

Appendix B. Facilities Site Evaluation and Design Technical Memorandum





NORTHERN LIGHTS *EXPRESS*

TECHNICAL MEMORANDUM

Facilities Site Evaluation and Design

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1. INTRODUCTION

1.1 Report Purpose

The purpose of this report is to document the current planning and design phase for the Northern Lights Express (NLX) station, maintenance and layover facilities being undertaken by the Minnesota Department of Transportation (MnDOT). The report documents the analysis process, describes the required facility program elements and evaluates the facility site alternatives. The final section of the report includes the conceptual design plans and cost estimates prepared for the selected NLX facility sites.

The NLX Tier 1 Service Level Environmental Assessment completed in 2013 proposed stations in six communities, Minneapolis, Coon Rapids, Cambridge, Hinckley and Duluth in Minnesota and Superior in Wisconsin. The EA identified a single site in Minneapolis, Coon Rapids, and Duluth. Two sites were identified in Cambridge, Hinckley and Superior. Based on prior service development planning for NLX, it is assumed NLX would need two layover sites and one maintenance facility. One of the layover sites will be located at the maintenance facility site. Sites in Sandstone and Duluth are being considered for maintenance and/or layover facilities and Minneapolis is being considered for a layover only site. **Table 1-1** lists the proposed NLX station and facility locations and sites.

Table 1-1: Proposed NLX facility locations and types

Facility Location	Site Alternatives	Facility Type
Minneapolis	Target Field Station	Station and layover facility
Coon Rapids	Foley Boulevard	Station
Cambridge	1. City Center 2. Ritchart Property	Station
Hinckley	1. Downtown 2. Southwest	Station
Sandstone	MN 23 Site	Maintenance and/or layover facility
Superior	1. Downtown 2. South Site	Station
Duluth	Union Depot	Station
	Railroad Street	Maintenance and/or layover facility



1.2 About NLX

NLX is a proposed daily intercity passenger rail service that would operate at speeds up to 110 mph between Minneapolis and Duluth on approximately 152 miles of railroad track within an existing BNSF Railway corridor.

Figure 1-1 shows a map of the NLX corridor and the proposed station locations.

The need for the NLX service is based on the limitations and vulnerabilities of available travel modes between Minneapolis and Duluth. NLX will improve transportation service and the quality of life in Minnesota by providing:

- A safe and reliable travel alternative to serve business and tourism between Minneapolis and Duluth.
- An alternative to automobile and air travel that is convenient, less stressful and allows passengers to work, socialize, read, and do other activities while traveling.
- Improved system continuity in the state and interstate transportation networks.
- A transportation option for those who do not have the ability to drive or for those who prefer the convenience of passenger rail.
- Station-area investments, such as pedestrian improvements and transit-oriented development opportunities that create compact, livable, and walkable communities.
- More jobs, tax revenue, and improved freight safety and movement.

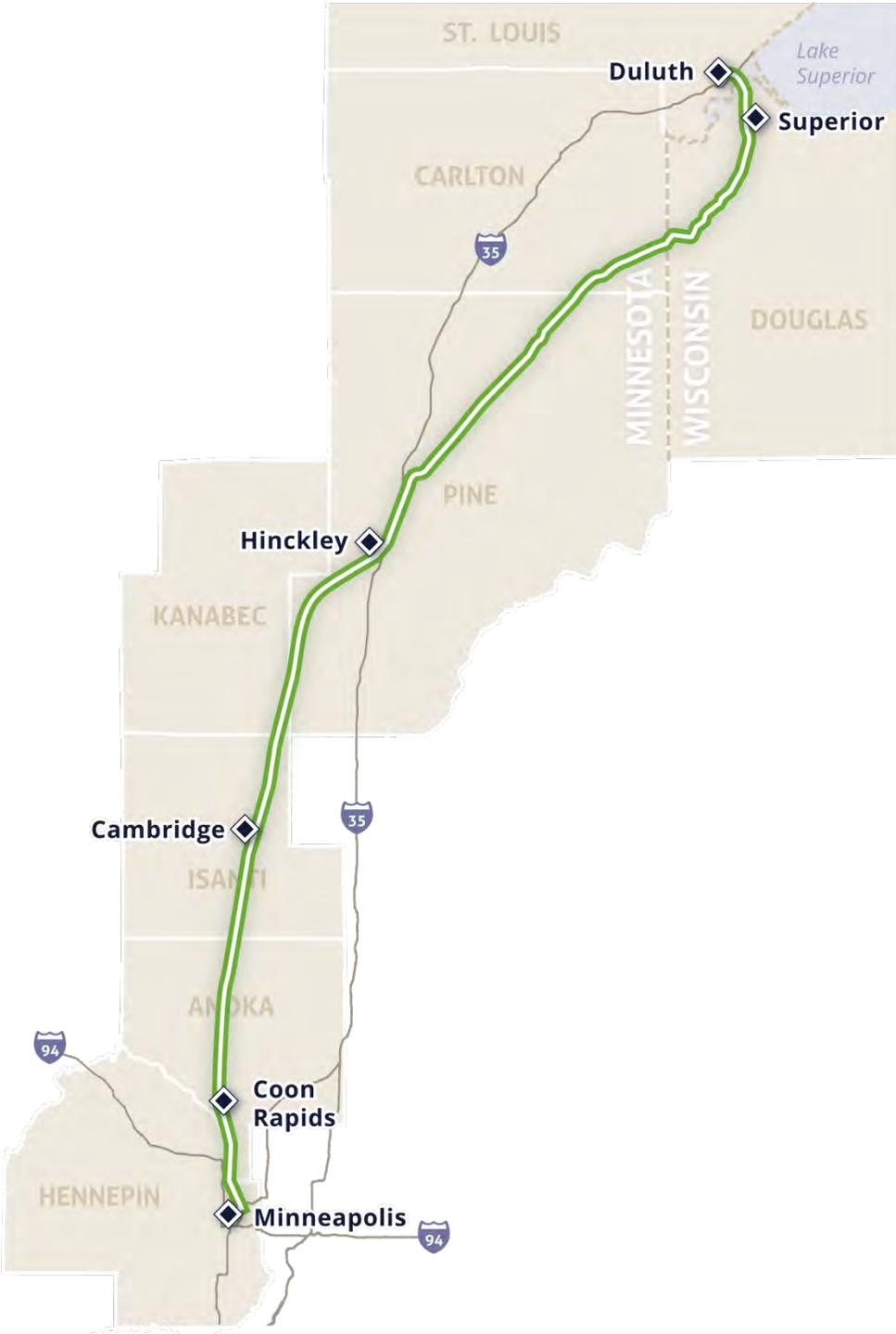
Planning and implementation of NLX is being coordinated by MnDOT in consultation with the Federal Railroad Administration, the Minneapolis-Duluth/Superior Passenger Rail Alliance and with cooperation from the Wisconsin Department of Transportation.

1.3 NLX Planning Phases

The previous NLX planning phase, the Tier 1-System Level EA, focused on impacts that affect the corridor as a whole. FRA issued a Finding of No Significant Impact on August 21, 2013 for the system level EA. This determined the NLX Project would not have significant environmental impacts and allowed the project to proceed to the next study phase.

The current planning phase is the Tier 2-Project Level EA, which builds off the previous Tier 1-Service Level EA and takes a more in depth look at the potential social, historic and natural resource impacts of the NLX Project. The station, maintenance and layover facility design process is part of this planning phase. The Tier 2-Project Level EA will include an environmental review of the NLX facility sites and it will address updated ridership studies, operating plans and preliminary engineering activities. The successful completion of the Tier 2-Project Level EA would position the NLX Project to receive funding for final design and construction.

Figure 1-1: NLX Corridor Map



2. ANALYSIS and DESIGN PROCESS

This section describes the process used to evaluate and design the station, maintenance and layover sites. It also summarizes the public outreach that was conducted for NLX facilities.

2.1 Facilities Analysis and Design Process

The current planning and design phase for NLX station, layover and maintenance facilities began in September 2014 and will continue through spring 2015. The design process, as shown in **Figure 2-1**, includes the following steps:

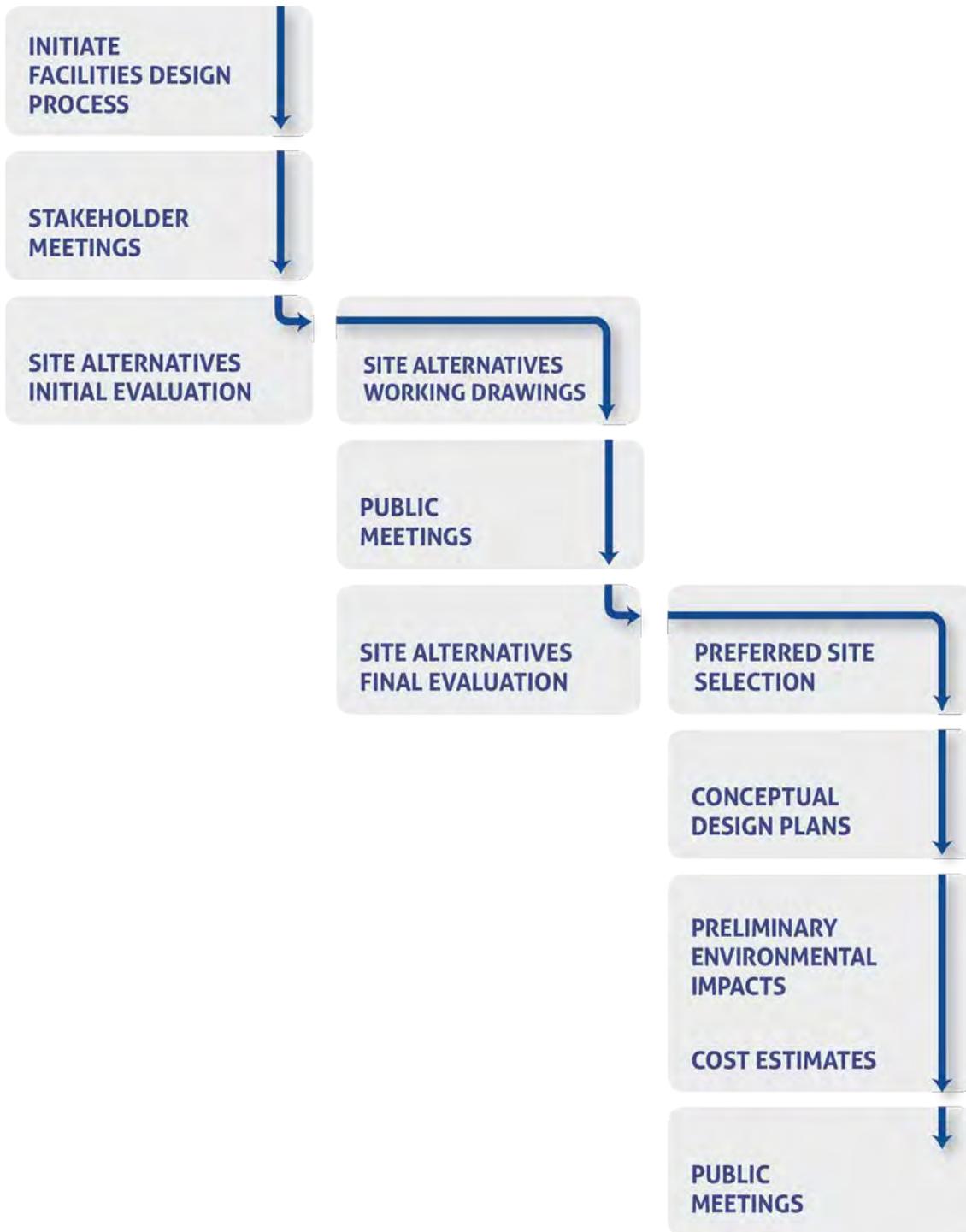
- Confirming site alternative locations.
- Preparing working drawings for site alternatives.
- Evaluating site alternatives based on physical, operational and environmental criteria.
- Selecting preferred sites with community feedback and public input. (The selection of the maintenance and layover sites will not be determined until the NLX operations plan is completed.)
- Developing conceptual designs for selected sites.
- Determining preliminary environmental impacts.
- Preparing cost estimates for selected sites.

Detailed environmental studies on all selected NLX facility sites will occur as part of the NLX Tier 2-Project Level EA.

2.2 Stakeholder and Public Input

This section summarizes the outreach and public input that has been completed for the NLX station, maintenance and layover facilities design process.

Figure 2-1: Facilities Design Process



2.2.1 Initial Stakeholder Meetings

MnDOT conducted community stakeholder meetings in October 2014 to initiate the start of this current facility planning and design process. The purpose of these meetings was to confirm site locations and obtain information about site opportunities and constraints. Meetings were held with all communities that have planned station, maintenance or layover facilities as shown in **Table 2-1**. A meeting summary is provided in **Appendix A**.

Table 2-1: Initial stakeholder meetings

Facility Location	Meeting Date	Stakeholder Representatives
Minneapolis	Oct. 9, 2014	Jennifer Hager; David Frank; Beth Elliot; Dean Michalko; Joe Gladke; Pat Jones; John Paul Zanaska; Mark Leemon
Coon Rapids	Oct. 8, 2014	Matt Brown; Tim Himmer
Cambridge	Oct. 8, 2014	Stan Gustafson
Hinckley	Oct. 8, 2014	Don Zeman; Kyle Morell; Mark Perry
Sandstone	Oct. 7, 2014	Sam Griffith; Leonard Bonander
Superior	Oct. 7, 2014	Jason Serck; Ron Chicka
Duluth	Oct. 7, 2014	Ken Buehler; Barb Hayden

2.2.2 Public Open House Meetings

MnDOT conducted public open house meetings in December 2014 in the station communities that have site location alternatives – Cambridge, Hinckley, and Superior. A meeting was also held in Sandstone to present the working concept for a potential maintenance facility and/or layover facility site. **Table 2-2** shows the locations, dates and attendance for the open house meetings. In total, 142 people signed in at the meetings.

The purpose of the meetings was to present the planning and design process for the NLX station, layover and maintenance facility sites and to gather feedback from the public on the proposed site alternatives and working concepts. Several exhibits were on display at the meetings and each participant was provided with a handout that summarized the site alternatives and working concepts. The information gathered from the meetings helped to select preferred site alternatives.

Appendix B contains a summary of the meetings. The meeting summary includes additional information about meeting locations, meeting attendance and meeting notifications. Also, it provides a summary of the comments that were received at the meetings.

Table 2-2: Public open house meeting locations, dates and attendance

Location	Venue	Date/Time	Attendance
Superior	Superior Library	Dec. 4, 2014 4:30 – 6:30 p.m.	32
Sandstone	Sandstone Senior Center	Dec. 8, 2014 4:30 – 6:30 p.m.	14
Cambridge	City Center Mall	Dec. 9, 2014 5:00 – 7:00 p.m.	41
Hinckley	Hinckley-Finlayson High School	Dec. 10, 2014 4:30 – 6:30 p.m.	49

2.2.3 Duluth Stakeholder Workshops

MnDOT conducted a workshop on December 11, 2014 with local stakeholders to receive input and reaction to preliminary design concepts for Union Depot in Duluth. Representatives from Oneida Realty, St. Louis County, city of Duluth, St. Louis and Lake Counties Regional Rail Authority, St. Louis County Heritage and Arts Center and the Duluth-Superior Metropolitan Interstate Council (MIC) attended the meeting. . The MIC is the designated bi-state Metropolitan Planning Organization for the Duluth-Superior metropolitan planning area. A roll plot of the proposed station features was used to discuss potential station elements and potential modifications to Union Depot.

MnDOT held a second workshop with Duluth stakeholders on May 21, 2015 to present and obtain feedback on the conceptual site plan and architectural concepts for Union Depot. MnDOT also presented the conceptual plan for a potential maintenance and/or layover site to the west of the Depot. Representatives from the Lake Superior Railroad Museum, City of Duluth, St. Louis County, Union Depot, St. Louis and Lake Counties Regional Rail Authority, and Oneida Realty attended the meeting.

Appendix C contains a summary of the discussion points at both stakeholder meetings.



2.2.4 Ongoing Coordination

Following the public meetings, MnDOT continued to coordinate with local communities and stakeholders on the selection of site alternatives and the development of conceptual site plans. MnDOT shared concept plans with local community representatives and made modifications based on their feedback. **Table 2-3** summarizes the coordination points and meetings MnDOT conducted to coordinate with local and elected officials about the process.

Table 2-3: Ongoing community and stakeholder coordination

Facility Location	Date	Organization	Purpose
Hinckley	Dec. 8, 2014	Hinckley-Finlayson School Board	Presented working concept for downtown station site, no formal actions taken by board.
Duluth	Feb. 19, 2015	City of Duluth	Met with Keith Hamre, Director of Planning and Construction Services to discuss Union Depot design considerations, utility conflicts and traffic operations. He indicated the city had no concerns with the proposed plans at that time.
Hinckley	Feb. 4, 2015	City of Hinckley	Sent conceptual site plan for downtown station to obtain city feedback.
Cambridge	March 2015	City of Cambridge	Ongoing phone and email correspondence with Stan Gustafson, Economic Development Director, to finalize conceptual design plan for City Center station site.
Cambridge	May 5, 2015	City of Cambridge	Presented conceptual design plan for City Center station site at Common Council meeting.
Superior	May 20, 2015	Duluth-Superior Metropolitan Interstate Council	See entry for Duluth below.
Coon Rapids	May 4, 2015	City of Coon Rapids	Presented conceptual design plan for Coon Rapids station site at City Council meeting.
Duluth	May 20, 2015	Duluth-Superior Metropolitan Interstate Council	Presented conceptual design plan for Superior station, Union Depot, and Layover/Maintenance Facility site at council meeting.



3. FACILITY PROGRAM ELEMENTS

This section describes the required program elements for NLX facilities and discusses the methodologies and assumptions used to determine space requirements. This section serves as the basis for evaluating the station, maintenance and layover facility site alternatives and determining the feasibility and functionality of the sites. More detailed design criteria for NLX facilities are provided in NLX Technical Memorandum #5.

3.1 Station Requirements

The NLX stations will be designed to meet the needs of a modern intercity passenger rail service that will include an enclosed station building, platform, on-site parking and multimodal transportation access. All stations will be accessible and will comply with the Americans with Disabilities Act (ADA).

Station requirements are based on the design criteria specified in NLX Technical Memorandum #5 and on the 2013 *Amtrak Station Program and Planning Guidelines* (Amtrak, 2013). Ridership projections and peak hour two-way passenger flows were also considered to customize the program for each station. In general, station requirements were designed for 2040 to represent build-out conditions.

3.1.1 Station Buildings

Each station would include a climate-controlled enclosed building with a passenger waiting area, seating, public restrooms and ticket purchasing machines. Buildings would also include space for passenger amenities such as vending machines and drinking fountains and include space for storage of maintenance items, mechanical and electrical rooms, passenger information displays and public address systems.

The stations would not be staffed, which is consistent with Amtrak's guidelines for corridor service. Ticket purchases would occur on-site at ticket kiosks or onboard trains. Baggage would be handled by train crews.

New standalone buildings would be constructed in Coon Rapids, Hinckley and Superior. NLX passengers would utilize the existing facilities at Target Field Station in Minneapolis, and existing space in Cambridge and Duluth would be renovated to accommodate NLX service. Interior designs for the station buildings would occur during subsequent NLX design phases.

3.1.2 Passenger Waiting Areas

The minimum sizes required for the interior passenger waiting areas are based on Amtrak's formula for waiting room capacity (Amtrak, 2013). **Table 3-1** shows the minimum amount of waiting room space that would be

required for each station building in 2020 and 2040. The actual size of waiting areas will be determined during the final design phase for the NLX Project.

Table 3-1: Passenger waiting areas – minimum square feet

Location	Start Up Year (2020)	Build Out Year (2040)
Minneapolis*	N/A	N/A
Coon Rapids	190	227
Cambridge	719	1,025
Hinckley	547	652
Superior	392	503
Duluth**	336	409

*Existing facilities at Target Field in Minneapolis will be used for NLX service. No formal waiting space will be provided.

** Additional waiting area space would be required to accommodate the North Shore Scenic Railroad. See Section 6 for more details.

3.1.3 Passenger Platforms and Shelters

Each station would require a single platform that is 500 feet long and 12 feet wide with the potential to expand to 800 feet long in the future. Platform height would be eight inches above top of rail for intermediate station locations that share track with freight trains. (Federal level boarding regulations (49 CFR parts 37 and 38) allow passenger services to seek concurrence from FRA on the use of platforms that are eight inches above top of rail when track is shared with freight trains.) Terminal stations in Minneapolis and Duluth would provide level boarding platforms that are 15 inches above top of rail. It is assumed NLX would use modern passenger coaches equipped with car mounted wheelchair lifts to provide ADA access to all train cars. The equipment will be able to serve platforms that are either eight or 15 inches above top of rail depending on the location.

At least two warming shelters would be provided on the platforms to protect passengers from weather conditions and provide bench seating. Additionally, outdoor benches and trash receptacles may be placed along the platform.

3.1.4 Station Parking

Minimum parking requirements for NLX stations are shown in **Table 3-2**. On-site parking would be provided at intermediate stations in Coon Rapids, Cambridge, Hinckley and Superior. In Duluth, it is assumed dedicated



NLX parking would be provided at adjacent parking facilities. Parking for Minneapolis would rely on existing public parking facilities in close proximity to Target Field Station. The build out year (2040) was typically used for station site evaluation purposes because Amtrak recommends station parking capacities consider at least a twenty-year projection of ridership growth (Amtrak, 2013).

A formula to determine station parking demand was developed to estimate parking needs. The formula is based on comparable passenger rail systems in the United States. The formula assumes 50 percent of daily riders would park at the station. In Minneapolis, only 15 percent of the daily riders were assumed to require parking since this is a highly urban location where more people would arrive by transit or would be dropped off by auto with no long term parking required. The formula also takes into account the number of persons per vehicle would depend on the type of traveler. It is assumed 60 percent of trips would be leisure-related and 40 percent would be business-related. The parking formula assumes leisure travelers typically have 2.5 persons per vehicle and business travelers typically have 1.2 persons per vehicle.

Table 3-2: Station parking – minimum number of spaces

Location	Start Up Year (2020)	Build Out Year (2040)
Minneapolis	91	122
Coon Rapids	43	52
Cambridge	164	236
Hinckley	125	150
Superior	90	116
Duluth	77	94

3.1.5 Passenger Drop-Off and Pick-Up Areas

Each station would contain a passenger drop-off and pick-up area that accommodates right curbside drop-off adjacent to the station entrance and provides enough spaces for maneuver vehicles.

3.1.6 Multimodal Transportation Access

The NLX stations would accommodate multimodal transportation access. All drop-off and pick-up areas would be designed to accommodate vehicles, taxis, local transit and coach buses. Each station would include bicycle parking areas and pedestrian walkways would be connected to the local street network.



3.1.7 Lighting and Signage

The stations would contain adequate lighting fixtures to properly illuminate parking areas, the platform, access points and walkways. Station signage would consist of site identification signage at entrances to the site, directional signage, warning signs, bus stop signs and other signage that may be required for a station.

3.1.8 Station Security

Passenger security and protection of property against theft and vandalism are important factors in the design of a station. The primary security measures provided at NLX stations would include:

- Closed-circuit television cameras
- Visible pathways
- Night security lighting on platforms and in parking lots
- Fire protection systems in accordance with applicable ordinances and regulations

3.2 Maintenance Facility Requirements

The NLX maintenance facility would handle inspection, servicing, maintenance and repair activities required to keep NLX trains in service. This facility would also function as a train layover facility. Major rebuilds, main engine change-outs, wreck repairs and component rebuilds would be performed at a larger off-site facility via BNSF or another private party. NLX would require one maintenance facility in either Duluth or Sandstone dependent on the results of the NLX operations plan.

The maintenance building would be designed to accommodate a train consist that is 650-feet long. This includes six coaches, each measuring 85-feet long, and two push-pull locomotives, each measuring 70-feet long. Final train consist length will be determined by the NLX operating plan.

3.2.1 Maintenance Building

The maintenance building is intended to be a single story structure that accommodates two service bays with entry and exit points at both ends of the building. Each maintenance bay would contain a track and a maintenance pit that run the entire length of the building. The maintenance building would be a minimum of 700-feet long and 90-feet wide to completely enclose the trainsets and allow for perimeter circulation. The facility would be capable of handling 24-hour operations seven days per week.

3.2.2 Train Wash

The maintenance facility would include a standalone heated building with an automatic washer system designed to clean locomotives and coach cars. The minimum train wash dimensions would be 200 feet long and 30 feet wide and allow for daily washing of train consists.

3.2.3 Office and Shop Space

An office and shop area would be included as part of the maintenance building. This area would include finished office space, a receiving and shipping area with loading dock, spare part storage, work rooms, and various shop equipment areas and other support functions required for the facility.

3.2.4 Yard and Lead Track

The maintenance facility site would provide a storage yard track used to inspect and service a complete NLX train consist in layover status. Access to the mainline track is preferable but not required on each end of the facility. Lead tracks should preferably be long enough to accommodate switching of a complete train consist inside the facility site limits. Breaking down and rebuilding of individual train sets would likely be coordinated at the maintenance facility with ability to do so at the proposed layover facility being preferable as well.

3.2.5 Shop Equipment

NLX Technical Memorandum #5 lists the shop equipment requirements for the maintenance facility. A summary is listed below:

- Permanently mounted equipment for air, fuel, water, sanitary sewer, oil, electric, communication, and pollution control systems.
- Overhead cranes and lifting equipment necessary to remove, replace, store and reposition materials and components.
- Wheel lathe capable of truing locomotive and passenger car wheels.
- Drop table for single wheel or complete truck.
- Other equipment required for routine maintenance and component removal and replacement.

3.2.6 Access and Circulation

The maintenance facility site would provide vehicular access points to the local road system and internal service roads. An on-site parking lot would be required for employees and visitors.

3.2.7 Exterior Lighting and Signage

The maintenance facility would contain a yard lighting system capable of brightly illuminating all areas of tracks, between track service areas, parking, roadways, materials storage and other outside areas. This lighting could include provisions for reduced and targeted illumination to minimize impacts on adjacent properties.

Maintenance facility signage would include entrance identification signs, directional signs, warning signs and other required signs.

3.2.8 Security Systems

Maintenance facility security features would include exterior fencing, track security gates, a closed circuit television system, lighting and emergency communications.

3.3 Layover Facility Requirements

The NLX layover facilities would provide a location away from the BNSF mainline to store up to two complete NLX train sets. The layover facilities would provide a location to perform limited servicing and inspection functions and minor repairs. It would also contain fuel storage and a fueling facility. (No fueling would be provided at the Minneapolis layover site, except in unusual circumstances where a fuel truck would be brought in to service trains.) Switching of trains and removal of cars would only be performed at a layover facility on a limited basis. NLX service would require two layover facilities. Potential sites are being considered in Minneapolis, Sandstone or Duluth. One of the layover sites would be combined with the maintenance facility.

3.3.1 Yard and Lead Tracks

The layover facility site would contain two yard tracks that would accommodate a complete NLX train set that is 650 feet long. Access to the mainline track would be provided on each end of the facility. Dual access is needed in case an access point is obstructed.

3.3.2 Support Building

The layover facility would include a small support building to house cleaning equipment, restocking of convenience items on the train and equipment for minor repairs to train sets. An enclosed structure to accommodate train storage is not required.

3.3.3 Access and Circulation

The layover facility would provide vehicular access points to the local road system and internal service roads. An on-site parking lot would be required for employees and visitors.

3.3.4 Exterior Lighting and Signage

The layover facility would contain a yard lighting system capable of brightly illuminating all areas of track, between track service areas, parking, roadways, materials storage and other outside areas.

Layover facility signage would include entrance identification signs, directional signs, warning signs and other required signs in conformance with applicable codes and regulations.

3.3.5 Security Systems

Layover facility security features would include exterior fencing, track security gates, a closed circuit television system, lighting and emergency communications.

4. STATION SITE EVALUATION

The purpose of this section is to document the evaluation conducted for the station sites. The evaluation utilized the criteria shown in **Table 4-1** to confirm the feasibility and functionality of the sites. Also, the evaluation criteria were used to compare and contrast the station locations that have more than one site alternative (Cambridge, Hinckley and Superior) and select a preferred site.

Working drawings for each alternative site were prepared to support the site evaluation process. The working station drawings are included in **Appendix D** for documentation purposes. The working drawings were developed for evaluation purposes only and the design features presented in the working drawings may be different from the final concept plans presented in **Section 6** of this report.

Table 4-1: Evaluation criteria for station sites

Criteria	Description
Site ownership and control	What is the likelihood of acquiring or controlling the site?
Site size and configuration	How well does the site accommodate the station program elements?
Parking demand	Does the site accommodate anticipated 2020 and 2040 parking demand?
Land use consistency	Is the site compatible with local land use and economic development goals?
Local transportation connectivity	Is the site connected to the local transportation network?
Regional transportation connectivity	Is the site connected to the regional transportation network?
Traffic operations	How does the site affect traffic operations?
Railroad operations	Does the site have any railroad operational issues?
Physical site features	Does the site have any major constraints with structures, topography or utilities?
Environmental resources	Does the site impact known natural or cultural resources?
Public input	What has the public indicated about the site?
Cost considerations	Does the site have any development issues that would substantially increase or decrease the cost of the station?

4.1 Minneapolis

Minneapolis is planned as a terminal station for NLX service. The Tier 1-Service Level EA completed in 2013 for NLX identified Target Field Station as the preferred site in Minneapolis due to previous planning and investment of the station as a transit hub and the convergence of multiple light rail lines, commuter service and bus routes. The following subsection describes the evaluation for the Target Field Station site based on the criteria in **Table 4-1**. The second subsection summarizes the evaluation and provides a conclusion about the site's feasibility and functionality.

4.1.1 Station: Target Field Station Site

An NLX platform and boarding area would be integrated with the existing Target Field Station in Minneapolis as shown in **Figure 4-1**. The platform area would be connected to the other facilities at Target Field Station from existing vertical circulation that connects to the upper level of Target Field Station. The upper level provides direct access to existing and planned light rail lines, the passenger drop-off area, parking facilities, and bicycle and pedestrian facilities. No additional heated waiting area will be provided at Target Field Station by the NLX project. Further development of the station will be the responsibility of others.

The platform area generally extends from Fifth Street North to Washington Avenue North. The site contains the existing Northstar Commuter Rail platforms and tracks and the BNSF mainline track. The NLX platform would be below and separate from the existing and planned light rail transit lines that are located along Fifth Street North, which is elevated over the railroad corridor.

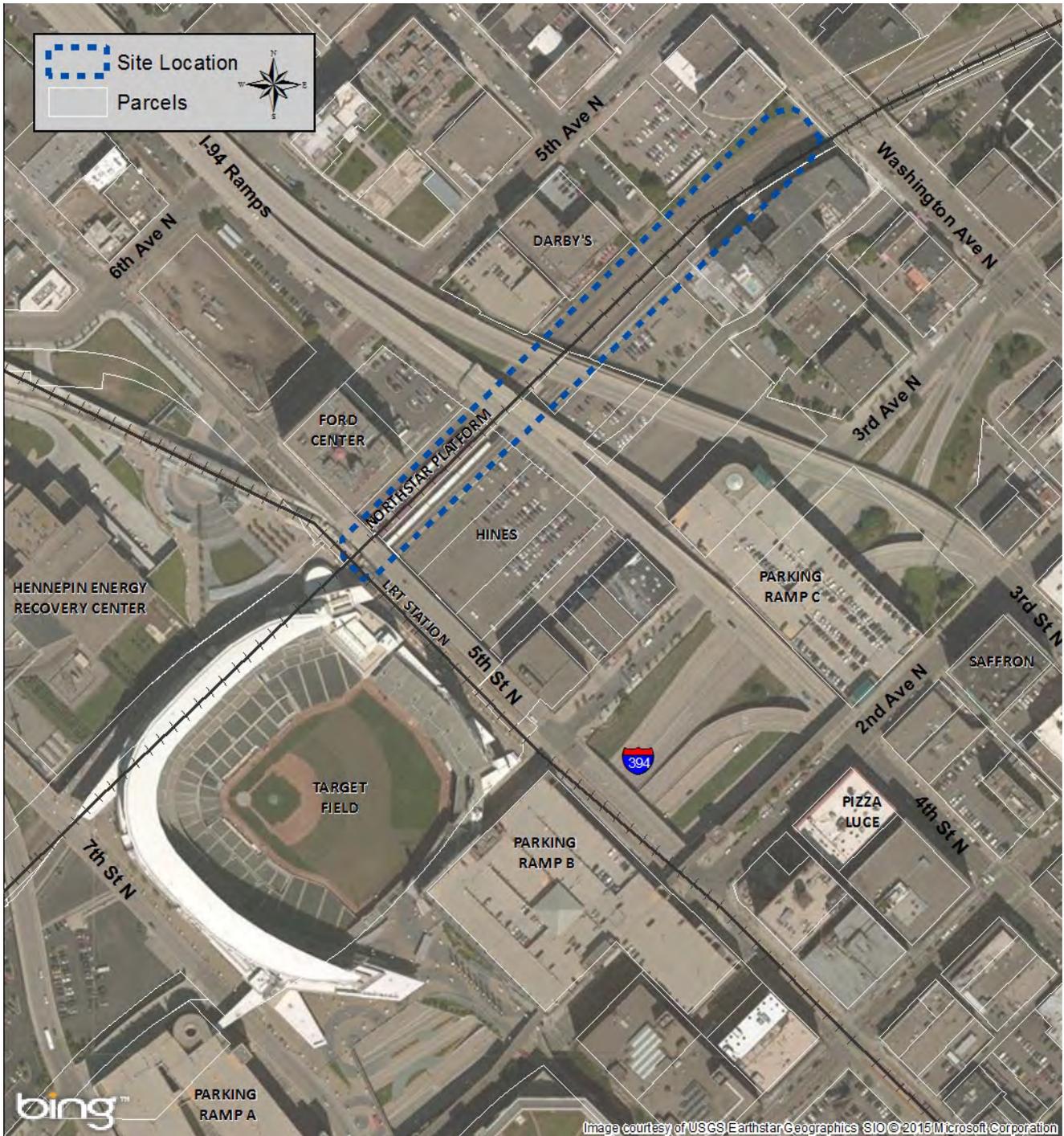
The working drawing for the Target Field site is located in **Appendix D on Page D-2**.

Site Ownership and Control

The proposed NLX platform at Target Field Station is located within an existing railroad corridor that is owned by BNSF. The existing Northstar Commuter Rail platforms are controlled by Metro Transit who operates the service. To secure the platform area for NLX, MnDOT would need to negotiate agreements with BNSF and Metro Transit.

Several important stakeholders own or have an influence over property that is adjacent to the station site including the Hennepin County Regional Railroad Authority, City of Minneapolis (Cedar Lake Trail), and the Minnesota Ballpark Authority. These stakeholders and property owners would not be directly affected by NLX platform construction. They have been made aware of the project and have indicated they would coordinate with MnDOT as needed.

Figure 4-1: Minneapolis – Target Field Station Site Location



Site Size and Configuration

The proposed site for the NLX platform and boarding area is long and narrow and is constrained on all sides. To the north, the site is constrained by the convergence of BNSF tracks and the Washington Avenue Bridge. To the south, the site is constrained by the Target Field structural piers and a lack of railroad capacity on the existing tracks that go under the ballpark. BNSF and Northstar currently utilize these tracks. Existing development also constrains the east and west sides of the site.

Given the site constraints, two platform configurations were considered to determine which option would serve the needs of NLX and minimize impacts to adjacent property and other railroad operations. One option considered constructing a separate NLX platform that parallels the existing Northstar platform. This option would provide the greatest operational flexibility, but impacts the current Cedar Lake Trail and requires additional connections between platforms. For these reasons, this option was eliminated from additional evaluation at this time. The second option, which will move forward to conceptual design, would extend the existing Northstar Commuter Rail platform to the northeast, just south of the Washington Avenue Bridge. Since NLX and Northstar would share the platform under this option, additional coordination for operations would be required. This option fits within the available site size and does not impact adjacent properties. It also does not preclude the first option from being built at a future time if additional passenger services are added at this location.

