



Corridor Management Committee

July 16, 2015



Today's Topics

- Outreach Update
- TI #1 and 2: Target Field Station Connection to I-94: Recommendation
- 85th Station Configuration
- 93rd Station Configuration
- DEIS Scope and Cost Estimate Update



Outreach Update



June 11 Robbinsdale Open House



June 17 Brooklyn Park Open House



Community Open Houses

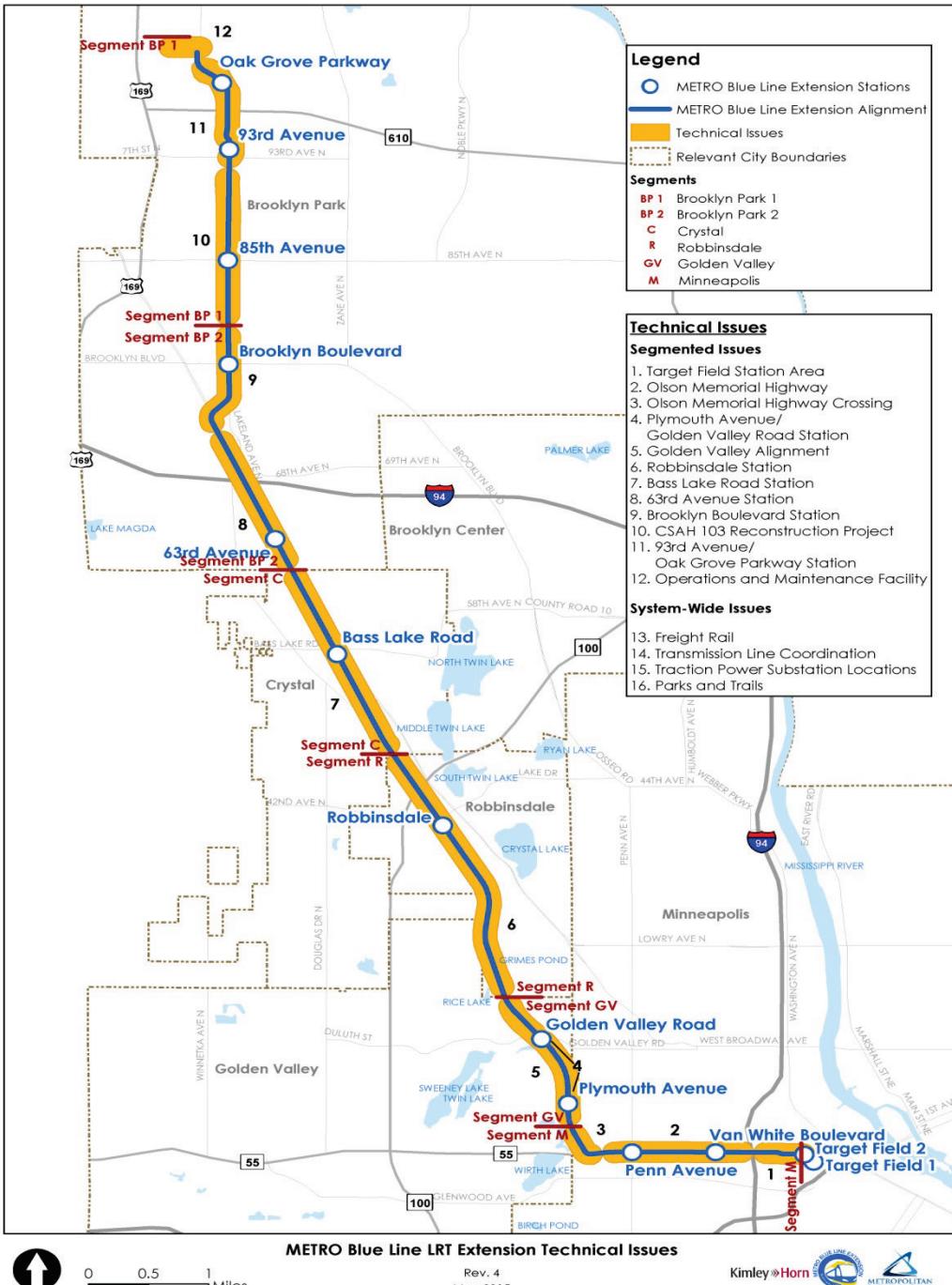
- Crystal: Monday, July 27
- Robbinsdale: Tuesday, July 28
- Minneapolis: Wednesday, July 29
 - Includes Minneapolis Small Area Planning
- Brooklyn Park: Tuesday, August 11
 - Includes West Broadway/County Rd 103 road construction from Candlewood Drive to 93rd Avenue
- Golden Valley: Wednesday, August 12



Technical Issues Update



Technical Issues

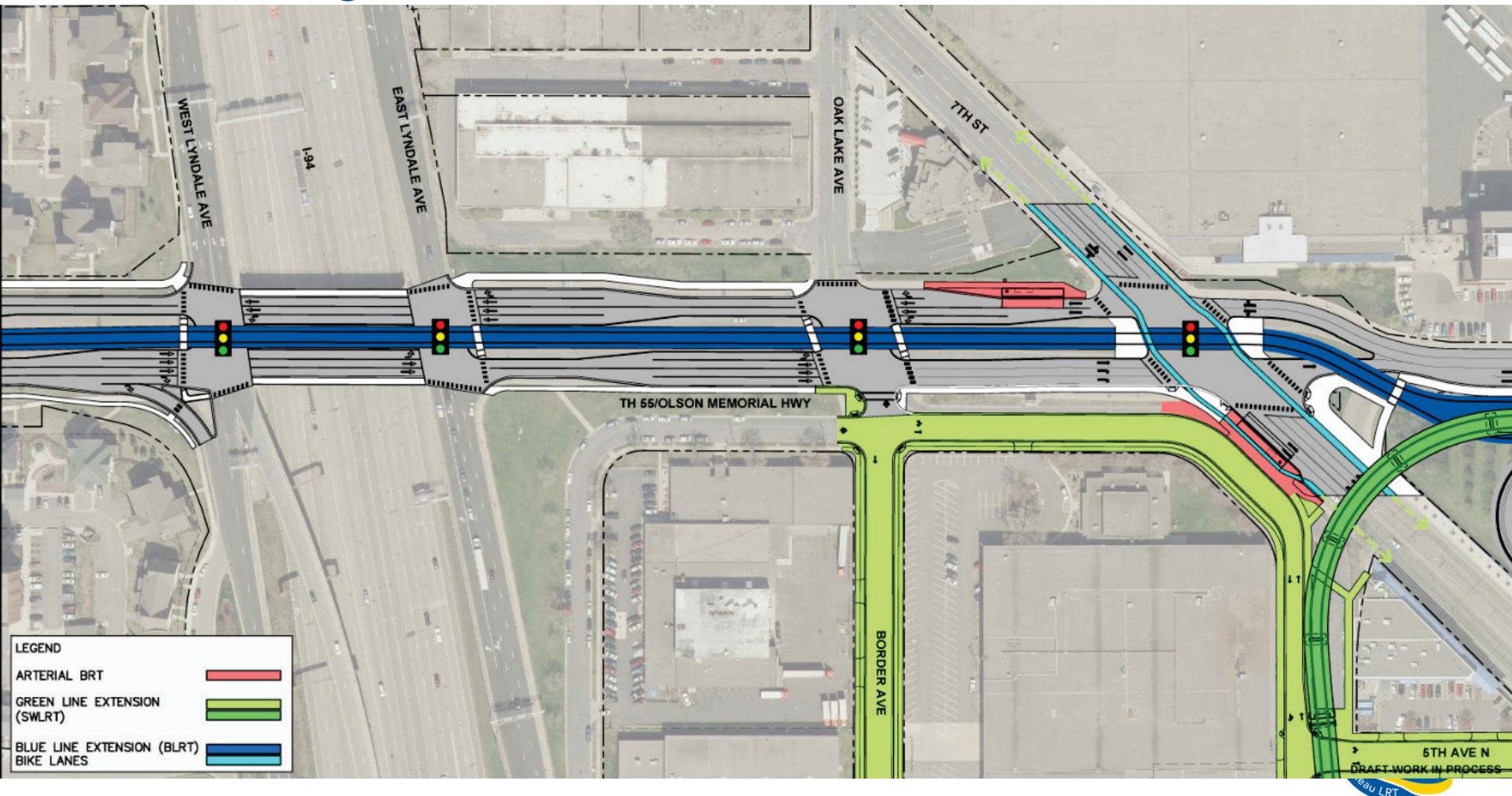


Technical Issue #1 and #2: Target Field Station Connection to I-94 Interchange Recommendation



