Prairie Alignment: Mitchell Station & Singletree Station via Technology Drive

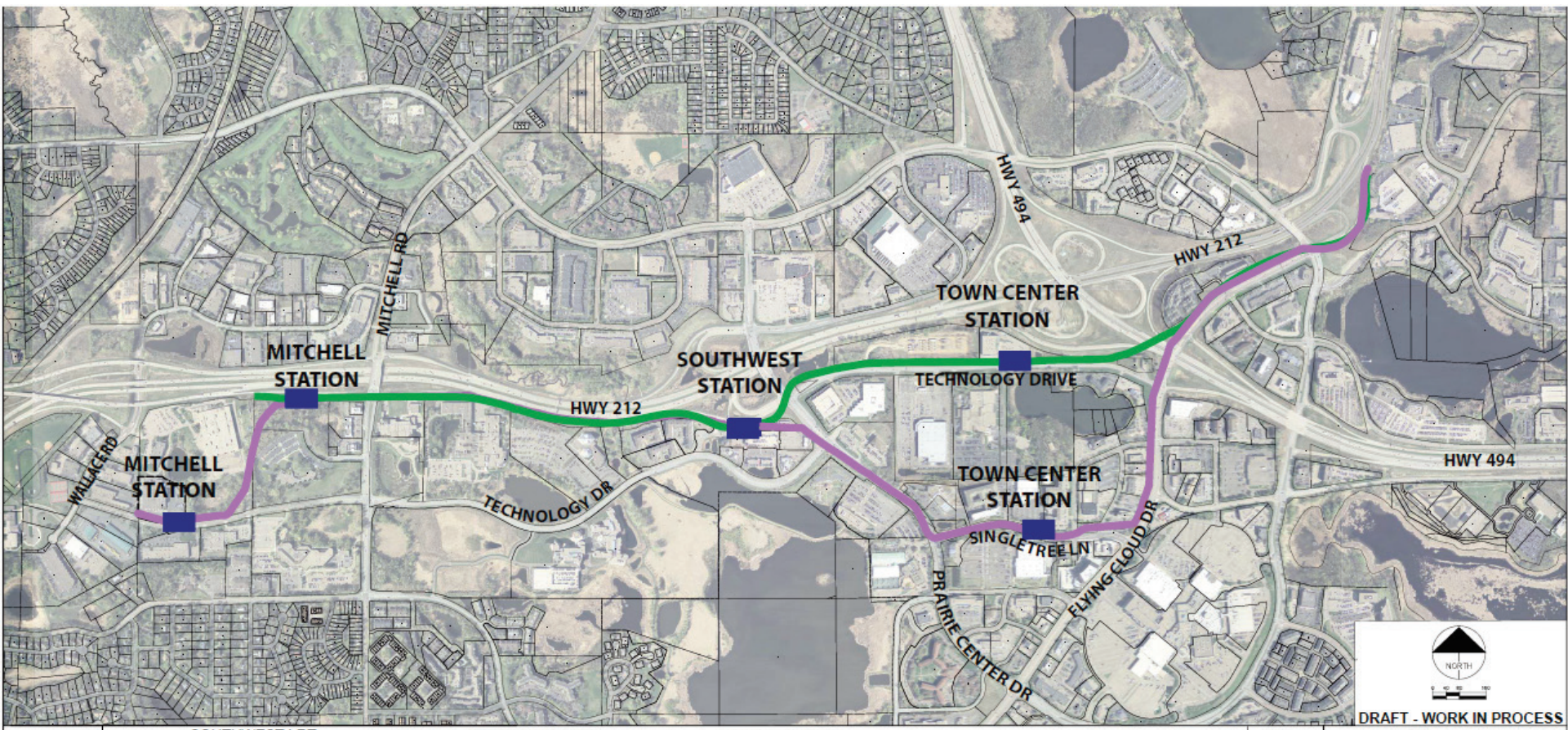


  
 DRAFT - WORK IN PROCESS  



 <p style="margin: 0;"> <b>SOUTHWEST LRT</b>  <b>TI-1 : EDEN PRAIRIE - ALIGNMENT</b>  <b>TIER 2 ANALYSIS</b> </p>	<p style="margin: 0;">  <b>OPTION 2 MITCHELL:</b>              (TECH DR / SINGLETREE LN)         </p>	<p style="margin: 0;">  <b>LPA ALIGNMENT</b> </p>	<p style="margin: 0;">             LRT #1              DATE: 6/17/2015         </p>
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# TI #1 Eden Prairie Alignment: Mitchell Station & Singletree Station via TH 212 frontage



SOUTHWEST METROPOLITAN
SOUTHWEST LRT  
TI-1 : EDEN PRAIRIE - ALIGNMENT  
**TIER 2 ANALYSIS**

— OPTION 3 MITCHELL:  
(TH 212 / SINGLETREE LN)
 — LPA ALIGNMENT
 

 DRAFT - WORK IN PROCESS  
  
  
DATE : 6/17/2013

# TI #1 Eden Prairie Alignment

## Eden Prairie Alignment Cost Estimate

Description	(M)	LPA Δ M
Mitchell Station & Comp Plan Station via Technology Drive	\$195 - \$205	\$30 - \$35
Mitchell Station & Singletree Station via Technology Drive	\$195 - \$205	\$30 - \$35
Mitchell Station & Singletree Station via TH 212 frontage	\$195 - \$205	\$30 - \$35