Target Field Station facilities accommodate other station program elements including a drop-off area, parking, and transit, bicycle and pedestrian connections.

Parking Demand

The anticipated daily parking demand generated by NLX service at Target Field Station is estimated to be about 90 spaces in 2020 and 120 spaces in 2040. Since Target Field Station is located in a highly urbanized area, these estimates assume a large portion of NLX passengers would be dropped off or arrive by transit. The anticipated parking demand generated by NLX service would be accommodated by surrounding MnDOT-owned parking ramps A, B and C and other nearby public parking facilities controlled by the city of Minneapolis. There is also a parking garage under Target Field which is controlled by Hennepin County. The MnDOT parking ramps A, B, and C are directly connected to I-394. The Fifth Street Transit Center, operated by Metro Transit, is connected to parking ramp B. The parking garages and transit center are directly connected to the Minneapolis skywalk system.

Land Use and Transportation Consistency

Target Field Station is immediately north of downtown Minneapolis in the North Loop neighborhood and the Warehouse National Historic District. The North Loop has historically been an industrial area that is transitioning into a high density mixed use neighborhood.

The property located to the southeast of the proposed NLX platform site is a planned high density infill site known as T3. The developer, Hines, is coordinating with the city of Minneapolis and other stakeholders to implement the project. This is one of the last remaining open parcels of this size in the downtown area.

The expansion of passenger rail service at Target Field Station supports the local land use and transportation vision for this area. Several local and regional plans have been prepared that support Target Field Station as a multimodal hub and encourage higher density mixed uses that are transit accessible in this area. The Target Field Station area is mentioned in several regional and local planning documents including:

- *Minneapolis Plan for Sustainable Growth* (City of Minneapolis, 2009)
- *Minneapolis North Loop Neighborhood Small Area Plan* (City of Minneapolis, 2010)
- *Access Minneapolis: Ten Year Transportation Action Plan* (Metropolitan Council, 2012)
- *Downtown Minneapolis Council's 2025 Plan* (Minneapolis Downtown Council, 2011)
- *Metropolitan Council 2040 Transportation Policy Plan* (Metropolitan Council, 2013)
- *Intermodal Station Study, Phase II* (Hennepin County Regional Railroad Authority, 2010)

Local Transportation Connectivity

Target Field Station is well connected to the local and regional transit system operated by Metro Transit. Two light rail transit lines, METRO Green Line (Central LRT) and METRO Blue Line (Hiawatha LRT), and the Northstar Commuter Rail service have existing stops at Target Field Station. Also, several Metro Transit bus routes are easily accessible from the Ramp B (Fifth Street) Transit Center, which is located across the street from the northeast corner of Target Field Station. The transit center is connected to the downtown Minneapolis skywalk system and is accessible to the Cedar Lake LRT Regional Trail and a Nice Ride public bike share station. The Seventh Street Garage Transit Center and Fourth Street Ramp Transit stops are also within close proximity to Target Field Station.

Target Field Station is connected to the local and regional bicycle network. On-street bicycle access is available on Glenwood Avenue, Fifth Avenue North and the Seventh Street North/ Tenth Street North one-way pairs. The Cedar Lake LRT Regional Trail is adjacent to the proposed NLX platform site. Currently, the trail is not directly accessible to the site. To access the platform, trail users must exit by Royalston Avenue North and



connect with the south side of Target Field Station via on-street bike lanes at Glenwood Avenue. Then, bicycles can enter the stadium building and gain access to the NLX platform site via elevators, stairwells and escalators. Bike parking is available outside the station within the ball park plaza and at the light rail transit platforms.

The site is connected to the city's local street and sidewalk network primarily along Fifth Street North and Third Avenue North. These streets provide connectivity to the public parking garages near Target Field Station.

Regional Transportation Connectivity

Target Field Station is well connected to the regional transit and highway transportation system. Target Field Station is a major transit hub for Minneapolis and the Twin Cities region with access to light rail, commuter rail and bus services. Regional freeway access is available from I-94 and I-394. Both freeways have ramps within a few blocks of Target Field Station. The station is also close to I-35W, a major freeway in the state of Minnesota that connects Minneapolis and Duluth.

Traffic Operations

NLX service is not expected to affect local traffic operations. Target Field Station is located within an urbanized city that has an extensive street, highway and transit network. Vehicular traffic would access the station at the existing drop-off area located underneath the light-rail platforms at the intersection of Fifth Avenue North and Fifth Street North. Vehicles can also access the station from a parking facility under Target Field stadium that is accessible from Sixth Avenue North.

Railroad Operations

The NLX platform site currently contains track and platforms for the Northstar Commuter Rail service and a mainline track for BNSF freight rail operations. Northstar uses the two tracks that are on the southeast side of the site and BNSF uses a single track on the northwest side of the site. Currently, the freight rail traffic using the BNSF mainline is coordinated with Northstar Commuter Rail operations. Adding NLX service would require coordination between all three railroad entities. In addition, the NLX platform and tracks are not expected to affect a railroad switch used for the BNSF mainline located north of the Washington Avenue Bridge. Also, the light rail lines coming into Target Field Station operate on completely separate track that run along Fifth Street North, which is elevated above the BNSF railroad corridor.



Physical Site Features

The NLX platform site is located in a flat railroad corridor that is depressed below street level and Target Field stadium. Vertical circulation from the existing Northstar platform to street level is available at Target Field Station and currently used by Northstar Commuter Rail station passengers.

Based on preliminary utility research, there are no known major utility constraints that would affect the development of the NLX platform. However, some major utilities are present at the northeast end of the site and will require additional investigation during future detailed design phases. The utilities of greatest concern are the city of Minneapolis Bassett Creek storm tunnel and the Metropolitan Council sanitary interceptor that crosses the rail on the north side of Fifth Street North. Communication lines also cross the site south of the existing Northstar platform.

Environmental Resources

Historic resources are the primary environmental concern for the NLX platform at Target Field Station. The station is within the Minneapolis Warehouse Historic District and adjacent to the St. Anthony Falls Historic District. Also, the BNSF railroad corridor is a historic railroad district, which is historically recognized as the St. Paul, Minneapolis & Manitoba/Great Northern Railroad Corridor. The Tier 2-Project Level EA will include further Section 106 consultation to determine whether the project would affect historic resources within the study area. The Cedar Lake Regional Trail adjacent to the platform site is a Section 4(f)¹ resource, but it would not be affected by the NLX platform and track construction.

Public Input

MnDOT conducted a stakeholder coordination meeting with the city of Minneapolis, Hennepin County, Metro Transit and Northstar Commuter Rail operations staff in October 2014. Overall, participants expressed support for an NLX service at Target Field Station since this is consistent with local planning goals and documents.

The stakeholders expressed concerns about potential engineering challenges that could arise within the constrained site and potential impacts to adjacent properties. The city of Minneapolis made MnDOT aware of the proposed Hines T3 development that is adjacent to the exiting Northstar platform. They also discussed the Cedar Lake LRT Regional Trail and its close proximity to the site. MnDOT will continue to coordinate with

¹ Section 4(f) refers to the original section within the U.S. Department of Transportation Act of 1966 which provided for consideration of park and recreation lands, wildlife and waterfowl refuges, and historic sites during transportation project development. FRA must determine that there is no feasible and prudent alternative that avoids the Section 4(f) properties and that the project includes all possible planning to minimize harm to the Section 4(f) properties.

stakeholders on the design of the platform and layover site for NLX service and inform stakeholders if any adjacent uses would be affected.

Cost Considerations

Building a platform at Target Field Station is a cost effective solution because it takes advantage of existing facilities at the station which minimizes construction costs.

4.1.2 Minneapolis – Station Site Summary and Conclusion

The station evaluation, summarized in **Table 4-2**, determined an NLX platform would be feasible within the proposed site at Target Field Station. The most likely scenario would be an extension of the north side of the existing Northstar Commuter Rail platform. The platform extension could be constructed without directly impacting adjacent property owners and the Cedar Lake Regional Trail. Utilizing Target Field Station for a platform is cost effective because it takes advantage of existing station facilities which minimizes construction costs.

Table 4-2: Minneapolis station site evaluation summary

Evaluation Criteria	Target Field
<p>Ownership/control What is the likelihood of acquiring/leasing the site?</p>	<p>BNSF and Metro Transit have expressed a willingness to work with MnDOT on modifying the site to accommodate an NLX platform; An agreement with BNSF would be required as owners of the land.</p>
<p>Site size and configuration Does the site accommodate station program elements?</p>	<p>The long and narrow site is constrained by adjacent development and structures, but accommodates NLX platform and boarding requirements without impacting adjacent properties. Existing Target Field Station facilities accommodate other station program elements except no additional waiting space will be provided by NLX.</p>
<p>Parking demand Does the site accommodate anticipated 2020 and 2040 parking demand?</p>	<p>Existing public parking structures are available to accommodate anticipated NLX parking demand.</p>
<p>Land use consistency Is the site compatible with local land use and economic development goals?</p>	<p>NLX would expand multimodal transportation options at Target Field Station, which is consistent with local and regional land use and transportation goals.</p>
<p>Local connectivity Is the site connected to the local transportation network?</p>	<p>Well connected to local transportation network including bicycle, pedestrian, transit and vehicle access.</p>



Evaluation Criteria	Target Field
Regional connectivity Is the site connected to the regional transportation network?	Site has convenient and direct access to I-394 and I-94 and is in close proximity to I-35W.
Traffic operations How does the site affect traffic operations?	No impacts anticipated. Target Field Station is located within an urbanized city that has an extensive street, highway and transit network.
Railroad operations Does the site have any railroad operational issues?	Coordination with Northstar Commuter Rail and BNSF is required to accommodate a platform extension for NLX service.
Physical site features Does the site have any major constraints with structures, topography or utilities?	Site does not have any topography or utility constraints that would preclude platform construction. Some major utilities located at northern end of site will need to be evaluated further in subsequent design phases of NLX.
Environmental Resources Does the site impact known natural or cultural resources?	Historic resources are present. MnDOT will continue formal consultation as it prepares the Tier 2-Project Level EA. No impacts to Cedar Lake Trail.
Public Input What has the public indicated about the site?	Overall support for an NLX platform at Target Field Station since it is consistent with local planning goals. Concerns about constrained site and potential impacts to adjacent uses.
Cost considerations Does the site have any development issues that would substantially increase or decrease the cost of the station?	Utilizing Target Field Station takes advantage of existing station facilities which minimizes construction costs.

4.2 Coon Rapids

An NLX station is planned in Coon Rapids, MN, a northern suburb of Minneapolis in Anoka County. The Tier 1-Service Level EA completed for NLX in 2013 identified the Foley Boulevard station site for a station because it was previously considered for a Northstar Commuter Rail station and is adjacent to the existing Foley Boulevard Metro Transit Park and Ride facility. The following subsection describes the evaluation for the Foley Boulevard station site based on the criteria in **Table 4-1**. The second subsection summarizes the evaluation and provides a conclusion about the site’s feasibility and functionality.

4.2.1 Station: Foley Boulevard Site

The Foley Boulevard station site is located north of Foley Boulevard and east of the BNSF railroad corridor. The Metro Transit Park and Ride facility is located directly south of the station site across Foley Boulevard. **Figure 4-2** shows the location of the station site. The working drawing for the Foley Boulevard site is on **Page D-3** of **Appendix D**.



Figure 4-2: Coon Rapids – Foley Boulevard Station Site Location



Site Ownership and Control

The Foley Boulevard station site is located along the BNSF right of way. It also encompasses a portion of two parcels owned by the Anoka County Regional Railroad Authority. To secure the station site, MnDOT would need to negotiate agreements with Anoka County and BNSF for use of their land. Based on feedback from the city of Coon Rapids, Anoka County Regional Rail Authority supports a passenger rail station at this location since it was previously considered for a Northstar Commuter Rail station.

The proposed new access road from Foley Boulevard would be located on private land owned by Richcraf Properties, LLC. Since this access road is planned by the city of Coon Rapids as part of their redevelopment plans for this area, it is assumed the city would take the lead on acquiring the land and constructing the road. If the roadway is not in place when the station is built, MnDOT would need to come to an agreement with the city regarding cost sharing for the segment that is required for station access.

Site Size and Configuration

The Foley Boulevard station site contains ample open space that accommodates all station program elements in a typical configuration including sufficient land for on-site parking, passenger drop-off and an enclosed station building. During subsequent detailed design phases for NLX, the station may be shifted east to accommodate a third BNSF track. The site is of sufficient size to accommodate this potential modification.

Parking Demand

Parking calculations for the Foley Boulevard station estimate that about 40 spaces would be required in 2020 at the initiation of service and 50 spaces would be needed in 2040 to accommodate ridership growth over twenty years. The working concept shows over 160 parking spaces would fit on the site. This demonstrates the site can easily accommodate the estimated parking demand and have excess capacity. This may be required if a Northstar Commuter Rail station is established in the future at this location.

MnDOT and Metro Transit would need to coordinate on how to regulate parking between the station and the park and ride facility. Parking at the park and ride is regularly at or near capacity, which may result in unauthorized spillover traffic at the NLX station. Separation of the two facilities would be determined in more detailed design stages using signing and enforcement. Some excess capacity at the NLX station may be able to accommodate some overflow from the park and ride especially for passengers that are transferring between the two modes of transportation.

Land Use and Transportation Consistency

The area around the Foley Boulevard station site currently contains mostly low density warehouse and industrial land uses. The city of Coon Rapids has been working on the *Foley Boulevard Station Area Plan* to guide future infrastructure investments and redevelopment for the area that is bound by MN 610, Coon Rapids Boulevard and East River Road (City of Coon Rapids, 2015). The plan anticipates the area would transition to higher density employment uses over time and incorporates the proposed NLX passenger rail station and the Metro Transit Park and Ride facility. Also, the plan shows a new ring road off Foley Boulevard that would be constructed to serve the station and new development. This would be the entry point to the station from Foley Boulevard.

Local Transportation Connectivity

The Foley Boulevard station site currently does not have a direct connection with the local street network. A new access road from Foley Boulevard, as envisioned in the *Foley Boulevard Station Area Plan*, would be required to connect the site to the city of Coon Rapids road network.

Sidewalk is currently present along Foley Boulevard, although pedestrian mobility in this area is challenging due to gaps in the sidewalk network. The station site would provide pedestrian connections to Foley Boulevard and pedestrian connections between the station and the Metro Transit Park and Ride facility.

A complex of local and regional recreational trails is located to the west of the station site and to the west of East River Road along the Mississippi River corridor and within the Coon Rapids Dam Regional Park. The city's existing sidewalks and trails in the station area do not connect with the trail system. The station site would not preclude a trail or sidewalk connection and could be designed to accommodate a connection in the future. The *Foley Boulevard Station Area Plan* provides a conceptual layout for future trails and sidewalks in the area.

Regional Transportation Connectivity

The site is well connected to the regional highway system via MN 610, US 10 and MN 47. The highways are used heavily by commuters employed in the Twin Cities. The interchange of MN 610 and MN 47 is directly northeast of the site.

The station site is connected to the regional transit system at the Metro Transit Foley Boulevard Park and Ride. The facility is served by the 850 and 852 express bus routes that connect Coon Rapids with Minneapolis and Anoka County. The station site would be designed to accommodate bus and coach bus services.

Traffic Operations

Anoka County developed final design plans to grade separate the Foley Boulevard railroad crossing near the station site and the Metro Transit Park and Ride facility. Increased train traffic throughout the state of Minnesota has increased the need for this type of safety and traffic control measure. The new elevated structure would start just west of the entrance to the park and ride lot and extend to East River Road. The county plans to add a new traffic signal at the intersection of the park and ride lot entrance with Foley Boulevard. This four-legged intersection will also serve as the access road for the Foley Boulevard station site and the city of Coon Rapids's future ring road identified in the *Foley Boulevard Station Area Plan*. The construction of the grade separation project is a high priority for the county and they are seeking construction funding.

The grade separation project would improve traffic operations along Foley Boulevard, which would improve access to the station site. Also, the project would improve bike and pedestrian connectivity by incorporating sidewalk and trail.

Railroad Operations

The site is located along a double track segment of BNSF railroad. The railroad runs north and south along the site and carries Northstar Commuter Rail. BNSF is considering constructing a third track due to the significant amount of rail use in the area, although no timeline has been set. This may require the station elements to be shifted east during subsequent design phases. One industrial spur is located to the north of the site, but it does not impact the functionality of the site. Due to the large amount of freight and passenger traffic along this rail corridor, operational challenges would require NLX coordination with BNSF and Northstar operations. However, these challenges are not expected to preclude station development.

Physical Site Features

The site contains two structures that would be removed by construction. One structure is a small commercial building owned by Anoka County Regional Rail Authority who leases the space to a local business. The other small structure is on the Richcraf property.

The site is generally flat, although it is depressed from the BNSF railroad tracks.

An electrical substation and facilities, owned by Connexus Energy, is located on the east side of the tracks, immediately north of the station site. The station would not affect use of this area since the land is not needed for station purposes.

A 60-foot utility easement runs along the BNSF railroad corridor. The easement contains major utilities including high pressure gas lines and storm and sanitary sewer lines. In addition, the Metropolitan Council's Office of Environmental Services (MCES) has jurisdiction over a 48-inch sanitary sewer interceptor that parallels the length of the utility corridor. The sewer line is about 16 feet to 18 feet deep. The station building can be placed to avoid direct placement over the interceptor.

In summary, utilities are a design challenge, but do not preclude the development of the station. The placement of some station elements could be modified to avoid placing permanent structures on top of the utilities. Also, utility coordination efforts during subsequent NLX design phases may determine that some utilities need to be relocated. An opportunity may be available to coordinate utility relocation efforts with the Anoka County grade separation project for Foley Boulevard.

Environmental Resources

Based on preliminary environmental analysis, no known natural resources are located within the station site. The BNSF railroad corridor contains a historic railroad district, which is historically recognized as the Great Northern and Northern Pacific Railway, Minneapolis Junction to Sauk Rapids RR Corridor Overlay Historic District (Minneapolis Junction to Coon Creek Junction segment). The Tier 2-Project Level EA will include further Section 106 consultation to determine whether the project would affect historic resources within the study area.

Public Input

MnDOT conducted a stakeholder coordination meeting with the city of Coon Rapids in October 2014. The city expressed support for an NLX station at the Foley Boulevard site because this was the site previously envisioned for a Northstar Commuter Rail station and it is consistent with the city's *Foley Boulevard Station Area Plan*. MnDOT will continue follow up coordination with the city to obtain input as the design concept moves into more detailed design phases.

Cost Considerations

The Foley Boulevard station site could have additional costs associated with the potential relocation of high pressure gas lines and other utilities within the station site.

4.2.2 Coon Rapids – Station Site Summary and Conclusion

The station evaluation, summarized in **Table 4-3**, confirmed an NLX station is feasible at the Foley Boulevard station site in Coon Rapids. The site is of sufficient size to accommodate all station program elements in a

typical configuration and is located almost entirely on public land. Developing a passenger rail station in this location is consistent with the city’s land use planning and transportation goals identified in the *Foley Boulevard Station Area Plan*. Also, the site has convenient local and regional access and is connected to existing transit services at the Foley Boulevard Park and Ride facility.

The primary challenge for the site is the presence of major utility corridors that run through the site. The placement of some station elements may need to be modified during subsequent design phases to avoid placing permanent structures on top of the utilities. Plus, future utility coordination efforts may determine some utilities would require relocation. The utilities are a design challenge, but are not expected to preclude station development.

Table 4-3: Coon Rapids station site evaluation summary

Evaluation Criteria	Foley Boulevard Site
Ownership/control What is the likelihood of acquiring/leasing the site?	Anoka County Regional Rail Authority owns the site and has expressed a willingness to coordinate with MnDOT. MnDOT will need to negotiate agreement with BNSF. City of Coon Rapids to lead implementation of access road from Foley Boulevard.
Site size and configuration Does the site accommodate station program elements?	Site is of sufficient size to accommodate all station program elements in a typical configuration. Layout can be shifted east if necessary to accommodate a third BNSF track.
Parking demand Does the site accommodate anticipated 2020 and 2040 parking demand?	Accommodates estimated parking demand for service initiation in 2020; and additional parking estimated for 2040.
Land use consistency Is the site compatible with local land use and economic development goals?	Passenger rail station consistent with city of Coon Rapids <i>Foley Boulevard Station Area Plan</i> .
Local connectivity Is the site connected to the local transportation network?	Well connected to local street and transit transportation networks.
Regional connectivity Is the site connected to the regional transportation network?	Site has convenient access to regional highway system, including direct access to MN 610 and convenient access to MN 47 and US 10.
Traffic operations How does the site affect traffic operations?	The Foley Boulevard grade separation project would improve traffic operations along Foley Boulevard, improving access to the station site.
Railroad operations Does the site have any railroad operational issues?	Coordination needed with Northstar Commuter Rail and BNSF for shared track. Potential for BNSF to add third track to increase freight rail capacity.



Evaluation Criteria	Foley Boulevard Site
<p>Physical site features Does the site have any major constraints with structures, topography or utilities?</p>	<p>Presence of major utility corridors at site may require site plan adjustments during subsequent design phases; future utility coordination efforts to determine if utility relocation would be required.</p>
<p>Environmental Resources Does the site impact known natural or cultural resources?</p>	<p>Impacts to natural resources are not anticipated. MnDOT will continue formal consultation for the historic railroad corridor as it prepares the Tier 2-Project Level EA.</p>
<p>Public Input What has the public indicated about the site?</p>	<p>City of Coon Rapids supports an NLX station at the Foley Boulevard site because this was the site previously envisioned for a Northstar Commuter Rail station and it is consistent with the city's <i>Foley Boulevard Station Area Plan</i>.</p>

4.3 Cambridge

An NLX station is planned for Cambridge, MN, in Isanti County. Two station site alternatives within the city were evaluated based on the criteria in **Table 4-1**. One site is located downtown at the City Center Mall. The other site is located at the southern end of the city and is known as the Ritchart Property site. The following two subsections describe the two station site alternatives for Cambridge. The third subsection summarizes the analysis and discusses the selected site alternative.

4.3.1 Station: City Center Site

The City Center station site is located at the existing City Center Mall northeast of downtown Cambridge. The site's boundaries are generally north of MN 95 (First Avenue East), east of Main Street North and west of the BNSF railroad tracks. A residential neighborhood is located to the north of the site. **Figure 4-3** shows the station site location. The working drawing for the City Center Site is located in **Appendix D on Page D-4**.

Site Ownership and Control

The City Center station site would be integrated with the publically owned portions of the existing City Center Mall. The city of Cambridge owns the northern portion of the City Center Mall and operates its city hall, fire department and police department functions at this location. Also, the city leases space within the mall to various nonprofit and commercial tenants. The city has indicated a willingness to work with MnDOT to make the necessary site and building modifications to accommodate the required program elements for an NLX station.

The southern portion of the City Center Mall is privately owned and contains mostly commercial retail uses. The planned site improvements for the station would not directly affect the privately owned portions of the mall.



Figure 4-3: Cambridge – City Center Site Location



The only parcel that would need to be acquired for this site is a privately-owned vacant parcel to the west of city hall on the south side of Third Avenue Northeast. This parcel may be needed for station parking.

The station site would also incorporate land owned by BNSF along the railroad tracks. MnDOT would need to negotiate an agreement with BNSF for use of their land.

Site Size and Configuration

The working concept prepared for the City Center station site demonstrates that the site is of sufficient size to accommodate the required station program elements in a desirable configuration. Since the station would need to be integrated with the existing uses at the City Center Mall, some modifications would be required. Some of the parking areas would be reconfigured to maximize parking areas. Also, some interior renovations would be required within the city-owned portion of the mall to accommodate space for an enclosed passenger waiting area.

Parking Demand

The anticipated daily parking demand generated by NLX service in Cambridge is estimated to be about 160 spaces in 2020 and 240 spaces in 2040. The working concept for the station shows a total of 346 parking spaces could be achieved at this site by reconfiguring some of the parking areas and purchasing a vacant lot west of City Center. The 346 spaces would need to accommodate both NLX and mall functions. According to city officials, about 85 of the total spaces would need to be reserved for police and fire department use and for existing parking agreements the city has with the senior center and adjacent property owners.²

Subtracting the total spaces (346) from the 2020 station parking estimate (160) and the reserved city/agreement spaces (85) would provide about 97 remaining spaces for general city and mall use. According to feedback from the city, the parking lot would likely be at capacity, but could work initially. Additional parking solutions would likely be required as NLX ridership increases over time.

Land Use Consistency

The City Center station site would be compatible with the other public uses at the City Center Mall, providing an opportunity to cluster government-related land uses. The station would bring more people to the area,

² The city of Cambridge has parking agreements in place with the senior center and some adjacent property owners that provide designated parking areas at City Center. Parking agreements are with the Senior Center (32 spaces), the law office (15) and Wells Fargo (5). The city also has a parking agreement for 25 spaces with the vacant parcel owned by George Johnson. For station planning purposes this agreement is not considered because the plan anticipates MnDOT would purchase this property.

which could support the other business establishments in the mall and the various freestanding commercial retail uses that are adjacent to the site.

Downtown Cambridge is located to the southwest of the City Center station site along Main Street. Downtown has a historic main street feel and contains small two-story buildings with street-level storefronts. The station would provide an additional activity generator that could support local plans to revitalize downtown Cambridge. The *City of Cambridge Comprehensive Plan*, adopted in 2001, (Cambridge, City of, 2001) contains long range strategies intended to strengthen existing residential and business areas including the revitalization of the downtown area.

Local Transportation Connectivity

The City Center station site is well connected to the local transportation network and is accessible to vehicles, transit users and pedestrians.

The site has multiple access points to the local road network, including access from MN 95 (First Avenue East), a major east-west arterial. Additional access points can be found along Third Avenue Northeast, Second Avenue Northeast and Buchanan Street North.

Heartland Express is the local public transit system that provides curb-to-curb service by request for residents of Isanti and Chisago counties. Heartland Express also operates the Cambridge Municipal Bus Route. It is a fixed transit route within the city of Cambridge that has an existing stop at the City Center Mall.

The City Center station site is connected to the downtown Cambridge sidewalk network. Sidewalks are present on both sides of the street along Third Avenue Northeast, Buchanan Street North, Second Avenue Northeast, Main Street North, and MN 95 (First Avenue East).

The city of Cambridge has a local bike trail network that connects local parks. The City Center station site is not directly connected to the bike trail network. The nearest connection is to the west of the station site at Cambridge City Park.

Regional Transportation Connectivity

The City Center site is well connected to the regional highway system via MN 95 (First Avenue East). The highway runs east-west through Cambridge and connects with Princeton and Saint Cloud to the west and North Branch and St Croix Falls to the east. The MN 65 interchange with MN 95 is about a half mile east of the station site. MN 65 connects with Minneapolis to the south and Mora and Hinckley to the north. It is a major commuter route for workers employed in the Twin Cities.

Traffic Operations

MN 95 (First Avenue East) is subject to periodic traffic congestion that is intensified by occasional freight train traffic that blocks the highway crossing. To minimize potential traffic impacts, the station platform will be placed at least 300 feet from the railroad crossing so the gates will remain open while a train is at the station. Also, the new signaling system that will be installed for the NLX Project will substantially reduce the amount of time freight trains occupy the MN 95 crossing because the trains will no longer need to stop to throw switches.

The Cambridge City Council commissioned a study in 2008 to evaluate future options for MN 95 (First Avenue East) within the city of Cambridge. The study's primary recommendation was to widen MN 95 to four lanes and include a raised median with left-turn lanes at intersections. The proposed MN 95 expansion project is not part of *MnDOT's 10-year Capital Highway Work Plan* for District 3 due to funding constraints. However, MnDOT has identified a project to reconstruct the existing two-lane configuration in 2021.

Railroad Operations

The City Center station site is located along the BNSF railroad and is not expected to conflict with railroad operations. One tangent mainline track is located adjacent to the station site and two industrial spurs are also present. An at-grade railroad crossing is located at MN 95 (First Avenue East), which is located at the south end of the site. As discussed above, the platform would be located at least 300 feet north of the MN 95 (First Avenue East) crossing, allowing the gates to remain open while the NLX train is stopped at the station.

Physical Site Features

The site does not have any major physical constraints that would preclude development of a station. The site has relatively flat topography that allows for a smooth transition between the interior waiting area and the platform.

The site is already served by sewer and water and has adequate capacity to serve the station. Utility research completed for NLX facilities did not reveal any substantial utility conflicts that would affect station development or station design plans.

The city of Cambridge has an electric generator in the back of the building on the west side of the site that would be avoided. Also, the electrical room located inside the City Center Mall along the western exterior wall would need to be avoided.

Environmental Resources

The City Center station site is located within an existing developed area and based on preliminary environmental research it is not expected to impact any natural or cultural resources.

Public Input

The majority of comments that were received at the December 2014 public open house meeting in Cambridge discussed the City Center Mall site. In general, participants expressed support for the site because its location at the mall is near existing downtown businesses and would be convenient and accessible to the residents of Cambridge. Also, some participants stated the City Center station site would encourage more economic development because it would direct people through the central area of the community.

Some participants expressed concern about the City Center station site. Generally, they were concerned the station would make the traffic conditions at the MN 95 railroad crossing worse. A few participants were also concerned that the site would not have sufficient parking spaces.

The Cambridge City Council passed a motion at its November 3, 2014 meeting in support of the City Center station site. (Cambridge, 2014) According to the meeting minutes, the City Center site was supported by a majority of Common Council members because it would benefit the Cambridge downtown and it would be accessible for transit users, bikes and pedestrians.

Cost Considerations

The City Center station site is not expected to have any unique issues or constraints that would substantially increase the cost of facility development. Some potential cost savings may be achieved since the site uses existing space within the city-owned portion of the City Center mall.

4.3.2 Station: Ritchart Property Site

The Ritchart Property station site is located at the southern end of the city to the west of the BNSF railroad tracks and east of the Main Street South intersection with 24th Avenue Southwest. As shown in **Figure 4-4**, the site contains an existing single-story commercial building and a surface parking lot that was formerly used as car dealership. The working drawing for the Ritchart Property site is located in **Appendix D** on **Page D-5**.

Figure 4-4: Cambridge – Ritchart Property Site Location



Site Ownership and Control

A portion of the station site would be located on privately-owned land that MnDOT would need to acquire. The owner has indicated a willingness to sell land to MnDOT. The station site would also incorporate land owned by BNSF along the railroad tracks. MnDOT would need to negotiate an agreement with BNSF for use of their land.

Site Size and Configuration

The Ritchart Property station site contains ample open space that accommodates all station program elements in a fairly typical configuration including sufficient land for on-site parking and a standalone enclosed station building. The program elements can be achieved without impacting the existing commercial building.

Parking Demand

The working concept for the Ritchart Property station site shows the site would be able to accommodate about 170 parking spaces assuming the existing commercial building remains. This would be sufficient to meet anticipated 2020 parking demand of 160 spaces at the initiation of NLX service. Over time, additional parking solutions may be needed to accommodate ridership growth. By 2040 at least 240 parking spaces may be required.

Land Use Consistency

Land uses around the Ritchart Property station site are suburban in character with larger building setbacks, curved street patterns and auto-oriented commercial development that is separate from the surrounding residential areas. The area immediately around the site contains standalone single story commercial buildings that front Main Street South. Some properties to the south of the site appear to be vacant or used for storage. A used car dealer and gas station are located to the north of the site. A residential neighborhood is located to the west of the site across Main Street South. The Cambridge Christian School and their recreation fields are located across the railroad tracks to the east of the site.

The Ritchart Property station site would not conflict with existing land uses and would be consistent with the city of Cambridge's future land use plan map that shows the area around the site is planned for general commercial uses. However, the site is located on the southern end of the community away from downtown Cambridge and other public uses. As a result, the site would not support local economic development goals to revitalize downtown.

Local Transportation Connectivity

The Ritchart Property site is accessible from the local street network via Main Street South. As discussed previously, the Heartland Express public transit system provides curb-to-curb service by request for Isanti and Chisago county residents. No fixed-route transit lines currently serve this area or the Ritchart Property site.

The west side of Main Street South, across the street from the station site, has a sidewalk that extends north into downtown Cambridge. However, the area has limited pedestrian activity as a result of the suburban land use types prevalent in the area.

The local bike trail network is accessible off 24th Avenue Southwest at Brown Park, about 500 feet to the west of the station site.

Regional Transportation Connectivity

The Ritchart Property station site has less direct access to the regional highway system in comparison to the City Center station site. The Ritchart Property site is located over a mile from the nearest access point to MN 65 and about 1.5 miles from MN 95.

The only regional bike trail in the area is the Cambridge-Isanti Bike Walk Trail. It is accessible from the local bike trail system that runs through Brown Park.

Physical Site Features

The Ritchart Property station site does not have any physical constraints that would preclude station development. The only structure that would be affected is a small storage garage that would need to be removed. The main commercial structure would not be impacted. The site is relatively flat with ample open space for station development. The parcel has access to sewer and water services that would need to be extended to the station building. There are no known utility constraints that would affect station development or station design plans.

Railroad Operations

The Ritchart Property station site would not have any railroad operational concerns. One tangent mainline track is located adjacent to the station site. A railroad siding that extends from about 11th Avenue Southeast to 40th Avenue Southwest is also present at the station site. No railroad grade crossings are located within the vicinity of this site.

Environmental Resources

Based on preliminary environmental research and available mapping, the Ritchart station site is not expected to impact any natural or cultural resources.

Public Input

A few participants at the December 2014 public meeting in Cambridge felt that the Ritchart Property site would function better than the City Center site because it has ample space for parking and may have fewer traffic impacts. Other participants stated that the site would be less convenient because it is located too far to the south, away from existing establishments that are located at the mall and downtown.

The site is not supported by the city of Cambridge. As discussed previously, the Cambridge City Council passed a motion at its November 3, 2014 meeting in support of the City Center station site. (Cambridge, 2014)

Cost Considerations

The Ritchart Property station site is a fairly typical station layout that would not be expected to have any unique issues or constraints that would substantially increase the cost of facility development.

4.3.3 Cambridge – Station Site Summary and Conclusion

Table 4-4 provides a summary of the evaluation conducted for the two station sites in Cambridge. After considering the evaluation factors for both sites, MnDOT determined both sites are feasible and both sites would accommodate the required station program elements. However, MnDOT ultimately selected the City Center site as the preferred location for a station in Cambridge.

The City Center site has a central location that is well connected to local and regional transportation facilities and is accessible to pedestrians, transit users and vehicles. The site is also supported by the city of Cambridge because it has the potential to support local businesses and the downtown area. The Cambridge Common Council passed a resolution in support of the site in November 2014. Public input from the December 2014 public meeting in Cambridge also showed support for the site because of its convenient and central location.

Parking is a potential challenge for the site since it must be able to accommodate parking for several different users including the city of Cambridge, mall tenants, lease agreements with adjacent property owners and NLX station users. The parking will likely be at or near capacity at the initiation of NLX service and additional parking solutions would be required as NLX ridership increases over time.

To minimize potential traffic impacts, the station platform would be placed at least 300 feet from the MN 95 railroad crossing, allowing the crossing gates to remain open while a train is at the station. Also, the new signaling system that would be installed for the NLX Project will substantially reduce the amount of time freight trains occupy the MN 95 crossing because the trains will no longer need to stop to throw switches.

Table 4-4: Cambridge station site evaluation summary

Evaluation Criteria	City Center Site	Ritchart Property Site
Ownership/control What is the likelihood of acquiring/leasing the site?	City willing to work with MnDOT to accommodate station at City Center; Negotiate agreement with BNSF.	Private owner has expressed willingness to sell property; Negotiate agreement with BNSF.
Site size and configuration Does the site accommodate station program elements?	Accommodates all program elements in a somewhat less typical, but acceptable configuration.	Accommodates all station program elements in a fairly typical configuration.
Parking demand Does the site accommodate anticipated 2020 and 2040 parking demand?	Parking at City Center would likely be at or near capacity at the start of service initiation in 2020; additional parking solutions would be required as NLX ridership increases over time.	Accommodates estimated parking demand for service initiation in 2020; additional parking solutions may be needed to accommodate ridership growth through 2040.
Land use consistency Is the site compatible with local land use and economic development goals?	Central location that focuses public uses in similar location; provides an additional activity generator that supports local plans to revitalize downtown.	Site is not centrally located in the community and does not facilitate local downtown revitalization goals.
Local connectivity Is the site connected to the local transportation network?	Well connected to the local transportation network and accessible to transit users and pedestrians.	Limited pedestrian activity and no transit connections due to suburban land use and transportation patterns.
Regional connectivity Is the site connected to the regional transportation network?	Site has convenient and direct access to the regional highway system.	Site has less direct access to the regional highway system.
Traffic operations How does the site affect traffic operations?	Potential traffic concerns at MN 95 railroad crossing. Traffic study to be completed for Tier 2-Project Level EA.	No traffic concerns identified.
Railroad operations Does the site have any railroad operational issues?	Site would not interfere with railroad operations.	Site would not interfere with railroad operations.
Physical site features Does the site have any major constraints with structures, topography or utilities?	Site does not have any topography or utility constraints that would preclude station development.	Site does not have any topography or utility constraints that would preclude station development.