Technical Issue #1: Target Field Station Connection Background

- Plan view from Target Field Station through I-94 Interchange

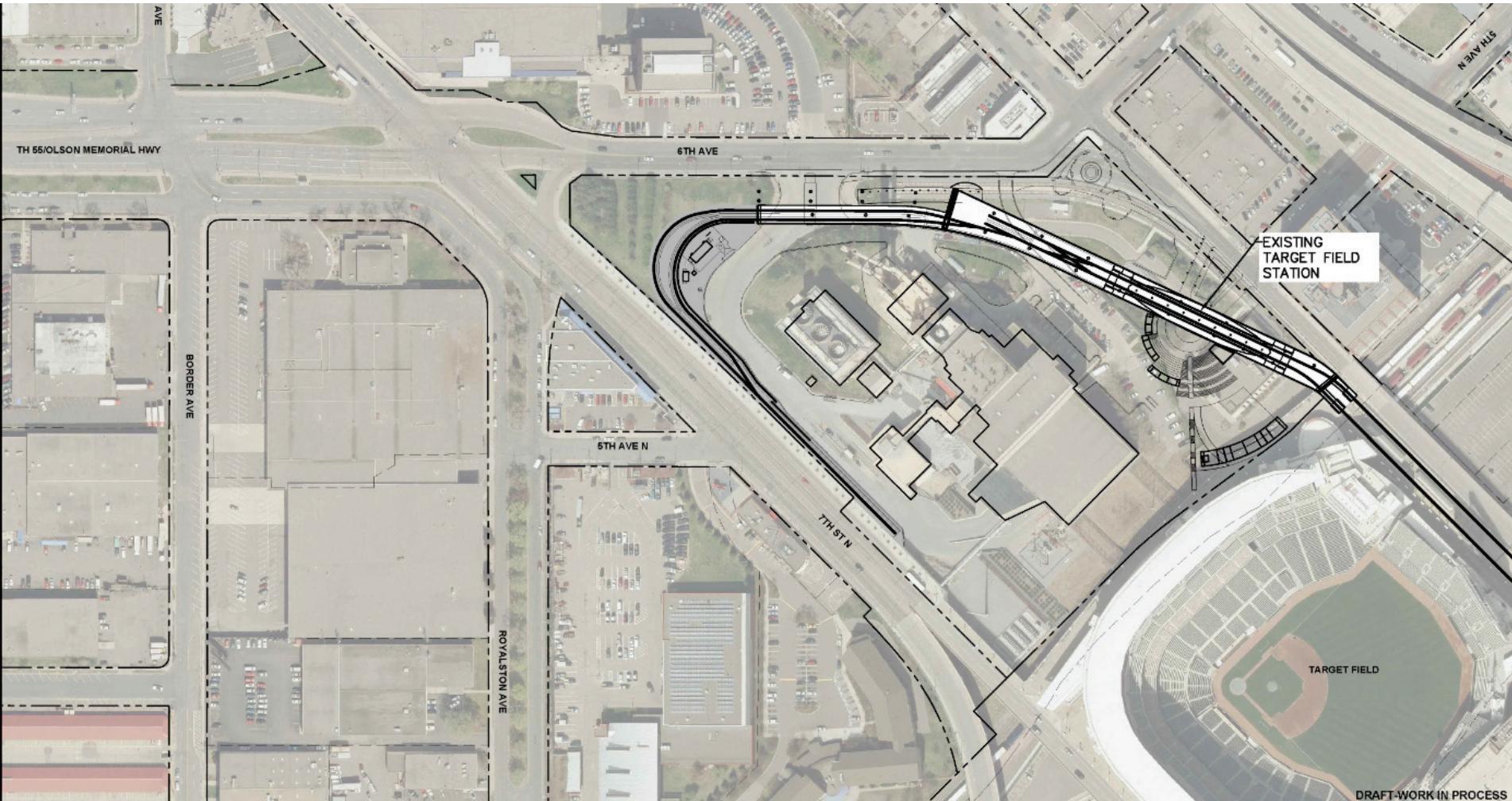


Technical Issue #1: Target Field Station Connection

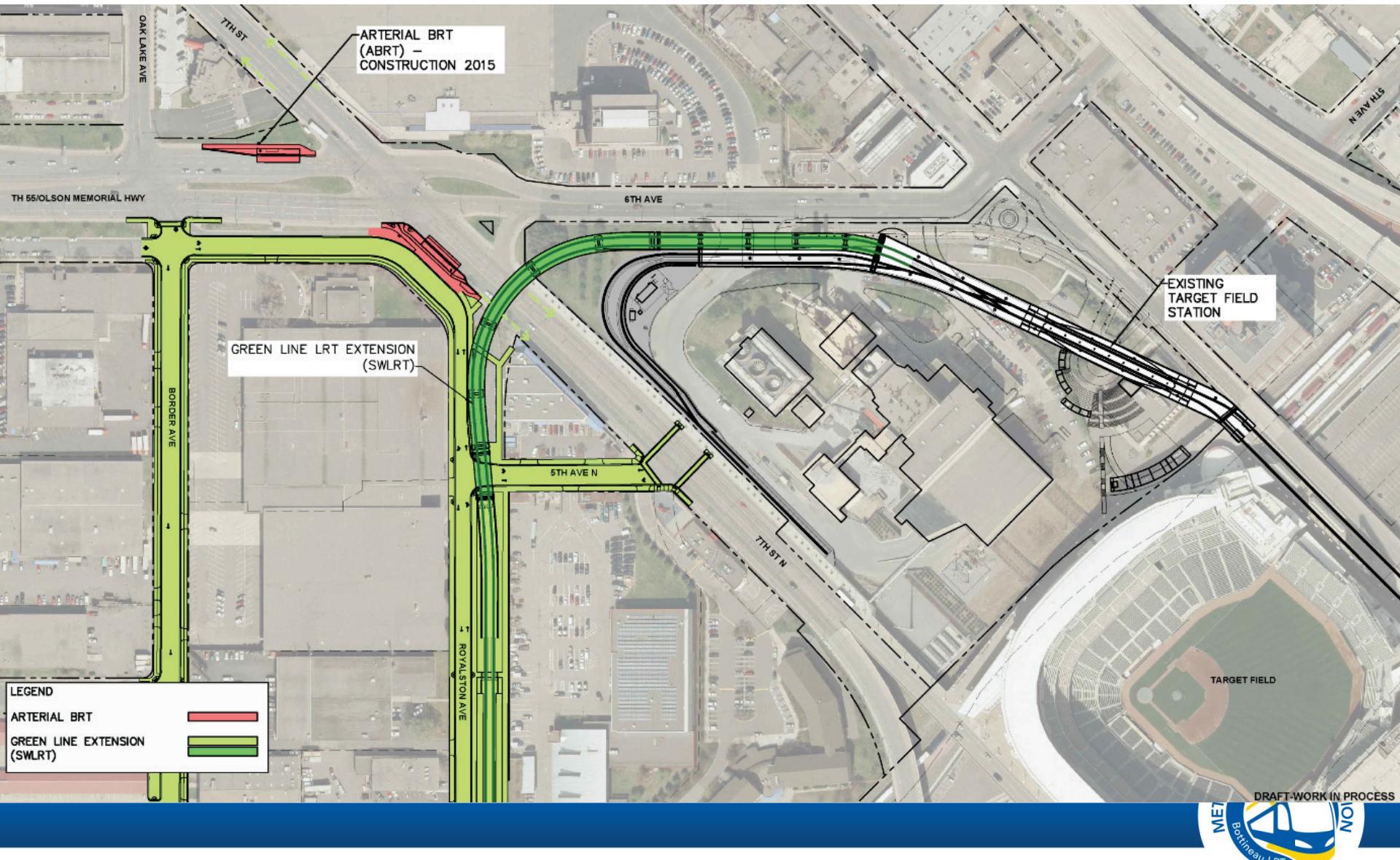
- Key Issues:
 - Connection requires coordination with SWLRT
 - 7th Street intersection has a unique geometry
 - Intersection is challenging for safe pedestrian and bike access



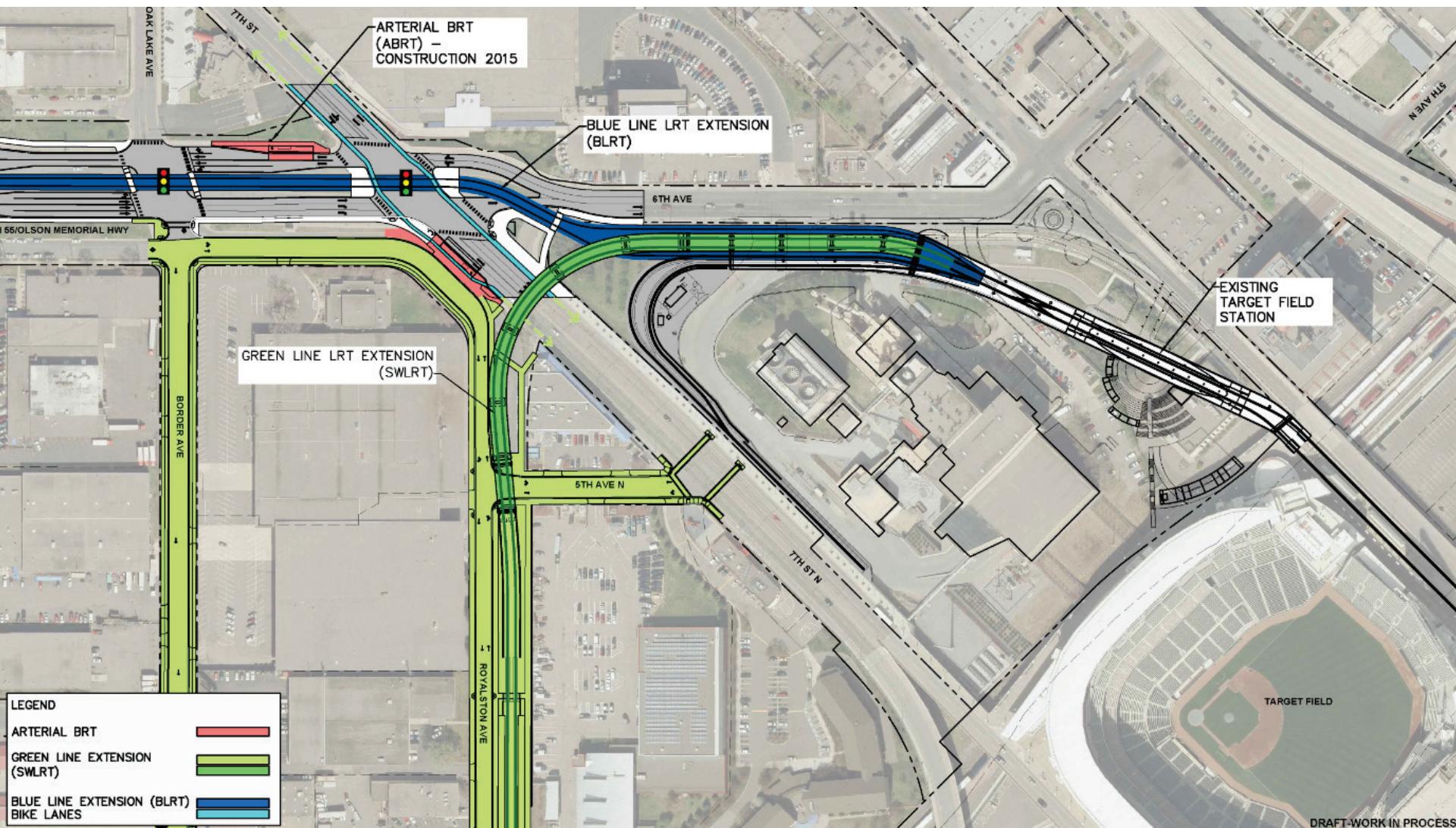
Technical Issue #1: Target Field Station Connection - Existing Configuration