# Technical Issue #1: Eden Prairie Alignment

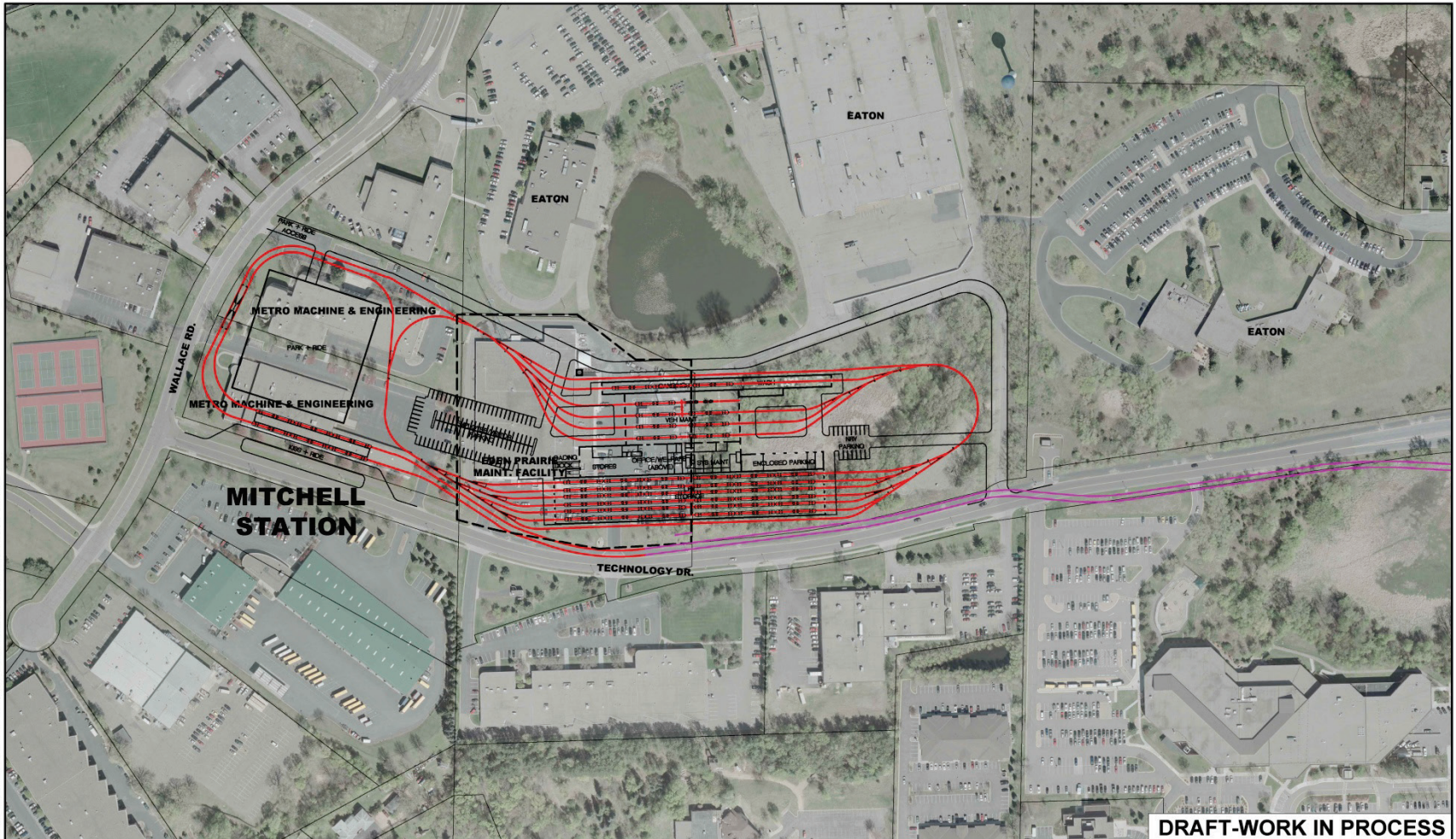
Alignment Adjustment	Strengths	Weaknesses
Mitchell Station & Comp Plan Station via Technology Drive	<ul style="list-style-type: none"> <li>• Consistent with city’s Comprehensive Plan</li> <li>• Minimizes construction access concerns to businesses</li> <li>• Achieves city’s goal to locate western terminus station near Mitchell Road</li> </ul>	<ul style="list-style-type: none"> <li>• Visual and floodplain concerns at Purgatory Creek and Park</li> <li>• Reconstructs portions of Technology Drive</li> <li>• Requires land bridge on Technology Drive</li> </ul>
Mitchell Station & Singletree Station via Technology Drive	<ul style="list-style-type: none"> <li>• Provides closer proximity to Eden Prairie Center</li> <li>• Achieves city’s goal to locate western terminus station near Mitchell Road</li> </ul>	<ul style="list-style-type: none"> <li>• Visual and floodplain concerns at Purgatory Creek and Park</li> <li>• Reconstructs portions of Technology Drive</li> <li>• Requires land bridge on Technology Drive</li> <li>• Access concerns to businesses during construction</li> </ul>
Mitchell Station & Singletree Station via TH 212 frontage	<ul style="list-style-type: none"> <li>• Provides closer proximity to Eden Prairie Center</li> <li>• Achieves city’s goal to locate western terminus station near Mitchell Road</li> </ul>	<ul style="list-style-type: none"> <li>• Noise, vibration and visual concerns to Southwest Condos</li> <li>• Bisection of Eaton property</li> <li>• Requires minor reconstruction of TH 212 ramps</li> <li>• Access concerns to businesses during construction</li> </ul>



# Discussion

# **SWCMC Member Discussion: Technical Issue #23 Operations and Maintenance Facility (OMF)**

# TI #23 OMF Site Location: Site Number 3/4

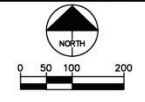


Jun, 06 2013 02:40 pm V:\3200\_PEC-WCAD\SEGMENT-WP\EXHIBITS\TRACK\EDPB-TRK-OMF-003\_4.dwg Dr. Mountain