Evaluation Criteria	City Center Site	Ritchart Property Site
Environmental Resources Does the site impact known natural or cultural resources?	Not expected to impact any natural or cultural resources.	A wetland is present on the site per available mapping.
Public Input What has the public indicated about the site?	Overall support for site due to convenient central location and potential to support local economic development. Cambridge City Council passed resolution in support of site.	Less support for site due to its location away from existing activity areas and downtown. Site not supported by city.
Cost considerations Does the site have any development issues that would substantially increase or decrease the cost of the station?	Some potential cost savings may be achieved since the site uses existing space within the city-owned portion of the City Center mall.	No unique cost considerations anticipated.

4.4 Hinckley

An NLX station is planned for Hinckley, MN, in Pine County. Two station site alternatives were evaluated based on the criteria in **Table 4-1**. One site is located in downtown near the Hinckley-Finlayson High School. The other site, called the southwest site, is located off County Road 61 just outside the city limits in the town of Hinckley. The Grand Casino Hinckley is expected to be a major trip generator for the station. It is located about three miles to the east of downtown Hinckley. The following two subsections describe the two station site alternatives for Hinckley. The third subsection summarizes the analysis and discusses the selected site alternative.

4.4.1 Station: Downtown Site

The station site is northeast of downtown Hinckley and near the Hinckley-Finlayson High School. Its site boundaries are generally north of First Street Northeast, south of Second Street Northeast, east of Power Avenue North and west of the BNSF railroad tracks. As shown on **Figure 4-5**, the site encompasses a city of Hinckley maintenance building and is adjacent to the Trinity Episcopal Church.

A slightly different downtown Hinckley station site was shown at the December 2014 public meeting. The site was located to the south off Main Street and included a portion of the Hinckley-Finlayson High School parking lot. After the public meeting, the edge of the station platform was shifted north 300 feet from the railroad crossing to make sure the crossing gates would remain open while a train is at the station. This required shifting the whole station plan off the school property to maintain a station layout in an acceptable configuration. The working drawing for the Hinckley Downtown site is located in **Appendix D** on **Page D-6**.



Figure 4-5: Hinckley – Downtown Site Location



Site Ownership and Control

The downtown Hinckley station site is located partially on public land owned by the city of Hinckley and on private land owned by the Episcopal Church of Minnesota. The city of Hinckley has stated the city's maintenance building could be moved to allow space for station parking. MnDOT has coordinated with the church and they do not have an objection to the plan. It is assumed some level of screening between the church and the station would be provided. MnDOT would need to negotiate an agreement with BNSF for use of railroad property.

Site Size and Configuration

Identifying adequate space for a station in downtown Hinckley is challenged by the presence of existing development and topography changes that limit the amount of flat land that is available along the railroad. The proposed site provides a balance between minimizing property impacts and maintaining required station program elements in a somewhat less typical, but acceptable configuration.

Parking Demand

The downtown Hinckley station site would provide approximately 170 parking spaces. This would be adequate to meet the estimated parking demand for 2020 (125 spaces) and 2040 (168 spaces). Shuttle bus service that may be provided by the Grand Casino Hinckley between the station and casino may reduce future parking needs.

Land Use Consistency

Land uses around the station site include the Hinckley-Finlayson High School to the south and a residential area to the east across the railroad tracks. The area immediately north of the station site contains a Minnesota Power electric substation and some storage sheds owned by the Hinckley-Finlayson school district. The area to the west of the station site contains a parking lot that is also owned by the school district.

Downtown Hinckley is located about two blocks to the southwest of the station site along Main Street East. Downtown is characterized by small retail establishments located along the street frontage. The downtown currently contains several vacant and underutilized buildings.

The *City of Hinckley Comprehensive Plan* was prepared in 2000 and updated in 2002 (Hinckley, City of, 2002). The plan sets forth broad goals and policies to guide the future development and growth of the community. The plan acknowledges the importance of maintaining and enhancing the city's historic development pattern that is focused on the central business district.

The downtown station would be compatible with existing civic and commercial land uses in the area. The city prefers this site because it provides an opportunity to bring traffic to downtown, which could support local economic development goals.

Local Transportation Connectivity

The downtown station site is well connected to the local transportation network. The site has multiple vehicular access points to the local street network and it is linked with the local sidewalk network that extends throughout downtown. The access points to the station would be from First Street Northeast and Second Street Northeast. Both streets connect with Lawler Avenue South and County Road 61 to the west, which are local arterials.

Local transit service is provided by Arrowhead Transit, a shared-ride transit service for Pine County and other counties in northeast Minnesota. No fixed-route transit service is provided in this area and no local bike trails are present near the downtown site. The Grand Casino Hinckley has expressed an interest in providing shuttle service between the casino and the station.

Regional Transportation Connectivity

Connectivity to I-35 is less direct to the downtown station site because the local road system to the east of downtown does not connect to the highway. However, County Road 61 is near the station site and this local arterial connects with Fire Monument Road, providing a direct connection to I-35.

The nearest regional bus service provided by Jefferson Lines is located about one mile from the downtown site off I-35 on Fire Monument Road. Pick up occurs in the parking lot of a local business called Tobies. The Skyline Shuttle service also stops at Tobies and provides service to the Grand Casino Hinckley about two and a half miles east of the downtown site.

Regional bike access to the Willard Munger State Trail is located about three blocks west of the station site near the intersection of Second Street Northeast and Dunn Avenue North. The Willard Munger State Trail is a collection of trails that stretches from Hinckley to Duluth.

Traffic Operations

The school district has expressed some concerns about how station traffic may conflict with school traffic. Morning drop off at the school takes place mainly along First Street Northeast and afternoon pick up occurs mainly along Main Street East. Drop off occurs about 8:00 a.m. and pick up occurs about 3:00 p.m. Approximately 12 buses stop at the school plus several passenger vehicles that drop off or pick up students. Traffic studies will be completed for the Tier 2-Project Level EA to evaluate potential traffic impacts in Hinckley.



Railroad Operations

The downtown Hinckley station site is located along the BNSF railroad and would not interfere with railroad operations. One tangent mainline track is located adjacent to the station site and the nearest at-grade railroad crossing is located at Main Street East. The railroad crossing is over 300 feet from the edge of the station platform, allowing the gates to remain open while a train is stopped at the station.

Physical Site Features

The only existing structure at the downtown Hinckley station site is a city of Hinckley maintenance building that would need to be removed for station development and replaced at a different location. The church building would not be affected by station development.

The site's topography presents some challenges for the station that will require grading and a retaining wall along the church property. It is estimated that a five percent slope can be achieved between the station building and the lower parking area. The north end of the station building may have an exposed lower level as a result of the slope and building access would need to be on the south side of the building. Another notable grade change is the railroad embankment that increases in steepness to the north. Some grading would also be required to minimize the steepness of the embankment at the station.

Public sewer and water services are available at the downtown station site and no major utility constraints are known. An electrical substation is present just north of the site, but it would not be affected by station development.

Environmental Resources

Based on preliminary environmental research, no known natural or cultural resources were identified within the station site. A few notable resources are located within close proximity to the station site, but would not be affected by station development. One notable resource is the Grindstone River, which is located about 550 feet north of the station site. Another notable resource is The Pit, a local park and recreation site located to the southeast of the station site, south of Main Street and east of the railroad tracks. The Pit is a federal Land and Water Conservation Fund (LAWCON) site that is intended to be retained and used solely for outdoor recreation in perpetuity (Minnesota Department of Natural Resources, 2015).



Public Input

Public input received at the December 2014 public open house meeting in Hinckley was, in general, more focused on the merits of the project than on specific station sites. However, a few participants stated they felt a downtown station was the best choice because it would bring some traffic to the downtown area. A few participants commented that the downtown site would have fewer traffic concerns in comparison to the southwest site because it avoids the traffic congestion that occurs when a freight train blocks the County Road 61 crossing. A few participants were concerned that the downtown site may interfere with school pick up and drop off times. However, these comments were generated when the station site incorporated a portion of the school's property. The site being evaluated no longer affects the school property.

Cost Considerations

The station site is not expected to have any unique issues or constraints that would substantially increase the cost of facility development.

4.4.2 Station: Southwest Site

The southwest station site is located at the southwestern edge of Hinckley in the township. The site's boundaries are generally south of the BNSF railroad, north of Fifth Street Southeast, west of County Road 61 and east of Dunn Avenue South. **Figure 4-6** shows the location of the southwest site. The working drawing for the Hinckley Southwest site is located in **Appendix D on Page D-7**.

Site Ownership and Control

The southwest station site would be located entirely on BNSF property. To operate a station at this site, MnDOT would need to negotiate an agreement with BNSF. Also, the St. Croix Valley railroad track that runs through the property would need to be relocated. This is discussed in more detail under the Railroad Operations section below.

The southwest station site is within the jurisdiction of Hinckley Township. The site would need to be annexed by the city of Hinckley since the town does not have infrastructure to accommodate urban development.

Site Size and Configuration

Assuming the St. Croix Valley railroad tracks would be relocated, the southwest station site is of sufficient size to accommodate all station program elements in a typical station configuration.

Figure 4-6: Hinckley – Southwest Site Location



Parking Demand

The anticipated daily parking demand generated by NLX service in Hinckley is estimated to be about 125 spaces in 2020 at the initiation of service and 168 spaces in 2040. The working concept for the southwest station site shows approximately 160 parking spaces. This would be adequate to meet the estimated parking demand for at least twenty years after the initiation of service. Additional vacant land is present around the proposed site and could allow for future parking expansion if needed.

Land Use Consistency

A BNSF railroad field office is located immediately north of the station site across the railroad tracks. Auto-oriented commercial uses are located north of the field office along County Road 61. The area to the south of the site is undeveloped and contains a large wetland. Land uses to the east consist of auto-oriented commercial uses along County Road 61 and residential neighborhoods. The station site would be compatible with its surrounding uses, but would not be consistent with local economic development goals to facilitate development in downtown Hinckley.

Local Transportation Connectivity

The site is accessible to the local transportation network at the intersection of County Road 61 and Fire Monument Road. The nearest sidewalk is located along the north side of Fire Monument Road just east of the site. Sidewalks are also present along County Road 61 north of the railroad tracks, but do not directly connect with the station site.

Local transit service is provided by Arrowhead Transit, which is a shared-ride transit service for Pine County and other counties in northeast Minnesota. No fixed-route transit service is provided in this area and no local bike trails are present near the southwest site.

The area has limited pedestrian activity due to the lower development intensity and more suburban character of the land uses in this area. Also, the sidewalk network is not continuous along County Road 61 at the station site.

Regional Transportation Connectivity

The southwest site is well connected to the regional transportation system. The site is located off Fire Monument Road which provides a direct connection to I-35 about one-half mile to the east. I-35 is a major freeway in the state that connects with Minneapolis and Duluth.

The nearest regional bus services are located about one-half mile east of the station site off I-35 on Fire Monument Road. Jefferson Lines, an intercity bus service, and Skyline Shuttle both stop at a local business called Tobies at the interstate. Skyline Shuttle also provides service to the Grand Casino Hinckley, which is about two miles to the east of the station site along MN 48.

Traffic Operations

Access to the southwest station site would be from County Road 61 at Fire Monument Road. This intersection is prone to traffic delays when a freight train is present at the County Road 61 crossing. This could make access to the station more challenging when a train is present.

Railroad Operations

The southwest station site is located along the BNSF railroad. The railroad next to the station site contains one mainline track and a railroad siding that extends southwest from the site to Two Rivers Road. An industrial railroad spur also branches off to the north. In addition, a single-track used by the St. Croix Valley railroad runs directly through the site and connects with the BNSF mainline. The nearest at-grade railroad crossing is located along County Road 61, which is about a half block to the north of the station site. This crossing is frequently impacted by freight railroad use.

The southwest site has significant railroad operation conflicts and would require the reconfiguration of the St. Croix Valley railroad. This would be a large capital expense and would likely impact sensitive natural resources that are present in the area. Also, a station at this location would require a reconfiguration of the BNSF mainline track and siding to accommodate a platform, adding additional capital expenditures to the NLX Project.

Physical Site Features

The site is relatively flat and would not present any challenges with topography. The site is not currently served by public sewer and water services and would need to be annexed by the city of Hinckley to gain access to the municipal sewer and water system.

Environmental Resources

Based on preliminary environmental research, the footprint of the southwest station site is not expected to impact the wetlands that are in close proximity to the site. However, the reconfiguration of the St. Croix Valley railroad, which would be required for station development, would likely impact nearby wetlands. Also, an

existing snowmobile trail traverses the eastern side of the site and would likely require modifications to maintain trail connectivity.

Public Input

The southwest site received little attention at the December 2014 public open house meeting in Hinckley. A few participants stated the site would be desirable because of its close proximity to the highway. Other participants felt that it would not benefit downtown and that it would conflict with traffic congestion that occurs when a freight train blocks the County Road 61 crossing. The city of Hinckley has not expressed support for this site because it is located away from downtown Hinckley and would be less likely to facilitate local economic development goals for downtown.

Cost Considerations

The resolution of railroad operational conflicts associated with the need to relocate the St. Croix Valley railroad at the southwest site would be a major capital cost expense that would likely outweigh any benefits of having a station in this location.

4.4.3 Hinckley – Station Site Summary and Conclusion

Table 4-5 provides a summary of the evaluation conducted for the two station sites in Hinckley. After considering the pros and cons of each site, MnDOT selected the downtown site as the preferred location for a station in Hinckley. The site is centrally located within Hinckley and does not have substantial railroad operational conflicts. Also, the site is supported by the city of Hinckley because it could help bring activity to downtown and support local businesses. Although the site configuration is somewhat less typical, design and construction measures can be taken to reduce grade changes and minimize impacts to adjacent properties.

The site evaluation determined the southwest site is not feasible due to conflicts with railroad operations that would require the reconfiguration of the St. Croix Valley railroad. This action would impact natural resources in the area and would add a substantial expense to the NLX Project.

Table 4-5: Hinckley station site evaluation summary

Evaluation Criteria	Downtown Site	Southwest Site
Ownership/control What is the likelihood of acquiring/leasing the site?	Property owners have expressed willingness to cooperate with MnDOT.	Agreement with BNSF required.
Site size and configuration Does the site accommodate station program elements?	Accommodates all program elements in a somewhat less typical, but acceptable configuration.	Accommodates program elements in a typical configuration, but would require a major relocation of the St. Croix Valley railroad track.
Parking demand Does the site accommodate anticipated 2020 and 2040 parking demand?	Accommodates estimated parking demand through 2040.	Accommodates estimated parking demand through 2040.
Land use consistency Is the site compatible with local land use and economic development goals?	Provides an activity generator that may support downtown businesses.	Annexation by the city of Hinckley required since the town does not have infrastructure to accommodate urban development.
Local transportation connections Is the site connected to the local network?	Site is connected to local street and sidewalk network.	Site has limited pedestrian connectivity; local roads subject to delays from freight trains at County Road 61 crossing.
Regional transportation connections Is the site connected to the regional network?	Site has less direct access to regional transportation system compared to Southwest site.	Site has direct access to I-35 via Fire Monument Road.
Traffic operations How does the site affect traffic operations?	Potential conflicts between station traffic and school traffic.	Railroad crossing at County Road 61 could make access to station more challenging when a train is present.
Railroad operations Does the site have any railroad operational issues?	Site would not interfere with railroad operations. Platform located 300 feet from Main Street crossing, allows gates to remain open while train is at station.	Site has significant railroad operational conflicts that would require the reconfiguration of the St. Croix Valley track that runs through the site.
Physical constraints Does the site have any major constraints with structures, topography or utilities?	Site topography will require grading and retaining walls.	Site does not have any topography or utility constraints.
Environmental Resources Does the site impact known natural or historic resources?	Not expected to impact any natural or cultural resources.	The reconfiguration of the St. Croix Valley tracks would impact nearby wetlands.



Evaluation Criteria	Downtown Site	Southwest Site
<p>Public Input What has the public indicated about the site?</p>	Site is supported by city because it would support local economic development goals for downtown.	The city does not support the site because it would not support local revitalization goals for downtown.
<p>Cost considerations Does the site have any development issues that would substantially increase or decrease the cost of the station?</p>	No unique cost considerations anticipated.	The reconfiguration of the St. Croix Valley track would be cost prohibitive.

4.5 Superior

An NLX station is planned for Superior, Wisconsin, in Douglas County. Two station site alternatives within the city were evaluated based on the criteria in **Table 4-1**. One site is located downtown and the other site, called the south site, is located to the south of 28th Street. The following two subsections describe the two station site alternatives for Superior. The third subsection summarizes the analysis and discusses the selected site alternative.

4.5.1 Station: Downtown Site

The downtown Superior station site is located at the western edge of downtown along the BNSF Coal Runner tracks. The site’s boundaries are generally north of US 2 (Belknap Street), south of 14th Street, east of the BNSF Coal Runner tracks and west of Oakes Avenue. **Figure 4-7** shows the location of the downtown site. The working drawing for the Superior Downtown site is located in **Appendix D** on **Page D-8**.

Site Ownership and Control

The majority of the downtown station site would be located on BNSF railroad property. MnDOT would need to negotiate an agreement with BNSF for use of their land. Two privately-owned parcels would also be affected by station development. One parcel is vacant and according to city officials the owner has indicated a willingness to sell a portion of their land to MnDOT. The other affected private parcel contains a former Waste Management recycling facility. MnDOT would need to purchase a small portion of the Waste Management property along the northern edge for a station access road. According to Waste Management employees, the facility was vacated in early 2015 and Waste Management intends to sell the property.

Figure 4-7: Superior – Downtown Site Location



Site Size and Configuration

The downtown Superior station site is a large relatively unconstrained vacant site that accommodates all program elements in a typical station configuration.

Parking Demand

The downtown Superior station site would provide approximately 240 parking spaces. This is considered a full build out scenario that exceeds the estimated parking demand for 2020 (90 spaces) and 2040 (116). Additional spaces were provided in Superior because it may capture some users from Duluth and it may capture a larger number of passengers who require long-term parking.

Land Use Consistency

The downtown station site would not conflict with adjacent land uses. The area immediately surrounding the station site includes mostly railroad, industrial and warehouse/storage uses. A large BNSF rail yard is located to the west of the site and a Waste Management facility and a lumber yard are located to the east. An AMSOIL facility is located to the north and vacant railroad land is located to the south of the site.

Downtown Superior is located just east of the station site. Downtown Superior is a traditional downtown area with a street grid and mixed-use buildings built along the street frontage. Belknap Street and Tower Avenue are the primary commercial corridors within downtown. The *City of Superior Comprehensive Plan 2010-2030*, adopted in 2011, sets forth a series of economic development policies that seek to encourage investment in the downtown area and encourage redevelopment (Superior, City of, 2011). The station site would support these policies by adding a new activity generator within the downtown area.

The station site also supports the potential redevelopment of the Waste Management site by leaving the majority of the site intact and by providing a new access road that could also be used for private development in the future.

Local Transportation Connectivity

The downtown Superior station site is currently land locked and does not have a direct connection with the local street network. A new station access road that would extend west from 14th Street would be required to connect the site to the downtown street and sidewalk network.

Local transit service in Superior is provided by the Duluth Transit Authority. Route 17 that runs along Tower Avenue in a north-south direction is the nearest fixed-route transit line to the station site. Route 16, which is

also near the station site, runs along US 2 (Belknap Street) in an east-west direction. Local officials have expressed an interest in modifying a local route to serve the station.

The local bike network in Superior is primarily located along Lake Superior on the east side of the city about two miles from the station site.

Regional Transportation Connectivity

The site has good regional transportation access. It is located just off US 2 and provides two convenient connections to Duluth via US 2 to the west and WIS 35/I-535 to the north. It also provides convenient regional access to northwest Wisconsin communities via US 2/US 53 to the southeast.

The only regional bus service that stops in Superior is provided by Indian Trails. It has a passenger stop at the University of Wisconsin-Superior Union, which is 1.5 miles away from the station site. Indian Trails provides service east to Wisconsin communities and Michigan's Upper Peninsula. Jefferson Lines is currently only available in Duluth. The station site would be designed to accommodate coach buses.

Traffic Operations

The site evaluation did not reveal any major traffic operational concerns for the downtown station site. One concern that was mentioned is that some of the narrow downtown streets are not able to accommodate bus turning movements, which could make transit access to the site challenging. This would need to be evaluated by the transit agency in the future if transit route modifications are considered.

The Wisconsin Department of Transportation is in the process of preparing design plans to reconstruct US 2 (Belknap Street) between Banks Avenue on the west and 7th Street on the east. The project would include safety improvements, additional left-turn lanes, new traffic signals and aesthetic treatments. Also, improvements will be made to bike accommodations, parking, access, sidewalk and street lighting. (WisDOT, 2015)

Railroad Operations

The downtown Superior station site is located along a single tangent BNSF railroad track known as the Coal Runner. The track extends north to a large coal pile that is delivered by rail to the port and then loaded onto ships. No at-grade crossings are located near the station site because US 2 is grade separated south of the station site. An industrial spur that serves the AMSOIL facility to the north runs through the station site and would be reconfigured as part of the planned track work for the NLX Project. The reconfiguration of the spur does not present any major operational issues with the railroad.

Physical Site Features

The downtown station site has generally flat topography. The site is vacant except for an existing AMSOIL railroad spur that would be reconfigured as part of the track work for the NLX Project.

The primary physical challenge for the downtown station site is a Magellan Midstream Partners eight inch high-pressure oil pipeline running north-south through the station site. The station plan can be designed to avoid placing structures over the pipeline to minimize disruption and ensure access to the pipeline. The station site plan also has enough flexibility so that adjustments can be made when the exact pipeline location is confirmed with survey during subsequent design phases.

Sewer and water services are available in close proximity to the station site and will need to be extended to the station. Storm sewer, sanitary sewer and water services are located along Oakes Avenue and US 2 (Belknap Street). A sanitary sewer crosses the railroad tracks south of US 2 (Belknap Street).

Environmental Resources

Based on preliminary environmental research, the downtown station site is not expected to impact any natural or cultural resources. Since this area is known for poorly drained soils, additional review during the Tier 2-Project Level EA may identify wetlands in the area. Formal wetland delineations, if needed, would occur during final design.

Public Input

In general, feedback obtained at the December 2014 public meeting in Superior was supportive of a downtown site. Many comments stated the downtown site would provide more benefit to the community because it would support the revitalization of downtown Superior. Also, some comments stated the downtown site is centrally located, has good transportation access and would be convenient for some Duluth residents. City staff has indicated their support for this site since it is consistent with local redevelopment goals for downtown.

Cost Considerations

The station site is not expected to have any unique issues or constraints that would substantially increase the cost of facility development.

4.5.2 Station: South Site

The south station site in Superior is located along the BNSF Coal Runner tracks behind the Kmart store. The site's boundaries are generally west of Oakes Avenue, east of the Coal Runner tracks, south of 30th Street and north of 31st Street. **Figure 4-8** shows the location of the south site. The working drawing for the Superior South site is located in **Appendix D** on **Page D-9**.

Site Ownership and Control

The south station site is located on BNSF railroad right of way and privately-owned property. MnDOT would need to acquire land from two privately-owned parcels and would need to negotiate an agreement with BNSF for use of their land.

Site Size and Configuration

The south station site is vacant and is of sufficient size and configuration to accommodate all program elements in a typical station configuration.

Parking Demand

The south station site would accommodate at least 280 parking spaces, exceeding the estimated parking demand for 2020 (90 spaces) and 2040 (116). Additional spaces were provided in Superior because it may capture some users from Duluth and it may capture a larger amount of passengers who require long-term parking.

Land Use Consistency

The south station site is located next to an auto-oriented commercial district that is focused along Tower Avenue. Kmart and other retailers are located to the east of the station site and a restaurant and apartment buildings are located to the north. A stormwater pond and vacant land are located to the south of the site. The land to the west of the station site, across the railroad tracks, is undeveloped and owned by BNSF. The south station site would be compatible with the adjacent commercial uses that are present in this area. However, the site is located to the south away from downtown Superior and the city's primary activity centers.

Figure 4-8: Superior – South Site Location



Local Transportation Connectivity

The south site is connected to the local street network. Local roadway access to the site would be from Oakes Avenue. This is a minor street that connects with major local arterial streets. North 28th Street is located to the north and travels in an east-west direction through the city. Tower Avenue is located two blocks to the east of the site and travels through the city in a north-south direction.

Local fixed-route transit service in Superior is provided by the Duluth Transit Authority. Access to the system from the station site is available two block east via Route 17. This route travels along Tower Avenue between Broadway Street to the north and North 63rd Street to the south.

Pedestrian activity is limited at this station site as a result of the auto-oriented land uses in the area. Plus, sidewalks are generally not present in the area south of 28th Street.

Regional Transportation Connectivity

The south station site has somewhat less convenient regional transportation access compared to the downtown site. The south station site is located about one mile from US 2 and about 2.5 miles from US 53/I-535.

The south station site is about two miles away from the nearest regional bus service of Indian Trails that stops at the University of Wisconsin-Superior Union. Indian Trails provides service east to Wisconsin communities and Michigan's Upper Peninsula. Jefferson Lines is only available in Duluth.

Traffic Operations

The site evaluation did not reveal any traffic operational concerns for the south station site.

Railroad Operations

The south station site is located along the BNSF Coal Runner tracks. The track runs north to a large coal pile that is delivered by train to the port and then loaded onto ships. The railroad has a single track that is tangent to the station site. The nearest at-grade railroad crossing to the station site is on N 28th Street, which is located about two blocks north of the site. The site does not present any railroad operational concerns.

Physical Site Features

The station site is relatively flat and vacant. Sewer and water services are adjacent to the station site and already serve nearby developed parcels.

According to the Douglas County GIS Online Site, the Magellan Pipeline is located on the west side of the railroad tracks in this area and does not cross the station site (Douglas County-WG Extreme, 2015). The GIS Online Site shows another pipeline corridor that runs along the east side of Oakes Avenue. This pipeline corridor would not affect the development of the south station site alternative.

Environmental Resources

Based on preliminary environmental research, a wetland is located within the south station site. Also, a storm water pond is located adjacent to the site on the south side.

Public Input

Most comments received at the December 2014 public meeting in Superior favored the downtown site over the south site.

Cost Considerations

The station site is not expected to have any unique issues or constraints that would substantially increase the cost of facility development.

4.5.3 Superior – Station Site Summary and Conclusion

Table 4-6 provides a summary of the evaluation conducted for the two station sites in Superior. Based on the evaluation criteria, MnDOT determined both sites would accommodate the required station program elements in fairly typical configurations. However, the south site contains a wetland, which may affect its feasibility. MnDOT selected the downtown site as the preferred location for a station in Superior primarily due to its location and the less potential to impact natural resources.

The downtown site has a central location that is well connected to local and regional transportation networks and would provide the most convenient access to pedestrians, transit users and vehicles. The site would support the city's efforts to attract additional activity generators to encourage downtown redevelopment. Public input from the December 2014 public meeting in Superior also showed support for the site because of its convenient downtown location.

The downtown site’s primary physical challenge is an eight inch high-pressure oil pipeline that runs north-south through the site. The station can be designed to avoid placing permanent structures over the pipeline to ensure access to the pipeline and minimize disruption. The AMSOIL railroad spur would be reconfigured as part of the planned track work for the NLX Project.

Table 4-6: Superior station site evaluation summary

Evaluation Criteria	Downtown Site	South Site
Ownership/control What is the likelihood of acquiring/leasing the site?	Private owners have expressed willingness to sell property; Waste Management site for sale; Negotiate agreement with BNSF.	Private owners have expressed willingness to sell property; Negotiate agreement with BNSF.
Site size and configuration Does the site accommodate station program elements?	Accommodates all station program elements in a typical configuration.	Accommodates all station program elements in a typical configuration.
Parking demand Does the site accommodate anticipated 2020 and 2040 parking demand?	Accommodates estimated parking demand through 2040 with extra capacity.	Accommodates estimated parking demand through 2040 with extra capacity.
Land use consistency Is the site compatible with local land use and economic development goals?	Does not conflict with adjacent land uses; supports city’s comprehensive plan to revitalize downtown; supports potential redevelopment of Waste Management parcel.	Does not conflict with adjacent land use, but does not facilitate local downtown revitalization goals.
Local connectivity Is the site connected to the local transportation network?	Site requires a new access road to connect with local street and sidewalk network; Slight modifications to local transit routes would make station transit accessible.	Well connected to local street network, but limited pedestrian activity due to discontinuous sidewalks and suburban style commercial land uses.
Regional connectivity Is the site connected to the regional transportation network?	Site is well connected to the regional highway system providing convenient access from Duluth and nearby Wisconsin communities.	Site has somewhat less convenient connectivity to the regional highway system.
Traffic operations How does the site affect traffic operations?	No traffic concerns identified.	No traffic concerns identified.
Railroad operations Does the site have any railroad operational issues?	Site would require the reconfiguration of the AMSOIL railroad spur.	Site would not interfere with railroad operations.



Evaluation Criteria	Downtown Site	South Site
Physical site features Does the site have any major constraints with structures, topography or utilities?	Site design needs to incorporate a petroleum pipeline that runs north-south through site.	Site does not have any topography or utility constraints that would preclude station development.
Environmental Resources Does the site impact known natural or cultural resources?	Not expected to impact any natural or cultural resources.	Wetlands are present within the station site.
Public Input What has the public indicated about the site?	Overall support for site due to convenient central location and potential to support local economic development.	Less support for site due to its location away from existing activity areas and downtown.
Cost considerations Does the site have any development issues that would substantially increase or decrease the cost of the station?	No unique cost considerations anticipated.	No unique cost considerations anticipated.

4.6 Duluth

An NLX station is planned for Duluth, MN, at the historic Union Depot in St. Louis County. The Tier 1-Service Level EA completed for NLX in 2013 identified Union Depot as the station site for Duluth. MnDOT reconfirmed this site as part of this current NLX facilities design phase in light of the decision by the Duluth Transit Authority to construct the new Multimodal Transportation Center two blocks north of Union Depot. MnDOT is retaining the Union Depot location for NLX because reestablishing passenger rail at Union Depot is consistent with local planning and economic development goals. Plus, the existing railroad tracks at the back of the station end at Fifth Avenue and extending the tracks to the multimodal center would be hampered by the presence of existing development and transportation infrastructure.

The following subsection describes the evaluation for the Union Depot station site based on the criteria in **Table 4-1**. The second subsection summarizes the evaluation and provides a conclusion about the site’s feasibility and functionality.

4.6.1 Station: Union Depot Site

Union Depot is located at the south end of downtown Duluth on the west side of I-35. As shown in **Figure 4-9**, Union Depot is on the east side of West Michigan Street and south of Fifth Avenue. The railroad tracks are at the back of the Depot, two levels below the main entrance.



Originally built in 1892, Union Depot was reopened in 1973 as a center for arts, culture and history. Between 1977 and 1985 Amtrak provided passenger service to Union Depot via the Arrowhead and the North Star. Today, the Depot houses four museums (Lake Superior Railroad Museum, Duluth Art Institute, St. Louis County Historical Society and Veterans' Memorial Hall) and contains a theater used by several local performing arts organizations. In addition, the trains for the North Shore Scenic Railroad depart from Union Depot. The working drawing for the Duluth Union Depot site is located in **Appendix D** on **Page D-10**.

Site Ownership and Control

Union Depot is owned by St. Louis County and managed by Oneida Realty. Both entities have indicated their willingness to coordinate with MnDOT to bring NLX service to the Depot. Ultimately, an agreement between MnDOT and St. Louis County would be required to initiate NLX service at the Depot. The county has indicated their interest in adding intercity rail service and would be willing to modify the existing building and surrounding exterior space to restart intercity passenger service at the Depot.

The railroad lines at the back of the Depot are owned by BNSF and leased by the St. Louis and Lake Counties Regional Rail Authority. The North Shore Scenic Railroad, a tourism-based passenger railroad service that is owned and operated by the Lake Superior Railroad Museum, utilizes Union Depot for departures. MnDOT would need to negotiate an agreement with BNSF during subsequent stages of the project.

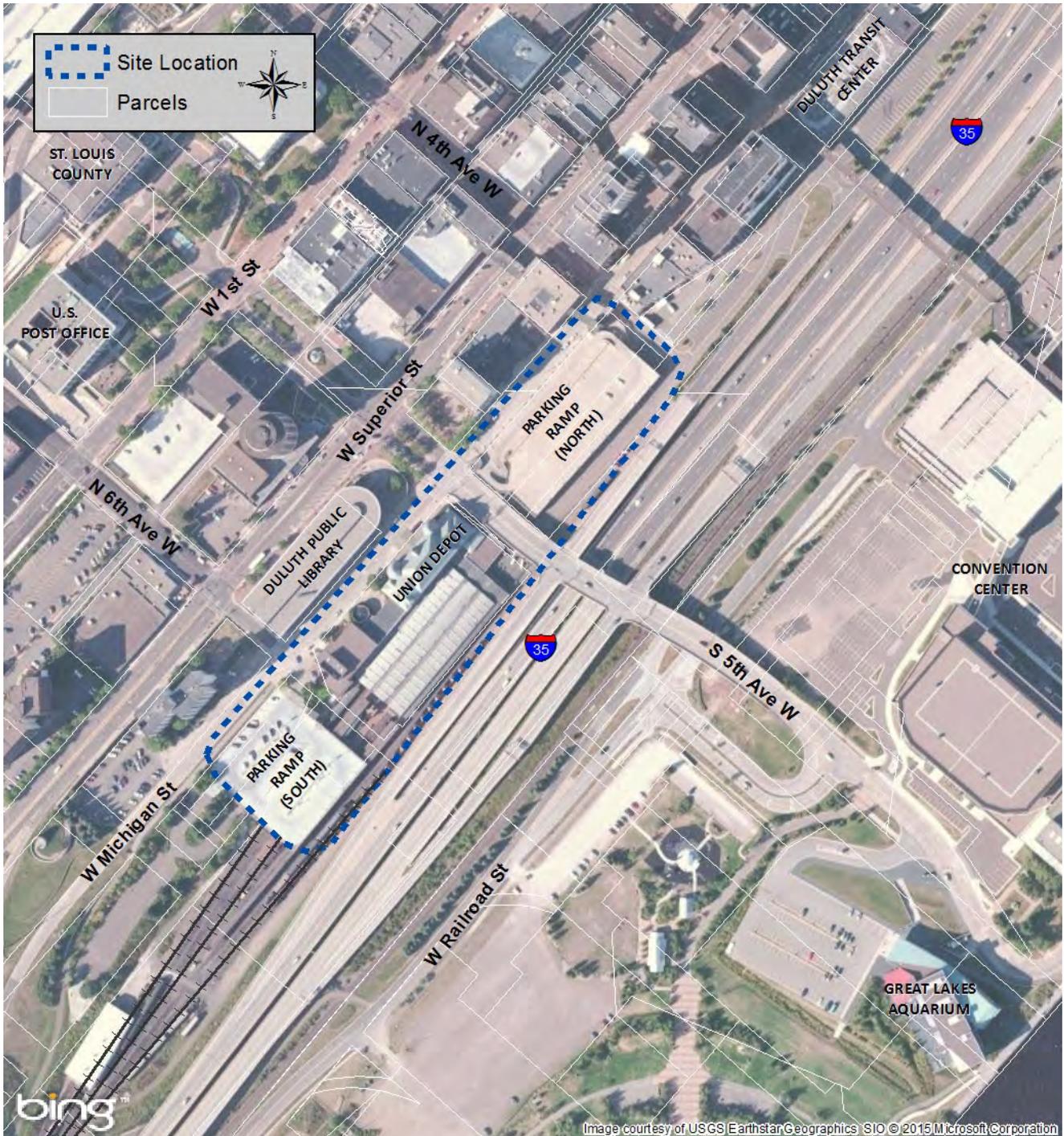
The city of Duluth has jurisdiction over the streets that access the Depot. If any modifications are required to the streets, coordination with the city would be required.