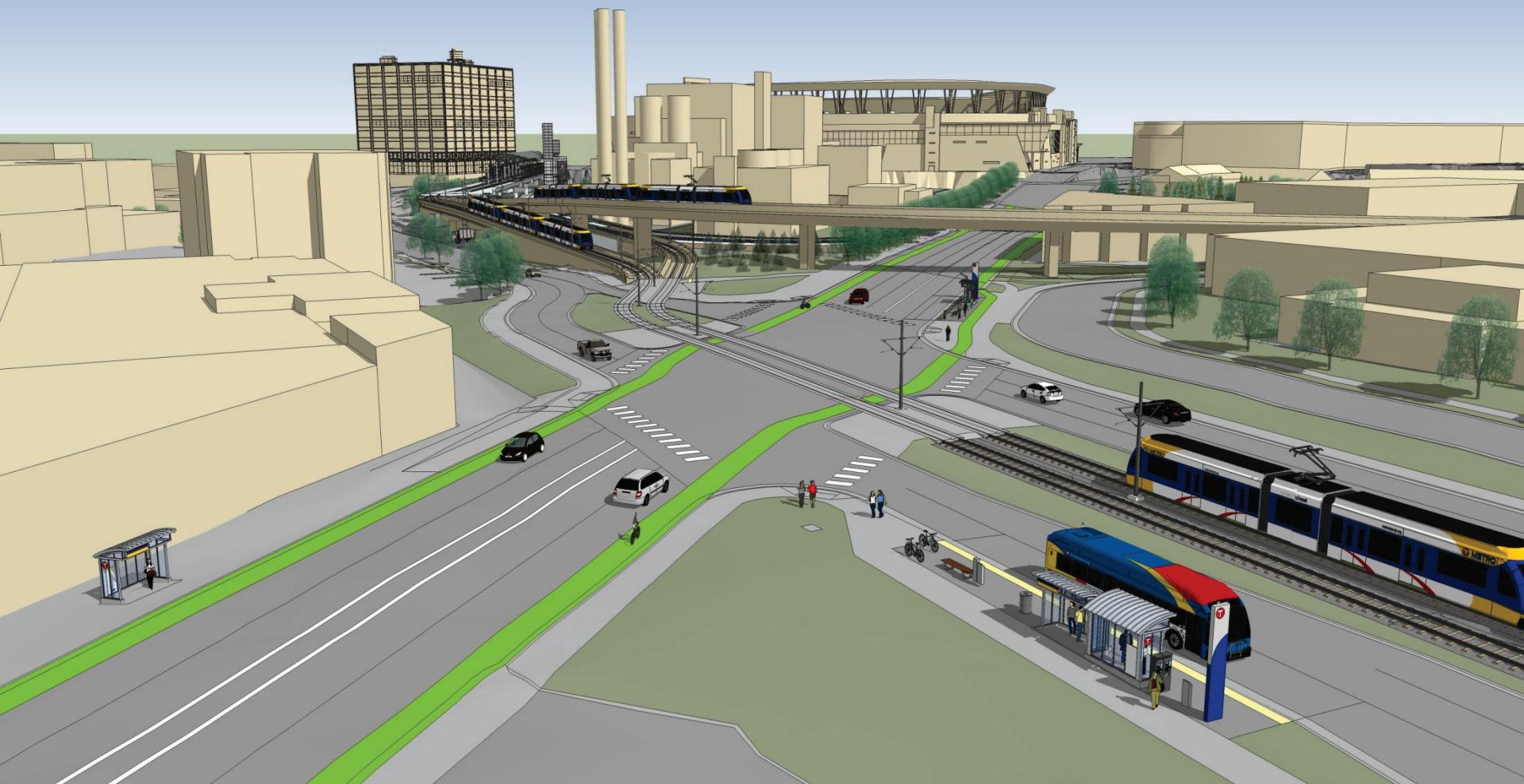
Technical Issue #1: Target Field Station SWLRT Connection



Technical Issue #1: Target Field Station SWLRT and BLRT Connection



Technical Issue #1: Target Field Station Connection viewed through 7th St Intersection

