

Community Advisory Committee

July 6, 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 1 Community Advisory Committee



June 2 Business Advisory Committee



June 4 Minneapolis/Golden Valley Open House



June 11 Robbinsdale Open House



June 17 Brooklyn Park Open House



HENNEPIN COUNTY

BOTTINEAU CORRIDOR COMMUNITY WORKS





Station area planning update

Community Advisory Committee – July 6, 2015
Business Advisory Committee – July 7, 2015

What is station area planning?

Station area planning

"Sets the table" for the look, feel and fit of the station into the community

AND …

Results in recommendations for local communities and agencies to consider



Station area planning is…

Community-based planning that considers:

- *½ mile area surrounding proposed LRT station*



Station area planning is …

Transit supportive plans that consider:

- Land use
- Types and character of buildings
- Access and circulation (bike, walk, car, bus)
- Public spaces, including streets and trails



Station area planning and health equity

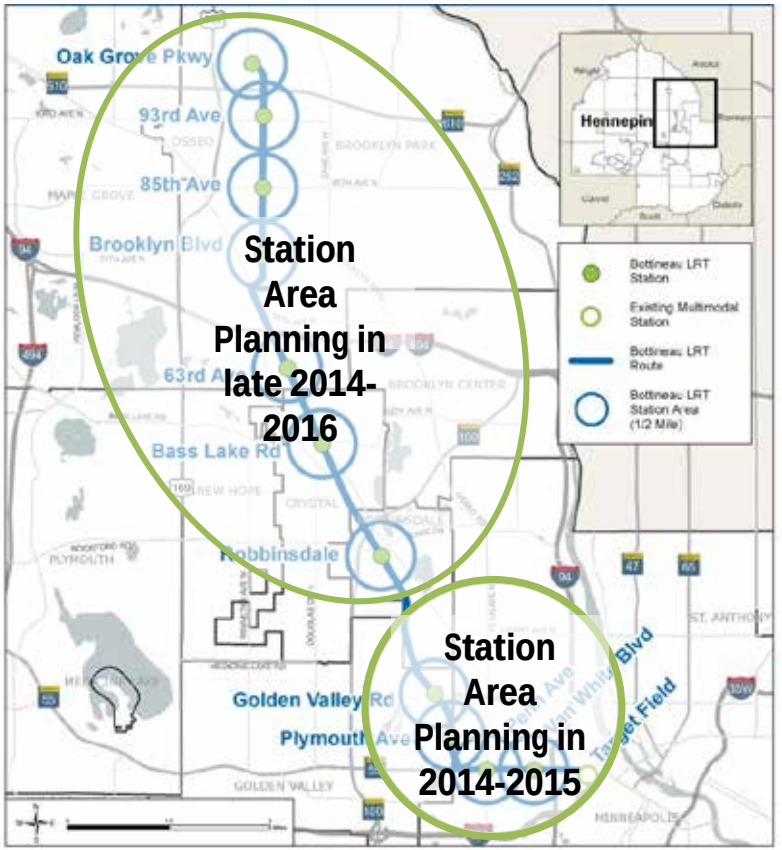
Strive to improve community health and health equity by planning for:

Housing, transportation, jobs, parks, and land uses that are safe, accessible and affordable to all.



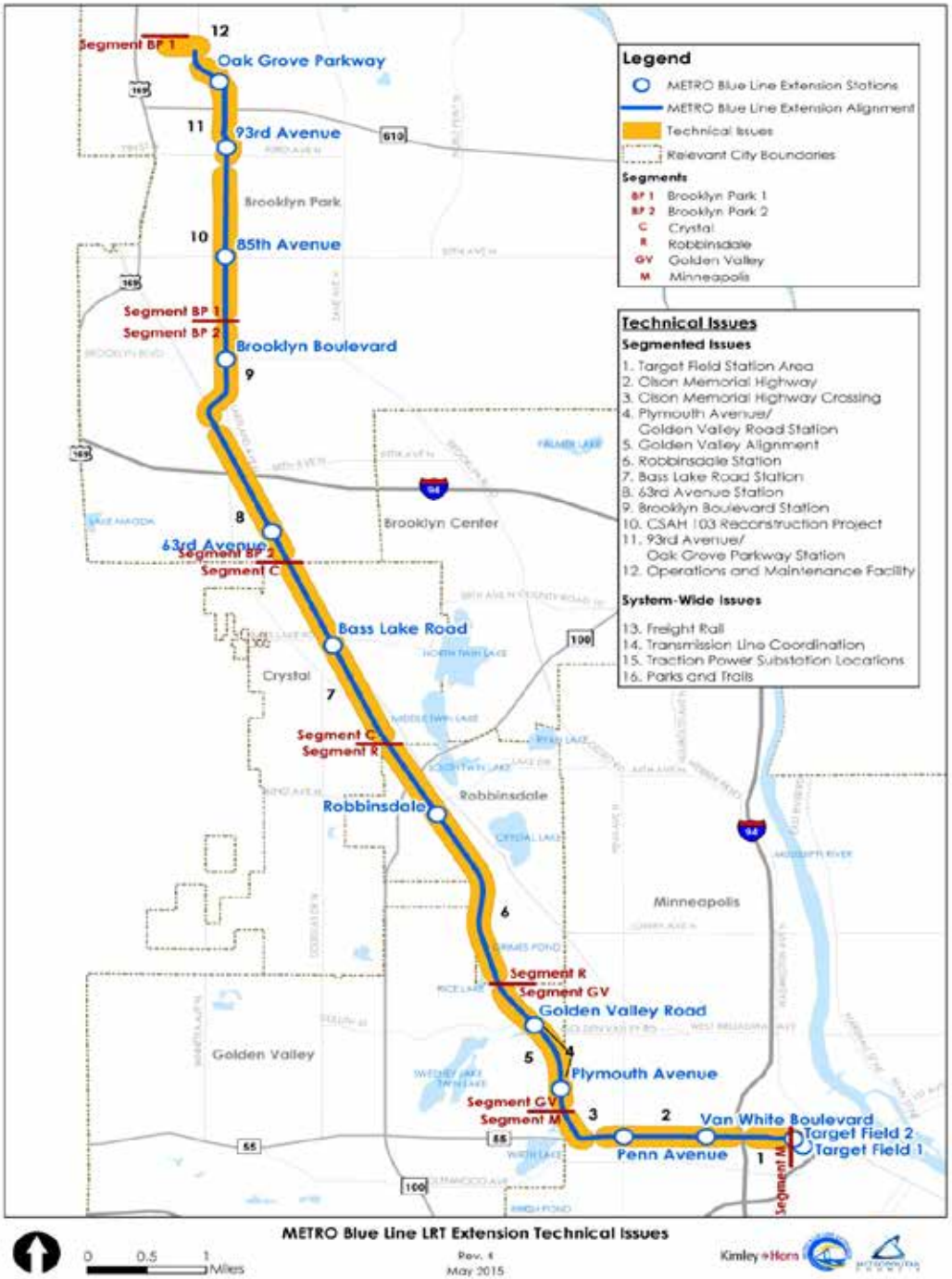
Station area planning

- Local effort with Hennepin County and partners
- 11 stations total
  - Minneapolis – 2
  - Golden Valley/ Minneapolis – 2
  - Brooklyn Park – 5
  - Robbinsdale – 1
  - Crystal – 1