**SOUTHWEST LRT**  
OMF OPTION 003 (003\_4)  
TRACK ADJUSTMENT 20D

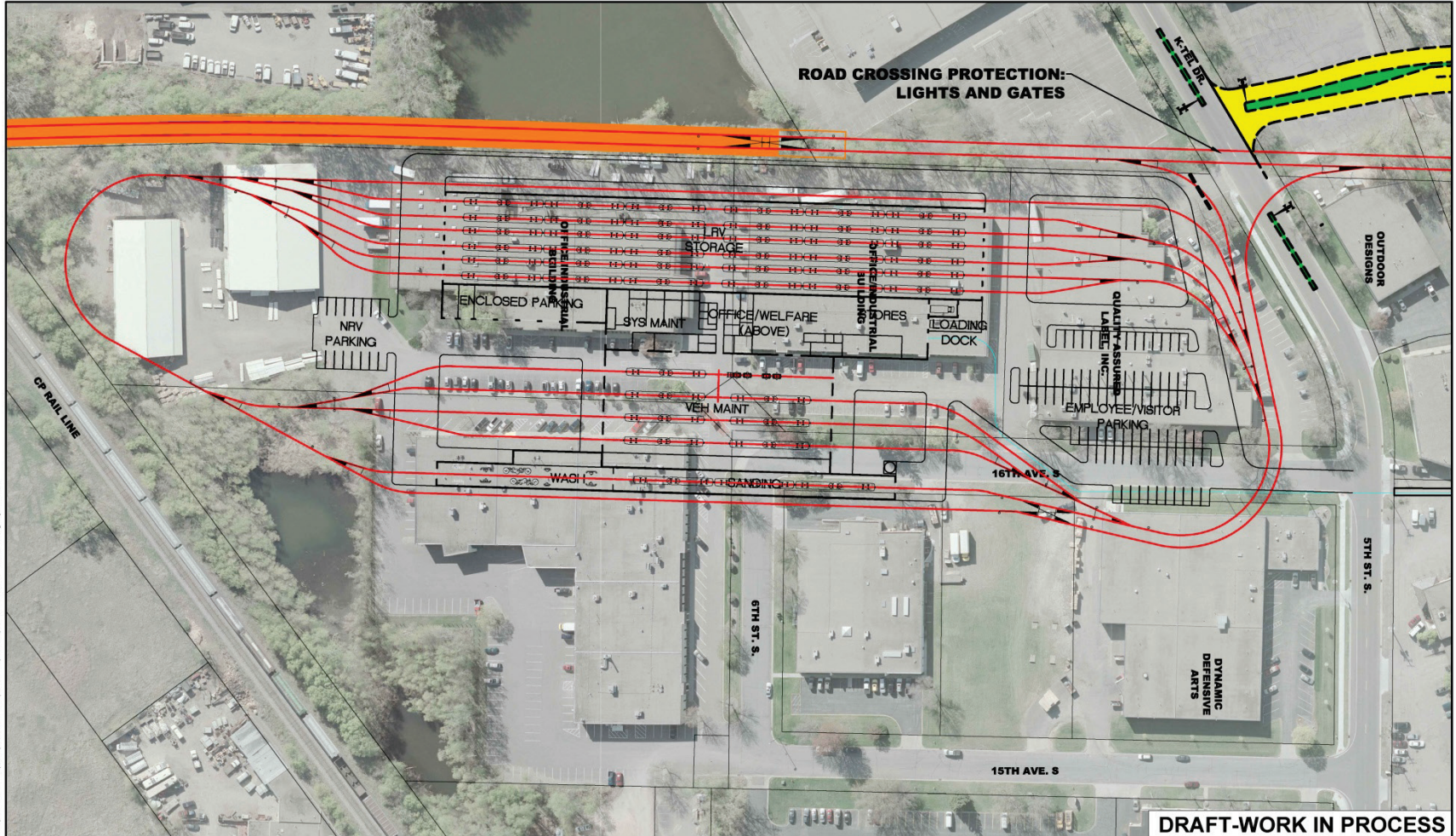
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**DRAFT-WORK IN PROCESS**



# TI #23 OMF Site Location: Site Number 9A



Jun, 28 2012 09:13 am V:\3200\_PEC-WCAO\SCOMENT-WA\EXHIBITS\TRACK\EDHIB-TRK-OMF-009A\_1.dwg By: Baochi

	<p><b>SOUTHWEST LRT</b> OMF OPTION 009A (009A_1) TRACK ADJUSTMENT 3A</p>	<p>IRT: #23 REV: 0 DATE: 06/28/2013</p>			
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# TI #23 OMF Site Location

Site No.	Name (City)	OMF Site Cost Estimate (M)	LPA $\Delta$ M
3/4	City Garage (Eden Prairie)	\$95 - \$100	\$30 - \$35
9A	K-Tel East (Hopkins)	\$100 - \$105	\$35 - \$40

# Technical Issue #23 OMF Site Location

Location	Strengths	Weaknesses
<p>Site 3/4 (Eden Prairie)</p>	<ul style="list-style-type: none"> <li>• Zoned industrial</li> <li>• Opportunity to consolidate station, OMF and park-and-ride facilities on site</li> </ul>	<ul style="list-style-type: none"> <li>• Site dependent on Eden Prairie alignment (Technical Issue #1)</li> <li>• Wetland concerns</li> <li>• Noise and vibration concerns to Eaton property</li> <li>• End-of-line location poses operational limitations and efficiencies</li> <li>• 6 more train operators than site 9A</li> </ul>
<p>Site 9A (Hopkins)</p>	<ul style="list-style-type: none"> <li>• Zoned industrial</li> <li>• Freight rail and proposed LRT alignment buffer south and west property borders</li> <li>• 6 fewer train operators than site 3/4</li> <li>• Annual operating cost savings of \$500K compared to site 3/4</li> <li>• Redevelopment potential of remnant areas</li> </ul>	<ul style="list-style-type: none"> <li>• Wetland concerns</li> <li>• Flood-prone areas require re-grading</li> <li>• Soft soils in southern portion of site may require correction</li> </ul>