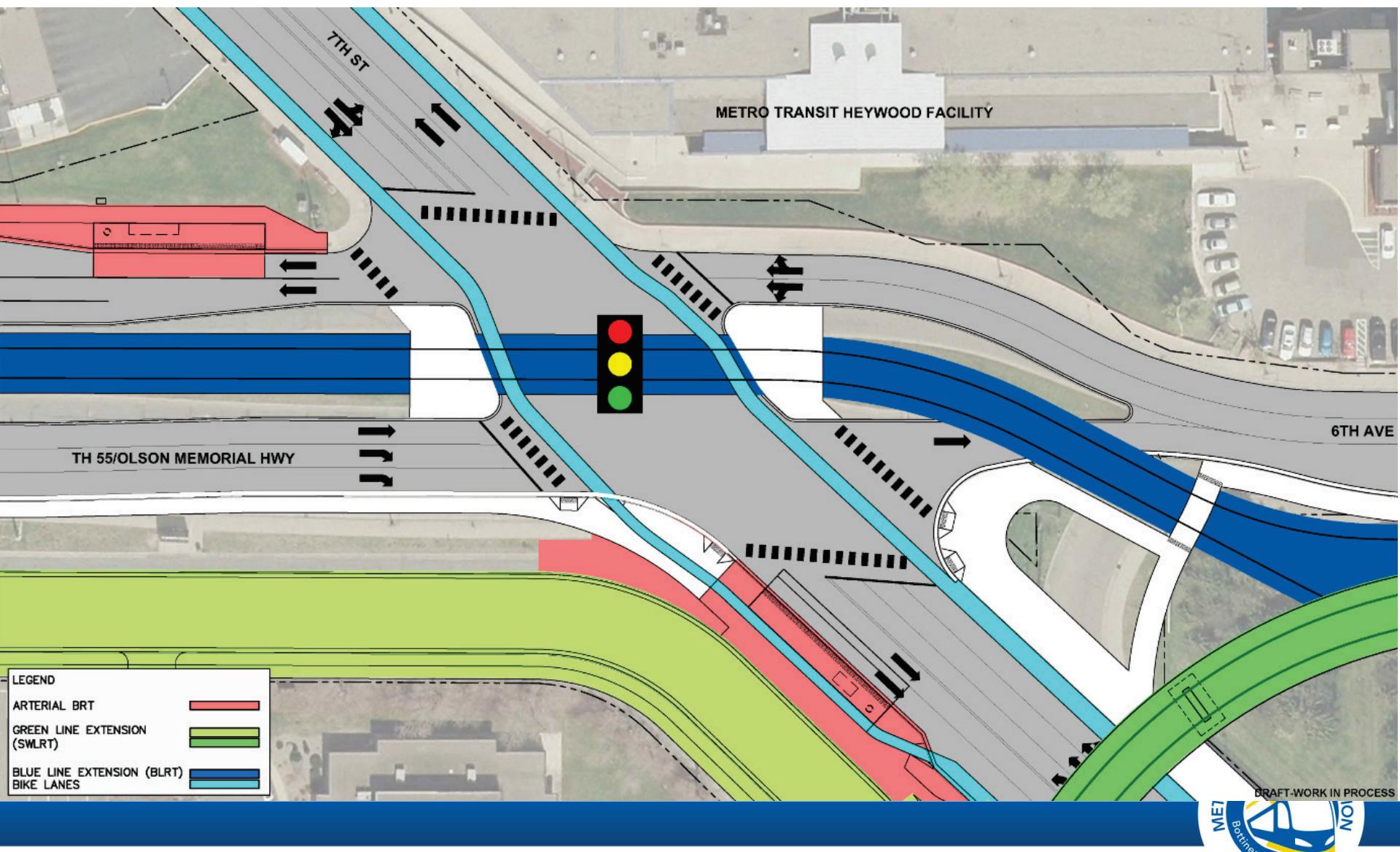


Technical Issue #1: 7th St and Olson Memorial Highway Intersection

- 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 Recommendation

- 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

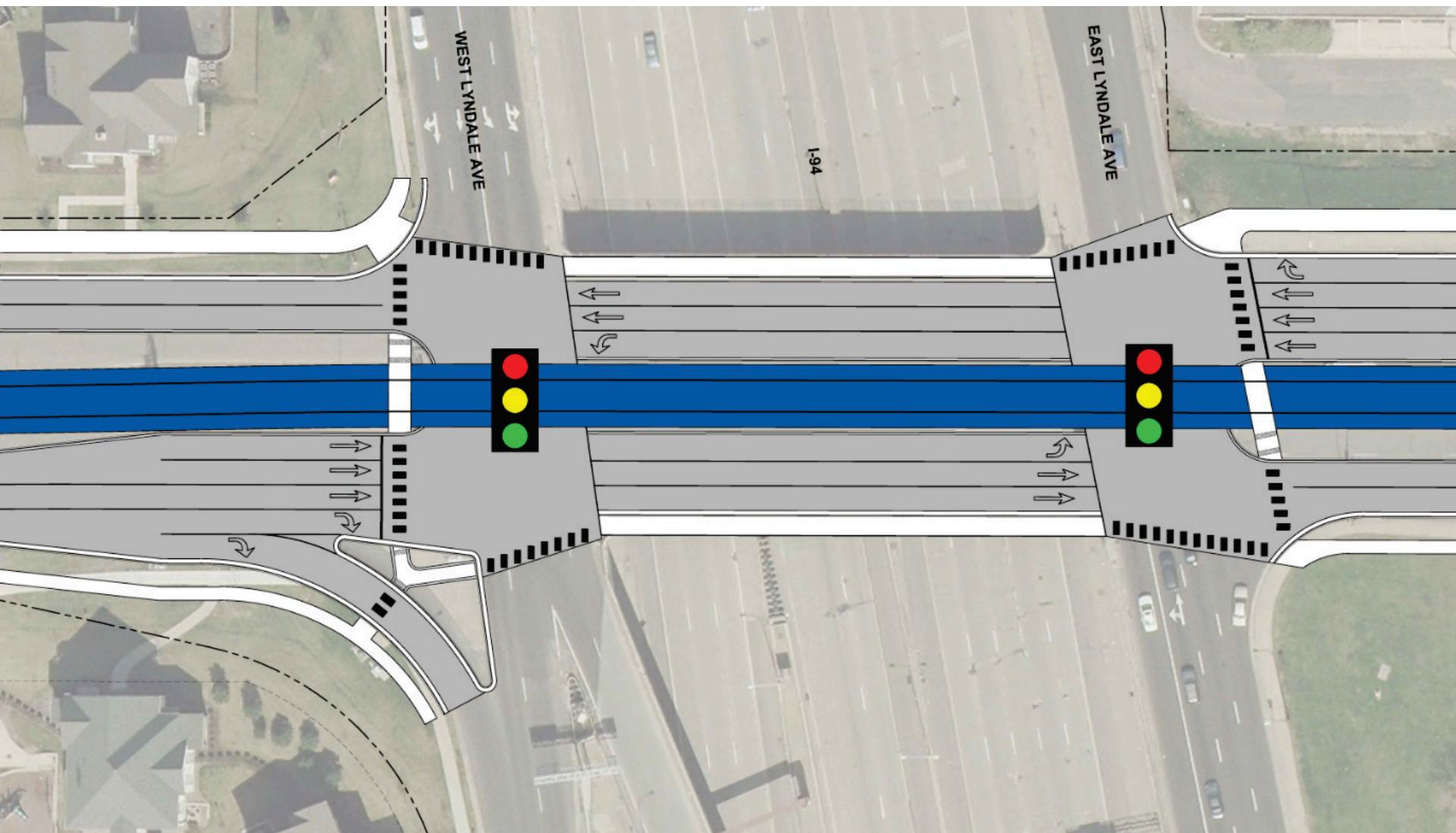


Technical Issue #2: I-94 Interchange

- Key Issues:
 - LRT center running on existing bridge
 - Bridge requires structural reinforcement under LRT guideway
 - Bridge left intact outside of guideway
 - New signals systems installed at intersections