Technical Issues Update

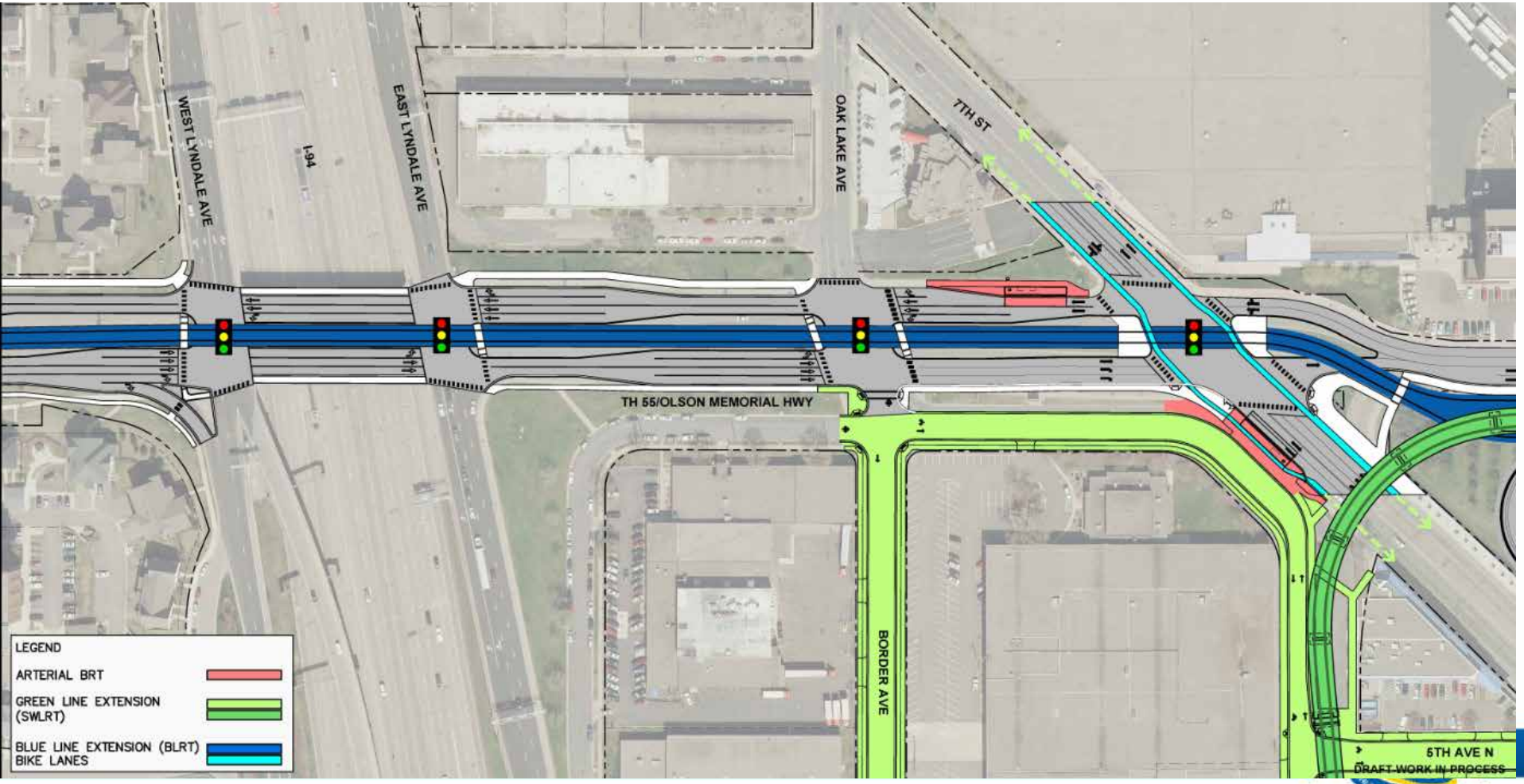
Technical Issues



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

Technical Issue #1: Target Field Station Connection Background

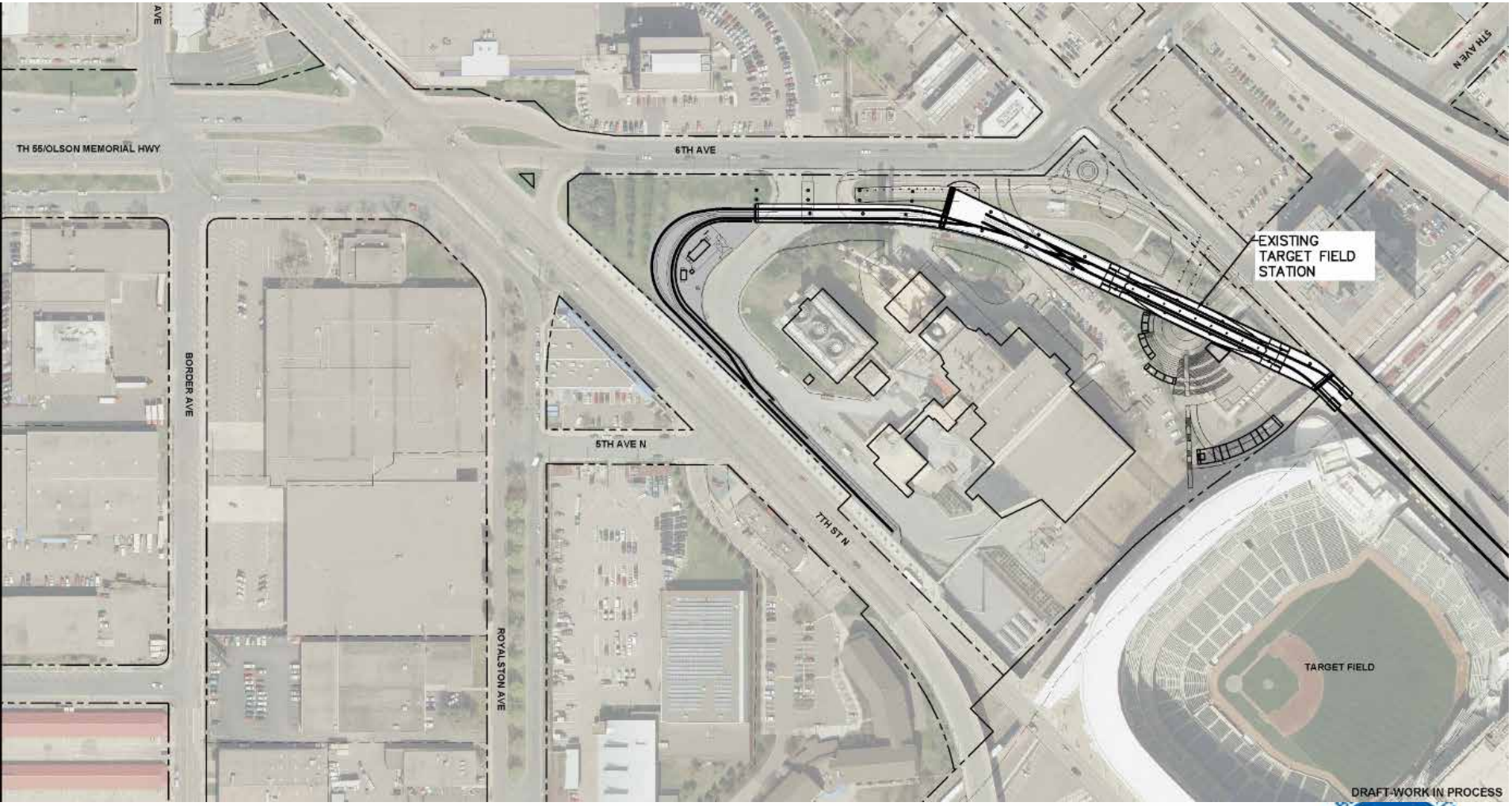
- Plan view from Target Field Station through I-94 Interchange