Site Size and Configuration

The working concept prepared for the Union Depot station demonstrates that the site is of sufficient size to accommodate the required station program elements. Since the NLX station would be integrated with the existing Union Depot facilities, some modifications would be required to create a desirable configuration for a station while minimizing impacts to the historic building and existing Depot uses.

Given the complexities of this site, MnDOT completed an architectural feasibility study to determine the types of building modifications that may be required to accommodate NLX passenger flows. The study evaluated several concepts that explored interior and exterior modifications. All concepts were designed to accommodate the proposed ridership, comply with ADA regulations, compliment the historic building and minimize impacts to existing Union Depot tenants.

Figure 4-9: Duluth – Union Depot Site Location



The recommended architectural concept creates a new ADA compliant entrance on the north side of the Depot along Fifth Avenue. This entrance provides a direct path to a new passenger waiting area that would be constructed in the location of the existing North Shore Scenic Railroad ticket office and former Amtrak waiting area. This concept separates rail passenger circulation from the paid museum space while providing a simple and direct path to the passenger waiting area.

This concept would allow for two drop-off points, one along Michigan Street and the other at the platform level along the Public Road. West Michigan Street would be a multimodal drop-off point for pedestrians, cars, taxis and transit vehicles. The lower level drop-off point would be used primarily for taxis and cars since a turning radius for buses cannot be designed within the confines of the Fifth Avenue and I-35 bridge piers.

Modifications to the track area behind the Depot would also be required to accommodate a new NLX platform. The concept is presented in **Section 6.1.6** of this report.

Parking Demand

The anticipated daily parking demand generated by NLX service at Union Depot is estimated to be nearly 80 spaces in 2020 at the start of service and over 90 spaces by 2040. The working concept for the station site assumes the anticipated parking demand generated by NLX service would be accommodated by existing public parking facilities adjacent to Union Depot. During subsequent design stages, MnDOT would need to coordinate agreements with parking facility owners to secure dedicated NLX parking.

The two-level parking deck to the north of Union Depot is owned by Oneida Realty and leased for contract parking. The city of Duluth owns about 105 metered public parking spaces at ground level below the Oneida parking deck. The working concept for the station site assumes all or a portion of the metered public parking spaces would be dedicated for NLX parking. The working concept for the station site also assumes the existing parking spaces under I-35 at the lower level would be reconfigured and shared between NLX passengers and North Shore Scenic Railroad passengers.

The parking deck to the south of Union Depot is owned by the city of Duluth. The top level contains metered public parking and the lower level contains access controlled contract parking. The working concept for the Union Depot station site assumes this existing configuration would continue and NLX passengers would have access to the existing public parking spaces.

Land Use and Transportation Consistency

Reestablishing passenger rail service at Union Depot is consistent with local land use and transportation goals. In anticipation of NLX service, Saint Louis County completed the *Union Depot Passenger Rail Terminal Study* in 2010 (Saint Louis County, 2010). The goal of the study was to evaluate the physical changes that may be required to Union Depot for passenger service. Also, the study a master plan was prepared to guide economic development surrounding Union Depot.

Providing a new transportation option in downtown would also support the *City of Duluth Comprehensive Plan* that seeks to increase multimodal transportation options for the city and region (City of Duluth, 2006). Additional service at the Depot would support other transportation uses within downtown Duluth, including the new Duluth Multimodal Transportation Center. The close proximity of the two facilities would create a hub of transportation uses in downtown, supporting the city's comprehensive planning goals.

Local Transportation Connectivity

The Union Depot station site is well connected to the downtown Duluth transportation network and is already accessible to vehicles, transit users and pedestrians. The site has vehicular access points along Michigan Street and along the Public Road at track level.

Local transit service is provided by the Duluth Transit Authority (DTA). An existing bus stop for the Port Town Trolley route is present at the Depot along Michigan Street. Additional bus routes are available one block north of the Depot on Superior Street.

DTA is constructing a new Duluth Multimodal Transportation Center two blocks north of the Depot. Sidewalk along Michigan Street connects the two facilities. Also, access to the multimodal center from the Depot can be obtained by walking through the parking deck on the north side of the Depot and entering the skywalk system via the stairwell or elevator at Fourth Avenue and Michigan Street. Skywalk access from the Depot is also available across Michigan Street at the Duluth library.

Fifth Avenue on the north side of the site connects the Depot with waterfront activities and Canal Park. Pedestrian connections from the Depot to the waterfront are challenging because sidewalk along Fifth Avenue is limited to the north side of the roadway and does not provide a friendly walking environment due to the on and off-ramps for I-35. The city of Duluth has long term goals to improve Fifth Avenue and bike/pedestrian connectivity to the waterfront and Canal Park.

Regional Transportation Connectivity

The site is well connected to the regional transportation network with a nearly direct connection to the I-35 on and off-ramps from Fifth Avenue.

Regional bus service in Duluth is currently provided by Jefferson Lines and Indian Trails. Both services stop in downtown Duluth and are expected to stop at the Multimodal Transportation Center when it is completed in 2015. Coach bus access at Union Depot could be accommodated along Michigan Street in front of the Depot.

The Depot has a close connection to the Superior Hiking Trail that is open to pedestrians and bicyclists. An entrance is located at the south end of the Depot near the entrance to the city parking deck. The Superior Hiking Trail uses Michigan Street and the Duluth Lakewalk Trail to complete a 296 mile trail throughout northeastern Minnesota overlooking Lake Superior.

Traffic Operations

The local transportation infrastructure surrounding the Depot is expected to handle additional traffic that may be generated by NLX service. The working concept for Union Depot assumes passenger drop-off would take place along West Michigan Street in front of the Depot and along the public road at platform level.

Michigan Street is configured as a one-way pair with Superior Street and has two through lanes and one right-turn-only lane onto Fifth Avenue. During the day, Michigan Street has relatively low traffic volumes. Traffic volumes increase during the afternoon peak hour from people utilizing the right-turn-only lane onto Fifth Avenue to access I-35. The Public Road is a low volume minor roadway that is accessible from Fourth Avenue.

Michigan Street and the Public Road are expected to accommodate NLX passenger traffic flows within the current street configurations and right of way. Feedback from the city of Duluth indicated there are no major traffic operations concerns with the station's drop off areas.

The city of Duluth is planning to add bike lanes along Michigan Street. Future design phases of NLX would need to consider how the passenger drop off along Michigan Street would affect the bike lanes.

Railroad Operations

The track and platform area for Union Depot must accommodate both NLX and scenic excursion trains operated by the North Shore Scenic Railroad. The Scenic Railroad utilizes Union Depot as its home base to operate two to five trains daily between May and October. The railroad tracks at the back of the Depot are owned by the St. Louis and Lake Counties Regional Rail Authority. The North Shore Scenic Railroad utilizes the tracks to store trains



for the Lake Superior Railroad museum and to operate scenic rail tours. The rail authority tracks connect with the BNSF mainline south of the station area to continue on to destinations north of the Depot.

To accommodate NLX and the Scenic Railroad, tracks in back of the depot would be modified and a new platform for NLX would be constructed. It is assumed the Scenic Railroad would continue to board passengers in its current location. A description of the track and platform layout is provided in **Section 6** of this report.

MnDOT will continue to coordinate NLX operating plans with BNSF and Scenic Railroad operations to implement the proposed NLX passenger service while maintaining BNSF and Scenic Railroad operations.

Physical Constraints

Physical constraints are inherently present at the station site because it is set within an existing built environment. One of the main challenges for the site is the 20 foot grade change between the entrance at Michigan Street and the platform at track level. Also, the inside of the Depot contains existing museum and other programmed space that will continue to operate at the Depot after NLX implementation. As discussed above, the proposed architectural concept addresses these challenges by creating on the north side of the building a station entrance that complies with ADA access guidelines and that is completely separate from other Depot uses. This concept is discussed in more detail under **Section 6** of this report.

Another site constraint is the bridge piers for I-35 and Fifth Avenue. The bridge piers do not allow coach bus and city bus access at the lower level drop-off area, preventing the full range of multimodal options at this location. Coach buses and local transit services would utilize the drop-off site along Michigan Avenue.

Due to the urban environment, utilities are present and would need to be coordinated for construction purposes. Based on preliminary utility research, no major utilities have been identified that would substantially impact the station plan. Municipal sewer and water services already service Union Depot and could be connected to the new passenger waiting area.

Environmental Resources

Union Depot was listed on the National Register of Historic Places in 1971. The former Amtrak station building at the lower level was constructed in the 1970s and is not historic. The proposed architectural concept for the station site minimizes impacts to the Depot and would be designed to respect and complement its historic character. MnDOT will continue its formal consultation process for historic resources for the Tier 2-Project Level EA. The Depot station site is not expected to impact any known natural resources.

Public Input

MnDOT conducted two stakeholder coordination meetings for the Union Depot station site as part of this current design phase. An initial meeting occurred in October 2014 with representatives from St. Louis County, St. Louis and Lake Counties Regional Rail Authority and the St. Louis County Heritage and Arts Center. A stakeholder workshop was conducted in December 2014 with representatives that attended the previous meeting plus additional representatives from Oneida Realty, and the Duluth-Superior Metropolitan Planning Organization. The stakeholders expressed support for the project and use of Union Depot for an NLX station. A separate working meeting was conducted with the Duluth Department of Public Works to discuss station design, traffic and utilities. DPW indicated the city had no concerns with the proposed plans at that time.

At the meetings, stakeholders discussed opportunities for how the building could be modified to accommodate NLX service. Support was voiced for upgrading the former Amtrak building to provide a modern passenger waiting at track level. Stakeholders also discussed concerns about potential impacts to museum exhibit areas and the need to coordination with the North Shore Scenic Railroad operations. A request was made for the design to not preclude options for future waterfront connectivity. Also, parking options were discussed and stakeholders indicated a willingness to work with MnDOT to identify solutions for dedicated station parking.

Cost Considerations

The primary cost considerations for the Union Depot station site are the costs associated with the new station entrance on the north side of the building and the new passenger waiting area at the platform level. The new structure would require historically sensitive architectural elements that could increase its construction costs. Cost savings would be achieved by utilizing existing roadways, parking areas and drop-off lanes that currently serve the Depot. Also, no land would be acquired for station purposes.

4.6.2 Duluth – Station Site Summary and Conclusion

The station evaluation, summarized in **Table 4-7**, confirmed an NLX station is feasible at Union Depot in Duluth. Although there are challenges that would need to be addressed, the analysis determined the Depot would be functional and meets all criteria for station development. Modifications would include adding a new passenger entrance on the north side of the building and constructing a new passenger waiting area in place of the existing ticket office for the North Shore Scenic Railroad. Also, a new NLX platform would be required at the lower level.

Table 4-7: Duluth station site evaluation summary

Evaluation Criteria	Depot
<p>Ownership/control What is the likelihood of acquiring/leasing the site?</p>	<p>St. Louis County, Oneida Realty, North Shore Scenic Railroad and City of Duluth have expressed willingness to cooperate with MnDOT for use of the Union Depot, railroad tracks and adjacent parking decks.</p>
<p>Site size and configuration Does the site accommodate station program elements?</p>	<p>Architectural feasibility study identified a reasonable solution that accommodates passenger service while minimizing impacts to existing Depot operations.</p>
<p>Parking demand Does the site accommodate anticipated 2020 and 2040 parking demand?</p>	<p>Potential NLX dedicated parking solutions identified but need to be implemented through agreements with property owners.</p>
<p>Land use consistency Is the site compatible with local land use and economic development goals?</p>	<p>Reestablishing passenger rail service is consistent with local goals to provide multimodal transportation options and the St. Louis County <i>Union Depot Passenger Rail Terminal Study</i>.</p>
<p>Local transportation connections Is the site connected to the local network?</p>	<p>Well connected to the local transportation network and accessible to transit users and pedestrians and bicyclists. In close proximity to DTA Multimodal Transportation Center for local and regional transit access.</p>
<p>Regional transportation connections Is the site connected to the regional network?</p>	<p>Site has convenient and direct access to the regional highway system with I-35.</p>
<p>Traffic operations</p>	<p>Existing local transportation infrastructure surrounding the Depot is expected to handle additional traffic that may be generated by NLX service.</p>
<p>Railroad operations Does the site have any railroad operational issues?</p>	<p>Site will not interfere with BNSF mainline operations, but coordination with the North Shore Scenic Railroad and train storage operations will be required. Track modifications, new track and a new NLX platform would be constructed.</p>
<p>Physical constraints Does the site have any major constraints with structures, topography or utilities?</p>	<p>Site has a 20 foot grade change between Michigan Street entrance and track level. Architectural design concept addresses the topography and multistory Depot building with a new ADA entrance on the north side of the Depot.</p>
<p>Environmental Resources Does the site impact known natural or cultural resources?</p>	<p>Union Depot is a historic property listed on the National Register. MnDOT will continue formal consultation as it prepares the Tier 2-Project Level EA.</p>
<p>Public Input What has the public indicated about the site?</p>	<p>Overall support for reestablishing passenger service at Union Depot, consistent with local transportation and land use goals.</p>



Evaluation Criteria	Depot
<p>Cost considerations Does the site have any development issues that would substantially increase the cost of the station?</p>	<p>Construction of the new passenger waiting area would require historically sensitive architectural elements that could increase costs. Cost savings would be achieved by utilizing existing roadways, parking areas and drop-off lanes for the Depot.</p>



5. MAINTENANCE and LAYOVER SITE EVALUATION

The purpose of this section is to document the evaluation that was conducted for the maintenance and layover facility sites. The evaluation utilized the criteria shown in **Table 5-1** to confirm the feasibility and functionality of the proposed sites. Based on prior service development planning for NLX, it is assumed NLX would need two layover sites and one maintenance facility. One of the layover sites would be located at the maintenance facility site. The selection of the maintenance and layover sites will not be determined until the NLX operations plan is completed. As a result, the following evaluation does not provide a recommendation for preferred sites.

Working drawings for each alternative site were prepared to support the site evaluation process. The working drawings are included in **Appendix E** for documentation purposes. The working drawings were developed for evaluation purposes only and the design features presented in the working drawings may be somewhat different from the final concept plans presented in **Section 6** of this report.

Table 5-1: Evaluation criteria for maintenance and layover facility sites

Criteria	Description
Site ownership and control	What is the likelihood of acquiring or controlling the site?
Site size and configuration	How well does the site accommodate the maintenance and/or layover program elements?
Land use and transportation consistency	Is the site compatible with local land use and transportation goals?
Site access and circulation	Does the site have vehicular access and circulation?
Railroad operations	Does the site have any railroad operational issues?
Physical site features	Does the site have any major constraints with structures, topography or utilities?
Environmental resources	Does the site impact known natural or cultural resources?
Public input	What has the public indicated about the site?
Cost considerations	Does the site have any development issues that would substantially increase or decrease the cost of the facility?



5.1 Minneapolis

The Tier 1-Service Level EA for NLX identified Minneapolis as a potential location for a layover facility. The Tier 1 EA did not specify an exact site location, but indicated that the layover should be proximate to Target Field Station since it is the southern terminus for NLX service.

For this current NLX design phase, potential layover sites for NLX trains in Minneapolis were identified. The area to the southwest of the Target Field ballpark between 10th Street North and Royalston Avenue North was initially contemplated. This location was ruled out early on in the process due to railroad operational constraints. Northstar Commuter Rail currently utilizes the track in this area for train storage and the other track is the BNSF mainline. Existing tracks do not have capacity for NLX trains and adding a new track could impact adjacent land uses. As a result, this site was determined to be infeasible for NLX train storage and did not undergo a full evaluation.

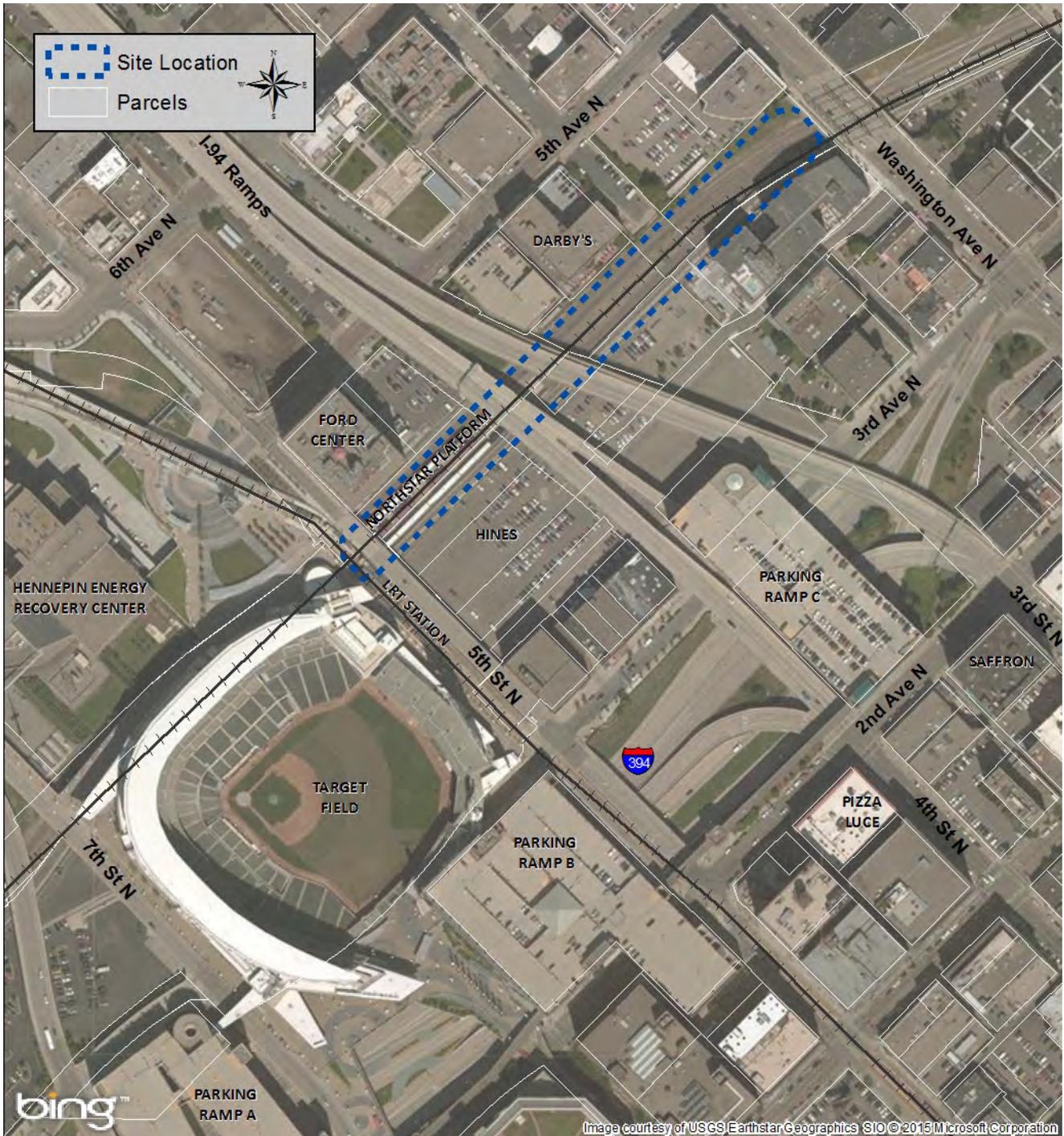
The NLX layover site that was selected for evaluation would be integrated within the station platform area at Target Field Station. The following subsection describes the evaluation for the Target Field Station layover site based on the criteria in **Table 5-1**. The second subsection summarizes the evaluation and provides a conclusion about the site's feasibility and functionality.

5.1.1 Target Field Layover Site Evaluation

A train layover facility at Target Field station in Minneapolis is being considered for NLX service. The site would be in the same location as the proposed NLX platform extension discussed in **Section 4.1.1**. The layover site, shown in **Figure 5-1** is contained within a BNSF railroad corridor and generally extends from Fifth Street North to Washington Avenue North. The site contains the existing Northstar Commuter Rail platforms and tracks and the BNSF mainline track. The working drawing for the Target Field is located in **Appendix D** on **Page D-2**.



Figure 5-1: Minneapolis – Target Field Layover Facility Site



Site Ownership and Control

The proposed NLX layover site at Target Field Station is located within an existing railroad corridor that is owned by BNSF. The existing Northstar Commuter Rail platforms are controlled by Metro Transit who operates the service. To secure the layover site, MnDOT would need to negotiate agreements with BNSF and Metro Transit. Both organizations have expressed a willingness to coordinate with MnDOT on NLX service.

Site Size and Configuration

The long and narrow site is constrained by existing development and transportation infrastructure on all sides. However, the site is of sufficient size to accommodate train storage needs for NLX without impacting adjacent uses. Additional information about the site is provided in **Section 4.1.1**.

Land Use and Transportation Consistency

A layover facility in this location is consistent with the site's existing rail transportation uses and it avoids potential land use conflicts with adjacent neighborhoods and development. The expansion of passenger rail service at Target Field Station is also consistent with local land use and transportation plans. See **Section 4.1.1, Target Field Station Site Evaluation**, for more information about local plans and land use.

Site Access and Circulation

Northstar Commuter Rail created employee and emergency access for the platform area at the site. It is assumed the same access points would be used for NLX service. Train cleaning and inspection crews for NLX trains would access the site from Target Field Station. The Cedar Lake Trail adjacent to the site has a locked gate on the southern end that can be used for emergency vehicles and planned maintenance vehicles that need to access the site. Public access from the trail is restricted by a fence running the length of the site. An existing unpaved service road allows circulation within the site.

Railroad Operations

Currently, Northstar Commuter Rail uses the tracks along the north and south sides of its platform for train storage. The working concept for NLX assumes NLX trains would also utilize these tracks for train layover purposes. This would require close coordination between the two services. The working drawing in **Appendix E** identifies the track dedicated for primary use by each rail service. The details of layover facility operations will be determined by NLX operations planning and agreements with Metro Transit.

Northstar Commuter Rail also stores trains along a track that is located to the southwest of the ballpark between approximately 10th Street North and Royalston Avenue North. Due to track capacity issues, NLX would not store trains in this area.

Some coordination may also be required with BNSF since its mainline track is located along the north side of the layover and platform site at Target Field Station. The mainline track would remain separate from NLX operations within the site.

Physical Site Features

The NLX platform site is located in a flat railroad corridor that is depressed below street level. Based on preliminary utility research, there are no known major utility constraints that would affect the NLX layover site. Some major utilities are present at the northeast end of the site and would require additional investigation during future detailed design phases.

Environmental Resources

Historic resources are the primary environmental concern for the NLX layover facility at Target Field Station. The site is within the Minneapolis Warehouse Historic District and adjacent to the St. Anthony Falls Historic District. Also, the BNSF railroad corridor is a historic railroad district known as the St. Paul, Minneapolis & Manitoba/Great Northern Railroad Corridor. MnDOT will continue its formal consultation process for historic resources for the Tier 2-Project Level EA for NLX. The Cedar Lake LRT Regional Trail adjacent to the layover site is a Section 4(f) resource, but it would not be affected by the proposed layover site for NLX.

Public Input

MnDOT met with stakeholders from the city of Minneapolis, Hennepin County, Metro Transit and Northstar in October 2014. A meeting with Hines Development was conducted to analyze the concerns, as the T3 proposal is the primary site constraint on the south side of the site area. Concerns expressed are over the limited space available for layover of NLX trains, noting the need to coordinate with the Northstar Commuter Rail schedule. On behalf of neighborhood groups, it was noted the aversion to a layover facility in areas slated for redevelopment by local neighborhoods, specifically west of I-94. From other planning studies, dating back to 2000, it is known the Bryn Mawr neighborhood and other residents are concerned about expanding rail infrastructure on the west side of I-94 (Bryn Mawr Land Use Committee, 2005) (Near Northside Implementation Committee, 2000). The current plan for the layover location and additional track alleviates the concerns. In addition, no maintenance facility and substantial use of public land in Minneapolis is planned.

Cost Considerations

Utilizing the platform area at Target Field Station for NLX train storage is a cost effective solution because it does not require additional land for the construction of layover tracks and it does not impact surrounding land uses.

5.1.2 Minneapolis – Layover Site Summary and Conclusion

The layover site evaluation, summarized in **Table 5-2**, determined train storage and layover functions would be feasible within the envelope of the proposed site at Target Field Station. Train storage is consistent with site’s existing rail transportation uses and avoids potential land use conflicts with adjacent neighborhoods and development. The NLX layover functions would need to be closely coordinated with Northstar Commuter Rail operations since the two services would share track within the same site. Utilizing the tracks at Target Field Station for NLX train storage is a cost effective solution because it does not require the construction of additional layover tracks in another location.

Table 5-2: Minneapolis layover site evaluation summary

Evaluation Criteria	Target Field Layover
Ownership/control What is the likelihood of acquiring/leasing the site?	BNSF and Metro Transit have expressed a willingness to work with MnDOT on modifying the site to accommodate NLX storage tracks; An agreement with BNSF and Metro Transit would be required to utilize the site.
Site size and configuration How well does the site accommodate the maintenance and/or layover program elements?	The site is of sufficient size to accommodate train storage needs for NLX and Northstar Commuter Rail without impacting adjacent uses and property.
Land use and transportation consistency Is the site compatible with local land use and transportation goals?	Train storage is consistent with site’s existing rail transportation uses and avoids potential land use conflicts with adjacent neighborhoods and development.
Site access and circulation Does the site have vehicular access and circulation??	NLX would use existing Northstar access points for employees, maintenance vehicles and emergency access. An existing unpaved service road allows circulation within the site.
Physical constraints Does the site have any major constraints with structures, topography or utilities?	Site does not have any topography or utility constraints that would preclude platform construction. Some major utilities located at northern end of site will need to be evaluated further in subsequent design phases of NLX.
Railroad operations Does the site have any railroad operational issues?	Close coordination between NLX and Northstar Commuter Rail required since both services will utilize tracks within site for train storage.



Evaluation Criteria	Target Field Layover
<p>Environmental Resources Does the site impact known natural or cultural resources?</p>	<p>Historic resources are present. MnDOT will continue formal consultation as it prepares the Tier 2-Project Level EA.</p>
<p>Public Input What has the public indicated about the site?</p>	<p>Overall support for an NLX service at Target Field Station since it is consistent with local planning goals. Concerns about constrained site and potential impacts to adjacent uses.</p>
<p>Cost considerations Does the site have any development issues that would substantially increase or decrease the cost of the facility?</p>	<p>Utilizing the platform tracks at Target Field Station for NLX train storage is a cost effective solution because it does not require additional land for the construction of layover tracks and it does not impact surrounding land uses.</p>

5.2 Sandstone

A maintenance and/or layover facility is being considered for Sandstone, MN, in Pine County. A maintenance facility site in Sandstone was not originally considered in the Tier 1-Service Level EA for NLX. Instead, the potential site was developed as a result of the NLX operational planning studies that took place after the Tier 1-Service Level EA was completed in 2013 and at the request of the city of Sandstone. The following subsection describes the evaluation for the MN 23 maintenance facility and/or layover site based on the criteria in **Table 5-1**. The second subsection summarizes the evaluation and provides a conclusion about the site’s feasibility and functionality.

For the purposes of this analysis, the site was evaluated based on its maximum use which would be a maintenance facility with train layover storage tracks. If a maintenance facility is feasible on the site, then, it is assumed a layover facility would also be feasible on the site.

5.2.1 MN 23 Maintenance and/or Layover Facility Site Evaluation

The MN 23 train maintenance and/or layover facility site in Sandstone is located along the BNSF railroad corridor just west of downtown Sandstone between MN 123 and MN 23. **Figure 5-2** shows the location of the facility site. The working drawing for the Sandstone layover site and maintenance site are located in **Appendix E** on **Pages E-2 through E-4** and **E-5 through E-7**, respectively.



Figure 5-2: Sandstone – MN 23 Maintenance and/or Layover Facility Site



Site Ownership and Control

The site is located primarily on BNSF owned property. A small portion of a private property on the southwest end of the site would be needed for driveway access to MN 23 and parking. To secure the site, MnDOT would need to negotiate an agreement with BNSF and the private property owner to utilize the land for a maintenance and/or layover facility.

Site Size and Configuration

The MN 23 site in Sandstone was a former railroad yard, making its long and narrow configuration ideal for maintenance and/or layover facility operations. The site can accommodate the length of NLX trains and it is wide enough to comfortably accommodate two maintenance bays and a yard track. The site provides dual access and allows for efficient operations and can accommodate train car switching and maneuvering. The site would not conflict with BNSF mainline operations since the size of the site allows trains to pull off the mainline track.

Land Use and Transportation Consistency

The site is currently vacant railroad land that parallels the city's main street and downtown business district to the east. The BNSF railroad tracks run between the site and downtown. The area to the west of the site contains generally open undeveloped land.

The city of Sandstone is very interested in creating jobs in their community and sees a potential NLX maintenance facility as an opportunity to support the city's economic development goals. The city proactively prepared a concept for a maintenance facility and a station at the site to show the community's desire for these facilities and to demonstrate their feasibility.

Site Access and Circulation

Vehicular access for employees and visitors would be from an existing access point and two new driveway access points off MN 23 opposite ends of the site. Driveway access points would need to be approved by MnDOT in accordance with the state's access management guidelines.

New internal service roads would provide access to the parking lot, maintenance shop and other train-related uses on the site.

Railroad Operations

The existing site has a BNSF mainline track and an industrial spur track that parallel the site along the eastern side. New track and turnouts would be provided from the mainline to access the maintenance and/or layover facilities on both ends of the site. The site's track configuration would accommodate the length of NLX trains and provide efficient operations for train car switching and maneuvering. The site would not conflict with BNSF mainline operations since the size of the site allows trains to pull off the mainline track.

At-grade railroad crossings are present at both the north (County Road 64/Main Street) and south ends of the site (MN 123/Main Street). NLX trains would go through these crossings as trains are entering and leaving the facility. The crossings would not be affected by internal maintenance and layover operations since the track on the site is of sufficient length to accommodate train car switching and maneuvering.

Physical Site Features

The site has fairly flat topography with a gentle slope to the south. The site is primarily vacant and does not have any existing structures that would need to be removed. City of Sandstone sewer and water lines are available in close proximity to the site and could be extended to service the maintenance and/or layover facility.

Environmental Resources

Based on preliminary environmental evaluation, the MN 23 maintenance and/or layover facility site is not expected to have any substantial impacts to known natural or historic resources. Available mapping does not show wetland or water resources on the proposed site. However, Sandstone city staff indicated fresh water springs may be present. The Tier 2-Project Level EA may identify additional resources on the site. MnDOT would conduct wetland delineations during subsequent detailed design and permitting phases of the NLX Project.

A hazardous material site may be present at the north end of the site, which would be subject to additional evaluation in the Tier 2-Project Level EA. Also, a superfund site, Kettle River Company Creosote Plant, is north of the maintenance facility site. According to Sandstone city staff, the superfund site has been cleared by the Department of Agriculture. The status of the superfund site will be determined during Tier 2-Project Level EA.

Train Park is located east of the BNSF tracks, west of County Road 64 and roughly between Third and Fourth streets. The proposed maintenance/layover site would not affect the park. A snowmobile trail currently runs through the MN 23 maintenance facility site paralleling the BNSF tracks. Snowmobiles would not be permitted to enter the maintenance facility and/or layover facility and would need to utilize MnDOT's right of way along

MN 23. According to Sandstone city staff, the trail runs within MnDOT right of way. The Tier 2-Project Level EA will review the snowmobile trail and MnDOT will coordinate with local snowmobile clubs to discuss trail modifications, if required.

Public Input

MnDOT conducted a public meeting in December 2014 in the city of Sandstone to gather input from the public about the potential for a maintenance and/or layover facility at the MN 23 site. Overall, meeting attendees expressed support for the maintenance facility and its potential to create jobs and support the local economy.

The city of Sandstone is an advocate for NLX service and has advocated for a maintenance facility at the MN 23 site. The city would also like to incorporate a boarding platform in the site plan.

Cost Considerations

The site is not expected to have any unique issues or constraints that would substantially increase or decrease the cost of facility development.

5.2.2 Sandstone – Maintenance and/or Layover Facility Summary and Conclusion

The site evaluation, summarized in **Table 5-3**, determined an NLX maintenance and/or layover facility would be feasible and functional at the MN 23 site. The site’s size and configuration accommodates the length of NLX trains and accommodates all required program elements including two maintenance bays and yard tracks. The site allows for efficient operations and can accommodate train car switching and maneuvering without conflicting with BNSF mainline operations. The city of Sandstone would like an NLX facility in this location to create jobs and support local economic development goals.

Table 5-3: Sandstone maintenance and/or layover site evaluation summary

Evaluation Criteria	MN 23 Site
<p>Ownership/control What is the likelihood of acquiring/leasing the site?</p>	<p>Primarily under BNSF ownership; MnDOT would need to negotiate an agreement with BNSF for use of their land. A portion of a privately-owned parcel would be needed for site access.</p>
<p>Site size and configuration How well does the site accommodate the maintenance and/or layover program elements?</p>	<p>Site meets program requirements in a typical layout; accommodates the length of NLX trains and has space for two maintenance bays and a yard track; site allows for efficient train operations</p>



Evaluation Criteria	MN 23 Site
<p>Land use and transportation consistency Is the site compatible with local land use and transportation goals?</p>	<p>Consistent with city’s job creation and economic development goals.</p>
<p>Site access and circulation Does the site have vehicular access and circulation?</p>	<p>Access would be from MN 23, pending MnDOT driveway permit approval process.</p>
<p>Physical constraints Does the site have any major constraints with structures, topography or utilities?</p>	<p>Vacant site does not have any topography or utility constraints that would preclude or affect site development.</p>
<p>Railroad operations Does the site have any railroad operational issues?</p>	<p>The site’s track configuration would accommodate the length of NLX trains and provide efficient operations for train car switching and maneuvering with dual access. New tracks would be long enough to allow NLX trains to pull of the mainline, avoiding operational conflicts with the BNSF mainline. At-grade railroad crossings would not be affected by internal maintenance and layover operations.</p>
<p>Environmental Resources Does the site impact known natural or cultural resources?</p>	<p>Not expected to have any substantial impacts to known natural or cultural resources. Tier 2-Project Level EA to consider impacts to potential fresh water spring sites and hazardous material sites. Further coordination required during the Tier 2-Project Level EA on location of existing snowmobile trail required to avoid potential impacts.</p>
<p>Public Input What has the public indicated about the site?</p>	<p>Overall public support for maintenance facility. City is very supportive of a maintenance facility and would also like a station; Supports local job creation and economic development goals.</p>
<p>Cost considerations Does the site have any development issues that would substantially increase or decrease the cost of the facility?</p>	<p>Not expected to have any unique issues or constraints that would substantially increase or decrease the cost of facility development.</p>

5.3 Duluth

A maintenance and/or layover facility is being considered in Duluth, MN, in St. Louis County. The Tier 1- Service Level EA completed in 2013 identified an existing rail yard southwest of Union Depot along Railroad Street as a potential location for an NLX facility. The following subsection describes the evaluation for the Railroad Street site based on the criteria in **Table 5-1**. The second subsection summarizes the evaluation and provides a conclusion about the site’s feasibility and functionality.



For the purposes of this analysis, the site was evaluated based on its maximum use which would be a maintenance facility with train layover storage tracks. If a maintenance facility is feasible on the site, then, it is assumed a layover facility would also be feasible on the site.