# Discussion

# **SWCMC Member Discussion: Technical Issue #21 Freight Rail**



# Freight Railroad Historical Actions/Documents\*

Year	Actions
1996	St. Louis Park Resolution 96-73
1997	State Statute 383B. 81 Created Environmental Response Fund (ERF)
1998	Preliminary Agreement For Clean Up Of The Golden Auto Site And Preserves Right Of Way For Freight Interconnect
1998	Legal Opinion On Use Of ERF Funds
1998	Trackage Rights Agreement
1999	St. Louis Park Railroad Study
2001	St. Louis Park Railroad Advisory Position Statement Summary
2002	Trackage Rights Agreement
2005	ERF Grant Application
2006	ERF Grant Agreement

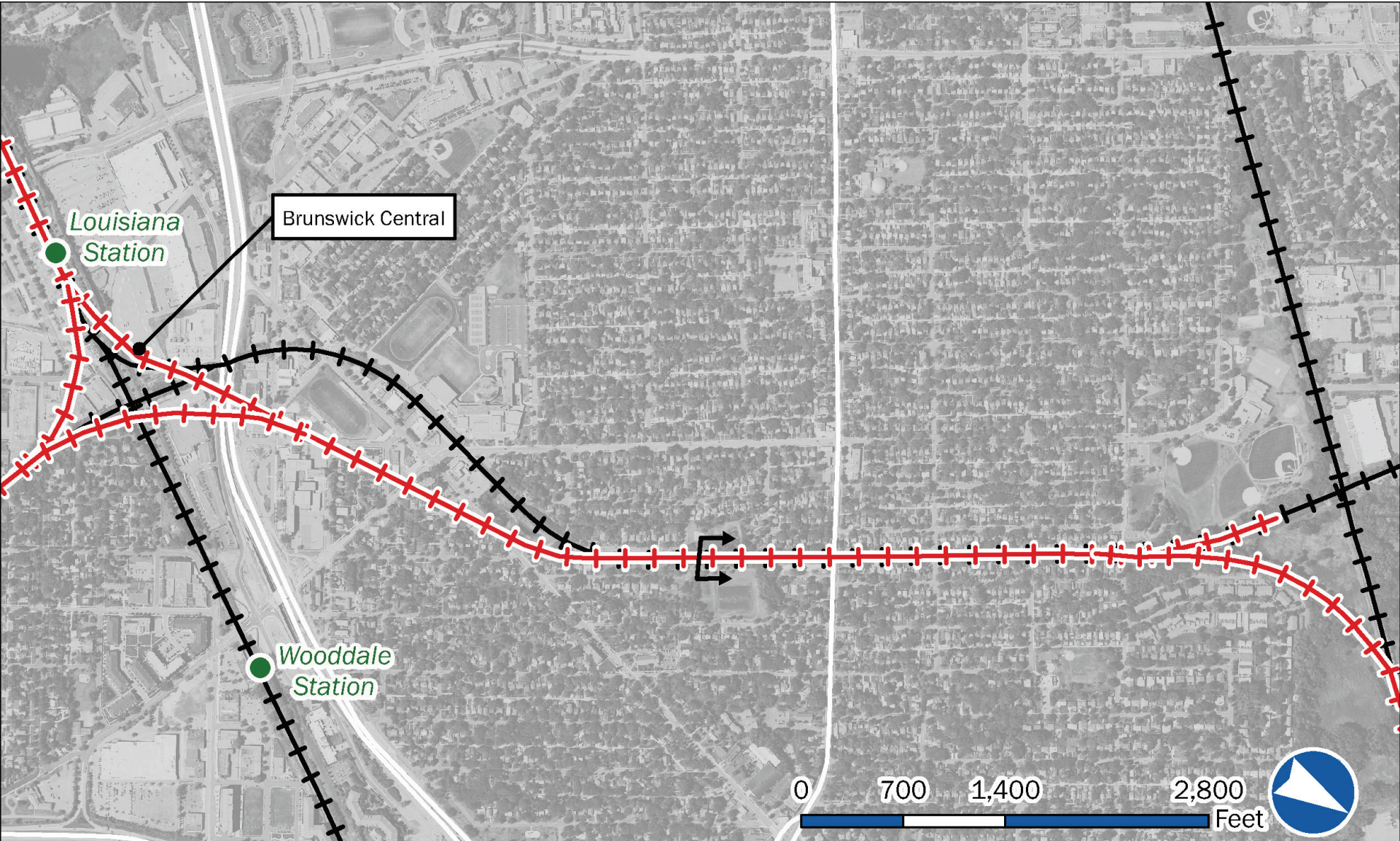
\* May not be inclusive of all documents