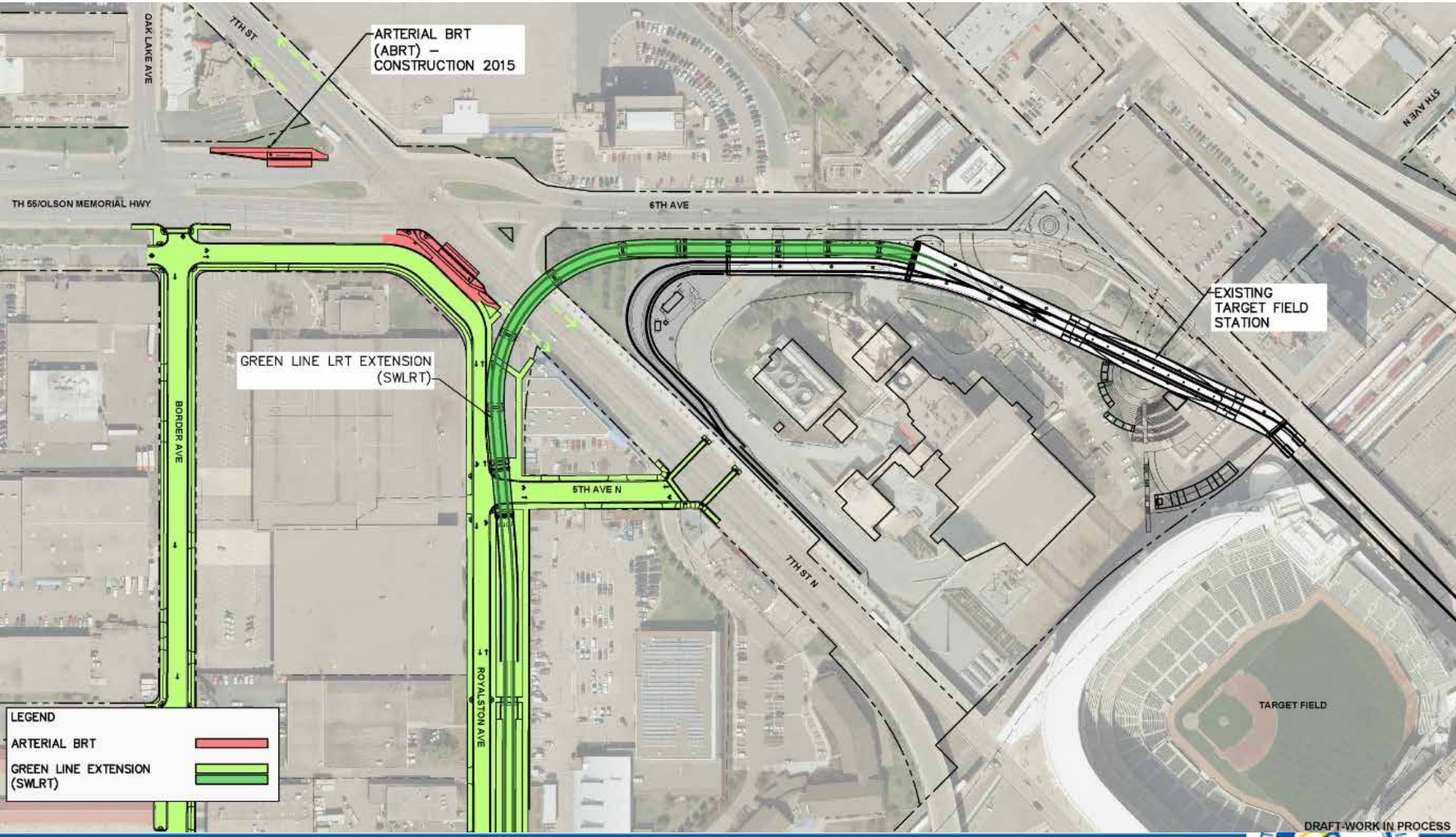
Technical Issue #1: Target Field Station Connection

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

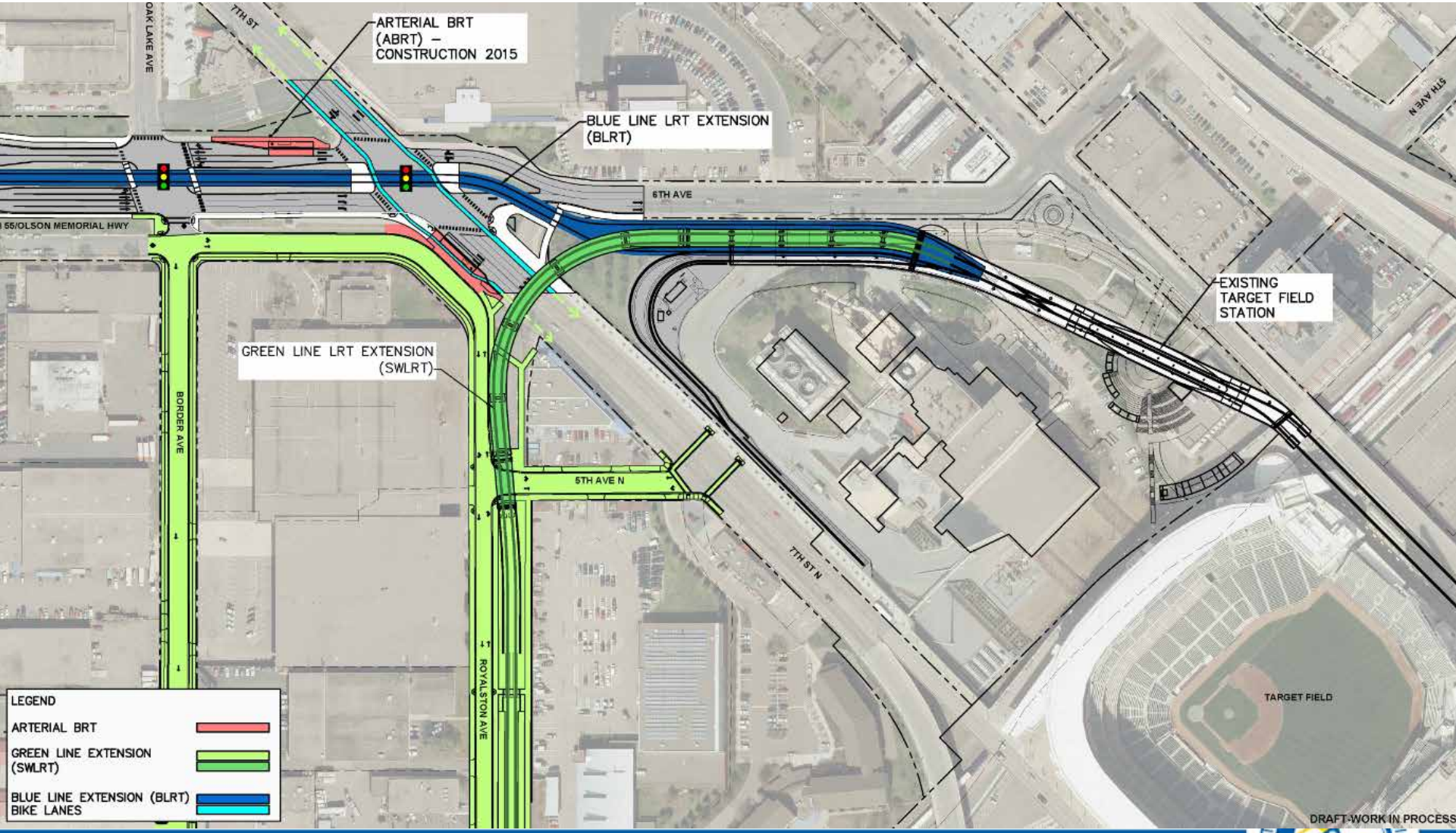
Technical Issue #1: Target Field Station Connection- Existing Configuration