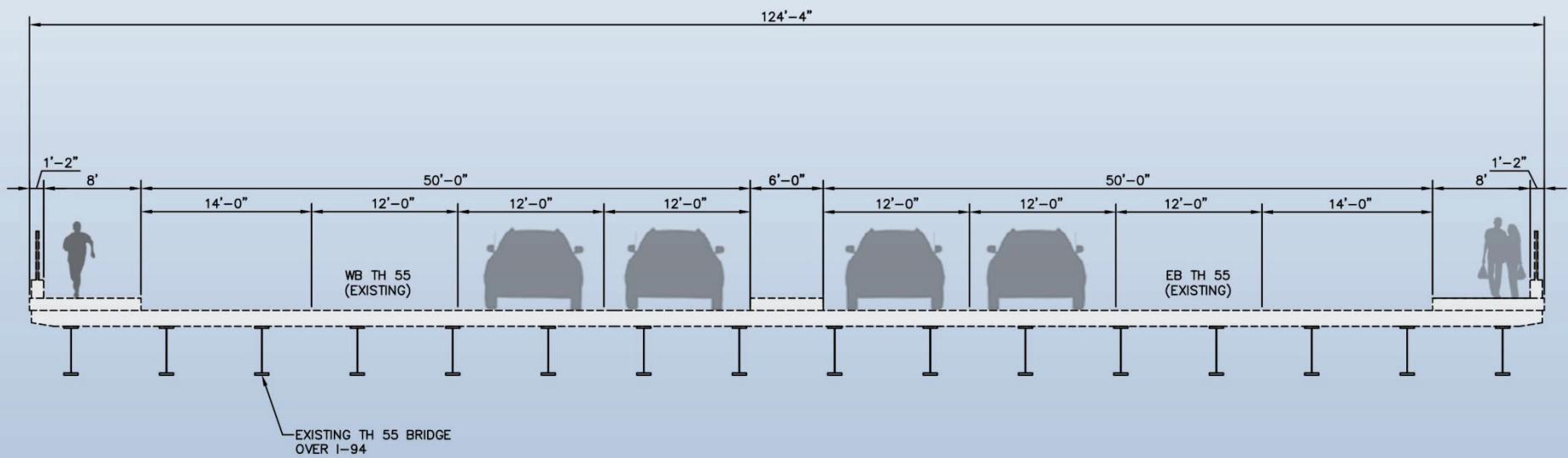
Technical Issue #2: I-94 Interchange



DRAFT-WORK IN PROCESS

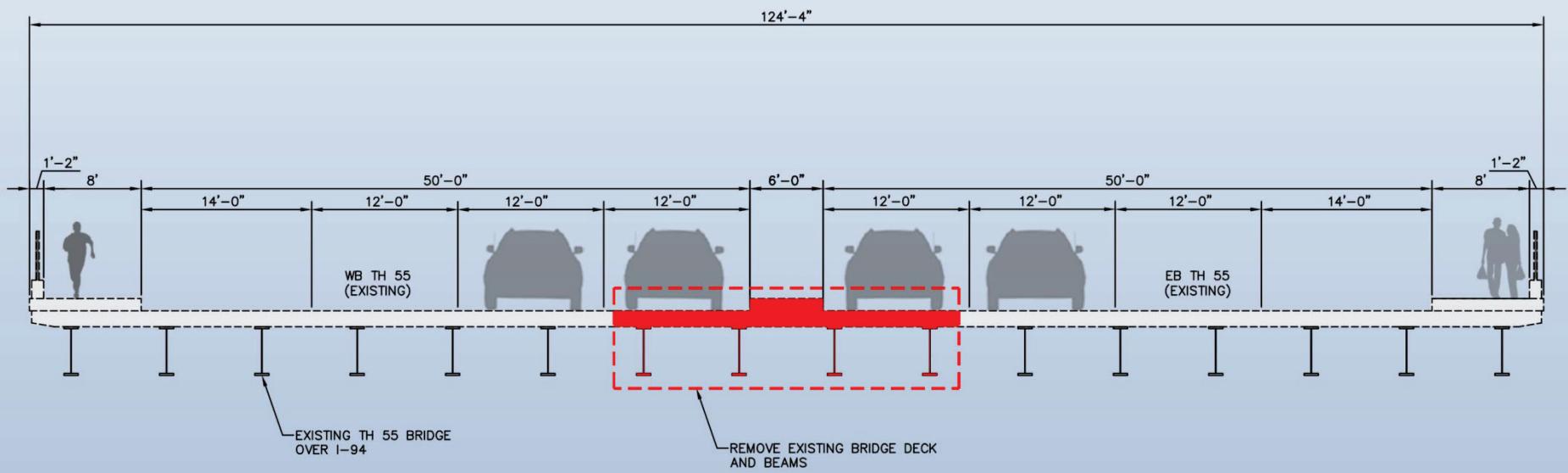
Technical Issue #2: I-94 Interchange

- Cross section of existing bridge



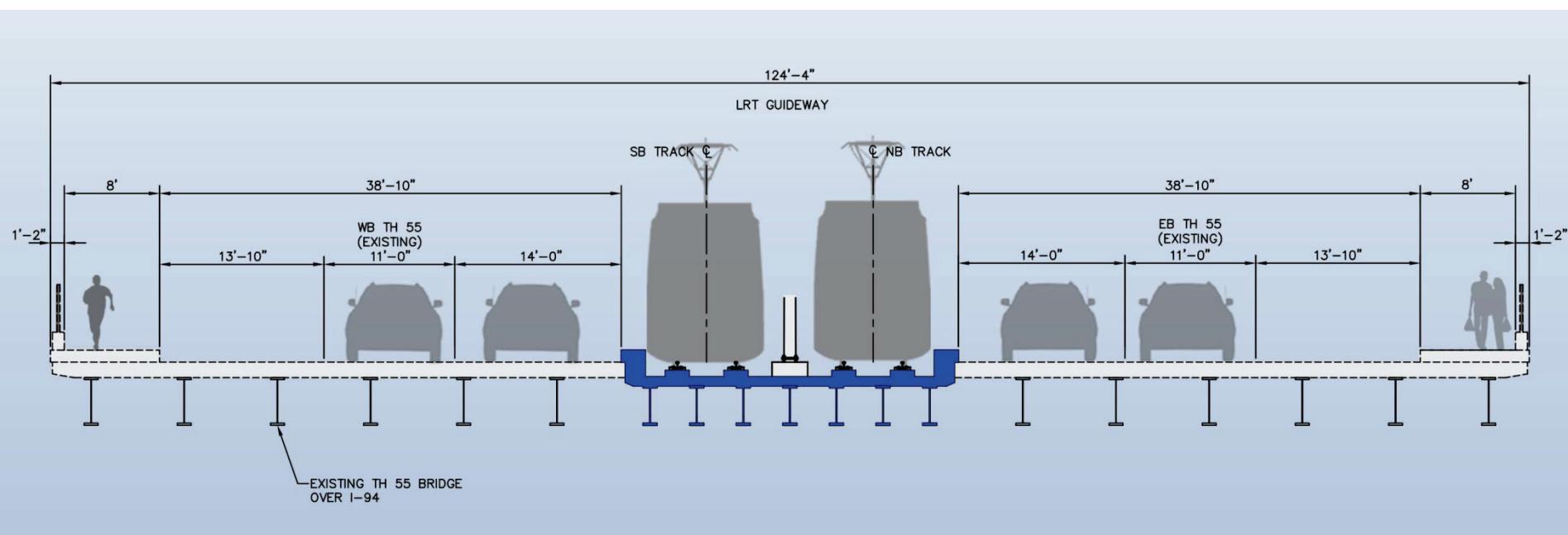
Technical Issue #2: I-94 Interchange

- Cross section of proposed improvements (removal)



Technical Issue #2: I-94 Interchange

- Cross section of proposed improvements



Technical Issue #2: I-94 Interchange Recommendation

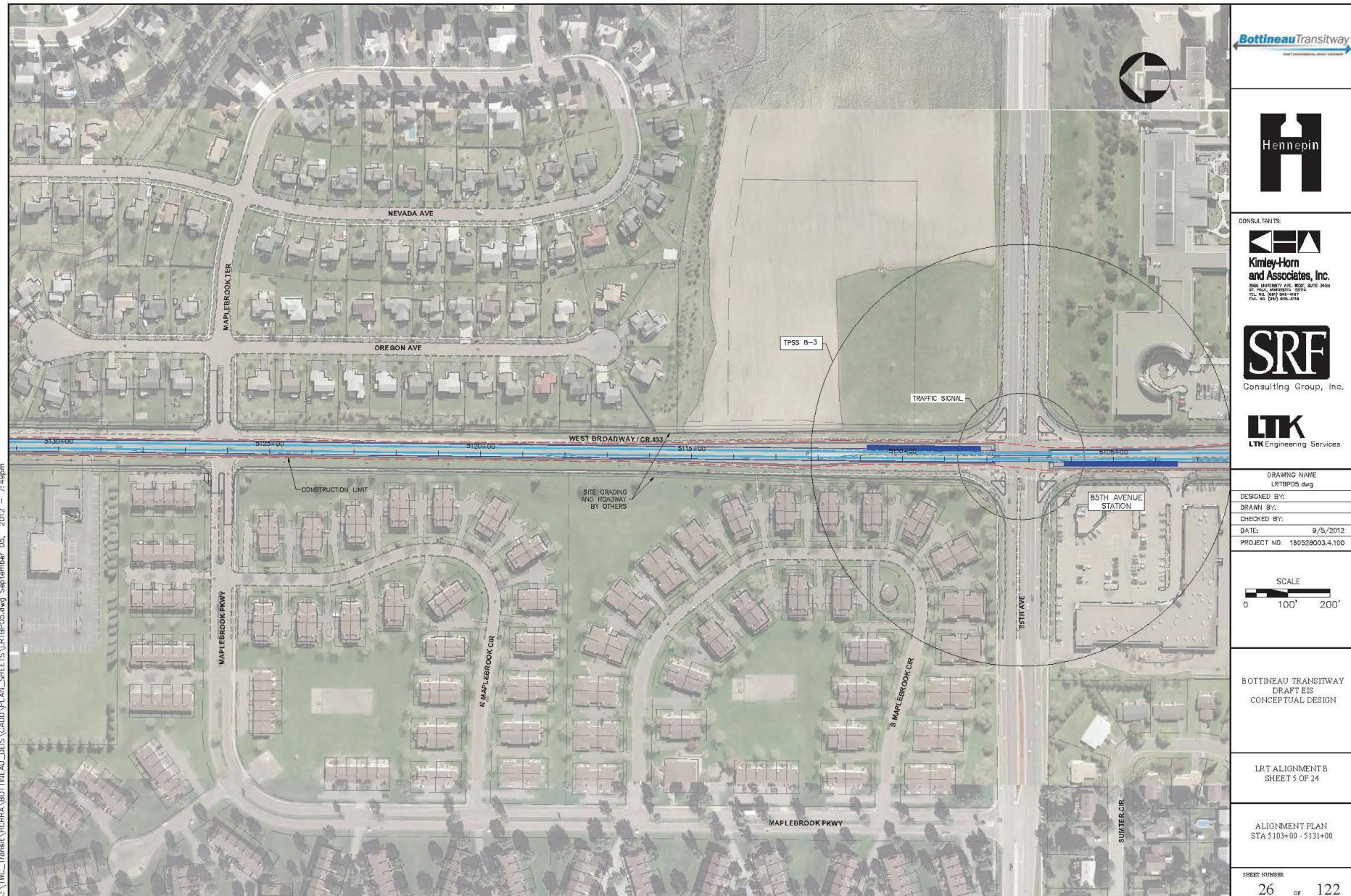
- Center running LRT on existing I-94 bridge
- Continue coordination with the MnDOT and City of Minneapolis on final design of interchange



85th Station Configuration



85th Station from DEIS



85th Station Configuration

- Issues to be resolved:
 - Platform configuration
 - Pedestrian access
 - Bus stop locations
 - Passenger drop off