5.3.1 Railroad Street Maintenance and/or Layover Facility Site Evaluation

The Railroad Street train maintenance and/or layover facility site in Duluth is located southwest of Union Depot along the BNSF mainline. The site is bound by I-35 to the west and West Railroad Street to the east. The elevated crossing of the Superior Trail is the approximate northern boundary of the site. Garfield Avenue is the site's approximate boundary to the south. The site currently contains two BNSF tracks, one on the western edge and one on the eastern edge, and an unpaved internal service road. **Figure 5-3** shows the location of the facility site. The working drawing for the Duluth Layover site and Maintenance site are located in **Appendix E** on **Pages E-8** through **E-9** and **E-10** through **E-11**, respectively.

Site Ownership and Control

The Railroad Street site is owned by BNSF. MnDOT would need to negotiate a lease agreement during subsequent stages of the project to secure the site.

Site Size and Configuration

Overall, the site is of sufficient size to accommodate the required program elements for a maintenance and/or layover facility. If the site is selected for a maintenance facility, the site's width would not allow dual access for the train layover storage tracks. Instead, two dead headed storage tracks would be provided. Dual access through the maintenance building would still be available.

Land Use and Transportation Consistency

The Railroad Street site would be compatible with its surroundings, given the presence of industrial and transportation-related land uses in the area. The site would also be consistent with the city's land use plan. The city's future land use map designates the area around the Railroad Street site as industrial. Also, the transportation chapter of the *City of Duluth Comprehensive Plan* discusses the importance of freight rail transportation to Duluth and the desire for industrial uses to remain in the city (City of Duluth, 2006).

Figure 5-3: Duluth – Railroad Street Maintenance and/or Layover Facility Site



Site Access and Circulation

Vehicular access for employees and visitors would be from West Railroad Street. An existing access point is available at the south end of the site and a new access point on the north end would be created. Access from the west side of the site is prohibited by I-35.

New internal service roads would provide access to the parking lot, maintenance shop and other train-related uses on the site.

Railroad Operations

BNSF has two tracks that bound the site on the east and west sides and run the entire length of the site. The westerly track extends north to Union Depot and serves the North Shore Scenic Railroad and the Lake Superior Railroad Museum. The easterly track continues north along the waterfront. Two railroad spurs branch off the easterly track to serve the port area. The spurs create at-grade railroad crossings with West Railroad Street.

The site would maintain the existing BNSF tracks in the existing configuration. New track and turnouts would be added to the site to serve the maintenance and/or layover facility functions. The new track would be long enough to allow NLX trains to pull off the mainline, avoiding operational conflicts with the BNSF mainline. If the site is selected for a maintenance facility, two dead headed train storage tracks would be provided along with the maintenance bays that would have dual access to the mainline.

Physical Site Features

The site has generally flat topography and does not have any existing structures that would need to be removed. Two major sanitary sewers traverse the site on their way to the harbor. Based on preliminary utility research, the sewers run under the existing railroad tracks and are deep enough underground to avoid impacts. Additional utility investigations and coordination would occur during subsequent NLX design phases.

Environmental Resources

The Railroad Street site is not expected to affect any known natural or cultural resources. The Superior Hiking Trail, which is a 4(f) resource, is elevated over the northern end of the site. Some of the proposed maintenance and/or layover site improvements would be located beneath the elevated trail, but would not affect the trail.

Public Input

Stakeholder coordination has not indicated any concerns about the site since the site is consistent with existing land uses and local land use and transportation plans.

Cost Considerations

The site is not expected to have any unique issues or constraints that would substantially increase or decrease the cost of facility development.

5.3.2 Duluth – Maintenance and/or Layover Facility Summary and Conclusion

The site evaluation, summarized in **Table 5-4**, determined the NLX maintenance and/or layover facility would be feasible and functional at the Railroad Street site. The site’s size and configuration accommodates the length of NLX trains and accommodates all required program elements including two maintenance bays and yard tracks. The two dead headed train storage tracks that would be required if the site is selected for a maintenance facility would slightly diminish on-site rail operation efficiencies, but within an acceptable range.

Table 5-4: Duluth maintenance and/or layover site evaluation summary

Evaluation Criteria	Railroad Street Site
<p>Ownership/control What is the likelihood of acquiring/leasing the site?</p>	<p>The site is owned by BNSF. MnDOT would need to negotiate an agreement with BNSF to secure the site.</p>
<p>Site size and configuration Does the site accommodate station program elements?</p>	<p>Accommodates all program elements in an acceptable configuration. The site’s width would not allow dual access for the train layover storage tracks. Dual access through the maintenance building would be provided.</p>
<p>Land use and transportation consistency Is the site compatible with local land use and transportation goals?</p>	<p>The site is consistent with existing industrial and transportation-related land uses surrounding the site and is consistent with local plans.</p>
<p>Site Access Is the site connected to the local and regional network?</p>	<p>Well connected to transportation networks, including I-35 and W. Railroad Street, already being used by heavy equipment for existing rail uses.</p>
<p>Physical constraints Does the site have any major constraints that could constrain station development?</p>	<p>Site does not have any topography or utility constraints that would preclude maintenance and/or layover facility site development.</p>



Evaluation Criteria	Railroad Street Site
Railroad operations Does the site have any railroad operational issues?	Site would maintain existing BNSF tracks in the current configuration. New track and turnouts would be added to serve the maintenance and/or layover facility functions.
Environmental Resources Does the site impact known natural or cultural resources?	No impacts anticipated to the Superior Hiking Trail that is elevated over the site.
Cost considerations Does the site have any development issues that would substantially increase the cost of the station?	The site is not expected to have any unique issues or constraints that would substantially increase or decrease the cost of facility development.



6. CONCEPTUAL DESIGNS and COST ESTIMATES

Section 6 presents the conceptual design plans and cost estimates that were prepared for the station, maintenance and layover facility sites. For station sites, conceptual plans and cost estimates were prepared for only the selected sites. For maintenance and layover facility sites, conceptual plans and cost estimates were prepared for all sites under consideration since the selection of these facilities will not be determined until the NLX operations plan is completed.

The first section describes the conceptual plans for station sites and the second section describes the conceptual plans for the maintenance and layover sites.

6.1 Stations

This section provides an overview of the conceptual design plan features and cost estimates for the selected station sites in Minneapolis, Coon Rapids, MN, Cambridge, MN, Hinckley, MN, Superior, WI, and Duluth, MN. The conceptual design plans are located in **Appendix F** and described in the following subsections. Also, see **Section 3, Facility Program Elements**, for additional information about station program elements.

6.1.1 *Minneapolis: Target Field Station Site – Station*

Target Field Station in downtown Minneapolis is an end point for NLX service. At this location, an NLX platform would be integrated with the existing Northstar Commuter Rail boarding area and connected to the other facilities at Target Field Station. Currently, existing vertical circulation connects the lower level platform area to the upper level of Target Field Station. The upper level provides direct access to existing and planned light rail lines, the passenger drop-off area, parking facilities and bicycle and pedestrian facilities. The conceptual site plan only shows the lower level platform area since no other modifications to Target Field Station would be made for NLX service. The conceptual site plan, shown in **Appendix F on Page F-2**, is described below.

Station Building and Waiting Area

Target Field station has an existing climate controlled station building containing an elevator and an escalator that connect the light rail platforms on the upper level with the Northstar Commuter rail platforms on the lower level. This building would also provide access to the future NLX platform on the lower level. Unmanned ticket kiosks could be added to this space for NLX service, but no additional waiting space would be provided at Target Field Station for NLX. Public restrooms are accessible from the exterior of Target Field near the light rail platform.

Passenger Platform and Shelters

The conceptual site plan for the Target Field Station site extends the existing Northstar Commuter rail platform 490 feet to the northeast and adds a stub end track on the southeast side of the platform. This is the maximum platform length that can fit within the existing BNSF right of way. The platform height would be 15 inches above top of rail to provide level boarding access to all train cars. The existing Northstar shelters could also be used by NLX passengers. A tactile warning strip would be provided along the entire length of the platform extension and adequate lighting would be provided.

The platform extension would not preclude full build out plans for Target Field Station as shown in **Appendix F** on **Page F-3**. The full build out of Target Field Station would include the construction of a platform along the south side of the BNSF railroad corridor. The full build out is not being implemented at this time since the platform extension would accommodate projected NLX ridership through 2040. The illustration of the full build out platform is provided to demonstrate how one additional passenger platform could be accommodated at Target Field Station in the future as additional services are added. Should the full build out platform be required in the future, the Cedar Lake Trail would be shifted to the southeast and would be accommodated by the Hines Development site per local agreements with the property owner.

Station Access and Circulation

NLX would utilize the existing access and circulation patterns provided at Target Field Station. Vehicular traffic would access the station at the existing drop-off area located underneath the light-rail platforms at the intersection of Fifth Avenue North and Fifth Street North. Vehicles can also access the station from a parking facility under Target Field stadium that is accessible from Sixth Avenue North. Bus transit access would be available at the nearby Fifth Street Transit Center. Light rail transit access is located on the upper level of Target Field Station and Northstar Commuter rail access is available on the lower level of Target Field Station. Pedestrian and bicycle access is available from the city's local street and sidewalk network along Fifth Street North and Third Avenue North.

Station Parking

The parking demand generated by NLX service would be accommodated by surrounding MnDOT-owned parking ramps A, B and C and other nearby public parking facilities controlled by the city of Minneapolis. A parking garage under Target Field, which is controlled by Hennepin County, is also available.



Site Preparation and Grading

The Target Field Station site would not require removal of existing structures. Also, grading and earthwork would be limited since the site is already used for rail transportation purposes and relatively flat.

Utilities and Stormwater

The conceptual site plan assumes NLX would utilize existing sewer and water services that are already available at the Target Field Station site. It is assumed onsite stormwater management would not be required for the construction of the NLX platform extension given that the site already is developed for transportation uses. However, subsequent NLX design phases would investigate local stormwater regulations to determine the exact requirements for this site.

Minor utilities in the right of way at the east end of the site would be relocated.

Station Costs

The capital cost estimate for the Target Field Station site in Minneapolis is approximately \$2.78 million. This cost includes construction of the NLX platform and associated tracks. A 30 percent cost contingency is included at this conceptual design stage to account for unforeseen construction costs. An allowance for typical design and management costs is also included. Station costs will continue to be refined as the project moves into more detailed engineering phases.

6.1.2 Coon Rapids: Foley Boulevard Site – Station

The Foley Boulevard station site was selected for an NLX station in Coon Rapids, MN. The station, located across the street from Metro Transit's Foley Boulevard Park and Ride facility, accommodates all station program elements and provides multimodal transportation access. The station site is primarily located on land owned by the Anoka County Regional Rail Authority, which minimizes impacts to adjacent privately-owned property. The conceptual site plan, shown in **Appendix F on Page F-4**, is described below.

Station Building and Waiting Area

A standalone and climate-controlled station building would be constructed at the Foley Boulevard station site. The building would include a passenger waiting area that is at least 230 square feet. The waiting area would contain unmanned ticket kiosks, seating and restrooms. The primary entrance for the station building would be on the east side adjacent to the passenger drop-off lane. The west side of the building would contain egress

to the platform. All access points to the station building would be ADA accessible. The exact size of the station building and waiting area would be determined during subsequent design phases of the NLX project.

Passenger Platform and Shelters

The passenger platform at the Foley Boulevard station would be 500 feet long with an option to expand it up to 800 feet in the future. Since the track would be shared with freight trains at this location, the platform height would be eight inches above top of rail. It is assumed NLX would use modern passenger coaches equipped with car mounted wheelchair lifts to provide ADA access to all train cars. The platform would contain two warming shelters with bench seating for passenger comfort. Additionally, outdoor benches and trash receptacles may be placed along the platform. A tactile warning strip would be provided along the entire length of platform and adequate platform lighting would be provided.

Station Access and Circulation

The vehicular entrance to the station would be from a new access road that would connect with Foley Boulevard. The location of the proposed access road is consistent with the roadway infrastructure envisioned in the city of Coon Rapids *Foley Boulevard Station Area Plan*. The conceptual site plan also anticipates Anoka County would obtain funding to grade-separate Foley Boulevard over the railroad corridor prior to station implementation. The grade-separation project would create a signalized intersection along Foley Boulevard at the main entrance to the park and ride facility. The proposed access road would form the north leg of this intersection. All other access points to the park and ride facility would be closed.

Within the station, a two-way traffic circulation pattern would be provided to connect the access point with the station building and parking area. The station would have two passenger drop-off and pick-up lanes in front of the station building. Drop-off and pick-up for private vehicles and local and intercity buses would be consolidated in front of the east entrance to the station building. The second drop-off lane would be used primarily for taxi queuing, but could also be used by other vehicles. Bus circulation would occur along the perimeter of the station site and all intersections would be designed to accommodate bus turning movements.

The station's pedestrian walkways would be connected to the sidewalk along the proposed new access road, which connects with the sidewalk along Foley Boulevard. Also, a direct pedestrian connection between the station and the park and ride facility would be created under the planned grade-separated Foley Boulevard. Parking for bikes would be available on the north side of the station building near the platform.



Station Parking

The site plan for the Foley Boulevard station places the surface parking lot to the east of the station building. The parking lot contains approximately 160 parking spaces. This would accommodate the initial and long-term parking demand for NLX service that is estimated to be about 50 spaces in 2040. Four ADA-accessible parking spaces would be provided on the north side of the station building for easy access to the station building and the platform.

Excess parking capacity was provided at this station because a high percentage of passengers are expected to arrive at the station via private vehicle due to the suburban nature of the station location. Also, the excess parking capacity would allow the expansion of passenger rail services, such as Northstar Commuter Rail, at this station in the future.

Signing and enforcement could be used to discourage overflow parking from the park and ride facility, which is often at capacity, from encroaching on NLX spaces. However, some type of agreement may be needed between Metro Transit and NLX to accommodate passengers that transfer between the two modes of transportation.

Site Preparation and Grading

Two structures would need to be removed in preparation for construction. One structure is a small commercial building owned by Anoka County Regional Rail Authority and the other small structure is on the Richcraf property (associated with the new access road). After the site is cleared, it would be graded in preparation for construction. Some filling may be needed since the site is depressed from the railroad corridor.

Utilities and Stormwater

As discussed in **Section 4.2.1**, the Foley Boulevard site contains a 60-foot utility easement that parallels the BNSF railroad corridor. It contains two high pressure gas lines and a 48-inch sanitary sewer interceptor. The conceptual site plan assumes that driving lanes or parking areas, rather than permanent structures (i.e. station building and platform) could be constructed over these major underground utilities. Subsequent engineering phases for NLX would confirm the location of these utilities with survey and make adjustments to the site plan if necessary to minimize utility impacts.

The conceptual site plan assumes the station would be able to connect with existing sewer and water services that are available along Foley Boulevard. Compliance with local stormwater regulations would be reviewed during subsequent NLX design phases and best management practices such as on-site stormwater management would be investigated.

Station Costs

The capital cost estimate for the Foley Boulevard station is approximately \$4.72 million. This cost includes construction of a station building, platform, parking lot, driving lanes and other site elements. A 30 percent cost contingency is included at this conceptual design stage to account for unforeseen construction costs. An allowance for typical design and management costs is also included. Station costs will continue to be refined as the project moves into more detailed engineering phases.

6.1.3 Cambridge: City Center Site – Station

The City Center station site was selected for an NLX station in Cambridge, MN. The site is located at the existing City Center Mall, northeast of downtown Cambridge. The station would be integrated with the publically-owned portions of the mall containing the Cambridge city hall, fire department and police department functions as well as commercial space that the city leases to tenants. The conceptual site plan, shown in **Appendix F on Page F-5**, is described below.

Station Building and Waiting Area

The City Center station site would utilize existing city-owned space inside the City Center Mall for an enclosed waiting area. The conceptual plan assumes a minimum of 1,000 square feet of space inside the mall would be reconfigured and used for the waiting area. Unmanned ticket kiosks and seating would be provided in the waiting area. Existing public restrooms inside the mall would also be used for the waiting area. The restrooms may be renovated.

Access to the waiting area would be from the existing front entrances on the west side of the City Center Mall. Access to the platform from the waiting area would be provided at the back of the building on the east side. The site plan proposes a covered walkway on the west side of the building between the waiting area and the platform. This would provide passengers with some protection from rain and snow events.

The exact configuration and size of the waiting area and access to the platform would be determined during subsequent design phases of the NLX project. All points of ingress and egress to the waiting area and platform would be ADA accessible.

Passenger Platform and Shelters

The passenger platform at the City Center station site would be 500 feet long with an option to expand it up to 800 feet in the future. Since the track would be shared with freight trains at this location, the platform height would be eight inches above top of rail. It is assumed NLX would use modern passenger coaches equipped with

car mounted wheelchair lifts to provide ADA access to all train cars. The platform would contain up to three warming shelters with bench seating for passenger comfort. Additional outdoor benches may be placed along the platform with trash receptacles. A tactile warning strip would be provided along the entire length of platform and adequate platform lighting would be provided.

Station Access and Circulation

The City Center station site has multiple access points to the local road network, including access from MN 95 (First Avenue East), a major east-west arterial. The direct access points to the station would be from Buchanan Street North and Third Avenue Northeast. The main passenger drop-off and pick-up area would be located in front of the mall on the west side of the building. The drop off area provides a single lane that would accommodate buses, taxis and passenger vehicles. Passengers could also access the platform and waiting area in the back on the east side of the building. The site's pedestrian walkways would be connected to the local sidewalk network that extends throughout downtown Cambridge. Bicycle parking would be accommodated on the backside of the building near the platform.

Station Parking

The existing parking areas to the east and west of the mall building would be reconfigured to maximize the available parking spaces at City Center. The reconfigured parking areas would be shared by existing City Center users and NLX service. Initially about 160 spaces for NLX service would be required. As NLX ridership increases, additional parking solutions would likely be required. Additional information about the parking demand at City Center is in **Section 4.3.1**.

Some parking at City Center would be signed as designated spaces for use by city employees and the police and fire departments. Also, some spaces would be reserved for lease agreements that the city has with adjacent property owners. A parking diagram showing approximately where the designated spaces would be located is shown in **Appendix D**. A parking lot signage plan would be prepared during subsequent NLX design phases.

The proposed parking configuration takes into account the access needs of emergency vehicles housed at City Center and maintains a dedicated emergency lane. Also, five ADA-accessible parking spaces would be provided on the east side of the building for close access to the station platform. The existing four ADA-accessible spaces on the west side of the building would remain for mall tenant use.



Site Preparation and Grading

No structures would be removed for construction. Earthwork and grading would be limited since the site is relatively flat and already developed.

Utilities and Stormwater

City Center is already served by public sewer and water services that would be available for station purposes. The site plan assumes onsite stormwater management would not be required since the station would be integrated within the existing City Center. However, compliance with local stormwater regulations would be reviewed during subsequent NLX design phases and best management practices would be investigated.

The site plan incorporates the electric generator at the back of the building on the west side of the site to avoid impacting the structure. Also, the interior renovations for the passenger waiting area would be designed to avoid impacts to the electrical room located along the east wall of the building.

Station Costs

The capital cost estimate for the City Center station is approximately \$3.82 million. This cost includes building renovations, platform construction, parking lot and driving lane paving and other site elements. A 30 percent cost contingency is provided at this conceptual design stage to account for unforeseen construction costs. A 30 percent cost contingency is included at this conceptual design stage to account for unforeseen construction costs. An allowance for typical design and management costs is also included. Station costs will continue to be refined as the project moves into more detailed engineering phases.

6.1.4 *Hinckley: Downtown Site - Station*

The downtown site was selected for an NLX station in Hinckley, MN. The site is generally located east of Power Avenue North, north of First Street Northeast, south of Second Street Northeast and west of the BNSF Railway corridor. Due to substantial grade changes at the site, there are proposed “upper” and “lower” portions to accommodate the station facilities. The upper portion of the site would contain the station building and passenger drop-off area and the lower level would contain the station’s parking lot. The placement of the parking lot on an existing city-owned parcel avoids impacts to the Hinckley-Finlayson High School property and minimizes impacts to the Trinity Episcopal Church property. The conceptual site plan, shown in **Appendix F** on **Page F-6**, is described below.

Station Building and Waiting Area

A standalone and climate-controlled station building would be constructed at the downtown Hinckley station site on the upper portion. The building would include a passenger waiting area that provides a minimum of 650 square feet of space. The waiting area would contain unmanned ticket kiosks, seating and restrooms. Due to the grade change between First Street Northeast and the proposed station parking area, the north end of the station building would have a partially exposed lower level. This would require the station building entrances to be located on the south and west sides of the building where the elevation is level. The egress to the platform would be located on the east side of the building. All access points to the station building would be ADA accessible. The exact size of the station building and waiting area would be determined during subsequent design phases of the NLX project.

Passenger Platform and Shelters

The passenger platform at the downtown Hinckley station would be 500 feet long with an option to expand it up to 800 feet in the future. Since the track would be shared with freight trains at this location, the platform height would be eight inches above top of rail. It is assumed NLX would use modern passenger coaches equipped with car mounted wheelchair lifts to provide ADA access to all train cars. The platform would contain two warming shelters with bench seating for passenger comfort. Additional outdoor benches may be placed along the platform with trash receptacles. A tactile warning strip would be provided along the entire length of platform and adequate platform lighting would be provided.

Station Access and Circulation

The main access point to the station would be at First Street Northeast and the secondary access point would be at Second Street Northeast. A two-lane access road would circulate through the station connecting the access points with the station building and the lower level parking area.

Two passenger drop-off and pick-up lanes would be located in front of the station building. The lane on the east side adjacent to the building would be primarily used for private vehicles, buses and casino or hotel shuttles. The second drop-off lane would be used primarily for taxi queuing, but could also be used by other vehicles. Buses would typically enter the station site from First Street Northeast, continue along the perimeter of the lower level after dropping off passengers and exit the station site at Second Street Northeast. All intersections within the station site would be designed to accommodate bus turning movements.

The site's pedestrian walkways would be connected to the local sidewalk network that extends throughout downtown Hinckley. Power Avenue North would be upgraded to accommodate two lanes of traffic and

sidewalks on both sides of the street. A sidewalk would also be added along First Street Northeast between Power Avenue and the entrance to the station. Bicycle parking would be provided next to the station building.

Station Parking

The site plan for the downtown Hinckley station places the station parking lot on a large city-owned parcel at the north side of the site. The parking lot would provide about 170 parking spaces, which would accommodate the initial and long-term parking needs for NLX service. Six ADA-accessible parking spaces would be provided on the south side of the station building for easy and nearly level access to the passenger waiting area and the platform.

Site Preparation and Grading

The city of Hinckley maintenance building would need to be removed and replaced at a different location prior to construction. The church building would not be affected by station development. After the site is cleared, it would require extensive grading and earthwork to minimize the site's grade changes and achieve a maximum of a five percent slope between the station building and the lower parking area.

A retaining wall would be constructed on the western edge of the station site that would be up to 10-feet tall. The retaining wall allows for an acceptable slope at the station and minimizes impacts to the church property. A proposed landscaped buffer next to the retaining wall would help minimize impacted views from the church to the station.

Utilities and Stormwater

The conceptual site plan assumes the station would connect with existing sewer and water services that are available within the existing public right of way adjacent to the site. Compliance with local stormwater regulations would be reviewed during subsequent NLX design phases and best management practices such as on-site stormwater management would be investigated.

Station Costs

The capital cost estimate for the downtown station in Hinckley is approximately \$3.75 million. This cost includes construction of a station building, platform, parking lot, driving lanes and other site elements. A 30 percent cost contingency is included at this conceptual design stage to account for unforeseen construction costs. An allowance for typical design and management costs is also included. Station costs will continue to be refined as the project moves into more detailed engineering phases.



6.1.5 Superior: Downtown Site - Station

The selected station site in downtown Superior, WI, is generally located north of US 2 (Belknap Street) west of Oakes Avenue and east of the BNSF Railway corridor. The site is configured along the railroad corridor to maximize potential future development between the station site and Oakes Avenue. The conceptual site plan, shown in **Appendix F** on **Page F-7**, is described below.

Station Building and Waiting Area

A standalone and climate-controlled station building would be constructed at the downtown Superior station site. The building would include a passenger waiting area that is at least 500 square feet. The waiting area would contain unmanned ticket kiosks, seating and restrooms. The station building's entrance would be on the east side adjacent to the passenger drop-off lane. The west side of the building would contain egress to the platform. All access points to the station building would be ADA accessible. The exact size of the station building and waiting area would be determined during subsequent design phases of the NLX project.

Passenger Platform and Shelters

The passenger platform at the downtown Superior station would be 500 feet long with an option to expand it up to 800 feet in the future. Since the track would be shared with freight trains at this location, the platform height would be eight inches above top of rail. It is assumed NLX would use modern passenger coaches equipped with car mounted wheelchair lifts to provide ADA access to all train cars. The platform would contain two warming shelters with bench seating for passenger comfort. Additional outdoor benches may be placed along the platform with trash receptacles. A tactile warning strip would be provided along the entire length of platform and adequate platform lighting would be provided.

Station Access and Circulation

Passengers would access the downtown Superior station from a new access road that is extended from 14th Street at Oakes Avenue. The new road would include two lanes and a sidewalk along the south side. This road could also be used to serve future redevelopment at the former Waste Management parcel just east of the station site.

The station was designed with two passenger drop-off and pick-up lanes in front of the station building. Drop-off and pick-up for private vehicles and buses would be consolidated along the lane directly in front of the east entrance to the station building. The second drop-off lane would be used primarily for taxi queuing, but could also be used by other vehicles. Buses would enter the station site at the station access road, continue past the station building after dropping off passengers and proceed through the second parking lot aisle before

returning to the access road. All intersections within the station site would be designed to accommodate bus turning movements.

The site's pedestrian walkways would be connected to the sidewalk along the new access road, which connects with the local sidewalk network that extends throughout downtown Superior. Parking for bikes would be available on the south side of the station building near the platform.

Station Parking

The site plan for the downtown Superior station places the surface parking lot to the east of the station building. The parking lot contains approximately 190 general parking spaces and approximately 50 long-term parking spaces. This would accommodate the initial and long-term parking demand for NLX service that is estimated to be about 200 spaces in 2040. Long-term parking spaces were provided in Superior because this station is expected to capture some users from the Duluth area who may require long-term parking. Five ADA-accessible parking spaces would be provided on the north side of the station building for easy access to the station building and the platform.

Site Preparation and Grading

The downtown station site is currently vacant undeveloped land that does not contain any structures, although some vegetation would need to be removed. After the site is cleared, the site would be graded prior to station construction. The grading is not expected to be substantial since the site contains relatively flat topography.

Utilities and Stormwater

The site plan assumes sewer and water services would be extended to the station site. Storm sewer, sanitary sewer and water services are located along Oakes Avenue and US 2 (Belknap Street). Also, a sanitary sewer crosses the railroad tracks south of US 2 (Belknap Street). Subsequent detailed design phases for NLX would determine how to extend utilities to the station site. Compliance with local stormwater regulations would be reviewed during subsequent NLX design phases and best management practices such as on-site stormwater management would be investigated.

The conceptual site plan for the downtown Superior station considers the location of an eight inch high-pressure oil pipeline that runs north-south through the station site. The pipeline would run under the proposed station parking lot, avoiding the placement of permanent structures on top of the pipeline. Subsequent detailed design phases for NLX would need to confirm the location of the pipeline and potentially adjust the placement of some site details if necessary.

Station Costs

The estimated capital cost of the downtown Superior station is approximately \$4.66 million. This cost includes construction of a station building, platform, parking lot, driving lanes, the new access road and other site elements. A 30 percent cost contingency is included at this conceptual design stage to account for unforeseen construction costs. An allowance for typical design and management costs is also included. Station costs will continue to be refined as the NLX project moves into more detailed engineering phases.

6.1.6 Duluth: Union Depot Site – Station

An NLX station is planned for Duluth, MN, at the historic Union Depot in St. Louis County. Union Depot is located along West Michigan Street at the south end of downtown Duluth on the west side of I-35. The NLX station would be integrated with the Depot's existing museum and fine arts uses and it would coordinate railroad operations with the North Shore Scenic Railroad, a tourism-based railroad that utilizes Union Depot as its home base. The conceptual site plan for the Union Depot station site, shown in **Appendix F** on **Pages F-8** through **F-9**, is described below.

Station Building and Waiting Area

Given the complexities of this multilevel and multiuse site, MnDOT completed an architectural feasibility study to determine the types of building modifications that may be required to accommodate NLX passenger flows at Union Depot. The recommended architectural concept would create a new independent passenger rail building that is separate from the historic structure at the platform level. The new building would replace the existing North Shore Scenic Railroad ticket office that is housed in the former Amtrak station building.

The proposed passenger waiting area would be a minimum of 2,600 square feet. This would accommodate peak passenger flows for NLX service and the North Shore Scenic Railroad. The waiting area would contain unmanned ticket kiosks, seating, restrooms and storage space. It would also contain a ticket booth for the North Shore Scenic Railroad.

The new passenger building would be accessible from a new ADA-compliant entrance on the north side of the Depot. This entrance would provide a direct path to the new passenger waiting area that would separate rail passengers from the paid museum space. New stairs and an elevator would be installed inside the passenger rail building to provide access from the entrance to the track level waiting area. The passenger waiting area would also be accessible from a lower level drop-off point along Public Road.

The recommended architectural concept uses a glass façade with curtain wall mullions and an angled roof to evoke the materials, forms and rhythms of the pitched roof and arch style of the original train shed. The final

architectural design of the new passenger rail building would be determined during subsequent NLX design phases.

Passenger Platform and Shelters

A new NLX platform would be constructed at Union Depot to the east of the existing boarding and alighting area for the North Shore Scenic Railroad. The NLX platform would be 500 feet long with an option to expand it up to 800 feet in the future. Since the track in this area is not shared with freight trains, it is assumed the platform height would be 15 inches above top of rail to provide level boarding access to all train cars. The final platform height would be determined during subsequent design phases.

The NLX platform would contain up to three warming shelters with bench seating for passenger comfort. Additional outdoor benches may be placed along the platform with trash receptacles. A tactile warning strip would be provided along the entire length of the platform and adequate platform lighting would be provided.

Station Access and Circulation

The conceptual site plan for Union Depot would create two passenger drop-off and pick-up points, one along West Michigan Street and the other at the platform level along Public Road. West Michigan Street would be a multimodal drop-off point for pedestrians, cars, taxis and transit vehicles. The lower level drop-off point would be used primarily for taxis and cars since a turning radius for buses cannot be designed within the confines of the Fifth Avenue and I-35 bridge piers.

Planned improvements to West Michigan Street include expanding the existing drop-off area, installing a mid-block pedestrian crossing and modifying curb cuts. Optional improvements may include reopening the portico at the front of the Depot and repurposing some existing traffic and parking lanes along West Michigan Street to create a more prominent drop-off point.

The passenger drop-off and pick-up area along Public Road would be accessed from Fourth Street. It would provide vehicular drop-off at the platform level in close proximity to the passenger waiting area. A vehicular turnaround would be constructed around the bridge piers for Fifth Avenue and I-35. New sidewalk along Public Road would connect to the parking deck on the north side of Union Depot, which has existing elevator and stairway access to the Duluth skywalk network. NLX passengers could use this skywalk access point to walk to the new Duluth Transit Authority Multimodal Transportation Center two blocks north of the Depot.

Station Parking

Station parking would be coordinated with the owners of the parking facilities to the north and south of Union Depot. On the north side of the Depot, the conceptual plan assumes all or a portion of the 105 city-owned spaces on the lower level of the parking deck could be dedicated for NLX parking. The upper levels would remain under Oneida Realty ownership and used for contract parking. Also, the conceptual site plan assumes the existing parking spaces under I-35 at the lower level would be reconfigured and shared between NLX passengers and North Shore Scenic Railroad passengers. To the south of Union Depot, the city-owned parking deck would continue to provide public parking on the upper level. The location of ADA-accessible parking spaces would be evaluated during subsequent NLX design phases.

Site Preparation and Grading

The building that contains the exiting North Shore Scenic Railroad ticket office would be removed and replaced by a new modern passenger waiting area as described above.

The only grading that would be required at Union Depot would be for the construction of an ADA-accessible sidewalk on the north side of the building that would be built to access the new entrance to the passenger waiting area.

Utilities and Stormwater

Union Depot is already served by public sewer and water services that would be available for NLX station purposes. The site plan assumes onsite stormwater management would not be required since the station would be integrated within an existing building. However, compliance with local stormwater regulations would be reviewed during subsequent NLX design phases and best management practices would be investigated.

Station Costs

The estimated capital cost of retrofitting Union Depot for NLX passenger service is \$7.37 million. Approximately \$3.06 million of the total cost is associated with the design and construction of the new passenger building and the new entrance on the north side of the building. Other costs are related to the design and construction of the platform, drop-off areas and other site elements. A 30 percent cost contingency is included at this conceptual design stage to account for unforeseen construction costs. An allowance for typical design and management costs is also included. Station costs will continue to be refined as the NLX project moves into more detailed engineering phases.

6.2 Maintenance and Layover Facilities

This section provides an overview of the conceptual design plan features and cost estimates for potential maintenance facility and layover facility sites. The selection of a maintenance and layover facility sites will depend on the outcome of the NLX operations and service development plan.

The Target Field site in downtown Minneapolis is being considered for a layover site only. Locations in Duluth and Sandstone are being considered for a maintenance facility and/or a layover facility.

NLX requires one maintenance facility and two layover facilities. One of the layover sites would be located at the maintenance facility site.

The conceptual design plans are located in **Appendix G** and described in the following subsections. Also, see **Section 3**, Facility Program Elements, for additional information about maintenance and layover program elements.

6.2.1 Minneapolis: Target Field Site – Layover Facility

The Target Field site in downtown Minneapolis is being considered for a NLX layover facility. The layover functions would be integrated with the proposed NLX passenger platform and the existing Northstar Commuter Rail platform on the lower level of Target Field Station. The conceptual site plan, shown in **Appendix G** on **Page G-2**, is described below.

Storage Building

The layover facility will coordinate the use of existing Northstar Commuter Rail layover facilities and platforms to inspect and clean train equipment and conduct minor repairs.

Train Yard

For layover purposes, NLX would use the existing track on the north side of the platform. This would provide approximately 1,000 feet of train storage for NLX, which would be sufficient to store one 650-foot long NLX trainset.

Northstar Commuter Rail trains would use the existing southernmost track on the site. Northstar trains would also use the new track that would be constructed on the south side of the platform extension. In addition, Northstar would continue to utilize its train layover facilities west of I-94.

Site Access and Circulation

NLX trains would access the layover track from an existing access point from the BNSF mainline to the east of Washington Avenue North.

Employee access to the layover facility would be available through Target Field Station. Also, a locked gate with access from the Cedar Lake Trail is available for emergencies. These access points are currently available for Northstar Commuter Rail services and would be available for NLX.

Facility Costs

Costs associated with layover functions at Target Field are included in the station site cost estimate, which is \$2.78 million.

6.2.2 Sandstone: MN 23 Site – Maintenance Facility with Layover

The MN 23 site in Sandstone is located along the BNSF railroad corridor just west of downtown Sandstone between MN 123 and MN 23. The following subsections describe the site plan concept that includes a maintenance facility with a layover site. The conceptual site plan, shown in **Appendix G** on **Pages G-3** through **G-5**, is described below.

Maintenance Building

The concept for the MN 23 site includes a 63,000 square foot maintenance facility building that is 700-feet long and 90-feet wide. The building contains two maintenance bays with service and inspection pits. Each maintenance bay is designed to completely enclose a 650-foot long trainset. The maintenance area contains the required shop equipment including overhead cranes, a drop table and a wheel lathe.

Two service and inspection tracks run through the maintenance building and connect with the lead tracks on both ends of the site. Each track measures approximately 1,800-feet long between the turnouts including the tracks inside the building.

Office and Shop Space

A 14,000 square foot office and shop area, measuring 350-feet long and 40-feet wide, is connected to the maintenance bays. This area includes finished office space, a receiving and shipping area with loading dock, spare part storage, work rooms, and other support functions required for the facility.

Train Wash

A single train wash bay would be constructed next to the maintenance building on the northeast side of the site. The train wash is 200-feet long and 30-feet wide.

Train Yard

A single storage yard track runs along the southeast side of the site. The storage track is approximately 2,120-feet long between the turnouts and provides storage for at least two 650-foot long NLX trainsets. An additional 1,280 feet of track extends to the east. This track would provide additional train storage and potentially serve a 500-foot long passenger platform.