Technical Issue #1: Target Field Station SWLRT Connection



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



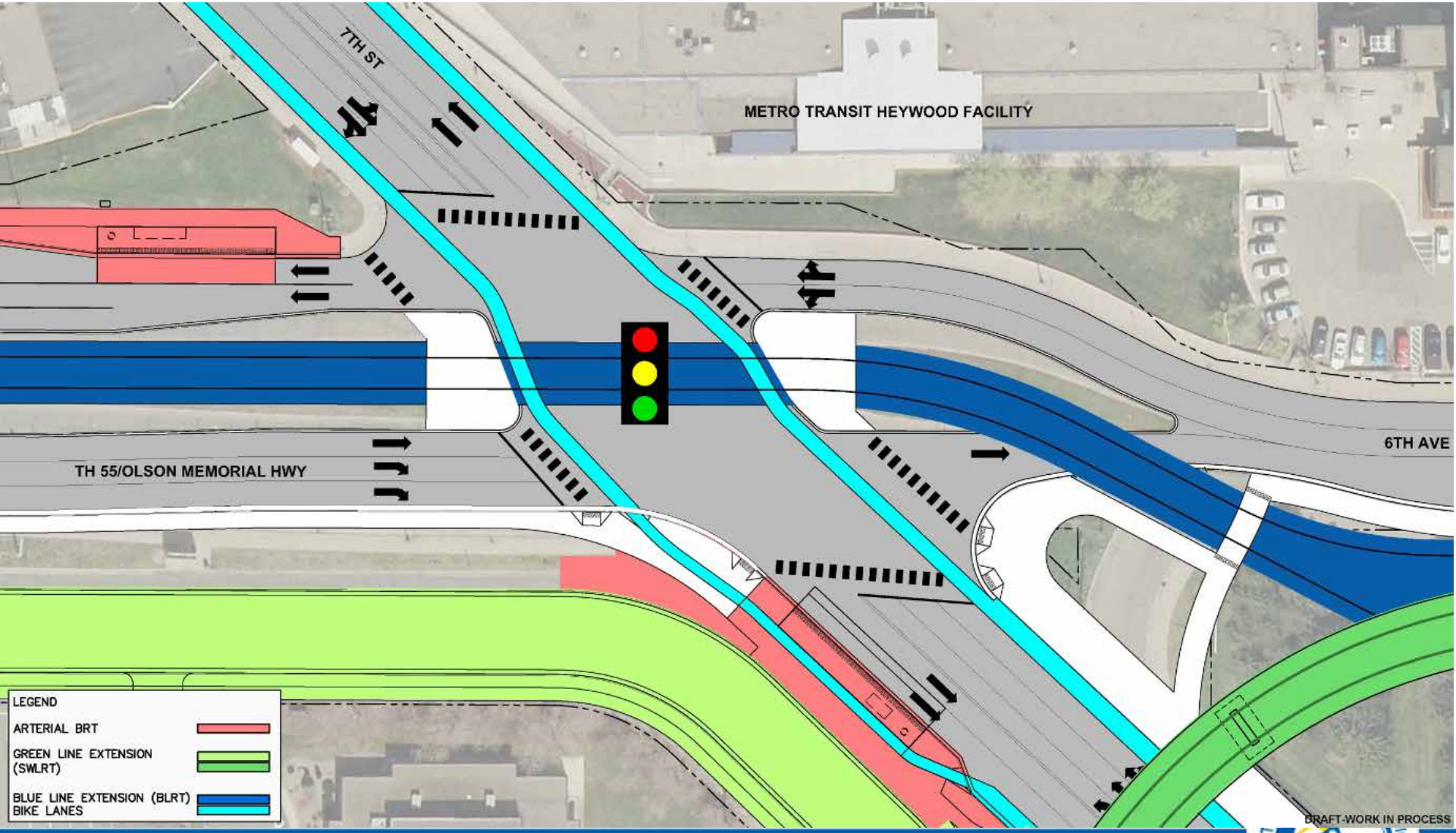
Technical Issue #1: Target Field Station Connection viewed through 7th St. Intersection



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



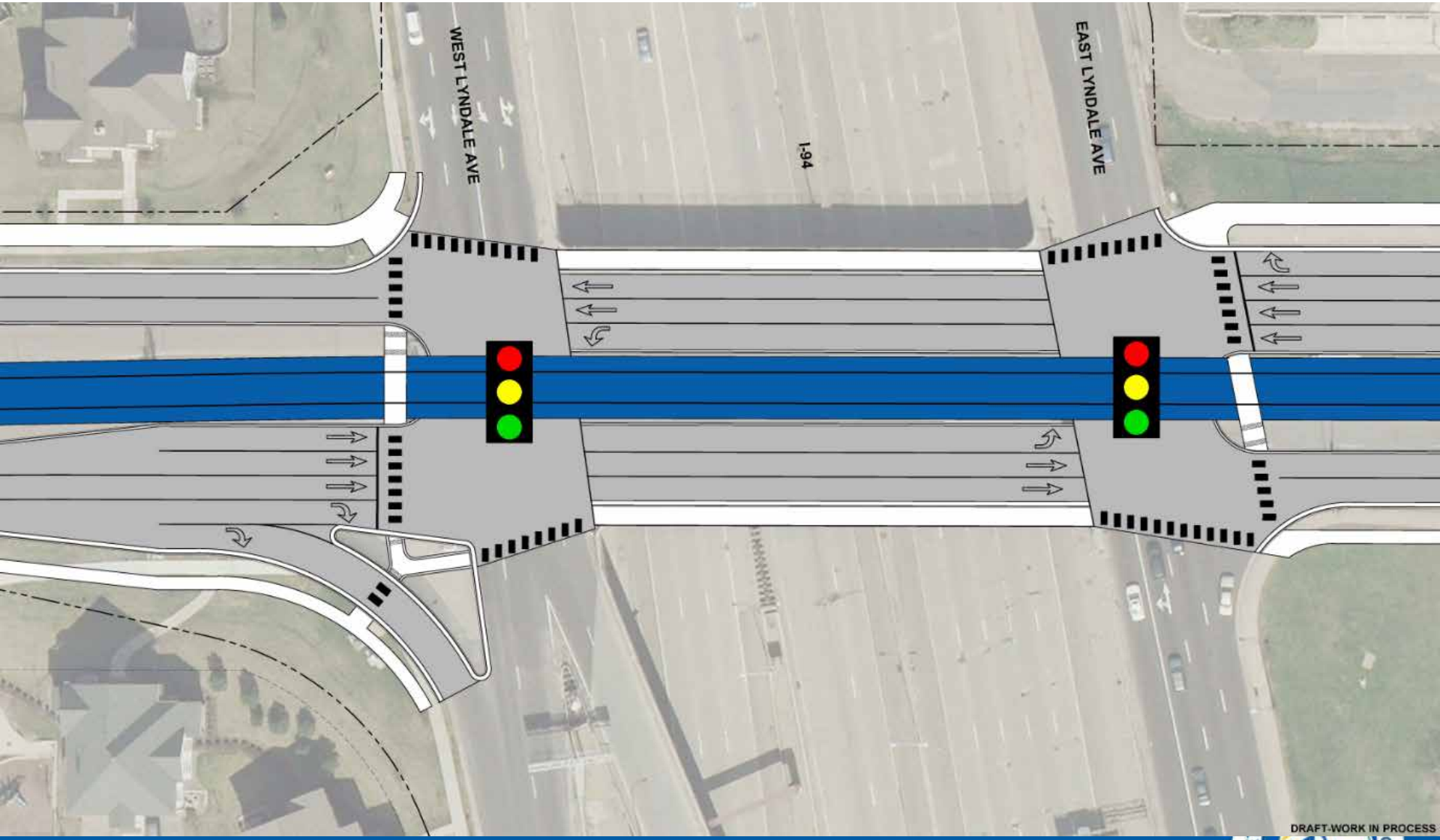
Technical Issue #1: 7th St and Olson Memorial Highway Intersection