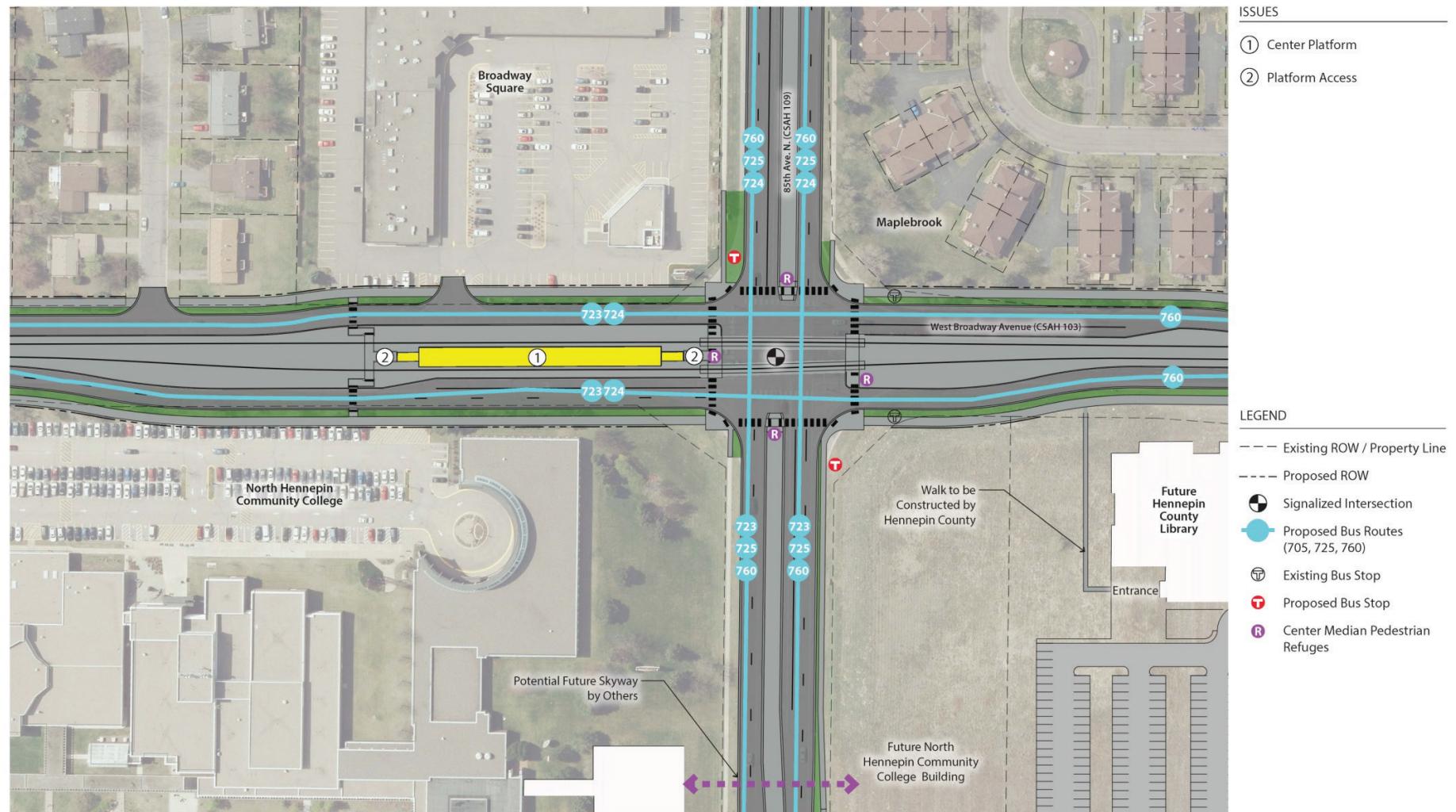


85th Station Configuration

- Platform configuration
 - 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
 - Continue to analyze in conjunction with the City and Metro Transit



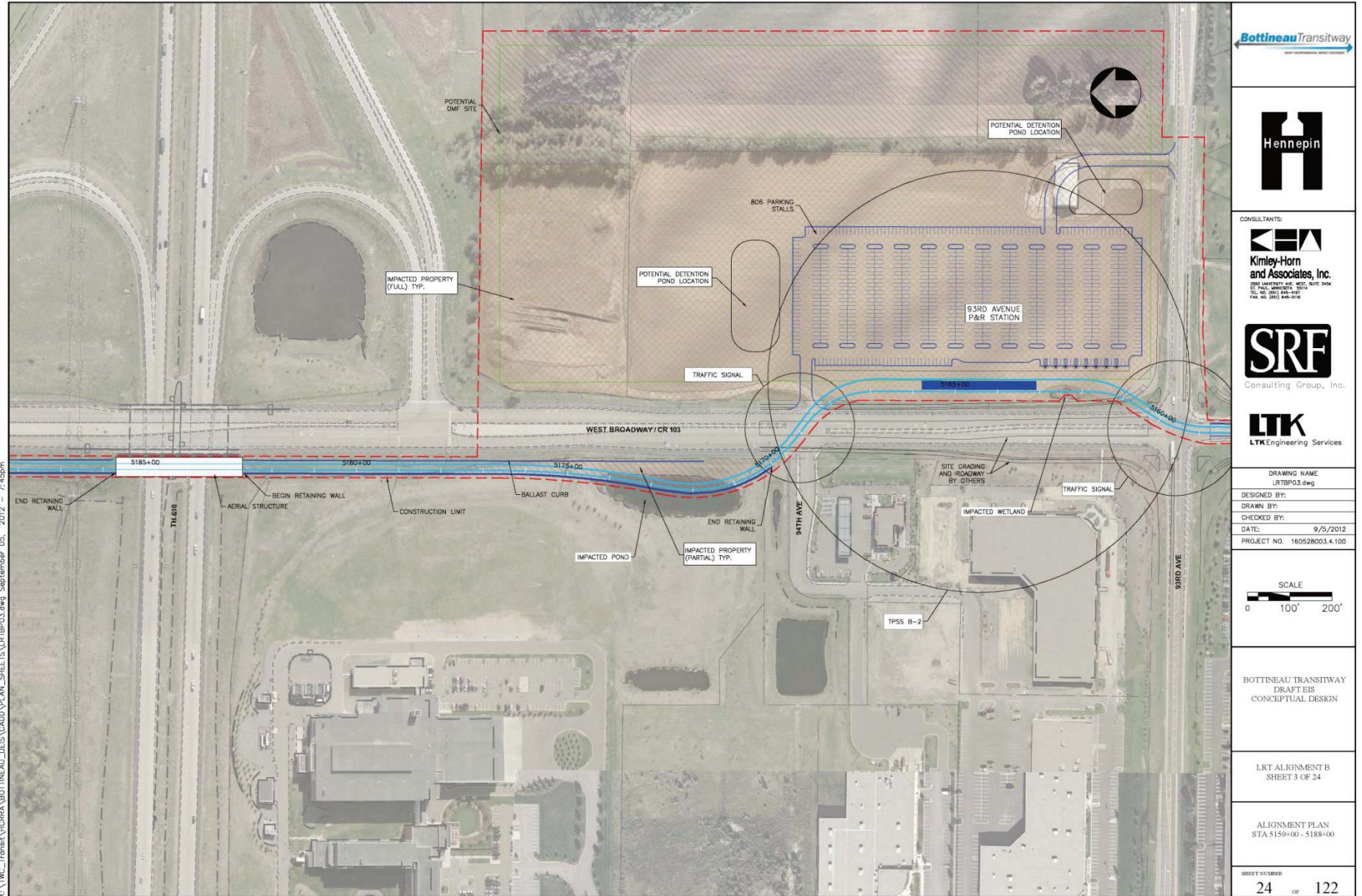
85th Station Configuration



93rd Station Configuration



93rd Station from DEIS



93rd Station Configuration

- Issues to be resolved:
 - Track layout and platform location
 - 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

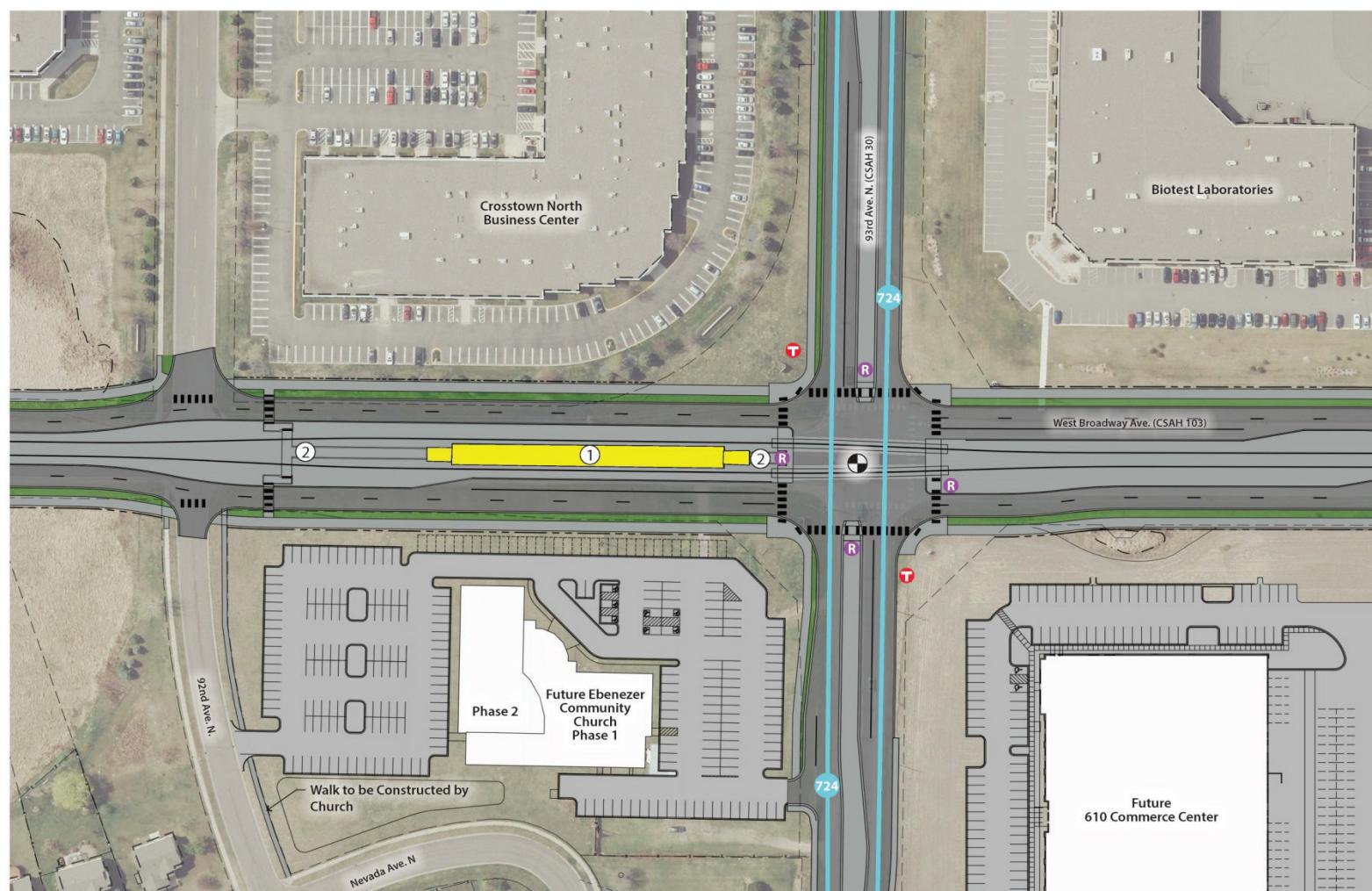


93rd Station Configuration

- 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 the City and Metro Transit