# Freight Railroad Historical Actions/Documents\*

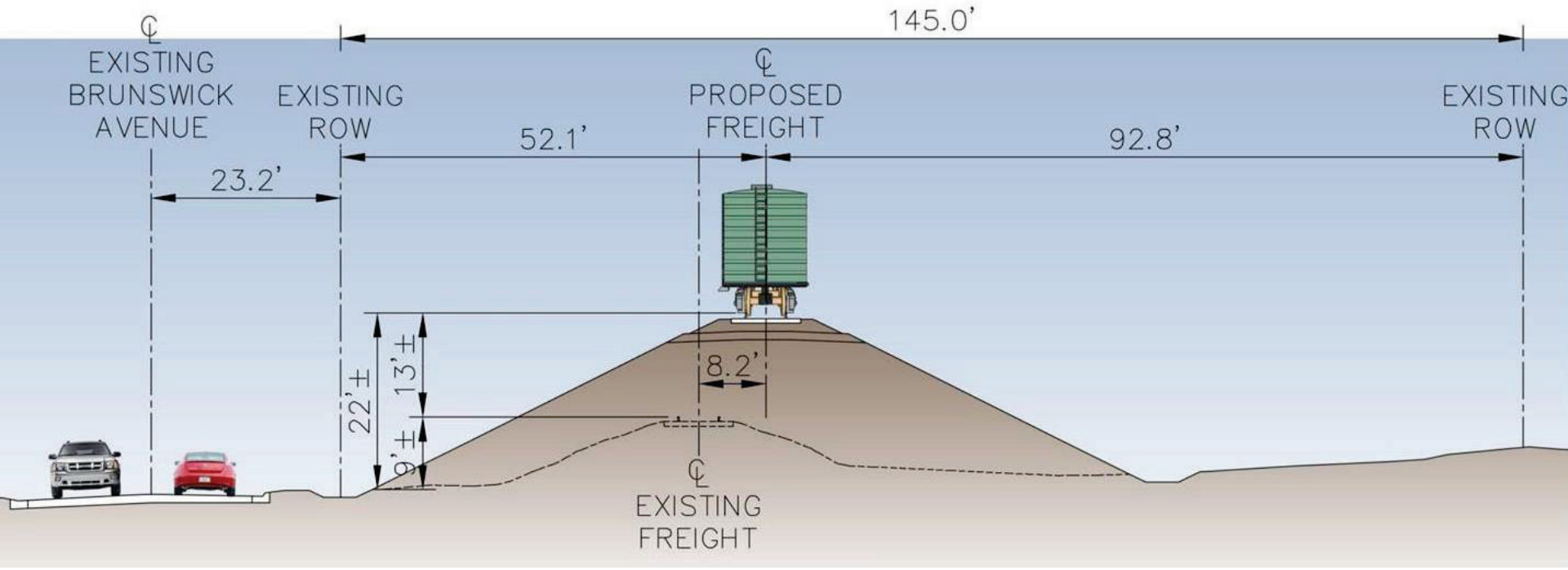
Year	Actions
2010	Minneapolis Resolution 2010R-008
2010	St. Louis Park Resolution 10-071
2010	St. Louis Park Resolution 10-070
2011	St. Louis Park Resolution 11-058
2012	Minneapolis Resolution 2012R-xxx
2012	Minneapolis Resolution 2012R-108
2012	Trackage Rights Agreement
2012	Trackage Rights Amendment
2012	Minneapolis DEIS Comments
2012	St. Louis Park DEIS Comments
2013	Safety In The Park's CD shared at 8/28/2013 SWLRT CMC