- 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

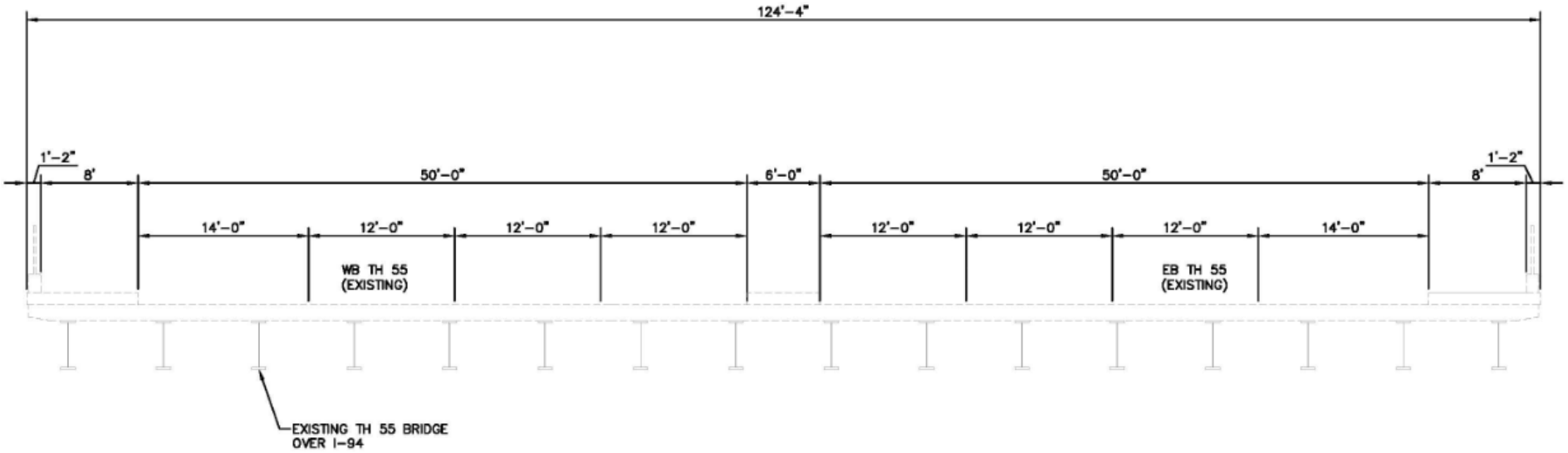
Technical Issue #2: I-94 Interchange



DRAFT-WORK IN PROCESS

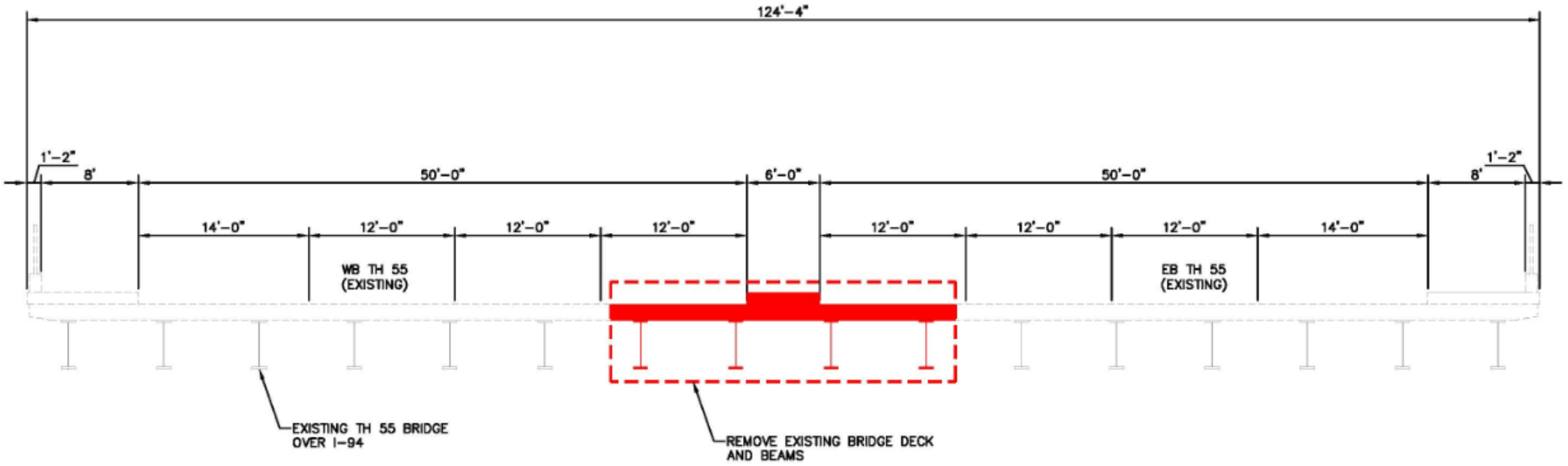
Technical Issue #2: I-94 Interchange

- Cross section of existing bridge



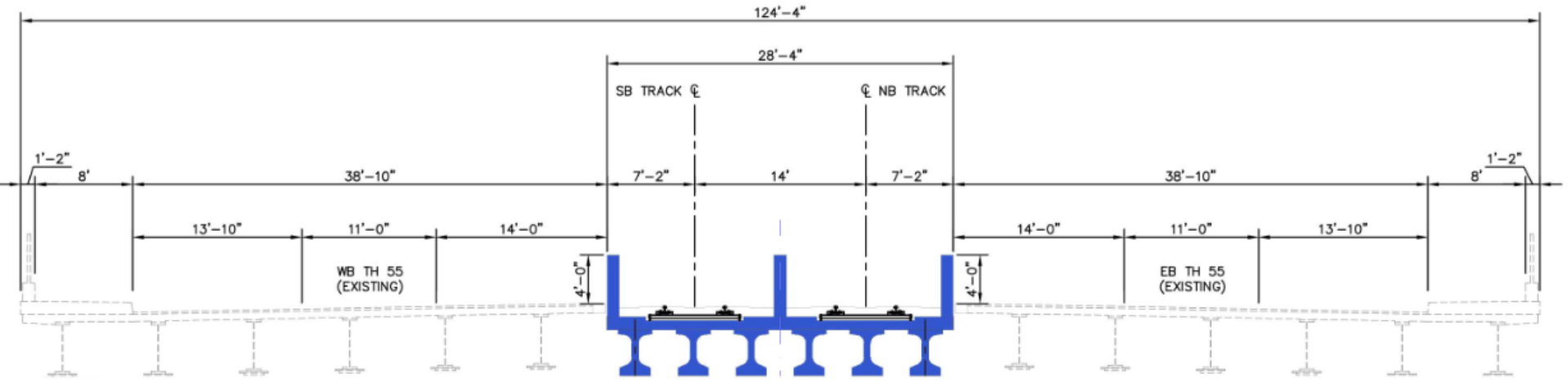
Technical Issue #2: I-94 Interchange

- 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



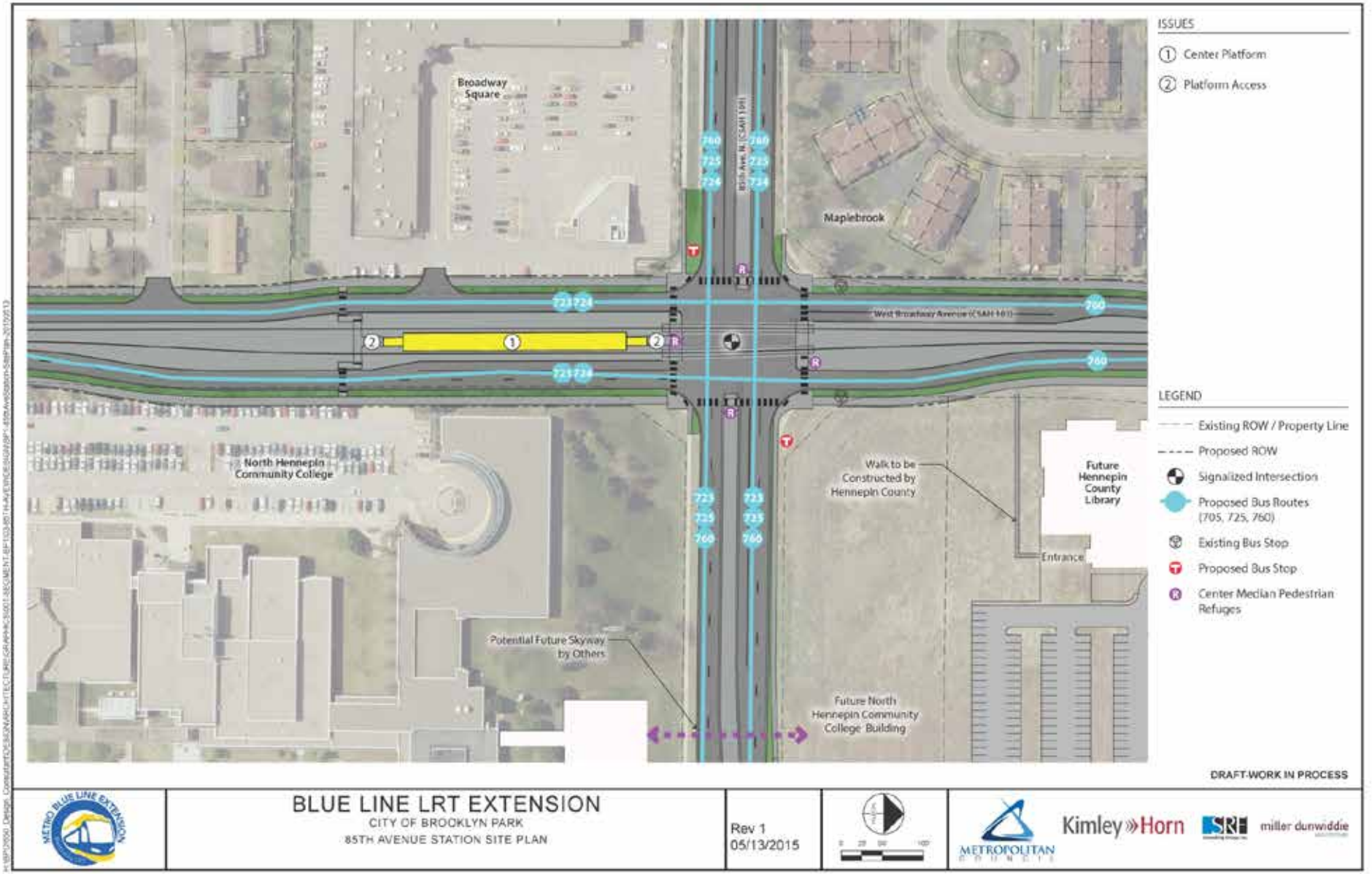