93rd Station Configuration



ISSUES

- ① Center Platform
- ② Platform Access

LEGEND

- Existing ROW / Property Line
- - - Proposed ROW
- Signalized Intersection
- Proposed Bus Routes (724)
- Existing Bus Stop
- Proposed Bus Stop
- Center Median Pedestrian Refuges

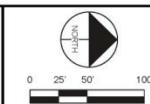
DRAFT-WORK IN PROCESS



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BLUE LINE LRT EXTENSION CITY OF BROOKLYN PARK 93RD AVENUE STATION SITE PLAN

TI #11
Rev 1
05/13/2015



Kimley-Horn



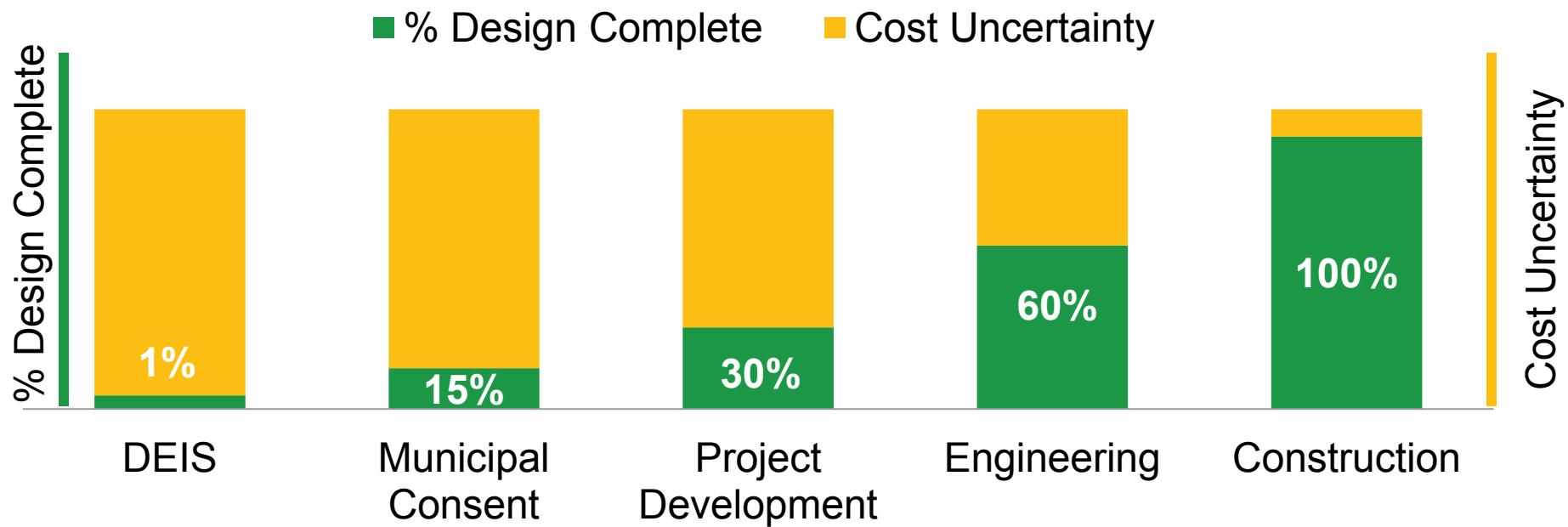
miller dunwiddie
ARCHITECTURE



Overview of DEIS Scope and Cost Estimate



Cost Uncertainty By Project Phase



Project Delivery Process

	DEIS	Municipal Consent	Project Development	Engineering	Construction Bid Packages
% Design	1%	15%	30%	60%	90-100%
Level of Design Detail	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
Survey Work	Aerial mapping	Phase I: Desk review and field observation – Geotechnical Borings	Phase II: Technical field work – Preliminary Soils Analysis	Final soils analysis	Archaeological recovery, mitigation measures



Cost Estimate vs. Budget

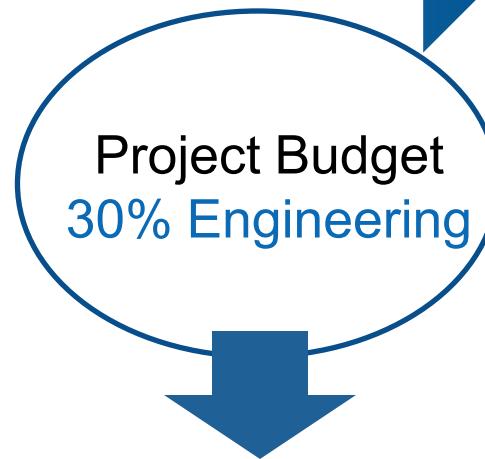
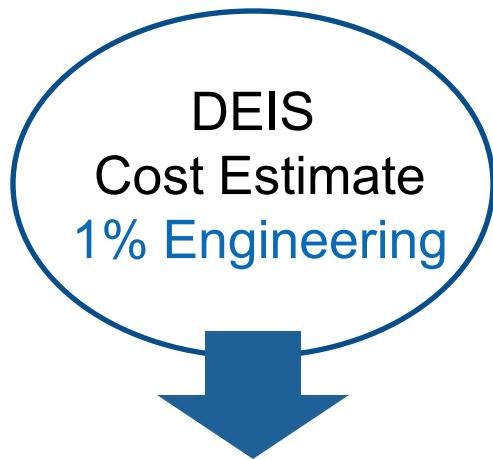
- Cost Estimate
 - Preliminary cost of project
 - DEIS scope
 - Minimal engineering
 - Initial risk identification
 - Cost estimate updated as design and risks further defined
- Project Budget
 - Based on:
 - Revised scope after Municipal Consent
 - Known risks
 - Contingency held for unknowns
 - Prepared for FTA New Starts application into Engineering Phase (anticipated June 2016)



Cost Estimates and Budget Timeline

C O S T E S T I M A T E

B U D G E T



August 2014
Enter
Project Development

December 2015
Begin
Municipal Consent

August 2016
Apply to
Enter Engineering



Capital Cost Overview: DEIS Assumptions

DEIS Cost Estimate (1% Eng.)	\$1.002 B
Total Project Contingency	34%
Escalation Factor	3%
Base Year Estimate	2012
Forecast Year	2017 (mid-point of construction)



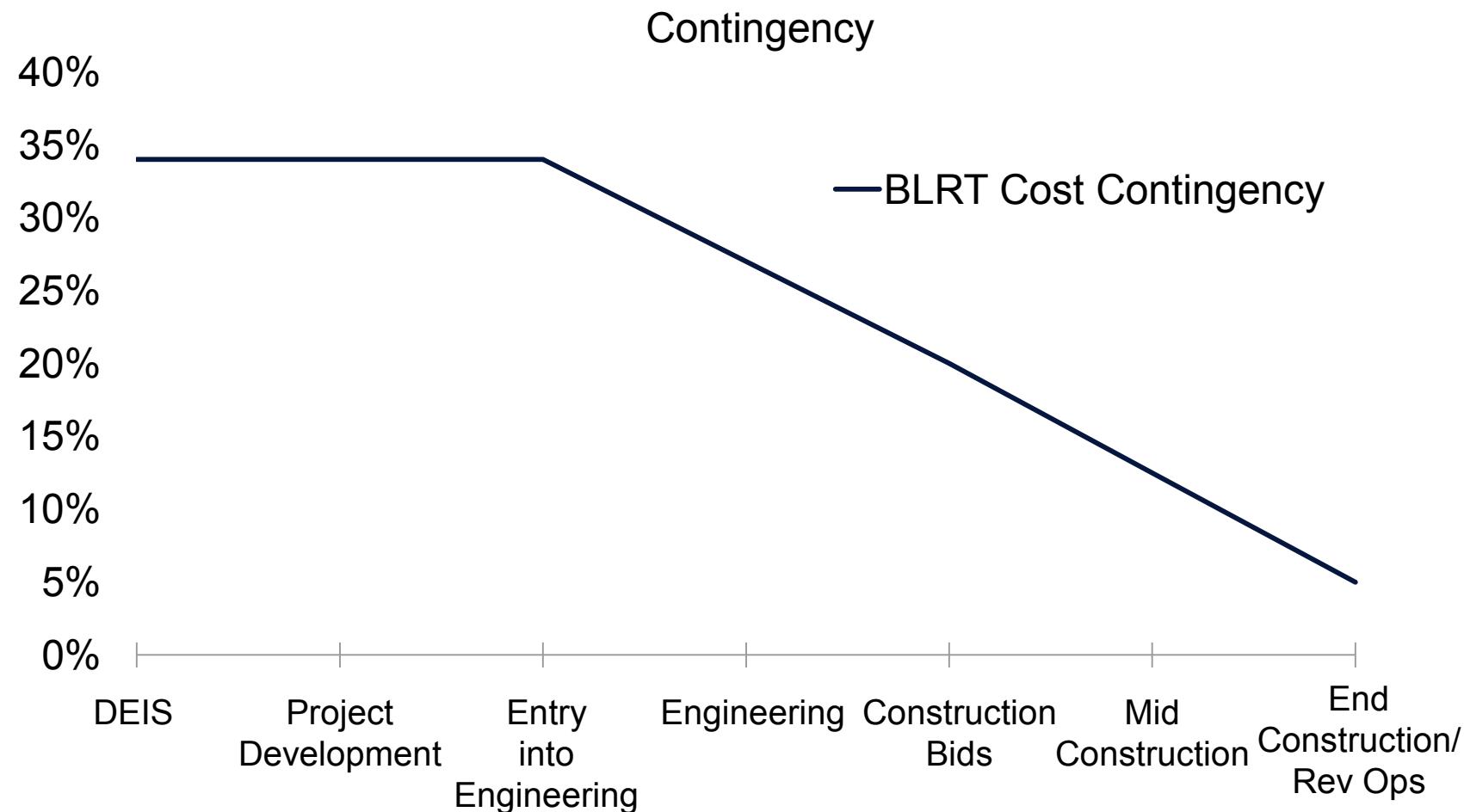
Contingency and Risk

- Contingency is budget set aside to account for project risks

Requirements	Design	Market	Construction
<ul style="list-style-type: none">• Xcel Transmission Towers• BNSF Negotiations• Municipal Consent	<ul style="list-style-type: none">• Floodplains• Poor Soils• Wetlands	<ul style="list-style-type: none">• Construction Bids• Right-of-Way• Finance Costs• Schedule Delay• Light Rail Vehicles	<ul style="list-style-type: none">• Unforeseen Conditions• Contaminated Soils