\* May not be inclusive of all documents

# Brunswick Central Freight Rail Relocation

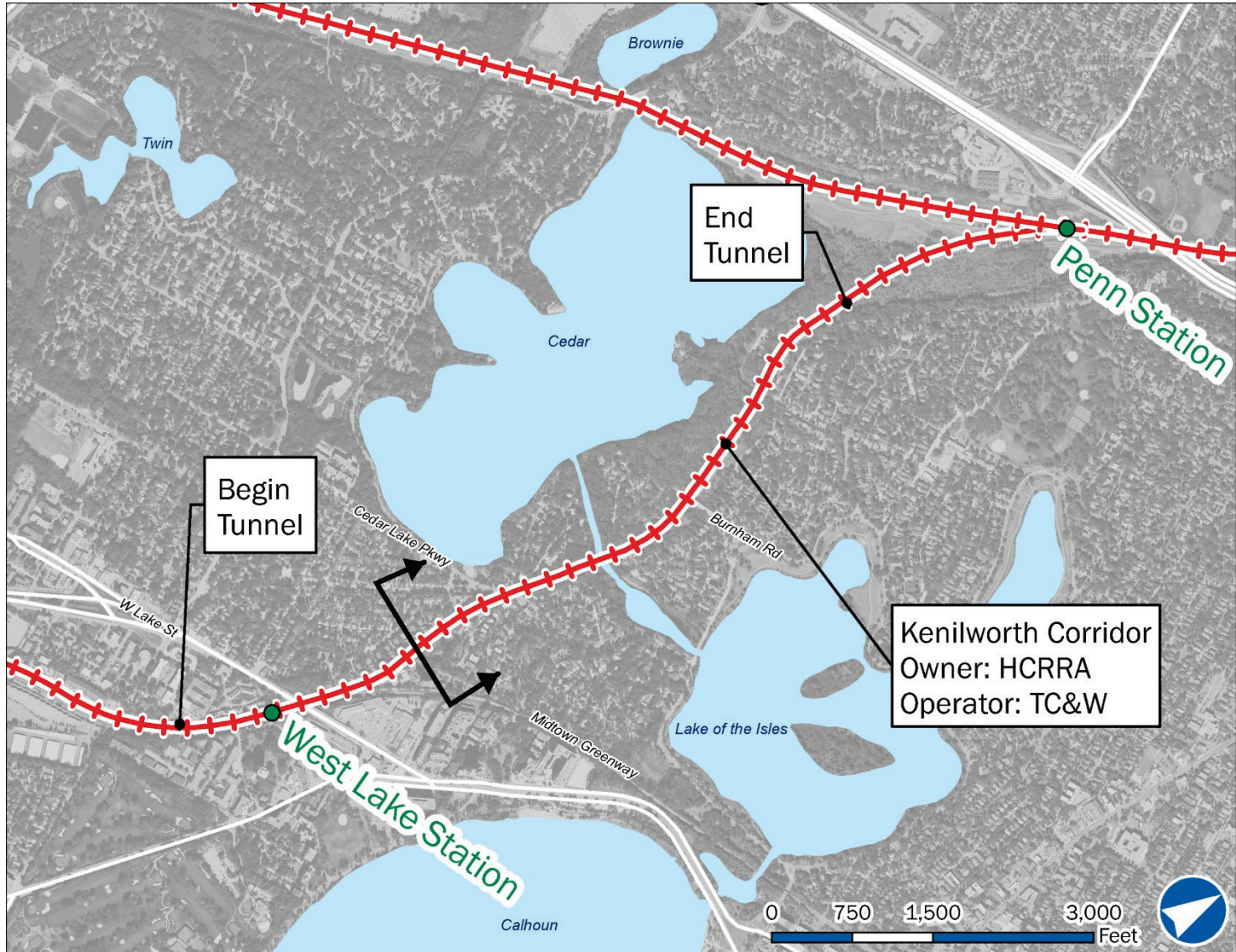


# Brunswick Central: Typical Section

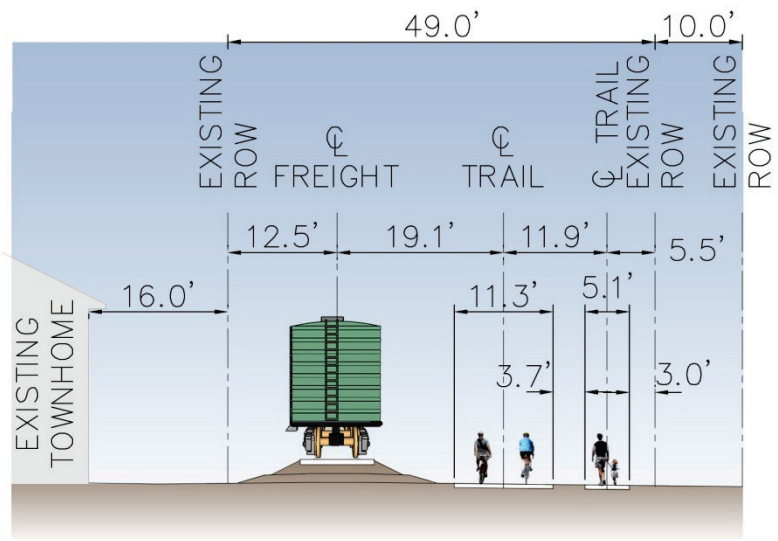


**PROPOSED**

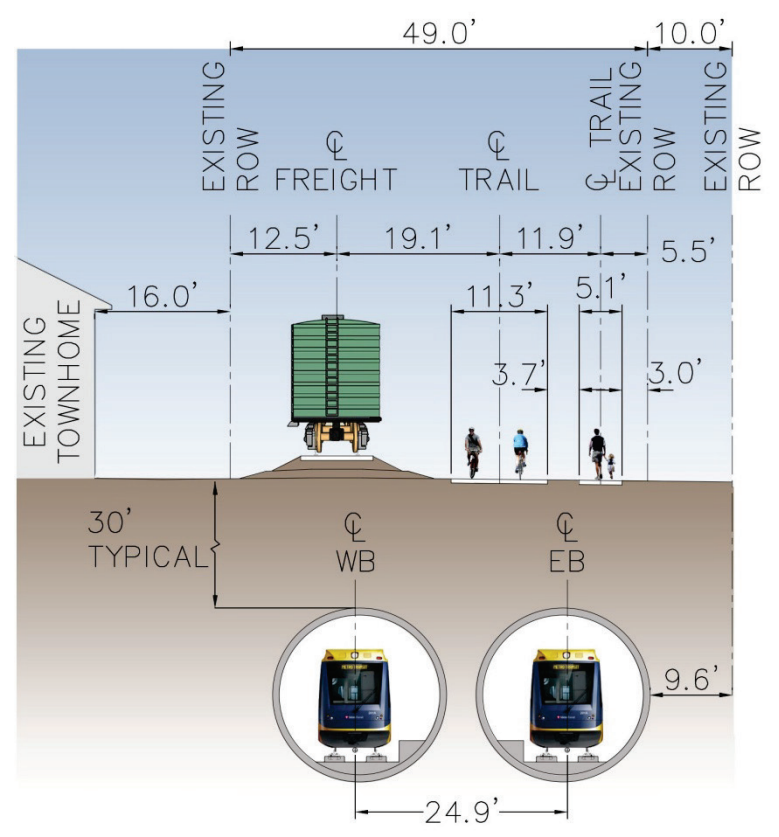
# Kenilworth Deep Bore LRT Tunnel



# Kenilworth Deep Bore LRT Tunnel: Typical Section at Pinch Point

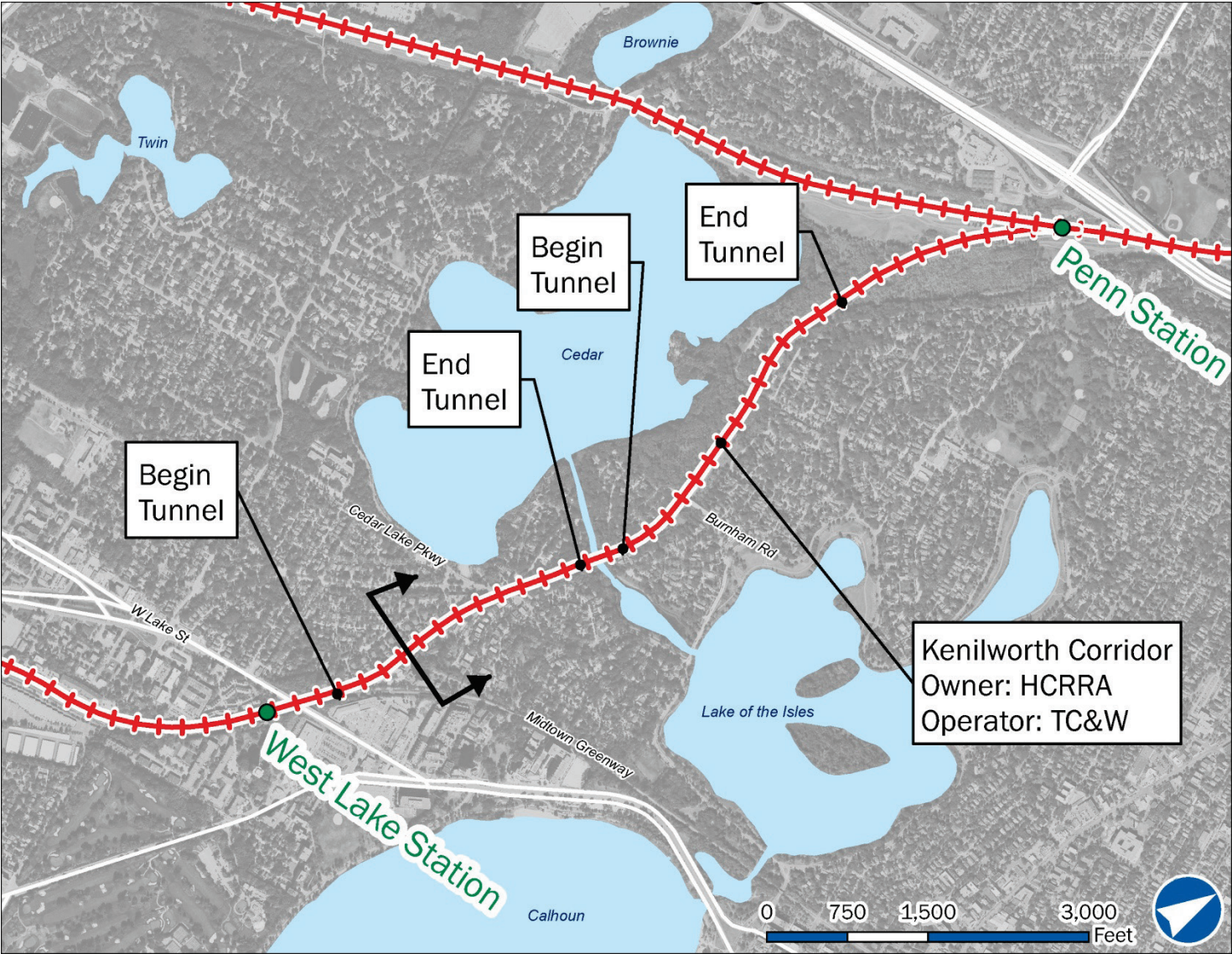


**EXISTING**

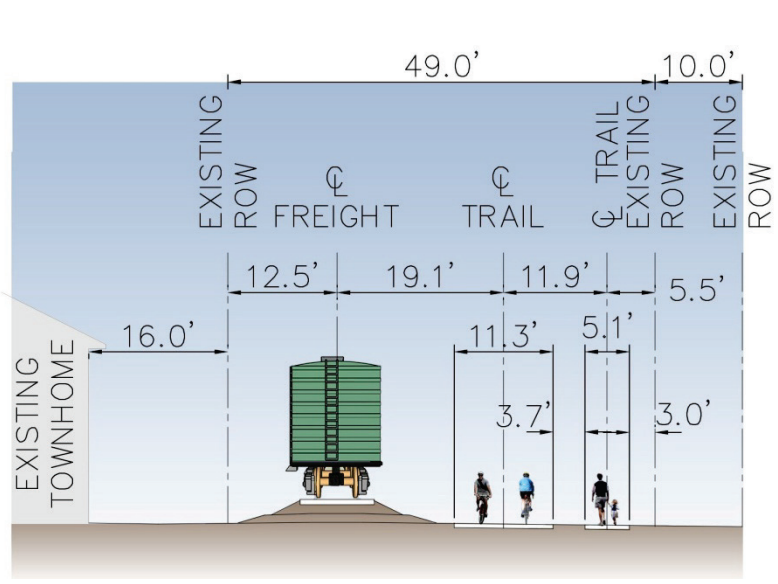


**PROPOSED**

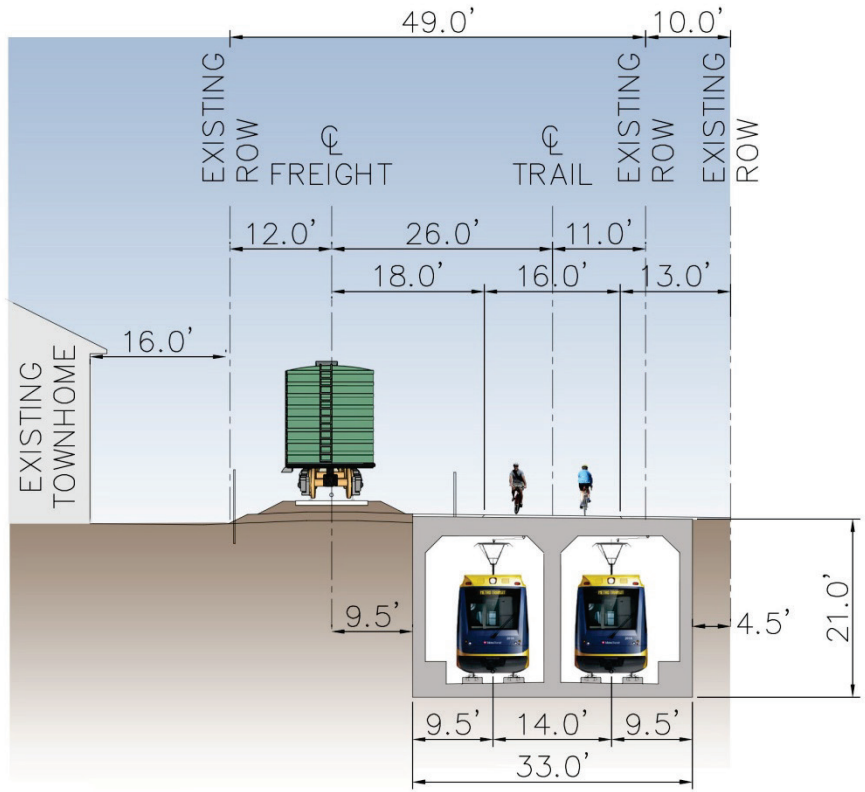
# Kenilworth Shallow LRT Tunnel



# Kenilworth Shallow LRT Tunnel: Typical Section at Pinch Point



**EXISTING**



**PROPOSED**



# Freight Rail Cost Estimate Summary

## Freight Rail Cost Estimate (M)

## LPA Δ M

Freight Rail Common Elements

\$85 - \$90

\$85 - \$90

## Freight Rail Cost Estimate (M)

## LPA Δ M

**Design Option**

Brunswick Central Freight Rail

\$190 - \$200

\$190 - \$200

Kenilworth Deep Bore LRT Tunnel

\$320 - \$330

\$320 - \$330

Kenilworth Shallow LRT Tunnel

\$150 - \$160

\$150 - \$160

# Technical Issue #21: Freight Rail

Alignment	Strengths	Weaknesses
Brunswick Central	<ul style="list-style-type: none"> <li>• Freight rail at-grade crossings eliminated between Blake Rd. and 28th St.</li> <li>• Non-emergency freight train horn use eliminated between Blake Rd. and 28th St.