85th Station Configuration

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

85th Station Configuration

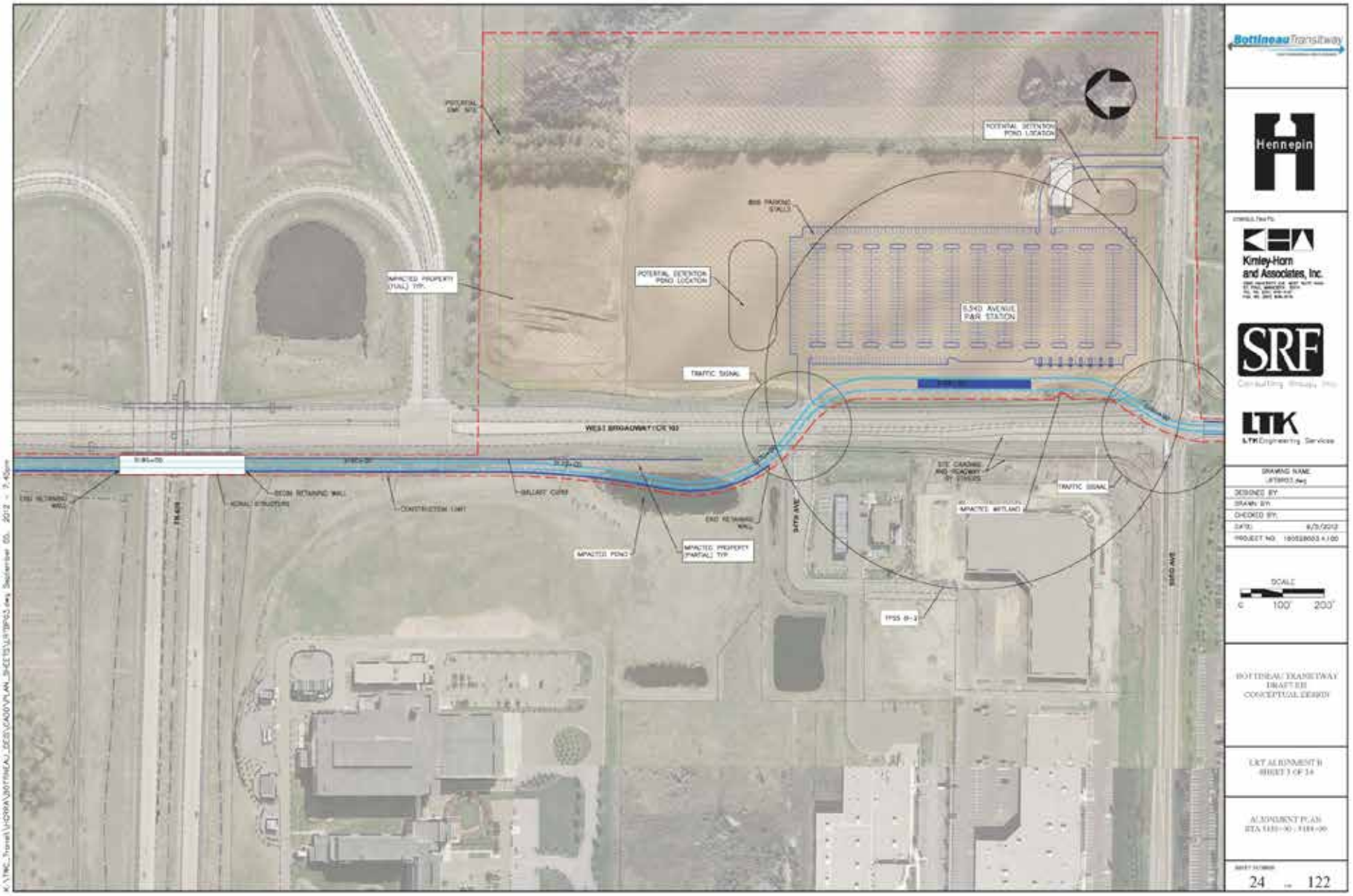
- Platform configuration
  - § Changed from split side platform to center platform
- Pedestrian access from 85th Ave and from pedestrian crossing at southern end of station platform
- Bus stops on West Broadway and on 85th Ave
- Passenger drop off
  - § Continue to analyze in conjunction with City