Cost Contingency Targets



*Subject to FTA risk assessment



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



Ballasted track

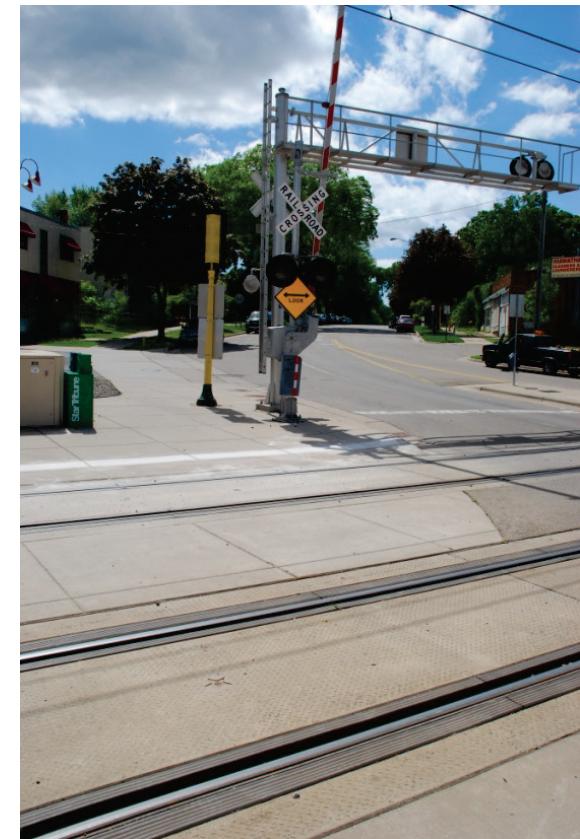


Direct fixation track



Guideway and Track: Not Included in DEIS Cost Estimate

- Embedded track
- Grade separation at intersections
 - 42nd Ave
 - 73rd Ave
- Corridor protection between freight rail and light rail

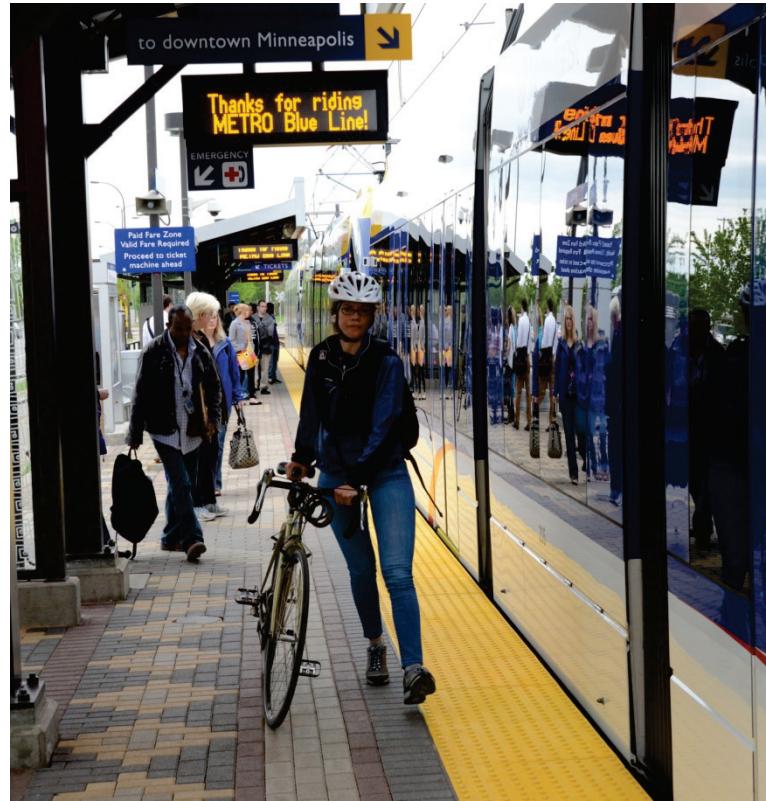


Embedded track



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 63rd Ave Station



Support Facilities

- Included in DEIS cost estimate:
 - Operations and Maintenance Facility (OMF) for routine maintenance
 - Storage space for 26 vehicles
- Not included in DEIS cost estimate:
 - OMF site roadway realignment
 - Space and equipment for major repairs



Storage area



LRV maintenance hoist



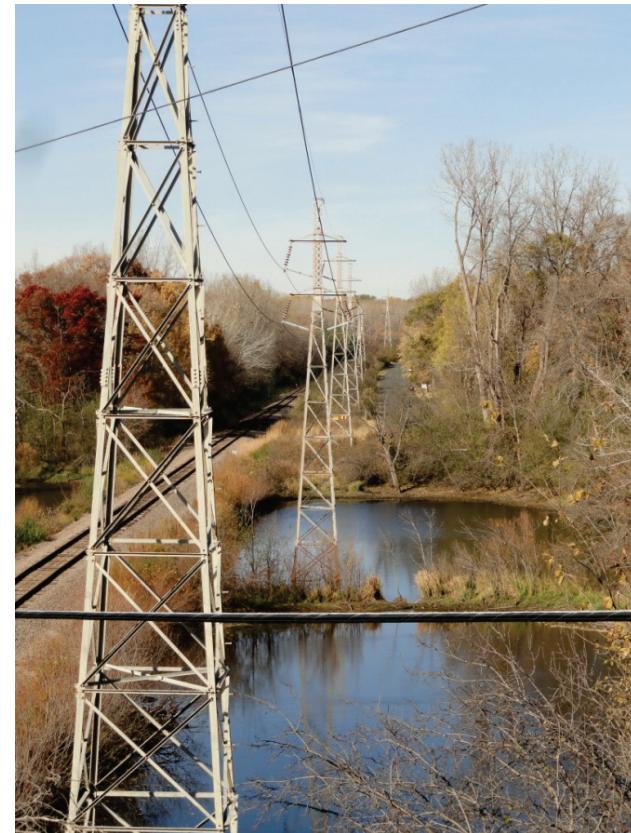
Sitework and Special Conditions: Included in DEIS Cost Estimate

- Roadway bridge reconstruction
 - TH 55
- Roadway bridge minor modifications
 - 36th Ave
 - Golden Valley Rd
 - Theodore Wirth Pkwy
 - 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 3 sites
 - North end structure: 800 stalls
 - 63rd Ave: 725 stalls
 - 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:
 - 13 Traction Power Substations
 - Grade crossing protection gates for LRT and/or freight
 - 10 at-grade crossing
 - 12 signalized intersections
- Not Included in DEIS Cost Estimate:
 - Gated crossings along West Broadway



Traction power substation



Signal bungalow



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:
 - 26 vehicles
 - 15% spare ratio
 - Assumption of 2-car consist
- Actual Number of Vehicles Based on:
 - Run time analysis
 - Need for gap train
 - Spare ratio



Next Steps

- July 2015: Review DEIS cost estimate and scope with advisory committees, Met Council
- Nov - Dec 2015: Refine project scope for Municipal Consent and update cost estimate
- June - Aug 2016: Prepare project budget for request to enter engineering



Next Meeting:

August 13, 2015

**Brooklyn Center Community Center
6301 Shingle Creek Pkwy
Brooklyn Center, MN 55430**



More Information

The screenshot shows the homepage of the Metropolitan Council website. At the top, there is a navigation bar with links to About Us, News & Events, Data & Maps, Publications, Doing Business, Council Meetings, Contact Us, Employment, and a search bar. Below the navigation bar is the Metropolitan Council logo. The main menu includes categories like COMMUNITIES, PARKS, TRANSPORTATION (which is highlighted with a red border), WASTEWATER & WATER, HOUSING, and PLANNING. The central image is a photograph of a blue METRO LRT train at a station platform with people boarding. Below the image, the title "METRO BLUE LINE EXTENSION" is displayed in large blue letters, followed by the subtitle "Bottineau Transitway – Minneapolis & Northwestern Communities". To the left of the main content area is a sidebar with a dropdown menu for "METRO BLUE LINE EXTENSION" and links to Route, Stations, Environmental, Timeline, and Project Partners. On the right side, there are sections for "Latest News" (linking to "Feds: Met Council can begin designing METRO Blue Line Extension") and "Route" (with a link to "Click on the map below for more information").

Website: BlueLineExt.org

Email: BlueLineExt@metrotransit.org

Twitter: [@BlueLineExt](https://twitter.com/BlueLineExt)