Site Access and Circulation

This concept provides new railroad lead tracks from the BNSF mainline and turnouts to access the MN 23 site on both ends of the property.

The site contains three vehicular access points to MN 23 and an internal service road that can accommodate vehicles and truck deliveries to the loading dock. A 25,000 square foot parking lot is provided for employees and visitors.

Facility Costs

The estimated capital cost for the maintenance facility with a layover at the MN 23 site in Sandstone is approximately \$76.2 million. This cost includes construction of the enclosed maintenance building and its associated equipment, office and shop area, train wash facility, parking lot and a new access road. The cost estimate does not include track work outside the maintenance building and it does not include a cost for the passenger platform. Facility costs will continue to be refined as the NLX project moves into more detailed engineering phases.

6.2.3 Sandstone: MN 23 Site – Layover Facility Only

The MN 23 site in Sandstone is also under consideration for a layover only facility depending on the results of the NLX operations plan. The layover only conceptual site plan is described below and shown in **Appendix G** on **Pages G-6** through **G-8**.

Storage Building

A small support building would be used to store cleaning supplies and equipment for minor trainset repairs and servicing. The building contains about 1,800 square feet.

The support building would have significantly less amenities than the maintenance building, and is not intended to enclose the trains.

Train Yard

The concept plan provides two new storage tracks on the site. Each storage track is approximately 900-feet long between the turnouts, providing adequate space to accommodate storage of a 650-foot trainset on each track. An additional 1,280 feet of track extends to the east. This track would provide additional train storage and potentially serve a 500-foot long passenger platform.

The site plan assumes a fuel storage and fueling facility would be provided on site.

Site Access and Circulation

The layover concept plan provides three new lead tracks from the BNSF mainline and turnouts, providing railroad access to the MN 23 site at three points.

The site contains two vehicular access points to MN 23 and it contains an internal service road that can accommodate vehicles and truck deliveries. A 20,000 square foot parking lot is provided for employees and visitors.

Facility Costs

The estimated capital cost of a layover facility in Sandstone at the MN 23 site is approximately \$3.6 million. This cost includes construction of a new support building, a parking lot, new access road and other site elements. The cost estimate does not include railroad track work or platform construction costs. Layover facility costs will continue to be refined as the NLX project moves into more detailed engineering phases.

6.2.4 Duluth: Railroad Street – Maintenance Facility with Layover

The maintenance facility site in Duluth is west of the Union Depot along Railroad Street. The long and narrow site is on vacant land owned by BNSF railway. The site parallels I-35 and is in close proximity to the harbor. The conceptual site plan, shown in **Appendix G** on **Pages G-9** and **G-10**, is described below.

Maintenance Building

The concept for the Railroad site in Duluth is similar to the maintenance facility layout for Sandstone. It includes a 63,000 square foot maintenance facility building that is 700-feet long and 90-feet wide. The building contains two maintenance bays with service and inspection pits. Each maintenance bay is designed to completely enclose a 650-foot long trainset. The maintenance area contains the required shop equipment including overhead cranes, a drop table and a wheel lathe.

Two service and inspection tracks run through the maintenance building and connect with the lead tracks on both ends of the site. Each track measures approximately 1,700-feet long between the turnouts including the tracks inside the building.

Office and Shop Space

A 12,000 square foot office and shop area, measuring 240-feet long and 50-feet wide, is connected to the maintenance bays. This area includes finished office space, a receiving and shipping area with loading dock, spare part storage, work rooms, and other support functions required for the facility.

Train Wash

A single train wash bay would be constructed next to the maintenance building on the northeast side of the site. The train wash is 200-feet long and 30-feet wide.

Train Yard

Two stub end yard tracks are provided along the southeast side of the site. Each storage track has approximately 600 feet of tangent track plus another 200 feet of slightly curved track prior to the turnout. Each track can accommodate a 650-foot long NLX trainset, although a portion of it would not be on tangent track.

Site Access and Circulation

The Railroad Street site has two railroad access points to the BNSF mainline with lead tracks and turnouts on each end of the site.

The site contains two vehicular access points to Railroad Street and an internal service road system that can accommodate vehicles, maintenance crews and truck deliveries. The access road is designed to not impact the elevated structure carrying the Superior Hiking Trail on the northeast side of the site.

Two separate parking lots totaling 21,000 square feet are provided for employees and visitors.

Facility Costs

The estimated capital cost of the maintenance facility in Duluth is approximately \$74.7 million. This cost includes construction of the enclosed maintenance building and its associated equipment, office and shop area, train wash facility, parking lots and a new access road. The cost estimate does not include track work outside the maintenance building. Facility costs will continue to be refined as the NLX project moves into more detailed engineering phases.

6.2.5 Duluth: Railroad Street – Layover Facility Only

The Railroad Street layover facility site under consideration in Duluth is at the same location as the maintenance facility west of Union Depot between I-35 and Railroad Street. The layover facility conceptual site plan is shown in **Appendix G** on **Pages G-11** and **G-12** and is described below.

Storage Building

A small support building would be used to store cleaning supplies and equipment for minor trainset repairs and servicing. The building contains about 1,800 square feet.

The support building would have significantly less amenities than the maintenance building, and is not intended to enclose the trains.

Train Yard

For the layover concept, two storage tracks would be provided on the site. Each storage track is approximately 1,000-feet long between the turnouts, providing adequate space to accommodate storage of a 650-foot trainset on each track.

The site plan assumes fuel storage and a fueling facility would be provided on site.

Site Access and Circulation

The layover concept plan provides two new lead tracks from the BNSF mainline and turnouts, providing railroad access to the railroad layover site at two points.

The site contains two vehicular access points to Railroad Street and it contains an internal service road that can accommodate vehicles and truck deliveries. A 25,000 square foot parking lot is provided for employees and visitors.

Facility Costs

The estimated capital cost of a layover facility in Duluth at the Railroad Street site is approximately \$3.9 million. This cost includes construction of a new support building, a parking lot, new access road and other site elements. The cost estimate does not include railroad track work. Layover facility costs will continue to be refined as the NLX project moves into more detailed engineering phases.



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APPENDIX A. Stakeholder Meeting Summaries



Project: Northern Lights Express

HNTB Job # 57547-PL-001

Meeting Location: Hennepin County 701

Mn/DOT Contract # 05123

Building

Meeting Date: October 9, 2014

Meeting Time: 11:00 - 12:00 PM

Subject: Target Field Station - Stakeholder engagement

Present:

Name	Representing	Email
Jenifer Hager	City of Minneapolis	jenifer.hager@minneapolismn.gov
David Frank	City of Minneapolis	david.frank@minneapolismn.gov
Beth Elliot	City of Minneapolis	beth.elliott@minneapolismn.gov
Dean Michalko	Hennepin County	dean.michalko@hennepin.us
Joe Gladke	Hennepin County	joseph.gladke@hennepin.us
Caron Kloser	HNTB	ckloser@hntb.com
Randy Wade	HNTB	rwade@hntb.com
Carolyn Seboe	HNTB	cseboe@hntb.com
Pam Brushaber	HNTB	pbrushaber@hntb.com
Chris Weyer	HNTB	cweyer@hntb.com
Pat Jones	Metro Transit	pat.jones@metrotransit.org
John Paul Zanaska	Metro Transit	john.zanaska@metrotransit.org
Mark Leemon	Metro Transit	mark.leemon@metrotransit.org
Frank Loetterle	MnDOT	francis.loetterle@state.mn.us
Charles Quandel	Quandel Consulting	cquandel@quandel.com
Joy Miciano	Zan Associates	jmiciano@zanassoc.com

Action Items	Responsibility
HNTB to collect data for mapping purposes and technical analysis. Contact D. Michalko.	C. Seboe/P. Brushaber
HNTB to obtain SW LRT operations plans from Metro Transit.	C. Weyer
MDOT/HNTB to prepare stakeholder coordination plan for TFS. <ul style="list-style-type: none"> • Coordination with other LRT and transit services. • Coordination with city staff to discuss private development plans (Hines), traffic and circulation issues, and other local coordination needs. • Coordination with BNSF 	C. Kloser, C.Weyer, F. Loetterle
Quandel to determine what emergency repair/maintenance would occur in Minneapolis through operations planning.	C. Quandel
Zan Associates to coordinate public meeting after initial coordination meetings and site plans prepared.	J. Miciano

The following is a summary of the items that were discussed during the meeting.

1. Meeting Purpose/Introductions

A roundtable of all stakeholders with interest in Target Field area was conducted for introductions.

The meeting held with local stakeholders:

- a. Introduced the station and layover facilities team to the local representatives and initiated coordination.
- b. Updated local stakeholders on the current NLX phase and upcoming analyses such as the Tier 2 Environmental Assessment (EA), ridership projections, and operations plans. The EA is anticipated by February 2016.
- c. Provided an overview and anticipated schedule for facilities planning efforts, with a handout.
- d. Introduced stakeholders to the facility program elements for a station and layover facility.
- e. Obtained information about the station and layover sites and identified potential local concerns and issues that need to be addressed through the facility planning efforts.
- f. MnDOT anticipates a workshop with stakeholders, prior to a public meeting for Target Field Station (TFS), due to the complexity of previous projects in the area.

2. Station Site Discussion

- a. For TFS, HNTB will address track and platform area modifications, and conduct an inventory the existing station to identify potential capacity issues/needs.
- b. HNTB will focus on the station elements that allow TFS to become fully operational for NLX; local stakeholders may have longer-term goals for the station.

- c. MnDOT plans to limit new infrastructure at TFS and maximize existing facilities, to allow NLX to begin service in a cost effective manner that reduces local impacts.
- d. Stakeholders asked how NLX would affect Southwest LRT plans. MnDOT will determine coordination needs with other transit services that plan to use TFS. Frank clarified the role of HNTB is only for NLX, not for other transit projects looking at Target Field.
- e. Per city, the team should consider Hines development plans and their intent to connect to Northstar and NLX platforms. The developer could also desire a connection to the bike trail and parking facility on the southeast side of the BNSF tracks.
- f. Section 106 services will be conducted by Garneth Peterson at MnDOT; proper coordination with cultural resources offices at the City of Minneapolis will occur. Preliminary survey was completed in Tier 1 EA.
- g. **ACTION:** HNTB will follow up with Dean Michalko to provide GIS/Microstation information for area, for mapping purposes and technical analysis.
- h. The TFS station program anticipates existing public parking facilities will be used for NLX; no new facilities are planned; since TFS is in an urban location, it is assumed the majority of passengers will be dropped off or arrive by transit, walking, or bicycling.
- i. City of Minneapolis asked when the MnDOT/HNTB team would know impacts of track modifications to the north of TFS and if the tracks would cause impacts to adjacent uses. City is interested in impacts to adjacent parcels including office, residential, and non-motorized transportation uses.
- j. MnDOT and HNTB will coordinate closely with City of Minneapolis for future land needs and potential impacts.

3. Layover Facility Discussion

- a. MnDOT anticipates the operations model will be ready to share with stakeholders February 2015.
- b. NLX anticipates a layover facility would be located to the southwest of TFS.
- c. Limited land is available in this area; Northstar trains use the area for their layover facilities.
- d. Cedar Lake Trail is a sensitive resource to avoid further impact; access to the river must be maintained in a linear manner. Impacts to the trail could be further discussed, due to needs for a layover facility, track relocation for the station, or track addition.
- e. Trains cannot be parked under Target Stadium per BNSF agreement with Target Field. This agreement is not likely to change.
- f. Using track west of I-94 is contentious and a sensitive topic with local neighborhoods. Neighborhoods are planning for redevelopment in this area, and it does not include a maintenance facility use. Per MnDOT, the NLX project does not propose a maintenance facility in the Twin Cities. The maintenance facility would be in Duluth or Sandstone depending on the outcome of the operations plan. Only a layover facility would be needed.
- g. Early coordination with BNSF is important for TFS facilities.

- h. **ACTION:** HNTB should consider SW LRT operations plans for reviewing potential layover track.. Obtain from Metro Transit.
- i. **ACTION:** MDOT/HNTB to prepare stakeholder coordination plan for TFS.
 - i. Coordination with other LRT and transit services.
 - ii. Coordination with city staff to discuss private development plans (Hines), traffic and circulation issues, and other local coordination needs.
 - iii. Coordination with BNSF
- j. Very limited vandalism/tagging has been seen with Northstar, with trains laying over at the station. Only daytime layover would be anticipated for NLX service.
- k. **ACTION:** Quandel to determine what emergency repair/maintenance would occur in Minneapolis through operations planning.

4. Community Engagement/Public Meeting

- a. The city of Minneapolis suggested postponing a public meeting for TFS and layover until specific answers are defined for what will be impacted (i.e property and trail impacts, impacts to other rail services) and how the facilities will operate. MnDOT agreed this is a good approach especially since there are not multiple site alternatives in this location.
- b. It was suggested that future coordination efforts take place between MnDOT, city, county and metro transit to understand area development plans, traffic considerations, other transit plans and other site issues.
- c. Joy to arrange date and location of public meeting, and contacts after initial site plans are developed.

These notes constitute our understanding of the matters discussed and the conclusions reached. If there are any questions, corrections, omissions, or additional comments, please advise the author.

Project: Northern Lights Express
Meeting Location: Coon Rapids City Hall
Meeting Date: October 8, 2014
Meeting Time: 2:00 - 3:00 PM
Subject: Stakeholder engagement
Present:

HNTB Job # 57547-PL-001
Mn/DOT Contract # 05123

Name	Representing	Email
Matt Brown	City of Coon Rapids	mbrown@coonrapidsmn.gov
Tim Himmer	City of Coon Rapids	thimmer@coonrapidsmn.gov
Frank Loetterle	MnDOT	francis.loetterle@state.mn.us
Garneth Peterson	MnDOT	Garneth.peterson@state.mn.us
Caron Kloser	HNTB	ckloser@hntb.com
Randy Wade	HNTB	rwade@hntb.com
Carolyn Seboe	HNTB	cseboe@hntb.com
Pam Brushaber	HNTB	pbrushaber@hntb.com
Chris Weyer	HNTB	cweyer@hntb.com
Joy Miciano	Zan Associates	jmiciano@zanassoc.com

A. Action Items:

Item	Responsibility
Collect GIS information, available from County, including utility locations and trails.	C.Seboe/P. Brushaber
Arrange location of public meeting, date to be determined with further coordination of Coon Rapids planning public meetings.	J. Miciano

During the meeting the following items were discussed:

1. Meeting Purpose/Introductions

Matt Brown was introduced as the Community Development Specialist and Tim Himmer as the Public Works Director. It was noted Marc Nevinski is leaving Coon Rapids to take a new position with the City of Golden Valley. The meeting held with local stakeholders:

- Introduced the station and facilities team to the local representatives and initiated coordination.

- Updated local stakeholders on the current NLX phase and upcoming analyses such as the Tier 2 Environmental Assessment (EA), ridership projections, and operations plans. The EA is anticipated by February 2016.
- Provided an overview and anticipated schedule for station and facilities planning efforts, with a handout.
- Introduced stakeholders to the facility program elements for a station.
- Obtained information about the station sites and identified potential local concerns and issues that need to be addressed through the planning efforts.

2. Coon Rapids Overview

- a. Coon Rapids has a land use plan for the Foley Blvd area. They anticipate the plan will be formally adopted by end of 2014. The plan anticipates higher density uses including residential, commercial and industrial. They received a Met Council livable community grant.
- b. The city will need to invest in infrastructure to encourage private investment.
- c. The station will be integrated with the planning area.
- d. The plan anticipates the construction of a local loop road, which would provide access from Foley Blvd to the station.
- e. Anoka County has prepared final design plans for a grade separation project between Foley Blvd and BNSF railroad. The county said if Coon Rapids requires modifications to the plans, it would be at the expense of Coon Rapids. The county is currently seeking funding for the project, it is a high priority.
- f. The county's Foley Blvd plans will install a stop light at the main entrance to the Metro transit center. All other access points will be right-in, right-out only.
- g. Metro transit does not have plans to expand parking at transit facility. The existing park and ride facility is at ~95% capacity. It has about 1,300 spaces.
- h. Coon Rapids would like to expand their local trail and sidewalk network. HNTB will verify station does not preclude future plans.

3. Station Site Description

- a. Only one station site is being considered for Coon Rapids. It is located east of the tracks and across Foley Blvd from the existing transit center. The land is owned by the Anoka County Rail Authority to the east of the BNSF tracks and north of Foley Blvd. Tim Yantos is Anoka County rail contact.
- b. All costs and maintenance and operation of the station would be at the expense of MnDOT. Amenities beyond the basic station requirements would be a local cost.
- c. Utilities within the station corridor include:
 - i. A 48" interceptor that parallels the rail line, at about 16-18' deep. Met Council environmental services (MCES) prefer construction on top is avoided. Coordination will occur, and with the MCES's slip lining project scheduled for summer 2015.
 - ii. High pressure gas lines
 - iii. Overhead electrical lines

- iv. Possible sanitary sewer and water lines
 - d. There is a substation and cell tower near the site that should ideally be avoided due to cost to move.
 - e. A platform on the east side of the tracks is desirable to avoid overhead pedestrian access.
 - f. Station area concepts should not preclude a future second platform that may be needed for future commuter rail services.
 - g. Consider extra parking at the station for transit center overflow.
 - h. A state senator heard a BNSF representative say a third main line would be added to the area within 3 years. This will need to be confirmed with BNSF.
 - i. Access to the site would be off Foley Blvd. Plans should assume there will be a traffic signal at the entrance to the transit center.
 - j. A pedestrian link between the station and the transit center under Foley Blvd is desirable.
 - k. Consider a landscape buffer between the station and planned residential uses.
 - l. **ACTION:** HNTB to collect GIS information, available from County, including utility locations and existing trails.
- 4. Community Engagement/Public Meeting**
- a. **ACTION:** Joy to arrange date and location of public meeting. The meeting may be coordinated with a public meeting that the city may plan for overall site development.

The foregoing constitutes our understanding of the matters discussed and the conclusions reached. If there are any questions, corrections, omissions, or additional comments, please advise the author within five working days after receipt of these minutes.

Project: Northern Lights Express
Meeting Location: Cambridge City Hall
Meeting Date: October 8, 2014
Meeting Time: 10:15 AM - 12:00 PM
Subject: Stakeholder engagement
Present:

HNTB Job # 57547-PL-001
Mn/DOT Contract # 05123

Name	Representing	email
Stan Gustafson	City of Cambridge	sgustafson@ci.cambridge.mn.us
Bob Manzoline	St. Louis and Lake Counties Regional Rail Authority	bmanzoline@rrauth.com
Frank Loetterle	MnDOT	francis.loetterle@state.mn.us
Garneth Peterson	MnDOT	Garneth.peterson@state.mn.us
Caron Kloser	HNTB	ckloser@hntb.com
Randy Wade	HNTB	rwade@hntb.com
Carolyn Seboe	HNTB	cseboe@hntb.com
Pam Brushaber	HNTB	pbrushaber@hntb.com
Chris Weyer	HNTB	cweyer@hntb.com
Joy Miciano	Zan Associates	jmiciano@zanassoc.com

A. Action Items:

Item	Responsibility
HNTB to follow up with Cambridge to obtain mall layout and other data needs.	C.Seboe
Determine public meeting date, verify location, and list of attendees.	J. Miciano

During the meeting the following items were discussed:

1. Meeting Purpose/Introductions

Stan Gustafson was introduced as the City’s Economic Development Director. The meeting held with local stakeholders:

- a. Introduced the station and facilities team to the local representatives and initiated coordination.
- b. Updated local stakeholders on the current NLX phase and upcoming analyses such as the Tier 2 Environmental Assessment (EA), ridership projections, and operations plans. The EA is anticipated by February 2016.
- c. Provided an overview and anticipated schedule for facilities planning efforts, with a handout.
- d. Introduced stakeholders to the facility program elements for a station.

- e. Obtained information about the station and layover sites and identified potential local concerns and issues that need to be addressed through the facility planning efforts.

2. City Center Mall

- a. The city prefers the City Center Mall location for a station. It is near other municipal uses and is close to downtown activities.
- b. City owns a portion of an existing mall that was last renovated in 2009. It houses their city hall, chamber of commerce and fire department/emergency services. Other mall tenants include a restaurant, workforce development center, art center, DMV, Dollar General, Thrift Store, Food Co-op, dance studio, among others.
- c. The city envisions higher density uses to the north of City Center, although no formal plans have been adopted. The area currently contains single-family homes. They would like to see higher density residential development.
 - i. The city has started to acquire a few parcels to the north of City Center. This area could be used for station parking or for additional City Center parking.
 - ii. The city is working with a developer on a senior housing complex to the west of city center along Main Street. The project would include a public park.
- d. The city's fire/emergency services are located on the north end of the building. Fire/EMS typically does not go in the back of the building.
- e. A portion of the mall would be used for a passenger waiting area and a passenger waiting area would be incorporated. Passengers would enter the front of the mall, enter the waiting area and exit the rear of the building to access the platform.
 - i. The existing hallway could be widened using the space of the conference room. Impacts to the arts center should be minimized or avoided.
 - ii. A utility room with concrete walls is located adjacent to the hall and the door to the outside, impacts to this room should be avoided
- f. **ACTION:** HNTB to follow up with Cambridge to obtain building layout.
- g. City Center Mall already has restrooms that are ADA compliant and adequately sized for the mall patrons. The restrooms may need to be expanded to accommodate station and mall tenants.
- h. The platform would be located in the back of the building. A new doorway would need to be established somewhere around the existing no parking sign.
- i. The city recently installed a generator in the back of the building; ideally this would be avoided or screened.
- j. Employee parking in the back of the building would be impacted, although some may be maintained.
- k. The station team will prepare site layout plans that minimize impacts to the residential area to the north and work within existing parking lots for circulation of vehicles and transit.
- l. The Heartland Intercity Bus stops at the mall, with shelter just outside the front entrance.

3. Ritchart Site

- a. An alternative station site is located on the south end of the city along Main Street.
- b. It is privately owned; contains a vacant car dealership; some vehicles being stored on-site may be associated with car lot immediately north.
- c. The site is large and would easily accommodate the required station elements.
- d. Roadway access is convenient from Main Street.
- e. The site is not preferred by the city because it is distant from its activity centers and would draw away from downtown.

4. Community Engagement/Public Meeting

- a. People are concerned with closing of the crossing gates for a larger amount of time, and the gates remaining down. MnDOT aware of concern and plans to mitigate by keeping the gates open while the train is parked at the station.
- b. **ACTION:** Joy Miciano to determine public meeting date and location. Ideally, it will be located at City Hall or in the hall/ potential station area. Joy will notify mall and tenants of the open house.

The foregoing constitutes our understanding of the matters discussed and the conclusions reached. If there are any questions, corrections, omissions, or additional comments, please advise the author within five working days after receipt of these minutes.

Project: Northern Lights Express
Meeting Location: Hinckley City Hall
Meeting Date: October 8, 2014
Meeting Time: 8:00 - 9:30 AM
Subject: Stakeholder engagement

HNTB Job # 57547-PL-001
Mn/DOT Contract # 05123

Present:

Name	Representing	Email
Don Zeman	City of Hinckley	
Kyle Morell	City of Hinckley	cityadmin@scicable.com
Mark Perry	City of Hinckley	
Bob Manzoline	St. Louis and Lake Counties Regional Rail Authority	bmanzoline@rrauth.com
Caron Kloser	HNTB	ckloser@hntb.com
Randy Wade	HNTB	rwade@hntb.com
Carolyn Seboe	HNTB	cseboe@hntb.com
Pam Brushaber	HNTB	pbrushaber@hntb.com
Chris Weyer	HNTB	cweyer@hntb.com
Frank Loetterle	MnDOT	francis.loetterle@state.mn.us
Garneth Peterson	MnDOT	Garneth.peterson@state.mn.us
Joy Miciano	Zan Associates	jmiciano@zanassoc.com

Action Items	Responsibility
MnDOT/HNTB to coordinate with Trinity Episcopal Church property owner, Township and school.	MnDOT
Arrange date and location of public meeting.	J. Miciano
Collect data for mapping purposes	C. Seboe/P. Brushaber
MnDOT will have Quandt look into cost of the railroad modifications for this site.	F. Loetterle

During the meeting the following items were discussed:

1. Meeting Purpose/Introductions

Introductions were given from City staff including the Mayor Don Zeman, Kyle Morell the City Administrator and Mary Perry the City Planner.

The meeting held with local stakeholders:

- a. Introduced the station and facilities team to the local representatives and initiated coordination.
- b. Updated local stakeholders on the current NLX phase and upcoming analyses such as the Tier 2 Environmental Assessment (EA), ridership projections, and operations plans. The EA is anticipated by February 2016.
- c. Provided an overview and anticipated schedule for facilities planning efforts, with a handout.
- d. Introduced stakeholders to the facility program elements for a station facility.
- e. Obtained information about the station sites and identified potential local concerns and issues that need to be addressed through the facility planning efforts.

2. Overview of station sites in Hinckley

- a. Two alternative sites are being evaluated for Hinckley – the former depot site and the southwest site.
- b. “The Pit” site has been eliminated due to topography, and its importance to the community, and being protected park land.
- c. Grand Casino Hinckley is located about 3 miles east from downtown Hinckley along MN 23, which has provided a strong case for a station in Hinckley.
- d. The Casino has prompted the Hinckley loop study, rerouting tracks to provide direct service to the casino. The study is locally controversial due to property impacts and disruption to multigenerational farms. The results of the loop study are being completed by a separate consulting firm and would be released in early 2015.
- e. Frank said there will be only one station in Hinckley either at the casino or in town.
- f. The cost to construct the station and to maintain it would be at the expense of MnDOT. If a casino station is decided, city of Hinckley tourism may want to include a kiosk near downtown, although the city would absorb the cost
- g. The station in Hinckley would need to accommodate existing transit services including Arrowhead transit provided by Pine County and the taxi service out of Sandstone, and it is assumed a shuttle service from the casino.
- h. Former Depot Site:
 - i. The former depot site is located just north of Main Street and west of the railroad tracks.
 - ii. This site is preferred by the city because it would benefit their downtown by bringing more traffic to local businesses.

- iii. The site is adjacent to a public school with 6th thru 12th grade students; it includes a gym with a pool open to the community and an arts center.
 - iv. The school parking lot is used for school staff during the day and for special events during the evening and weekend. The lot is not full during the day, but fills during special events. Shared parking between the school and the station could be explored.
 - v. The city said the school's sheds may be relocated.
 - vi. The school currently owns a nearby large parcel of land. The city is not sure what the school intends to do with this land.
 - vii. The station would also impact a portion of the Episcopal Church property, but would avoid impacts to the building. Need to determine if the church would be willing to sell a portion of their parcel.
 - viii. **ACTION:** MnDOT to coordinate with the school to understand their facility plans, parking lot utilization, etc. The city recommends starting with the superintendent. MnDOT to coordinate with church owner.
 - ix. The city said local residents would be concerned about more train traffic in their community; they are already impacted by a lot of freight traffic; they would want to make sure the crossing gates are not closed while the train is at the station. This would be a concern for both Hinckley sites.
 - x. The city said residents may be concerned about adding station related traffic to a quiet residential area. The school may also be worried about student safety. There is a need to demonstrate the benefit of the station to the school and the community.
 - xi. The city said some years ago there was a shuttle that ran between the casino and downtown. There were no safety issues associated with this shuttle.
 - xii. Sheriff is moving to Hinckley, and will have a new facility in Hinckley. Additional police presence around the community could assist with the community's safety concerns.
 - xiii. The site is zoned single family residential.
 - xiv. Signage would be needed to direct traffic flow from the highway to the station, and could be used to direct traffic to certain roads.
 - xv. The site has sewer/water services.
- i. Southwest Site:
- i. The southwest site is located south of Tower Road/Fire Monument Rod and west of Highway 61 along the eastern side of the railroad tracks.
 - ii. This site is not preferred by the city because it does not provide as much community benefit as the downtown/former depot site. Residents of Hinckley will be split on the two sites and will want to see the information for both sites.
 - iii. The site is located in the township and is not in the city limits. The city would be willing to annex the site if petitioned by the land owner. The township would most likely not be interested in the station staying within their jurisdiction. They do not

have the resources to handle this kind of use; roadway maintenance is town's primary function. The city and town do not currently have any border agreements.

- iv. To make the site feasible, the regional railroad tracks would need to be reconfigured. This could be a large capital cost and it may cause impacts to wetlands and other natural resources. **ACTION:** MnDOT will have Quandel look into cost of the railroad modifications for this site; coordination with BNSF.
- v. A spur that runs to the north is also present in the area. It serves a local propane company. The spur appears to be active.
- vi. This station site presents the opportunity to potentially modify BNSF operations and mitigate the long delays for road users.
- vii. The site does not have sewer/water, but lines are available in adjacent streets and could be extended.

3. Community Engagement/Public Meeting

- a. **ACTION:** MnDOT to arrange meetings with Trinity Episcopal Church property owner, Township and school.
- b. **ACTION:** Joy to arrange date and location of public meeting. Two sites will be presented.

The foregoing constitutes our understanding of the matters discussed and the conclusions reached. If there are any questions, corrections, omissions, or additional comments, please advise the author within five working days after receipt of these minutes.

Project: Northern Lights Express

HNTB Job # 57547-PL-001

Meeting Location: Sandstone City Hall

Mn/DOT Contract # 05123

Meeting Date: October 7, 2014

Meeting Time: 5:30 - 7:00 PM

Subject: Stakeholder engagement

Present:

Name	Representing	Email
Sam Griffith	City of Sandstone	samg@sandstonemn.com
Leonard Bonander	City of Sandstone	
Bob Manzoline	St. Louis and Lake Counties Regional Rail Authority	bmanzoline@rrauth.com
Frank Loetterle	MnDOT	francis.loetterle@state.mn.us
Garneth Peterson	MnDOT	Garneth.peterson@state.mn.us
Caron Kloser	HNTB	ckloser@hntb.com
Randy Wade	HNTB	rwade@hntb.com
Carolyn Seboe	HNTB	cseboe@hntb.com
Pam Brushaber	HNTB	pbrushaber@hntb.com
Chris Weyer	HNTB	cweyer@hntb.com
Joy Miciano	Zan Associates	jmiciano@zanassoc.com

A. Action Items:

Item	Responsibility
Obtain copies of the city planning documents and GIS layers from Sam	C.Seboe/P. Brushaber
Follow up with East Central RDC for transit service data	C.Seboe/P. Brushaber
Arrange date and location of public meeting	J. Miciano

During the meeting the following items were discussed:

1. Introductions

City introductions were made from Sam Griffith, the City Administrator and Lenard Bonander, a City Council member, who is also a part of the Economic Development Authority in Sandstone. The meeting held with local stakeholders:

- a. Introduced the station and facilities team to the local representatives and initiated coordination.

- b. Updated local stakeholders on the current NLX phase and upcoming analyses such as the Tier 2 Environmental Assessment (EA), ridership projections, and operations plans. The EA is anticipated by February 2016.
- c. Provided an overview and anticipated schedule for facilities planning efforts, with a handout.
- d. Introduced stakeholders to the facility program elements for a station, maintenance and layover facilities.
- e. Obtained information about the station, maintenance and layover sites and identified potential local concerns and issues that need to be addressed through the facility planning efforts.

2. Sandstone Overview

- a. A history of redevelopment and community vision was given by Sam, as well as an overview of the planning efforts the city has undertaken for NLX to date.
- b. The city sees NLX as a once in a lifetime opportunity and has prepared maintenance facility and station site plans to demonstrate their feasibility.
- c. The city's vision for a station includes a public park or community plaza and a walkway over the tracks to the downtown.
- d. The city's maintenance facility plans assume a 57,000 square foot building, 2 sidings inside and outside. The site allows for future expansion.
- e. Sandstone is actively pursuing investments or development that creates jobs. Sam listed the ability of the city to secure the federal prison, hospital that has plans for expansion, and use of the natural outdoor amenities to attract people and events to the town such as the ice climbing park.
- f. Prison and hospital created ~600 or more jobs within the community. The new locally owned grocery store created ~125.
- g. The jobs that would be generated by a maintenance facility would have little impact in an urban location, but would have a huge impact in a community like Sandstone that is one of the poorest in the state.
- h. **ACTION:** HNTB to obtain copies of Sandstone's facility plans from Sam Griffith.
- i. **ACTION:** Joy to arrange date and location of public meeting.

3. Site description

- a. Sandstone and Duluth are the two potential locations for maintenance facilities and layovers. The final decision will be based on the operations plans being developed by a separate consulting firm working for MnDOT. There may be potential to initiate some service runs from Sandstone, which may make Sandstone a viable location for a maintenance facility.
- b. The site is owned by BNSF railway, an undeveloped area between a state owned roadway and the railroad tracks. The site and tracks parallel their main street and downtown businesses, for approximately 400'. BNSF will not sell the property to the city.

- c. The only non BNSF property is the former milk processing plant that is now owned by the county who is completing site remediation. Afterwards, it will be assessed and the City will have first access to purchase the property.
- d. The site has good access to the highway system.
- e. The site has a slight grade, less to the south.
- f. The site has relatively few environmental concerns. There is a spring and there are some hazardous material issues (fuel distribution facility on north end). It is adjacent to a superfund site that has been cleared by the Department of Agriculture. No wetlands were identified.
- g. Utilities are available to the south and north of the site. The city would prefer to utilize sewer lines to the south, which are newer. The utilities to the north run through downtown and are older infrastructure.
- h. GIS layers exist documenting all utilities. SEH provides engineering services to the city.
- i. **ACTION:** HNTB to obtain GIS layers from Sam Griffith.
- j. The city's economic development authority will own land across from the proposed maintenance facility. The city has longer term development goals in this area. The station would help spur investment.
- k. BNSF currently runs approximately 12-15 trains/day.
- l. The city already has the start of additional transit services that would be needed to serve the station.
 - i. The mayor runs a local cab company out of Sandstone.
 - ii. Arrowhead transit has garage in city and serves city two days per week.
 - iii. The East Central Regional Development Commission can provide an overview of regional transit services.
 - iv. The casino would likely provide a shuttle if a station were placed in Sandstone. Government Road has direct access to the casino, but in poor condition currently.

The foregoing constitutes our understanding of the matters discussed and the conclusions reached. If there are any questions, corrections, omissions, or additional comments, please advise the author within five working days after receipt of these minutes.

Project: Northern Lights Express

HNTB Job # 57547-PL-001

Meeting Location: Superior City Hall

Mn/DOT Contract # 05123

Meeting Date: October 7, 2014

Meeting Time: 11:00 - 12:00 PM

Subject: Stakeholder engagement

Present:

Name	Representing	email
Jason Serck	City of Superior, Planning	serckj@ci.superior.wi.us
Ron Chicka	Arrowhead Regional Development Commission	rchicka@ardc.org
Bob Manzoline	St. Louis and Lake Counties Regional Rail Authority	bmanzoline@rrauth.com
Frank Loetterle	MnDOT	francis.loetterle@state.mn.us
Garneth Peterson	MnDOT	Garneth.peterson@state.mn.us
Caron Kloser	HNTB	ckloser@hntb.com
Randy Wade	HNTB	rwade@hntb.com
Carolyn Seboe	HNTB	cseboe@hntb.com
Pam Brushaber	HNTB	pbrushaber@hntb.com
Chris Weyer	HNTB	cweyer@hntb.com
Joy Miciano	Zan Associates	jmiciano@zanassoc.com

A. Action Items:

Item	Responsibility
Follow up with city of superior to obtain results of the transit study that is currently being completed by SRF Consulting	C. Seboe follow up - J. Serck; R. Chicka
Check if Ams Oil actively uses the spur on downtown/waste management site.	C. Seboe follow up - J. Serck
Coordinate details of public meeting, including date and location.	J. Miciano

During the meeting the following items were discussed:

1. Meeting Purpose/Introductions

Introductions were made from the City of Superior. Jason Serck works as the Economic Development Planning and Port Director for the city, working directly with the Mayor. Ron Chicka is with the Metropolitan Planning Organization for Duluth and Superior. The meeting held with local stakeholders:

- Introduced the station and facilities team to the local representatives and initiated coordination.
- Updated local stakeholders on the current NLX phase and upcoming analyses such as the Tier 2 Environmental Assessment (EA), ridership projections, and operations plans. The EA is anticipated by February 2016.
- Provided an overview and anticipated schedule for station and facilities planning efforts, with a handout.
- Introduced stakeholders to the facility program elements for a station.
- Obtained information about the station sites and identified potential local concerns and issues that need to be addressed through the planning efforts.