85th Station Configuration



93rd Station Configuration

93rd Station from DEIS



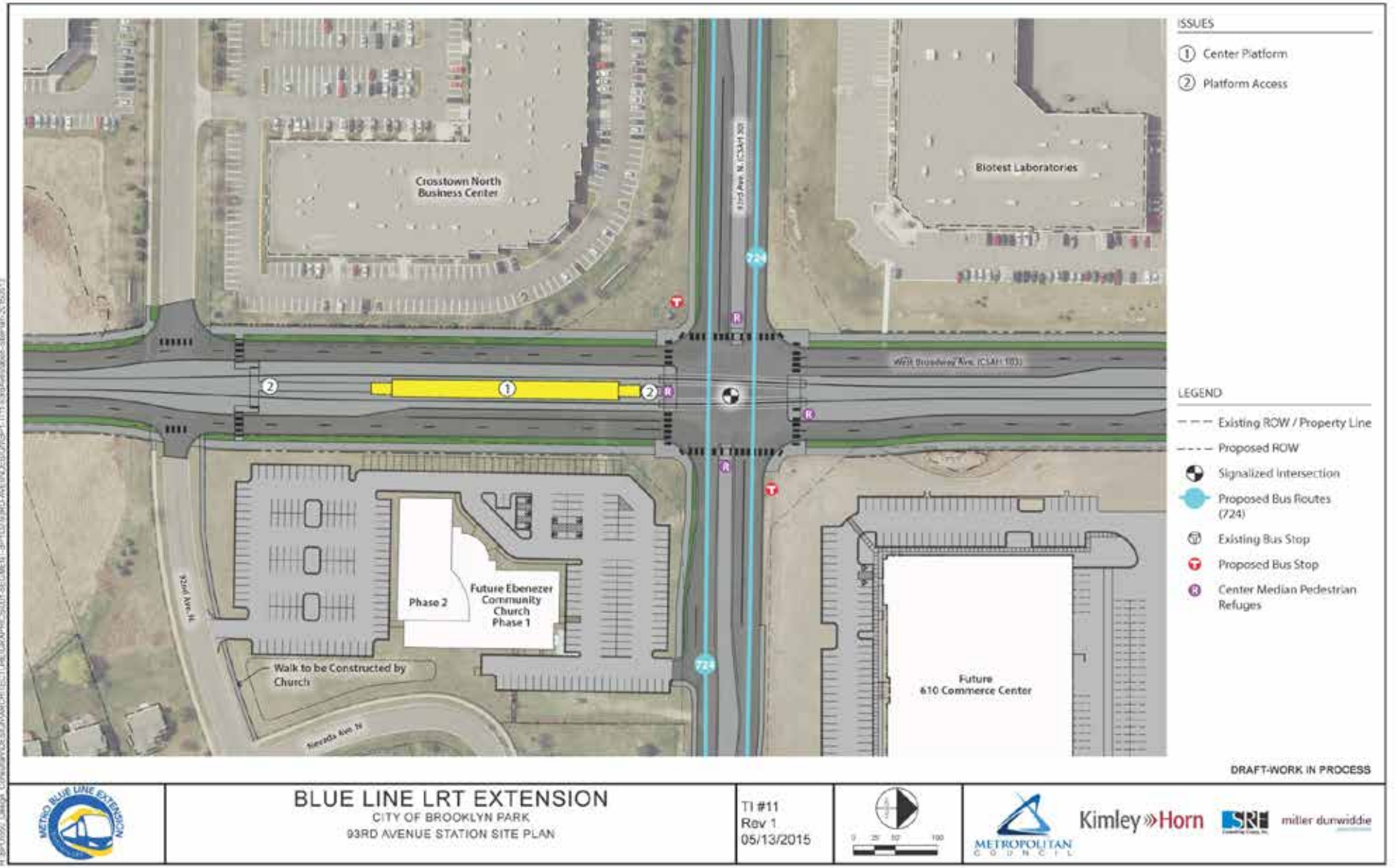
93rd Station Configuration

- Issues to be resolved:
  - § Track layout and platform location
    - o Private development on DEIS park and ride location
      - Ø Track continuing on West Broadway
      - Ø Modified station platform location
  - § Pedestrian access
  - § Bus stop locations
  - § Passenger drop off without park and ride

93rd Station Configuration

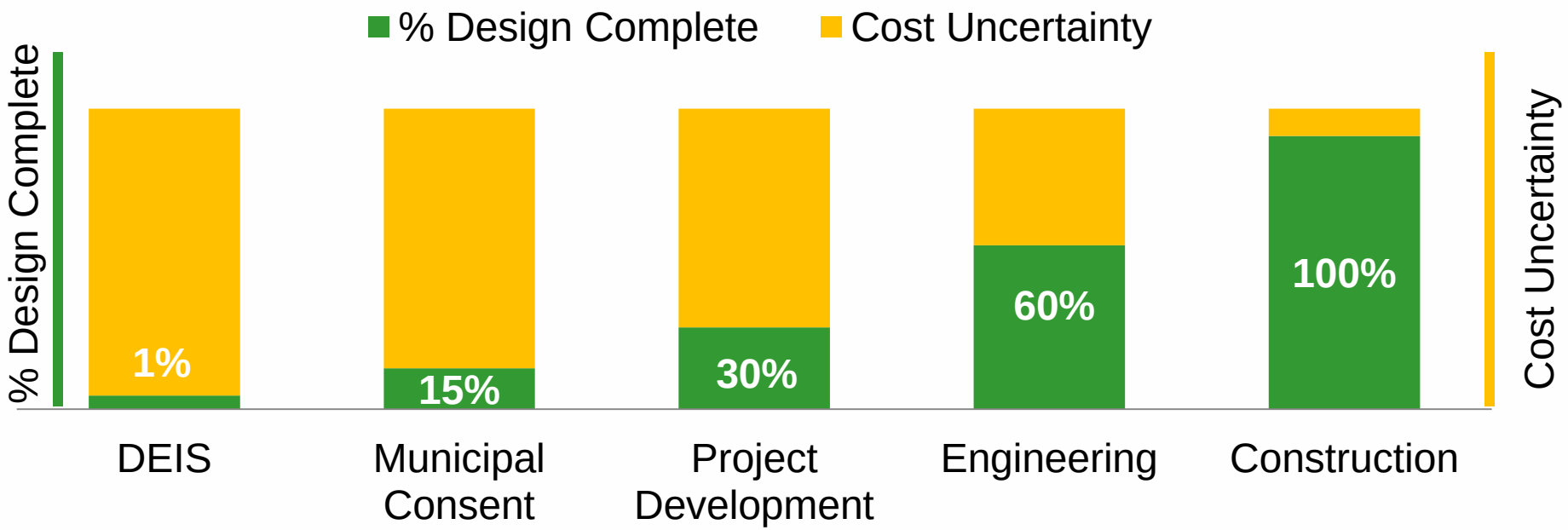
- Track layout and platform location
  - § Track remains on West Broadway
  - § Center platform on south side of 93rd
- Pedestrian access from 93rd and from pedestrian crossing at southern end of station platform near 92nd Ave
- Bus stops on West Broadway and on 93rd Ave
- Passenger drop off
  - § Continue to analyze in conjunction with City

93rd Station Configuration



Overview of DEIS Scope and Cost Estimate

Cost Uncertainty By Project Phase



Cost Estimate vs. Budget

- Cost Estimate
  - § Preliminary cost of project based on DEIS scope, minimal engineering, and initial risk identification
  - § As level of design increases and risks are further defined the cost estimate is updated and refined
  - § Includes soft costs (engineering, project office, etc.), right-of-way, construction (YOE$), vehicles, and contingency
- Project Budget
  - §Cost of the project based on:
    - oScope - revised and approved
    - oRisk - identified and accounted for
    - oContingency – unknown unknowns
  - §Prepared for FTA New Starts application into Engineering Phase (anticipated June 2016)