</li> <li>• Freight rail relocated away from St. Louis Park High School</li> <li>• Freight rail track removed east of the existing MN&amp;S Spur</li> </ul>	<ul style="list-style-type: none"> <li>• Acquisition of homes and businesses</li> <li>• Elevated freight rail track through St. Louis Park</li> <li>• Park Spanish Immersion School playground area concerns</li> <li>• Construction challenges to accommodate ongoing freight rail traffic</li> <li>• Wetland concerns</li> </ul>

# Technical Issue #21: Freight Rail

Alignment	Strengths	Weaknesses
Deep Bore LRT Tunnel	<ul style="list-style-type: none"><li>• No acquisition of homes and businesses in Kenilworth Corridor</li><li>• LRT below grade through the Kenilworth Corridor</li><li>• 200+ LRT trips per day below ground</li><li>• Kenilworth Trail remains within corridor</li><li>• Construction footprint along Kenilworth Corridor reduced</li><li>• Reduces disturbance to existing vegetation</li></ul>	<ul style="list-style-type: none"><li>• Highest capital investment</li><li>• West Lake Station below grade</li><li>• 21st St. Station eliminated</li><li>• Reconstruction of West Lake St. Bridge</li><li>• Risk of potential settlement to adjacent buildings</li><li>• Two significant construction staging areas needed at tunnel portals</li></ul>

# Technical Issue #21: Freight Rail

Alignment	Strengths	Weaknesses
Shallow LRT Tunnel	<ul style="list-style-type: none"><li>• No acquisition of homes and businesses in Kenilworth Corridor</li><li>• 200+ LRT trips per day mostly below grade through Kenilworth Corridor</li><li>• LRT daylights between north and south tunnels for approx. 