2. Elements of the station

- a. Frank reiterated that all capital and maintenance and operation costs for the station would be at the expense of MnDOT.
- b. If the community desires elements beyond the basic station requirements, such as restaurant/retail space or an informational kiosk, MnDOT is willing to accommodate within plans, but would be at the expense of the local community.
- c. Superior has hired a consultant to conduct a downtown market study. The mayor wants to encourage more activity and businesses in downtown.
- d. HNTB provided an overview of the station elements, such as platform design requirements, building requirements, multimodal access and circulation and parking.
- e. Superior asked about bag check; Target Field Station is not set up for bag check; likely that large objects would be handled by crew.
- f. These types of stations typically do not need to be staffed with ticketing agents.
- g. Frank mentioned parking demand in Superior may be higher than expected because the drive (5 to 10 min) between Duluth and Superior is than the train ride (20 min). The former train service took 40 minutes by train.

3. Overview of Station Site Alternatives

- a. The city of Superior has identified several potential station sites for review.
- b. Winter Street Corridor:
 - i. The tracks have 4 Class I railroads (UP, BN, CP, CN)
 - ii. The city has implemented a tax increment district for this area to encourage industrial development.
 - iii. This site is the least desirable in the eyes of the local officials. The station would not be taxable property to help pay for the TID and it would not generate spin off industrial development. It is also removed from the downtown, no pedestrian access.
 - iv. Could eliminate this site based on railroad operational issues.
- c. Downtown/Waste Management Site
 - i. This site is located north of US 2/Belknap Street and west of Oakes Ave just west of downtown Superior. It is to the east of the tracks.

- ii. Local officials favor this site. It is located adjacent to downtown and is the most pedestrian friendly.
 - iii. Approximately a mile of Tower Avenue and a mile of Belknap Street just east of the site were reconstructed recently. An emphasis was placed on walkability, bike lanes, new transit shelters, attractive streetscape, and more.
 - iv. Waste Management is vacating site at end of year and it will be placed on the market January 1st, 2015. MnDOT will track progress on the sale of this site and coordinate with Superior on redevelopment plans for the site.
 - v. The station should assume local bus and intercity bus connections, but the city does not want the station to be a bus layover.
 - vi. High bus transfer location at the intersection of Belknap and Tower Ave, just to the east of the site.
 - vii. **ACTION:** HNTB will follow up with city to obtain the results of the transit study that is currently being completed by SRF Consulting.
 - viii. Assume the site is wet and contains wetland. The city in general has drainage issues because there is a lot of clay. The city manages its own wetland bank. The state also has a wetland bank. Potential wetlands at the downtown site are likely of less value than other sites; they lack connectivity and are small in size.
 - ix. The site has some hazardous materials issues. There is a deed restriction that does not allow residential uses, but would not preclude a station use.
 - x. The site is likely zoned industrial.
 - xi. A railroad spur is present on the site that leads to the AmsOil facility. The spur may not be highly used since AmsOil has built a new facility in Superior to the west.
 - xii. **ACTION:** HNTB will investigate the railroad spur that goes to the Ams Oil facility.
- d. BNSF Yard Site
- i. The site is located east of the BNSF yard between US 2/Belknap Street and 28th Street.
 - ii. The site is just south of downtown, but more removed from downtown environment.
 - iii. Access to site is difficult. Adjacent to residential area; difficult for pedestrians to cross Belknap Street from downtown.
 - iv. Adjacent to rail ladder tracks for the yard.
 - v. The site has potential environmental concerns with wetlands.
 - vi. Site could be a candidate for early dismissal as an option due to site constraints.
- e. Oakes Ave /BNSF #2 Sites
- i. The Oakes Ave site is located east of the tracks between 28th Street and 31st Street.
 - ii. The BNSF #2 site is to the west of the Oakes site on the west side of the tracks between 28th Street and 32nd Street.
 - iii. The Oakes Ave or BNSF #2 site would be the city's second choice for a station if the downtown site is not feasible.
 - iv. The property on the north end is for sale on the Oakes Ave site.

- v. Oakes Ave site contains a detention pond, and overall a wet site, with lots of clay.
 - vi. The city's big box area is to the south of this site., as well as a senior center and some environmentally sensitive areas.
- f. South Tower
- i. The South Tower site is located east of the tracks and west of Tower Ave between 46th Street and 52nd Street.
 - ii. The site has a lot of open space, but it is farthest from the downtown environment and on the outskirts of town with little surrounding urban development.
 - iii. Compared to the other sites, it is the farthest from Duluth.
 - iv. The top half of the site is under Douglas County ownership that bottom half is privately owned.
 - v. The site is adjacent to a 'noisy' dirt bike race track.
 - vi. Site could be a candidate for early dismissal as an option.

4. Public Meeting

- a. Public meetings to occur November/December timeframe to show work in progress and help narrow to one station site.
- b. **ACTION:** Joy to coordinate details of public meeting, including date and location with city of Superior.

The foregoing constitutes our understanding of the matters discussed and the conclusions reached. If there are any questions, corrections, omissions, or additional comments, please advise the author within five working days after receipt of these minutes.

Project: Northern Lights Express

HNTB Job # 57547-PL-001

Meeting Location: Duluth Historic Rail Depot

Mn/DOT Contract # 05123

Meeting Date: October 7, 2014

Meeting Time: 2:00 - 3:30 PM

Subject: Stakeholder engagement

Present:

Name	Representing	Email
Ken Buehler	The Depot, St. Louis County Heritage and Arts Center	kenbuehler@duluthdepot.org
Barb Hayden	St. Louis County	haydenb@stlouiscountymn.gov
Bob Manzoline	St. Louis and Lake Counties Regional Rail Authority	bmanzoline@rrauth.com
Frank Loetterle	MnDOT	francis.loetterle@state.mn.us
Garneth Peterson	MnDOT	Garneth.peterson@state.mn.us
Caron Kloser	HNTB	ckloser@hntb.com
Randy Wade	HNTB	rwade@hntb.com
Carolyn Seboe	HNTB	cseboe@hntb.com
Pam Brushaber	HNTB	pbrushaber@hntb.com
Chris Weyer	HNTB	cweyer@hntb.com
Joy Miciano	Zan Associates	jmiciano@zanassoc.com

Action Items:

Item	Responsibility
Obtain existing station data from Depot contacts	C. Seboe/P. Brushaber
Coordinate date and time of public meeting to be held in the Depot; <i>Subsequent discussion with Frank Loetterle and Joy Miciano indicated this meeting will be a workshop with stakeholders prior to a public meeting in Spring 2015</i>	J. Miciano
Obtain names of Oneida Realty property managers and county staff that oversee building management.	C. Seboe

During the meeting the following items were discussed:

1. Meeting Purpose/Introductions

Barb Hayden was introduced as the Community Development Coordinator with St. Louis County. Ken Buehler is the Executive Director of the Railroad Museum and North Shore Scenic Railroad currently functioning out of the Duluth Depot.

The meeting held with local stakeholders:

- a. Introduced the station, maintenance and layover facilities team to the local representatives and initiated coordination.
- b. Updated local stakeholders on the current NLX phase and upcoming analyses such as the Tier 2 Environmental Assessment (EA), ridership projections, and operations plans. The EA is anticipated by February 2016.
- c. Provided an overview and anticipated schedule for facilities planning efforts, with a handout.
- d. Introduced stakeholders to the facility program elements for a station, layover and maintenance facility.
- e. Obtained information about the station and facility sites and identified potential local concerns and issues that need to be addressed through the facility planning efforts.

2. Station Discussion

- a. The Duluth Depot building will be the site of the NLX station. This has been cleared with FRA; no other sites discussed in Tier 1 EA. Another station site discussed by the community was the Duluth Transit Authority's (DTA) new Multimodal Center, currently being constructed; however, it is not considered an alternative site in the HNTB analysis.
- b. The Depot is owned by St. Louis County and it is managed by Oneida Realty who will know the most about the building's physical plant.
- c. The existing Depot tenants are concerned about any modifications to the building.
- d. Duluth has a strong historic preservation presence. The Depot has historic designation.
- e. The building is about 98 percent ADA compliant.
- f. The lower level bathrooms could need a retrofit depending on passenger volumes.
- g. The Great Hall is located at street level and could serve as a primary entrance and passenger waiting area for NLX. It is currently underutilized; used for weddings; exploring traveling exhibits. Poor acoustics due to hard surfaces and open space is a potential issue.
- h. Adding video surveillance and security to the building could be desired. 'T-shirt' security is used for special events.
- i. Transportation Security Administration (TSA) is a potential player with passenger rail.
- j. Platform
 - i. The platform area is below street level. About 800' of length is available for platform, need 12' of width, which could involve moving track away from building.

- ii. The platform area currently serves the North Shore Scenic Railroad. (It was noted that during a special event 500+ passengers used the station and were shuttled through the museum to the Great Hall with limited operational challenges).
 - iii. Shelters or canopies will be considered with construction of the new platform, existing building canopies provide some protection.
 - k. One of the primary challenges is to accommodate passenger traffic and museum traffic.
 - i. A path through the Depot to the platform needs to be determined; passengers need to pass from the Great Hall to the lower level where the museum is currently located; an elevator and stairs are currently available. It is likely that an escalator would be required (HNTB to determine feasibility of retrofit).
 - ii. Duluth Depot long range plans include a head house over the platform, and connecting a walkway from the Great Hall out thru a window and down to the platform.
 - l. DTA is currently constructing the [DTA Multimodal Center](#) approximately 2 blocks to the north of the Depot.
 - i. It includes a connection to the covered walkway accommodating pedestrians and bicycles over I-35 down to the cinema and convention center, directly to DECC.
 - ii. Duluth Transit Authority (DTA) is constructing a facility with 370 parking spaces, including a bike hub, with lockers, showers and secure bicycle parking.
 - m. The city would like to enhance the connection with Canal Park from the Depot and new DTA facility. The grade and lack of sidewalk along 5th Street present challenges. HNTB to conduct further discussion with MnDOT and the City to who owns the issue.
 - n. Summer months have trolley service from Michigan St. to Canal Park. Service could be expanded in the future.
 - o. Parking
 - i. Public parking is available in structures to the north and south of the Depot. The north structure contains contract day parking that is highly utilized, but it is mostly open on weekends. The structures provide adequate parking for Depot special events. (HNTB will follow up to confirm ownership and available parking).
 - ii. Mayor has plans for a facility for parking on the east side of I-35 by the festival grounds and aquarium.

3. Community engagement/ Public meeting

- a. A public meeting focusing on the improvements to the platform and creating a functional station area will be held in the Depot. **ACTION:** Joy will coordinate details with Ken and Frank.

The foregoing constitutes our understanding of the matters discussed and the conclusions reached. If there are any questions, corrections, omissions, or additional comments, please advise the author within five working days after receipt of these minutes.

APPENDIX B. Public Open House Meeting Summaries



Northern Lights Express

Open House #1 Summary

Prepared for:



Prepared by:

Quandel and Zan Associates



December 2014

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1. Public Meeting Overview

1.1 Meeting Format

Four open houses were held for the Northern Lights Express Project in December 2014. The purpose of these open houses was to provide information about the proposed station sites and features in Cambridge, Hinckley and Superior, WI and the proposed light maintenance facility site at the open house in Sandstone.

Each meeting was two hours in length and conducted in an open house format with visual display boards. Opportunities were provided to solicit written input from attendees. Staff people from the Minnesota Department of Transportation, the Minneapolis-Duluth/Superior Passenger Rail Alliance, cities and consultants were available to answer questions.

1.2 Attendance

There were 142 total attendees at the first round of open houses. Open house and attendee information are shown in Table 1.

Table 1 – Open House Attendance

Date/Time	Location	Attendance*
December 4, 2014 4:30 – 6:30 p.m.	Superior Library <i>Superior, WI</i>	32; 2 media
December 8, 2014 4:30 – 6:30 p.m.	Sandstone Senior Center <i>Sandstone, MN</i>	14; 1 media
December 9, 2014 5 – 7 p.m.	Cambridge City Center Mall <i>Cambridge, MN</i>	41; 1 media
December 10, 2014 4:30 – 6:30 p.m.	Hinckley Finlayson High School <i>Hinckley, MN</i>	49; 2 media

*Attendance figures based on participants who signed in and does not include staff.

1.3 Notification

Notification of the open houses was provided on the NLX website and through the project email list. In addition, the open house flyers were sent out to individual stakeholders in each area, which included representatives of cities, counties, chambers, local organizations and media outlets. Television media outlets that picked up the story included WIDO, WCCO, and Northland News Center, while newspaper outlets included the Superior Telegram, Isanti County News, Duluth News Tribune, and Pine County Pioneer. Web outlets that covered the open house include Progressive Railroading and Rick Kupchella’s Bring Me the News. All stakeholders were encouraged to forward the open house notice and to post it on their agency’s/organization’s website and social media sites.

2. Summary of Comments

Open house attendees were provided with a comment sheet to submit feedback. Cambridge, Hinckley and Superior attendees filled out a comment sheet geared toward station site preference; Sandstone attendees filled out a comment sheet to discuss the potential light maintenance facility.

In general, at most locations, attendance and feedback received at the open houses reflected support of the NLX Project; there were some minimal dissenting opinions expressed at the open houses in Superior and Cambridge. However, at the open house in Hinckley, the majority of attendees expressed opposition to the NLX Project.

Review of the comments received at the meeting and expressed in written comments found several common themes:

Cambridge

- A significant preference for the City Center Mall site, citing convenience, parking availability, and economic growth in the city as their primary reasons.
- Generally positive that the increased traffic through the center of Cambridge would be a boon to local businesses and homeowners, though a few expressed reservations about the impact of raised rents, taxation, and traffic impacts.

Hinckley

- A split between the Southwest and Downtown sites, with quick freeway access as a benefit to the Southwest site, while the Downtown site would better benefit local businesses and re/development.
- A positive attitude toward increased business at the casino and other locations, and a desire for easy transit to the Twin Cities. There were also concerns about safety.
- Negativity about the cost of the project and the project in general.

Superior

- General preference in Superior fell to the downtown site, citing shorter distance for Duluth commuters, central location, local economic growth, and increased usage due to better visibility.
- Positive attitude towards economic invigoration of the downtown site, with jobs coming from redevelopment and increased visitors. Additional transit options to the Twin Cities was also cited as a positive benefit.
- General comments reflected very positive encouragement and enthusiasm for the project, with some concern over the funding priorities.

Sandstone

- Support for a maintenance facility was overwhelmingly positive, citing a desire for the economic boon of local employment.

2.1 Cambridge, Hinckley, Superior

Below is a compilation of the written comments received from the comment sheets at each open house. The comments are divided into the questions that were asked on the comment sheet:

- Of the two potential station sites, which do you prefer?
- Do you anticipate any potential impacts to or benefits for your community with either site?
- What station amenities are important to you?
- General comments.

2.1.1 Cambridge

Below are the written comments from the 13 comment sheets received at the Cambridge open house.

2.1.1.1 Of the two potential station sites, which do you prefer?

- City Center Mall: it's more convenient.
- City Center Mall: because it is better located than the other for the ease of use for the citizens.
- City Center Mall: as an existing business in the mall, having the site close to our business (and the other local businesses) is good for the economic growth of the area. It encourages people to visit the local city; where the site on the south side of town only makes Cambridge a "pass through" stop.
- City Center Mall: located in downtown, building and parking are in place and easy access. The task force and city council support this location.
- City Center Mall: it is much closer to existing businesses and the area offers much to passengers over the alternative.
- City Center Mall: There is more to do in that location. Shopping Center just seems right.
- City Center Mall: cost should be lower since no acquisition is necessary.
- I like the City Center Mall because it is downtown, the building and plans are here and parking is good. We have purchased additional property if more parking is needed. It will bring more traffic to our downtown businesses.
- In town, if it doesn't present a traffic issue.
- City Center Mall (2).
- No to Ritchart. Yes to Baptist Church. If we have to, City Center Mall.
- I prefer the Baptist church site. If not, then the City Center Mall.

2.1.1.2 Do you anticipate any potential impacts to or benefits for your community with either site?

- Having more people come through the heart of Cambridge can encourage more growth than being located away from any business or entertainment establishments.
- Positive for downtown.
- I think passengers may frequently visit local businesses and add to the local economy if at the City Center Mall.
- Growth, increase in value of housing and benefits to businesses.
- By upgrading the rail tracks, it will be safer. Having the ability to travel to Duluth without having to take your own vehicle; reducing traffic up and down I-35.
- More people will visit Cambridge.
- Yes.
- It is too bad that the tracks are on Highway 95 because of traffic issue. It would be nice to have an over/underpass.
- Yes, more frustration for daily travel. At least 24 trains/day, more frequent detours north or south to cross thru Cambridge WITHOUT changes to the detours to handle the traffic. I.e. keep cars moving.
- Rent may increase in City Center Mall, prompting us to relocate to another area in town.
- The Ritchart site is too far from downtown. We need to keep it downtown for both NLX and commuter rail.
- Concerned that Cambridge residents/property owners will be taxed more to fund this project.

2.1.1.3 What station amenities are important to you?

- Clean, friendly, warming station.
- Ample parking, cleanliness, WIFI access, adequate comfortable seating for waiting.
- Restrooms, shelter from the cold.
- Restrooms, heated shelter area.
- The area surrounding the city at the location.
- Heat and air conditioning, enough seating, WIFI, vending or concessions.
- Warm in winter, cool in the summer.
- Coffee shop, center for the arts, bookstore, grocery store, good parking, central location.
- Warming shelter for our cold winter.
- Clean, safe, efficient from parking, platform.
- Restrooms, one or two retail spaces.

2.1.1.4 General Comments

- In addition to being a local business owner, I also commute to the northern metro for my regular job and anticipate utilizing the service personally, in addition to seeing the benefits it provides for people attending events that we hold.
- I would love passenger rail service to both Duluth and Minneapolis. When I lived in St. Cloud, I rode the North Star on occasion and had a great experience.
- I think highest and best use for City Center Mall would be something more like the USDA/office space at the north end of the mall. It's not good retail space, and even though it will probably get a little better if it's also a depot, it still will be a 1960's style mall with loading dock on backside and, most likely, oddly configured retail space on the inside.
- I would like to ride it tomorrow but might have to wait.
- Please make sure there is enough room for bikes on the train!
- Thank you for your help.
- I was on depot location task force and strongly feel that no decision was ever reached. I've simply discontinued meeting because the environmental study and other factors were delaying any need for action. Further, I was very active in Cambridge Business Development Corporation meetings and discussions and have reviewed all of the minutes and no decision or specific site recommendation were ever reached.

2.1.2 Hinckley

Below are the written comments from the 8 comment sheets received at the Hinckley open house. One additional comment sheet was received via mail after the open house.

2.1.2.1 Of the two potential station sites, which do you prefer?

- Downtown site: fewer traffic problems in the area.
- Downtown: to possibly bring more people and interest to Hinckley's downtown area.
- Southwest Site.
- Southwest: closer to the highway.
- Who picked these spots? Maybe put in a monorail.

2.1.2.2 Do you anticipate any potential impacts to or benefits for your community with either site?

- Casino will do more business.
- Easy trip to games, airport, and Mall of America.

- Increased economic activity in the area (especially at the casino).
- Not a lot. But anything right now would help.
- More access to cities.
- Look at all the riff-raff that will show up!

2.1.2.3 What station amenities are important to you?

- Line to call casino for a ride, snacks, easy parking.
- Just a basic indoor waiting area.
- Indoor waiting, bathrooms and coffee shops.
- Possible jobs for locals.

2.1.2.4 General Comments

- I'd like to see light rail in the future run by the freeway area.
- Hope funding can be found for the project.
- Need to plan more stations. Have one in Braham and Andover.
- How much money do we have to spend before the project is scrapped?
- High-speed rail is not needed. We don't have the money for it. The federal government is broke (18 trillion in debt). State government has no money for it.
- If it is for the casino, let the casino pay for it. It is going to the casino door. Taxpayers do not have the money for it! The casino is buying up property at each end of the line and at stops along the way. The casino takes in millions of dollars per day. They have the money to build and operate this all by themselves. Pine County does not need a financial liability. Anoka built a train which cost them \$17 million in 2012. They took in \$3 million in ticket sales. That left \$14 million that the tax payers had to pay for. It is going to be another Amtrak regardless how fast it goes!
- If this was such a good deal, the railroad company would do it. How many roads will close, will you be building new tracks, how come no survey was given to the people of Hinckley?
- I would like to see the dollars wasted on this project come to an end.

2.1.3 Superior

Below are the written comments from the 13 comment sheets received at the Hinckley open house.

2.1.3.1 Of the two potential station sites, which do you prefer?

- Downtown is more beneficial, as it can be a shorter drive for those living in Duluth.
- Downtown: more visible = more usage. Closer to transportation infrastructure. Redevelopment of ex. urban lot.

- Downtown: more benefits for the entire community – will highlight Downtown Superior.
- Downtown: more potential for growth.
- Downtown: Better connections to existing businesses. Closer to Bong Bridge. People from Duluth will drive to Superior rather than drive to downtown Duluth.
- Downtown: close to bridges.
- Downtown: More centrally located. Easily connects to all DTA routes into and out of Superior. (Routes 16 and 17).
- I like both of them – the south site would probably be easier for people to find and would be convenient for people coming over from Duluth as well. Very good for downtown businesses at the south site.
- Next to Aces.
- 30th Street.
- The south site only because it is within walking distance from my home.
- 14th Street: Too much traffic on 28th Street already.
- Neither.

2.1.3.2 Do you anticipate any potential impacts to or benefits for your community with either site?

- Much cheaper, safer, and efficient travel to Minneapolis/St. Paul, as well as potential local transit having much more options.
- Many benefits if the downtown site is selected. Redevelopment is likely the biggest benefit. The current tenant/use is an eyesore.
- Yes, elevated employment and more visitors to our town.
- Help downtown Superior.
- Yes, easier on 30th Street for people to park and more room for whatever has to be done with the construction. Easier to put more construction in if need to.
- Beneficial - will provide alternative to get to cities.
- Make this a transportation hub with taxi stand, car rental, and bus connections.
- The train will be AWESOME for Superior! The residents will support you totally! The south site makes the most sense and would give a boost to the downtown of Superior. Ease of travel on main thru ways is a plus!
- Does the south site impact wetland? The benefit would be restored rail service to Minneapolis/St. Paul.

2.1.3.3 What station amenities are important to you?

- College discount, cheap long term parking.
- On public transportation routes, lots of surface parking.
- Parking. In waiting area: security.

- Security for cars. Station attendants for older people. Medical facility in case. Potential for many people traveling.
- Small shelter, security, vending machines, restrooms.
- Plenty of free parking (long and short term).
- ATM, bus service, cab service, comfortable chairs for waiting, friendly and courteous staff, clean restrooms.
- Safety, clean and good signage.
- Parking, restrooms, news stand, ATM, coffee shop. Other shops not really necessary.
- Parking.
- Direct connection with Amtrak in Twin Cities.

2.1.3.4 General Comments

- This is great, keep up the hard work!
- I support the NLX project.
- I support this project.
- Great project involving people between major cities. Gas saving – great!
- We can only hope.
- Can't wait to see this happen! Good job for all of your hard work!
- When I was a kid, the train was so convenient for day shopping, for weekend commuting, for airport connections. I'd love to see it come back.
- Need to weigh the cost vs. benefits – I am sure that has been considered – still not convinced how viable; the project needs to be a hub for other transportation.
- Show what conditions would be like in the winter, not the summer. Driving on ice and snow could be your best promotion.
- There is no way any federal monies will be spent on this project. That opportunity ended in 2010 after Democrats were sent packing.
- I generally feel that local rail authorities are competing with Amtrak for scarce federal dollars. Double tracking is essential when sharing track with freight. Reduce the number of stops to make faster trip.
- The Hinckley Loop is unnecessary since the casino should be responsible for providing shuttle which they already operate for patrons.

2.2 Sandstone

Below is a compilation of the written comments received from the comment sheets at the Sandstone open house. Six comments sheets were turned in at the open house and one comment sheet was received via mail after the open house. The comments are in response to the one question that was asked on the comment sheet:

- What comments do you have regarding a potential maintenance and/or layover facility? Do you anticipate and potential impacts to, or benefits for your community?

2.2.1 What comments do you have regarding a potential maintenance and/or layover facility? Do you anticipate and potential impacts to, or benefits for your community?

- I strongly support the City of Sandstone as a site for the maintenance/layover facility. This city is on the move – new hospital, new and active art center, Robinson Park – the city is eager to work with MnDOT on this project. The primary impact of the facility would be economic.
- In an area that has chronic underdevelopment, the jobs created would have a huge impact.
- The benefits could be huge – people who work in the cities or Duluth but live in this area could cut commute time in half. To be able to travel either direction without dealing with traffic, parking, etc. would be such a plus! Job creation.
- This would be great for the community. I question if it would be used enough to support itself, but if you are going to spend the money, you might as well spend it here.

2.3 Staff Comments

The following comments were gathered and recorded by NLX staff at the open houses.

2.3.1 Cambridge.

- Several participants had concerns about train traffic impacts on the community. The existing freight traffic blocks traffic along Highway 95, which is a main thoroughfare through the community. Stan Gustafson from the City of Cambridge spoke with some participants about how the city and MnDOT are working with BNSF to reduce freight/vehicle traffic conflicts.
- Participants were interested in commuter service between Cambridge and Minneapolis, as many Cambridge residents are employed in the Twin Cities.
- Some participants liked the idea of having the station at City Center Mall since it is near other local activity generators, but some participants were concerned about the site's challenges, such as availability of parking; integrating the station with other City Center Mall uses; and potentially increasing traffic along Highway 95.
- Some participants requested the gates on Highway 95 be closed for a minimal amount of time to not impede traffic, as freight traffic has increased recently in this area causing congestion.
- Some participants felt that the Ritchart site would function better than City Center Mall because it has ample space for parking and may have fewer traffic impacts; while other participants felt that the site was located too far to the south away from the downtown.
- A few participants expressed support for station locations not under consideration.

2.3.2 Hinckley

- In general, participants in Hinckley were concerned about public expenditures for passenger rail transportation.
- Some participants felt NLX would not be used and the cost of train fares would be prohibitive for residents. Other participants were supportive of NLX and felt that a station in Hinckley would benefit the community.
- Some participants asked questions about ridership methodology and the types of information that are considered to develop ridership estimates.
- Several participants were concerned about the potential Hinckley Loop Study; specifically, property impacts and impacts to farm fields; a few of the potentially affected property owners were at the meeting; some participants stated that public funds should not be spent on directly serving the casino.
- Some participants mentioned a concern about increased traffic on Main Street and First Street.
- Some participants believed the station traffic and parking would conflict with students arriving and leaving school.

- Some participants were concerned about the grade change and the distance between the north end of the parking lot and the station building.
- A downtown station location is the best choice because it will help bring some traffic to the downtown area.
- The mayor of Hinckley said the city purchased a new recreation site and plans to transfer the LAWCON designation of the Pit site to the new site. This would allow a portion of the Pit to be used for station purposes if necessary.
- Local officials indicated an opportunity to explore using the city-owned lot to the north of the downtown station for station purposes.

2.3.3 Superior

- Some participants were concerned that the travel times between Superior and Duluth will be too long and impact the overall travel times of the service.
- Some participants were concerned that the cost of the needed track upgrades between Superior and Duluth would be too costly.
- Participants recognized that the Superior station will need extra parking because some Duluth area residents/employees may use the Superior station instead of the Duluth station due to the travel times between Duluth and Superior by train and the potentially free parking in Superior.
- Long-term secured parking was desired for Superior.
- Both station locations were well accepted, and welcomed if solely by the idea of having an NLX station.
- In general, participants recognized the benefits of having a station in Superior, especially to nearby businesses and employers. For these reasons, some participants expressed a preference for a downtown station site.
- Local streets are narrow; recommend looking at turning radii for city and regional buses, factoring in the allowed parking on both sides of some streets.

2.3.4 Sandstone

- Both facilities were welcomed, 'good' jobs being a main benefit.
- Building the platform with the maintenance and/or layover facility was welcomed.
- Recommendation to change the name of the header on the boards, as none of the locals recognize their street as Oak Street. Recommendation was Main Street, or 'just Main'.
- Existing site conditions were described, including utilities, the remediated hazmat site, current junk yard, the deep wells on the north end of the project to be filled to eliminate contamination, and site drainage.
- It was noted that the boundaries of the project could be narrowed, as to not affect the more challenging ends of the site, including the wells and narrow right of way.

APPENDIX C. Duluth Stakeholder Workshop Summaries



Project: Northern Lights Express (NLX)

HNTB Job # 57547-PL-001

Meeting Location: Historic Depot in Duluth

Mn/DOT Contract # 05123

Meeting Date: December 11, 2014

Meeting Time: 10:00 - 12:00 PM

Subject: Duluth Station - Stakeholder comments

Present:

Name	Representing	Email
Patty McGaffey	Oneida Realty Co.	pmcgaffey@oneidarealty.com
Steve Tahum	Oneida Realty Co.	slaflamm@oneidarealty.com
Jim Foldesi	St. Louis County	foldesij@stlouiscountymn.gov
Tony Mancuso	St. Louis County	mancusot@stlouiscountymn.gov
Barb Hayden	St. Louis County	
Linnea Mirsch	St. Louis County	mirschl@stlouiscountymn.gov
KZ Gram	St. Louis County	grayk@stlouiscountymn.gov
John Ongaro	St. Louis County	ongaroj@stlouiscountymn.gov
Barb Hayden	St. Louis County	haydenb@stlouiscountymn.gov
Ron Chicka	Duluth – Superior MPO	rchicka@urdc.org
Bob Manzoline	St. Louis and Lake Counties Regional Rail Authority	bmanzoline@rrauth.com
Randy Wade	HNTB	rwade@hntb.com
Carolyn Seboe	HNTB	cseboe@hntb.com
Pam Brushaber	HNTB	pbrushaber@hntb.com
Chris Weyer	HNTB	cweyer@hntb.com
Tom Kindschi	HNTB	tkindschi@hntb.com
Ken Buehler	Depot, St. Louis County Heritage and Arts Center	kenbuehler@duluthdepot.org
Frank Loetterle	MnDOT	francis.loetterle@state.mn.us
Garneth Peterson	MnDOT	Garneth.peterson@state.mn.us
Sharla Gardner	City of Duluth	sgardner@duluthmn.gov

The following is a summary of the items that were discussed during the meeting.

1. Meeting Purpose/Introductions

The purpose of the meeting was to conduct a roundtable discussion with local stakeholders to get their input and reaction to preliminary design concepts. Specifically, the meeting included:

- a. A description of MnDOT proposed funded elements of the NLX Station.
- b. An overview of station discussion points including interior issues within the Depot and exterior issues, such as access, parking and track and platform configuration.
- c. A site walk-through to track level and through the Depot.
- d. An opportunity for local stakeholders to comment on the discussion points and working drawings.

2. Parking

Identifying dedicated NLX parking is an important component of a passenger rail station. Given the urban nature of the Depot, it is desirable to identify parking within existing facilities. Potential modifications to the existing parking decks to the north and south of the Depot were discussed.

- a. Northeast Parking Deck
 - i. Oneida Realty manages/owns 463 stalls that are used for contract parking.
 - ii. Contract parking is monthly and tends to serve the medical arts patients and employees.
 - iii. Contract spaces have very little excess capacity, leased at about 80% capacity.
 - iv. Oneida built the two upper levels on the City's surface lot, and determined the deck is structurally sound to add another floor if needed.
 - v. Oneida Realty has an option to buy an additional 105 bottom-level parking stalls currently owned and metered by the City for public parking.
 - vi. The City-owned spaces could be dedicated for NLX customers. The lost public parking could be offset by the new parking structure at the DTA which will have 350 spaces.
- b. Southwest Parking Deck
 - i. City-owned structure.
 - ii. Occupancy rates tend to be lower in comparison to north deck, but contract parking is currently filled with construction employee parking for Maurices.
 - iii. Lower-level of deck is contracted parking and has controlled access with a garage door and stairwell access.
 - iv. The top level is hourly parking open to the public for a fee.
 - v. The potential to add an elevator or stairwell from this deck to the south end of the platform was discussed.
 - vi. An NLX ticket machine may also be provided in the structure.

3. Track and Platform

The proposed changes to the track and platform area were discussed. The existing track closest the building would need to be removed to accommodate the platform and the remaining tracks would be reconfigured. Additional coordination with the Scenic Railroad is needed to understand operations.

- a. Someone recommended moving the platform north as close as possible to the drop-off area. NLX staff mentioned that space was needed for the locomotive and moving the platform north would likely impact the proposed passenger drop-off area.
- b. Ken Buehler indicated that the North Shore Scenic Railroad requires a “run around track” for its current operations. The existing track currently extends beyond 5th Avenue. He also said more track storage is needed and automatic switches are desired.
- c. Scenic Railroad uses one locomotive and up to 8 cars; the locomotive being 70’ and each car between 80’ and 85’.
- d. It was confirmed that the Scenic Railroad would share track and platform with NLX.
- e. The Scenic Railroad’s schedule would be modified around the NLX schedule.
- f. Follow up coordination is needed with the Scenic Railroad operations director to determine track configuration.
- g. Electric power hook ups are already available at the tracks.
- h. Per Ken, the garage door facing the platform is not fully utilized and could be moved to accommodate the platform.

4. Passenger Waiting Space

There was general consensus that the main passenger waiting area for NLX should be at track level, using the existing Scenic Railroad ticket office and expanding it.

- a. The Scenic Railroad building is not historic, although it is on the historic Depot property and would entail a Section 106 historic consultation process.
- b. The reconstruction of the ticket office building presents an opportunity to replace it with something that would be more sensitive to the historic character of the Depot.
- c. Ken recommended demolishing the existing building as the bathrooms are not ADA compliant, it has no air conditioning and has limited future functional life. The building was constructed in the 1970s.
- d. An exterior patio area could be provided outside the waiting area.
- e. The Great Hall is not ideal because people will want to see the train as they are waiting. It would be a pass-through space as people move from Michigan Street to the lower-level waiting area.
- f. A question about station staffing was asked. Frank explained that most intercity services do not have on-site staffing. However, Duluth may be an exception and NLX may support up to a part-time employee that is part of the existing museum and building staff.

5. Interior Access thru Depot Building

One of the biggest challenges for this station is how to move passengers between Michigan Street and the lower-level passenger waiting area in an efficient manner, while minimizing the impact to the train museum.

- a. Refitting the existing stairwell with an escalator was discussed. This would allow the efficient movement of passengers that will have carry-on baggage. It would also allow for efficient movement of tour bus passengers making a connection to NLX. Tour buses would create the highest peak flow through the Depot.
- b. Stakeholder participants noted that SHPO is more concerned with modifications to the exterior features of the historic Depot, and rarely gets involved with interior changes. Garneth mentioned that any interior changes would still need to go through a Section 106 process.
- c. Ken proposed another potential solution that would involve straightening the stairwell to provide direct access to the lower-level passenger waiting area. Ken said this is how the stairwell was originally configured. The current configuration was put in place when the former Amtrak waiting area (currently Scenic Railroad ticket office) was constructed.
- d. Straightening the stairwell would involve opening a wall of the original Depot and dropping the stairs/escalator directly into the passenger waiting area.
- e. This direct connection would avoid impacts to the train museum floor and Depot Square that could diminish the experience of museum visitors.

6. Pick-Up and Drop-Off Areas

Two areas have been identified for passenger drop-off and pick-up. One location is at street-level along Michigan Street at the front entrance to the Depot. The other area would be at the lower-level along the public street off 4th Avenue near the proposed passenger waiting area.

a. Michigan Street Access

A drop-off lane along Michigan Street in front of the Depot was discussed.

- i. The drop-off lane could include the restoration of the portico for vehicular traffic.
- ii. Use of the portico would likely require the existing right-turn-only lane along Michigan Street to be converted to a through-lane and turn-lane. This may impact on-street parking spaces along Michigan Street to the north of 5th Avenue. Coordination with the City of Duluth will be required.
- iii. An idea was floated to convert Michigan Street to a two-way street between the Depot and the DTA. Local traffic conditions would likely preclude this option, but should be discussed with the City of Duluth.

b. Public Road/Lower-Level Access

A passenger drop-off area at the lower-level off 4th Avenue was discussed. This would provide access in close proximity to the passenger waiting area and platform.