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

Capital Cost Overview: DEIS Assumptions

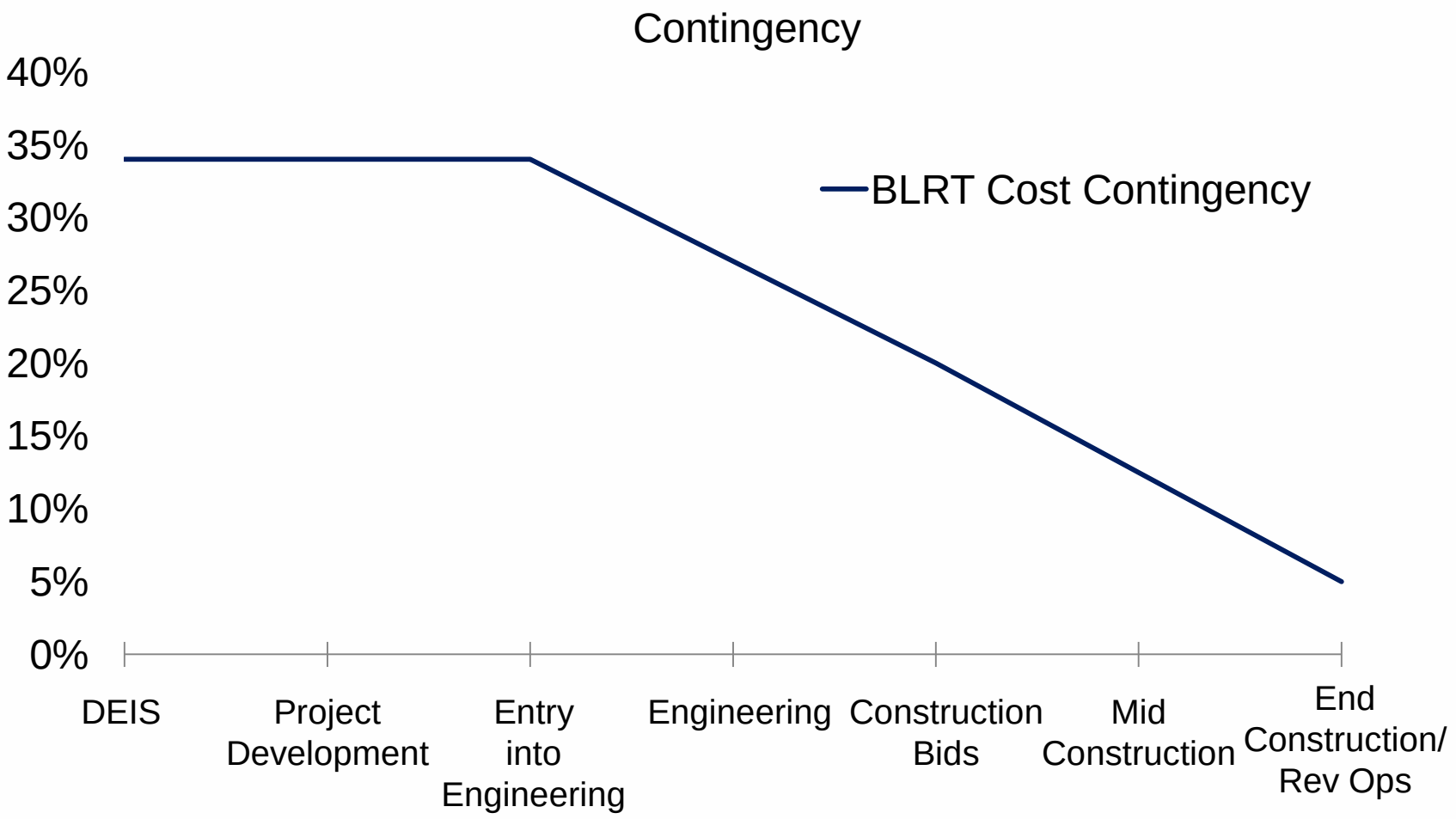
DEIS Cost Estimate	$1.002 B
Total Project Contingency	34%
Escalation Factor	3%
Base Year Estimate	2012
Forecast Year	2017 (mid-point of construction)

Contingency and Risk

- Contingency is budget set aside to account for project risks

Requirements	Design	Market	Construction
• Xcel Transmission Towers • BNSF Negotiations • Municipal Consent	• Floodplains • Poor Soils • Wetlands	• Construction Bids • Right-of-Way • Finance Costs • Schedule Delay • Light Rail Vehicles	• Unforeseen Conditions • Contaminated Soils

Cost Contingency Targets



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

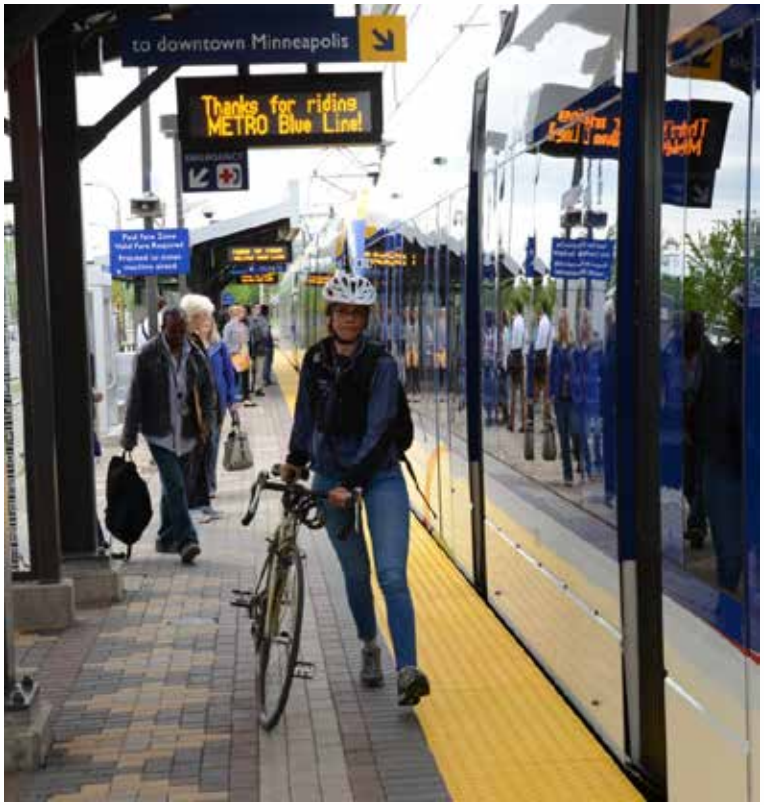
- Embedded track
- Grade separation at intersections
  - § 42nd Ave
  - § 73rd Ave
- Corridor protection: BNSF



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



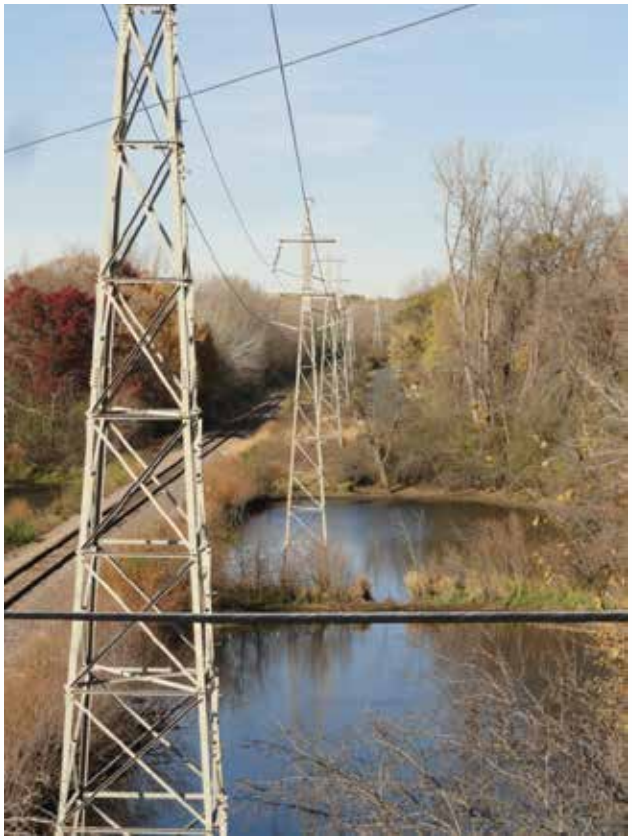
Wheel truing machine

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 sites
  - 93rd Ave(structure)/Oak Grove Parkway (surface): 800 stalls
  - 63rd Ave: 725 stalls
    - § 565 existing
    - § 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
    - o 10 at-grade crossing
    - o 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 consists
- Not Included in DEIS Cost Estimate:
  - § 3-car gap train
  - § 20% spare ratio



Next Steps

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

Next Meeting: August 3, 2015

More Information



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Twitter: @BlueLineExt