20 seconds per train</li><li>• West Lake St. Bridge preserved</li><li>• Kenilworth Trail preserved within corridor for long-term</li><li>• Lower capital investment</li></ul>	<ul style="list-style-type: none"><li>• 21st St. Station eliminated</li><li>• Met Council sewer relocation</li><li>• Temporary detour of Kenilworth Trail</li></ul>

# Discussion

# Project Budget Summary

# Total Project Cost Estimate Summary (LRT + Freight)

LPA LRT Project Budget = \$1,250 M

Description	Revised Design Cost Estimate (M)	LPA Δ M
LRT design adjustment cost estimate (subtotal)	\$1,350 - \$1,400	\$100 - \$150

# Total Project Cost Estimate Summary (LRT + Freight)

LPA LRT Project Budget = \$1,250 M

Description	Revised Design Cost Estimate (M)	LPA Δ M
LRT design adjustment cost estimate (subtotal)	\$1,350 - \$1,400	\$100 - \$150
Freight rail common costs	\$85 - \$90	\$85 - \$90
Freight rail cost estimate	\$150 - \$330	\$150 - \$330
<b>SWLRT Total Project Estimated Costs</b>	<b>\$1,585 – \$1,820</b>	<b>\$335 - \$570</b>



# Next Steps

- SWLRT Corridor Management Committee
  - September 11 – Technical information
  - September 18 – Technical information
  - October 2 – Action on project scope and budget
- Metropolitan Council
  - September 11 - Metropolitan Council information item
  - October 7 - Transportation Committee recommendation
  - October 9 - Metropolitan Council approval

# More Information

Online:

[www.SWLRT.org](http://www.SWLRT.org)

Email:

[SWLRT@metrotransit.org](mailto:SWLRT@metrotransit.org)

Twitter:

[www.twitter.com/southwestlrt](http://www.twitter.com/southwestlrt)