- i. The drop-off lane would accommodate vehicles, taxis and local buses. A coach bus would most likely not be able to make the turning radius, which is constrained by the bridge piers from adjacent elevated roadways.

- ii. This access point would provide convenient access to potential NLX parking on the lower-level of the north parking deck.
- iii. Recommendation to begin discussions with Arrowhead Transit and Jefferson Lines that have stops at the Duluth Transit Authority.
- iv. Maximize the use of covered area to provide pedestrian connections to the DTA. The most likely path would be through the north parking deck up to the skywalk opening along Michigan Street.
- v. Lighting, aesthetic treatment and branding for the NLX service would help make the space under 5th Avenue and the lower-level of the parking deck more inviting.
- vi. Frank proposed eliminating the drop-off area along Michigan Street and focusing the station improvements at the lower-level. This would minimize project costs and reduce potential impacts to the interior of the historic building. The stakeholders understood that some elements of the plan would need to be phased over time, but they felt that it was very important to maintain access at Michigan Street as local residents recognize this as the Depot's front entrance.

7. Other Access Discussions

- a. A canopy and lighting project is planned for the sidewalk from Michigan Street to the side entrance of the Depot, along 5th Avenue, by the Scenic Railroad. The canopy will help maintain this access point free of snow and ice. The sidewalk is not ADA compliant due to the grade change. The need to provide ADA access along this sidewalk will be investigated for NLX.
- b. Discussions are occurring within the City to demolish the library across the street from the Depot, and potentially move the library to a new location or rebuild on the existing site. The library provides access to the skywalk system via a tunnel under Superior Street currently.
- c. It is a long walk between the Depot and the DTA for some people. Consider a covered walkway, or other connections besides walking such as local trolley or bus stops.
- d. A request was given to provide a pedestrian connection under I-35 to connect the Depot with Bayfront activity and planned new lakefront development. Local stakeholders also mentioned the City has long-range plans to improve pedestrian connections along 5th Avenue; a vertical connection between 5th Avenue and the station is desired. Frank explained that the station would be designed to not preclude these connections, but those connections would be future local projects.

8. Closing Remarks

- a. Frank gave each meeting participant an opportunity to summarize key issues regarding the station. A summary of the remarks included:
 - i. Consider bicycle and pedestrian connections around Depot and to lakefront including Superior trail, 5th Avenue and under I-35.
 - ii. When will MnDOT be back to the stakeholder group? February/March for this current phase. 2017 for design if funded.

- iii. Work with Oneida Realty to identify pedestrian connection to skywalk through the north parking deck.
- iv. Work with regional and local transit agencies on lower-level turning radius and access.
- v. Keep Michigan Street a focal point of the project. This is important to the local community.
- vi. Need to look at track and coordinate operations with Scenic Railroad.
- vii. Access between DTA and Depot is important; improve lighting, safety and aesthetics of area behind parking deck.
- viii. Take a practical and phased approach to allow for expansion. The ridership and traffic patterns will reveal themselves after the service starts. Design with flexibility.

These notes constitute our understanding of the matters discussed and the conclusions reached. If there are any questions, corrections, omissions, or additional comments, please advise the author.

Project: Northern Lights Express
Meeting Location: Union Depot
Meeting Date: May 21, 2015

HNTB Job # 57547-PL-001
Mn/DOT Contract # 05123

Meeting Time: 3:00 - 4:30 PM
Subject: Stakeholder engagement
Present:

Name	Representing	Email
Ken Buehler	Lake Superior Railroad Museum and North Shore Scenic Railroad	kenbuehler@duluthdepot.org
Keith Hamse	City of Duluth	khamse@duluthmn.gov
Barbara Hayden	St. Louis County	haydenb@stlouiscountymn.gov
Briana Johnson	Union Depot	briana@duluthdepot.org
Frank Loetterle	MnDOT	francis.loetterle@state.mn.us
Tony Mancuso	St. Louis County Property Management	mancusot@stlouiscountymn.gov
Bob Manzoline	St. Louis and Lake Counties Regional Rail Authority	bmanzoline@rrauth.com
Patty McGaffey	Oneida Realty	pmcgaffey@oneidarealty.com
Linnea Mirsch	St. Louis County Administration	mirschl@stlouiscountymn.gov
Pam Brushaber	HNTB	pbrushaber@hntb.com
Chris Weyer	HNTB	cweyer@hntb.com
Caron Kloser	HNTB	ckloser@hntb.com

The following is a summary of the items that were discussed during the meeting.

1. Introductions and Meeting Purpose

MnDOT requested a local stakeholders’ meeting to present the conceptual plans for Union Depot and a layover/maintenance facility for NLX passenger rail service. The plans are updated from a prior version presented at the December 11, 2014 stakeholders meeting. Introductory remarks also noted:

- The study team completed its alternatives and functional analyses for proposed NLX stations and maintenance and layover facilities.
- The purpose of this phase of the study and concept planning is to complete sufficient design to confirm the functionality of the sites, determine reasonable capital cost estimates and provide sufficient information to complete a formal environmental review.
- MnDOT is refining operating plans, ridership/revenue projections and capital costs.

2. Review station concept plans

The project team presented of the finalized conceptual plans for the station area, and multimodal connections to the Union Depot. HNTB reviewed the evaluation criteria the team used to verify functional design of the Depot for NLX service.

Comments on the conceptual plans questioned the allowance for emergency vehicles on the Public Road at track level. There would be mountable curbs and the ability for vehicles to drive on the track. An ambulance would have direct access to the train. Routine traffic would be restricted via gates and chains and bollards. Final engineering design would refine the site plan to address detailed site features.

The updated conceptual plans retain the existing North Shore Scenic Railroad (NSSR) platform and tracks and adds a second platform for NLX service. The plans differ from a prior concept that featured a single, shared platform with the NSSR. One of the controlling site design criteria is that FRA requires new platforms to be 15-inches high for ADA-access. The older scenic railroad operations and cars are not equipped to handle a 15-inch platform. FRA would not require a 15-inch platform for existing platforms. The second platform for NLX trains avoids impacting NSSR operations, meets FRA requirements, allows for ADA access to the 15-inch platform height and allows sufficient track length to store the locomotive and cars. The NLX train at the second platform also acts as a visual barrier to I-35, which is immediately east of the depot.

3. Review architectural report

HNTB prepared an architectural report focusing on concepts accommodating passenger flow for NLX and NSSR service without disrupting current depot functions. The concept plans provide a new passenger waiting area building. Features of the building include:

- The building will complement the existing Depot, but provide a contained separate function. The building will be directly accessible from multiple entry points.
- The building and adjacent sidewalk are ADA-compliant. No escalators would be required, eliminating costly maintenance.
- The building would include a new elevator (adding to the existing elevators; the existing elevators would not be upgraded).
- The roofline and façade can be seen from Michigan Street and Fifth Avenue, giving advertisement to the Union Depot.
- The architecture mimics the historic train shed in a modern way.
- Standard basic amenities, to be included in all station buildings along the NLX line, were noted.

Historical Impacts and Environmental Assessment

- The goal of the new structure is to complement the existing historic Union Depot. The Union Depot concept plan does not change the footprint of the Union Depot building. MnDOT will continue coordination with the State Historic Preservation Officer (SHPO) as part of the historic (Section 106) review process. Part of the coordination process will include continued consultation with St. Louis County, which owns the building, and other stakeholders.
- The group discussed coordination with the local Duluth Heritage Preservation Commission (HPC). The Depot is a locally designated property. The commission will review the proposed concept plan as part of construction permitting at historic sites. The commission may be more technically focused on a management plan. The Director of the Scenic Railroad and Museum is an HPC member. MnDOT would coordinate with both the SHPO and the HPC as part of the Section 106 consultation process.

- MnDOT is currently updating the historic survey for Union Depot, which will more clearly define the site's historic boundary. St. Louis County owns the building, but others own surrounding track and land. The group discussed how variable ownership affects the determination of the historic boundary and subsequent coordination. MnDOT will use due diligence to determine historic boundaries.
- The group discussed long-term building ownership. At present, MnDOT assumes that an agreement with St. Louis County would be negotiated that would address the use and maintenance of the portion of the facility directly related to the operation of the NLX service.

Station Concept Plan Reactions

- The Depot was recently allowed to add a canopy over the sidewalk from Michigan Street to track level. The new awning could be reused or reconstructed after the new building is built. It was noted the Union Depot façade on the front of the new NLX station building should be visible above a canopy sidewalk. A Union Depot sign on the canopy, along the roadway, was suggested, which would need HPC approval.
- Michigan Street would remain functionally unchanged. Upgrades would be anticipated, with signage and lane stripping. The portico would remain in place, with limited alteration to the front sidewalk.
- Interior Union Depot building signage would be anticipated. The information desk could be relocated as well, with respect to special events and building needs. The Depot would continue to control integrating new NLX service into the internal space and existing uses. Ideas included contracting with NLX to sell tickets and share staff.
- Overall, the proposed concept plan was well received; the group noted the plan integrates well with the Depot uses and space. It is efficient at moving people and provides upgraded amenities for all users. It allows for intuitive waiting spaces and lines of sight to the track.
- The turnaround on the Public Road at track level was confirmed to meet the needs of NLX and does not interfere with the needs of NSSR operations. NSSR activities that periodically use space at the Public Road could adjust operations.
- The City of Duluth confirmed a bike facility is planned for Michigan Street. It will be a two-way cross city trail with a connection to Seventh Avenue. Construction is planned in the 2017/2018 timeframe. The trail will expand Duluth's bicycle network and connect the newly constructed skyway passageway across I-35, accessed from the DTA Multimodal Facility. Multimodal connections will be cited in the service development plan for NLX.

ACTION: HNTB to pursue obtaining bike facility plans.

5. MnDOT-funding elements

MnDOT is pursuing state and federal funding to develop and implement NLX service. At this time, no local match is being asked of the stakeholders. In the future, the FRA could require this local match, which would be determined in later stages of the project.

Preliminary station costs for Union Depot are roughly \$7.4 million, which includes about \$3 million for the new passenger waiting area building. MnDOT expects to complete refining costs in summer 2015.

6. Review of layover and maintenance facility concept plans

Frank provided an overview of proposed Duluth maintenance and layover facility features. BNSF Railway owns the proposed site, which is south of the existing Depot, paralleling I-35 and existing BNSF track. The maintenance facility would house approximately 35-40 employees including electrical engineers, mechanics, sanders, and others. The layover facility would be used to clean trains, and perform minor repairs. The layover facility at Duluth would be part of NLX operations regardless of where the maintenance facility is located (currently MnDOT is considering maintenance facility sites in Duluth and Sandstone, MN). MnDOT anticipates one train would stay overnight in Duluth, and another would layover in Minneapolis. MnDOT will evaluate both the maintenance or layover facilities in Duluth in the environmental review process.

The proposed site is consistent with existing and planned industrial land use in the area. The Duluth-Superior Metropolitan Interstate Council confirmed long-term industrial land use for the site in a May 20 meeting with MnDOT staff.

7. Additional comments

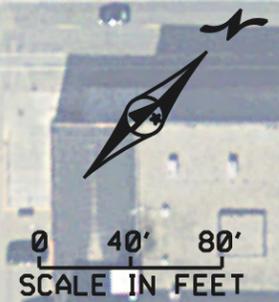
MnDOT will continue further coordination with BNSF Railway on NLX corridor operations, as well as station and layover and maintenance facility needs during later stages of project development.

The foregoing constitutes our understanding of the matters discussed and the conclusions reached. If there are any questions, corrections, omissions, or additional comments, please advise the author within five working days after receipt of these minutes.

APPENDIX D. Station Working Drawings

This appendix contains working drawings that were prepared for each alternative station site and evaluated in **Section 4** of this report. The drawings were prepared for evaluation purposes only and the design features presented in the working drawings may be different from the final selected concept plans discussed in **Section 6.1** of this report and shown in **Appendix F**.





40' PLATFORM WIDTH

22' PLATFORM WIDTH

EXISTING BNSF MAINLINE

EXISTING PLATFORM

EXTENDED PLATFORM

EXISTING UTILITIES

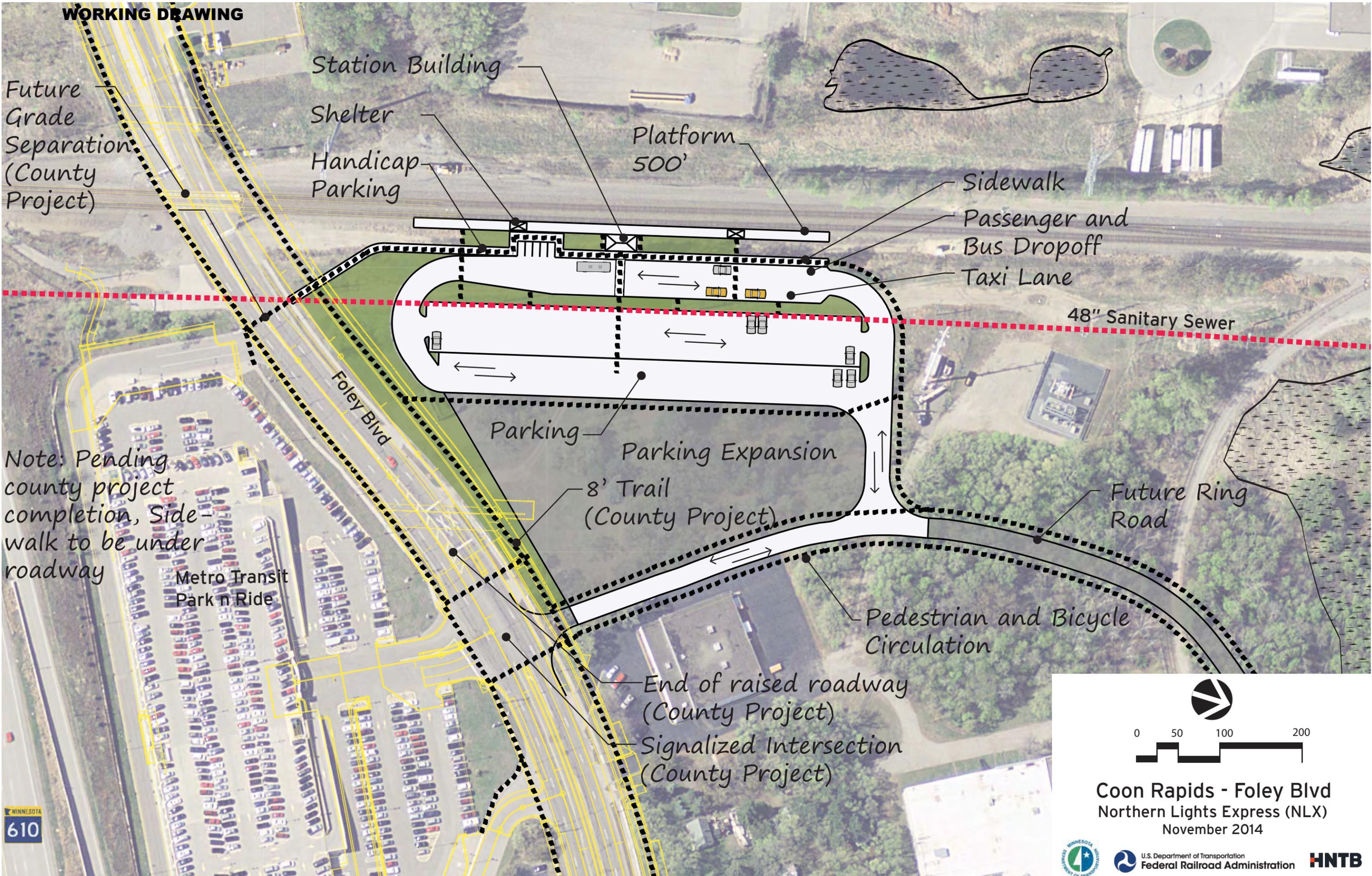
490' PLATFORM

Minneapolis - Target Field Layover

Northern Lights Express (NLX)
November 2014



WORKING DRAWING



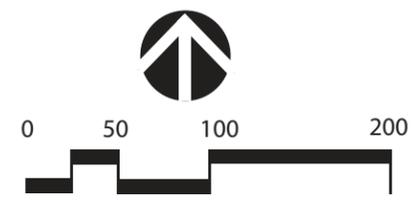
Note: Pending county project completion, Side-walk to be under roadway



0 50 100 200

Coon Rapids - Foley Blvd
Northern Lights Express (NLX)
November 2014

WORKING DRAWING



Cambridge - City Center Site
Northern Lights Express (NLX)
November 2014



24th Ave SW

S Main St

Station Parking

Pedestrian Circulation

Warming Shelter

Passenger & Bus Dropoff

Station Building

Platform 500'

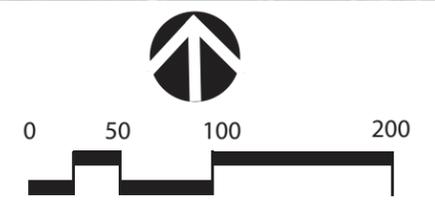
Handicap Parking

Taxi Lane

Station Parking

Crosswalk

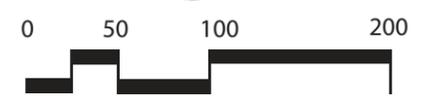
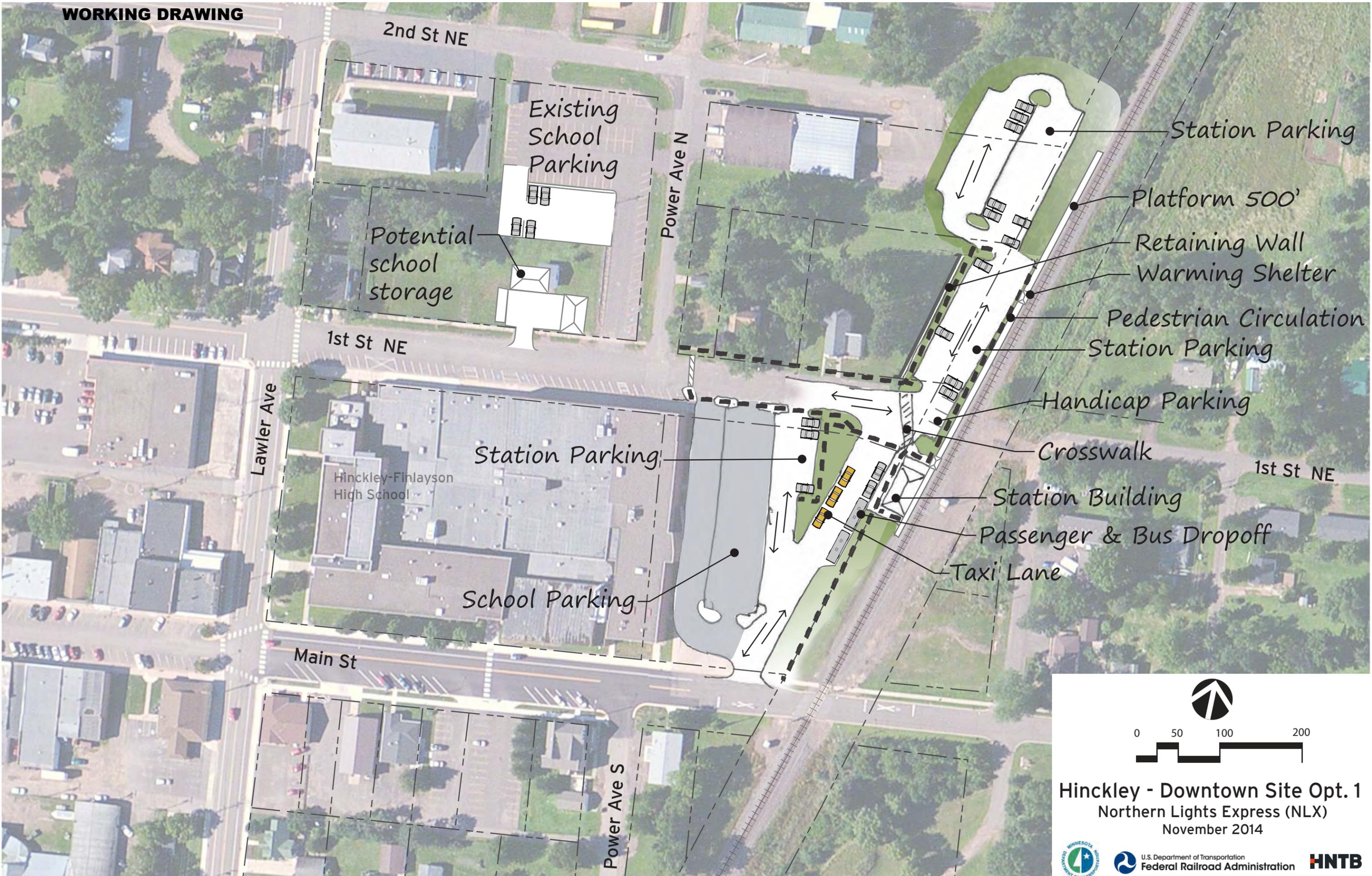
320th Ln NE



Cambridge - Ritchart Site
Northern Lights Express (NLX)
November 2014



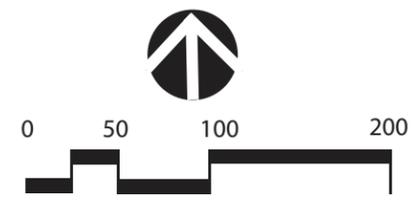
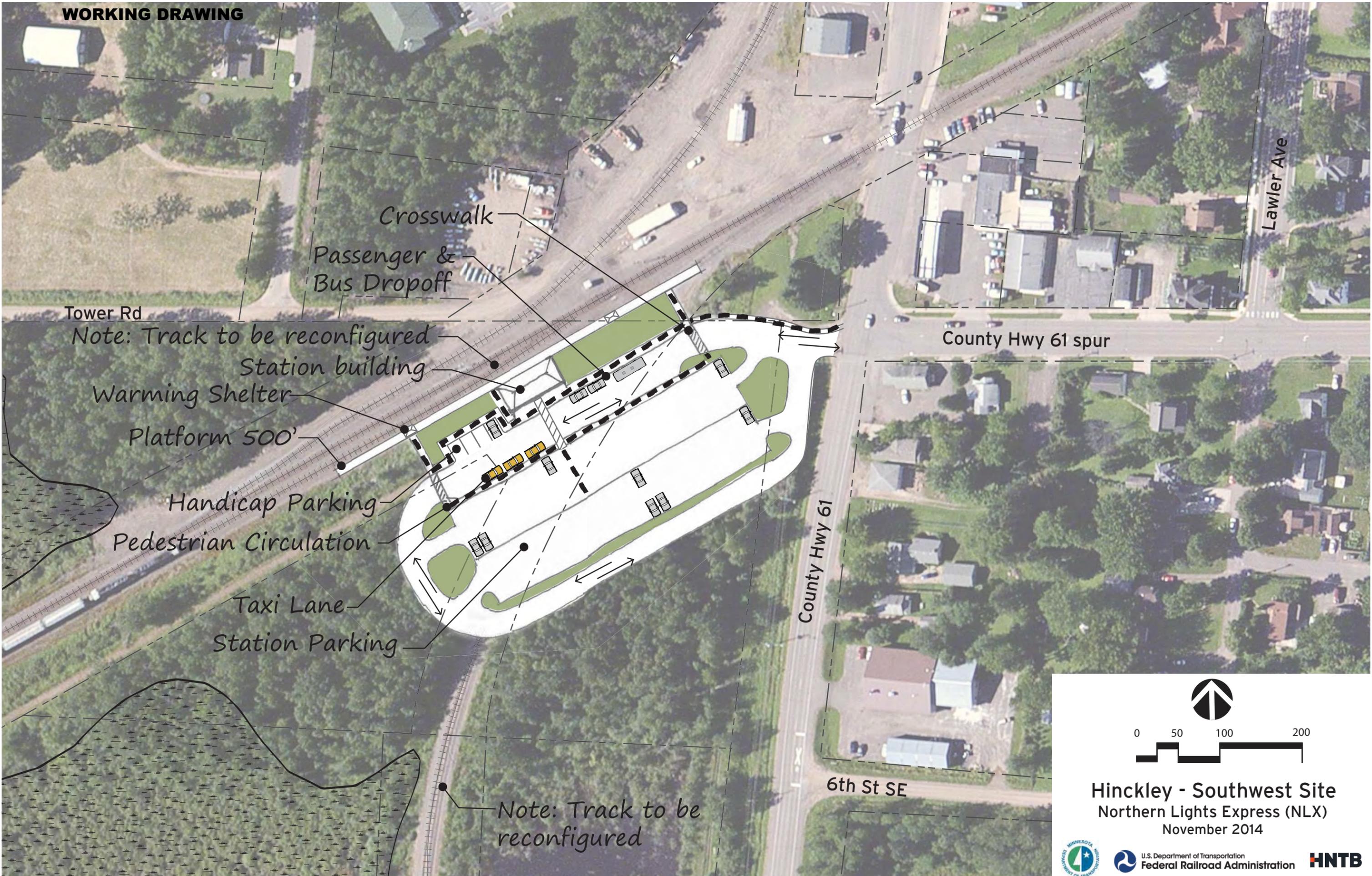
WORKING DRAWING



Hinckley - Downtown Site Opt. 1
Northern Lights Express (NLX)
November 2014



WORKING DRAWING



Hinckley - Southwest Site
Northern Lights Express (NLX)
November 2014



WORKING DRAWING

Proposed track & siding reconfiguration

Magellan Pipeline

Handicap Parking

Station Parking

Additional parking

Platform 500'

Warming Shelter

Pedestrian Circulation

Station Building

Passenger & Bus Dropoff

Taxi Lane

Crosswalk

Long-term parking

Future Development

Oakes Ave

N 14th St

Banks Ave



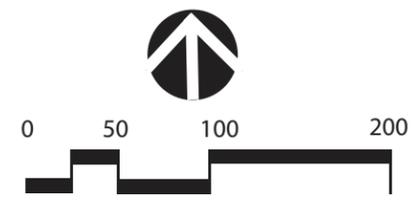
Superior - Downtown Site
Northern Lights Express (NLX)
November 2014



U.S. Department of Transportation
Federal Railroad Administration



WORKING DRAWING



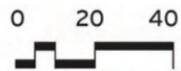
Superior - Oakes Site
Northern Lights Express (NLX)
November 2014



U.S. Department of Transportation
Federal Railroad Administration



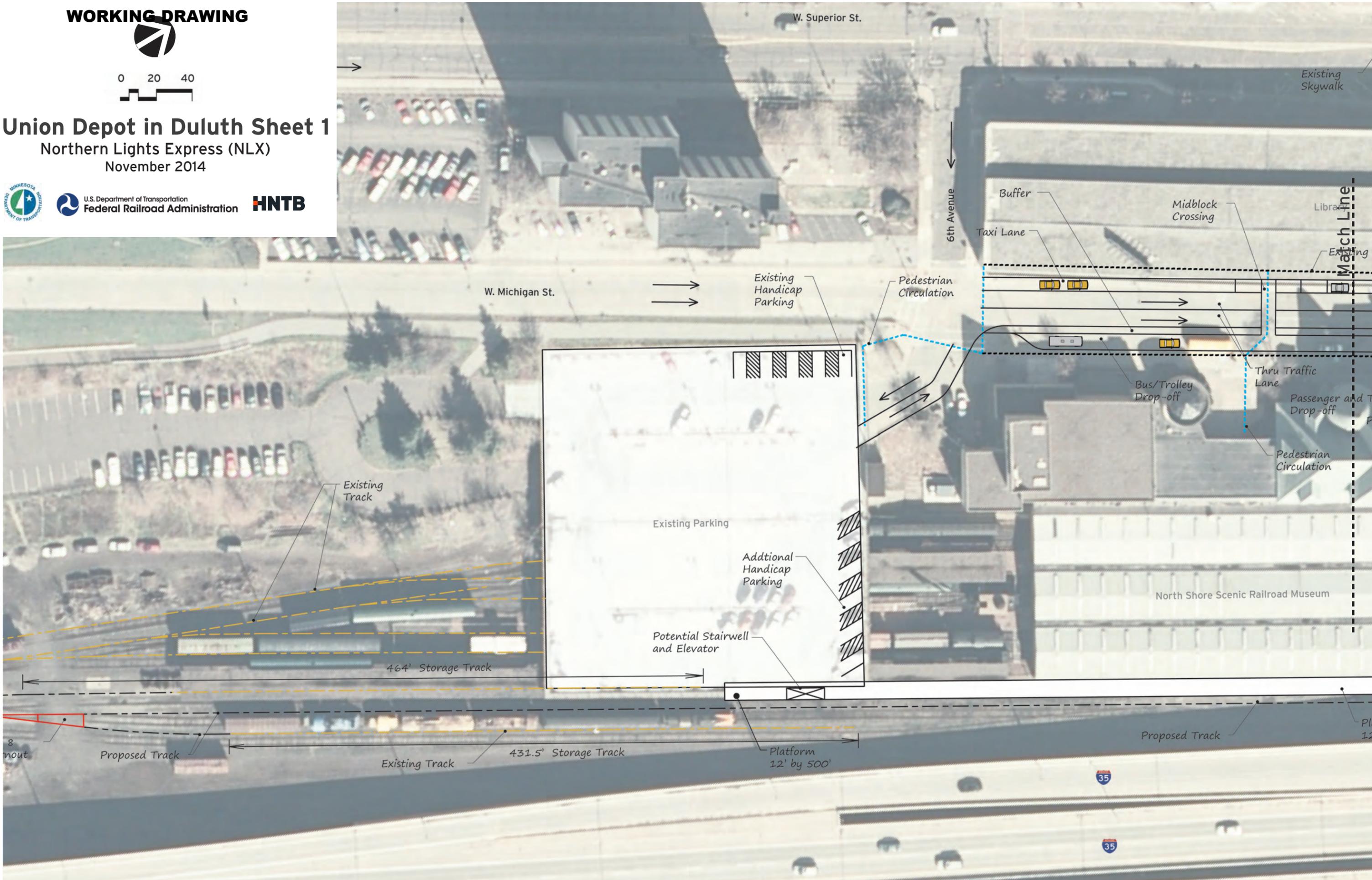
WORKING DRAWING



Union Depot in Duluth Sheet 1
Northern Lights Express (NLX)
November 2014



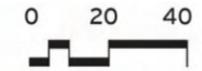
U.S. Department of Transportation
Federal Railroad Administration



WORKING DRAWING

W. Superior St.

4th Avenue



Union Depot in Duluth Sheet 2

Northern Lights Express (NLX)

November 2014



U.S. Department of Transportation
Federal Railroad Administration



Note:
Scenic Railroad plans to add canopy and lighting, extending to side entrance of Depot.

Match Line

Existing Sidewalk

Potential enhanced sidewalk

W. Michigan St.

Existing Sidewalk

Portico

Exit from Depot

Entrance to Waiting Area

Passenger Waiting Area

Passenger Waiting Area Expansion

5th Avenue

Potential Stairwell and Elevator

Existing Parking

Pedestrian Circulation

Bus, Taxi and Passenger Drop-off

Proposed Sidewalk

Potential Canopy

4th Avenue

Existing Skywalk

Public Rd.

Public Rd.

Median

Proposed Sidewalk

Platform 12' by 500'

Exit to Platform
Bus, Taxi and Passenger Drop-off

Bridge Pier

Vertical bridge clearance: ~19' at lowest point

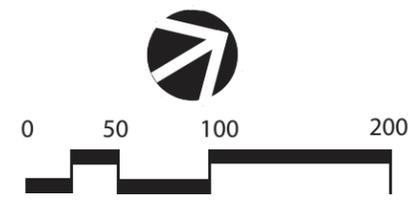
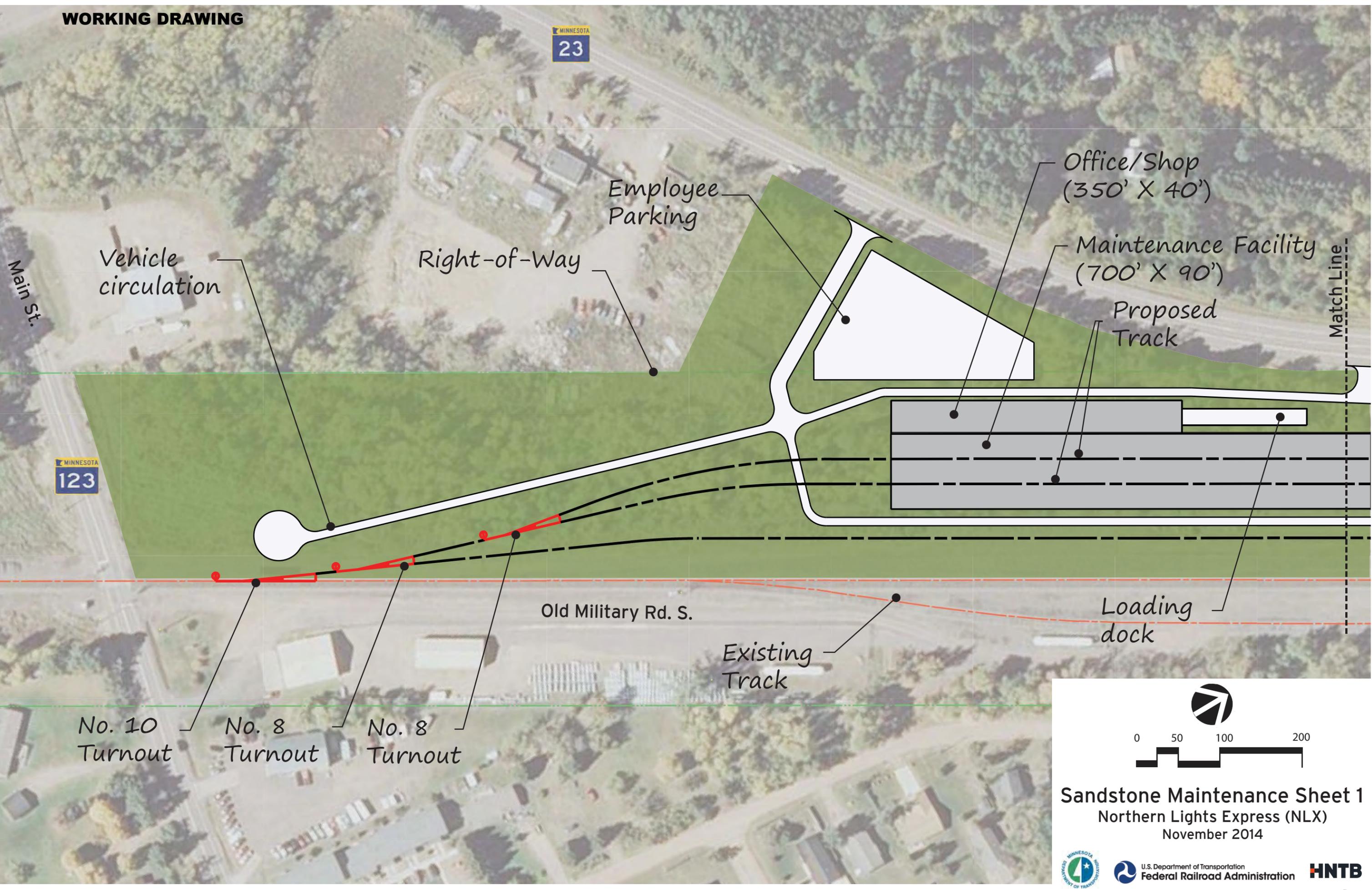
Scenic Railroad and Northern Lights Express parking

- Notes:
1. Bridge pier locations are approximate.
 2. All concepts need to be verified with engineering and design survey.
 3. Turning radius is a 42' AASHTO standard, which allows city buses to maneuver in the space under 5th Avenue.
 4. AASHTO vertical clearance requires at least 17'-4" for buses.
 5. If the option for bus access below 5th Avenue is eliminated, a two-lane passenger and taxi drop-off roadway under 5th Avenue is optional.

APPENDIX E. Maintenance and Layover Facility Working Drawings

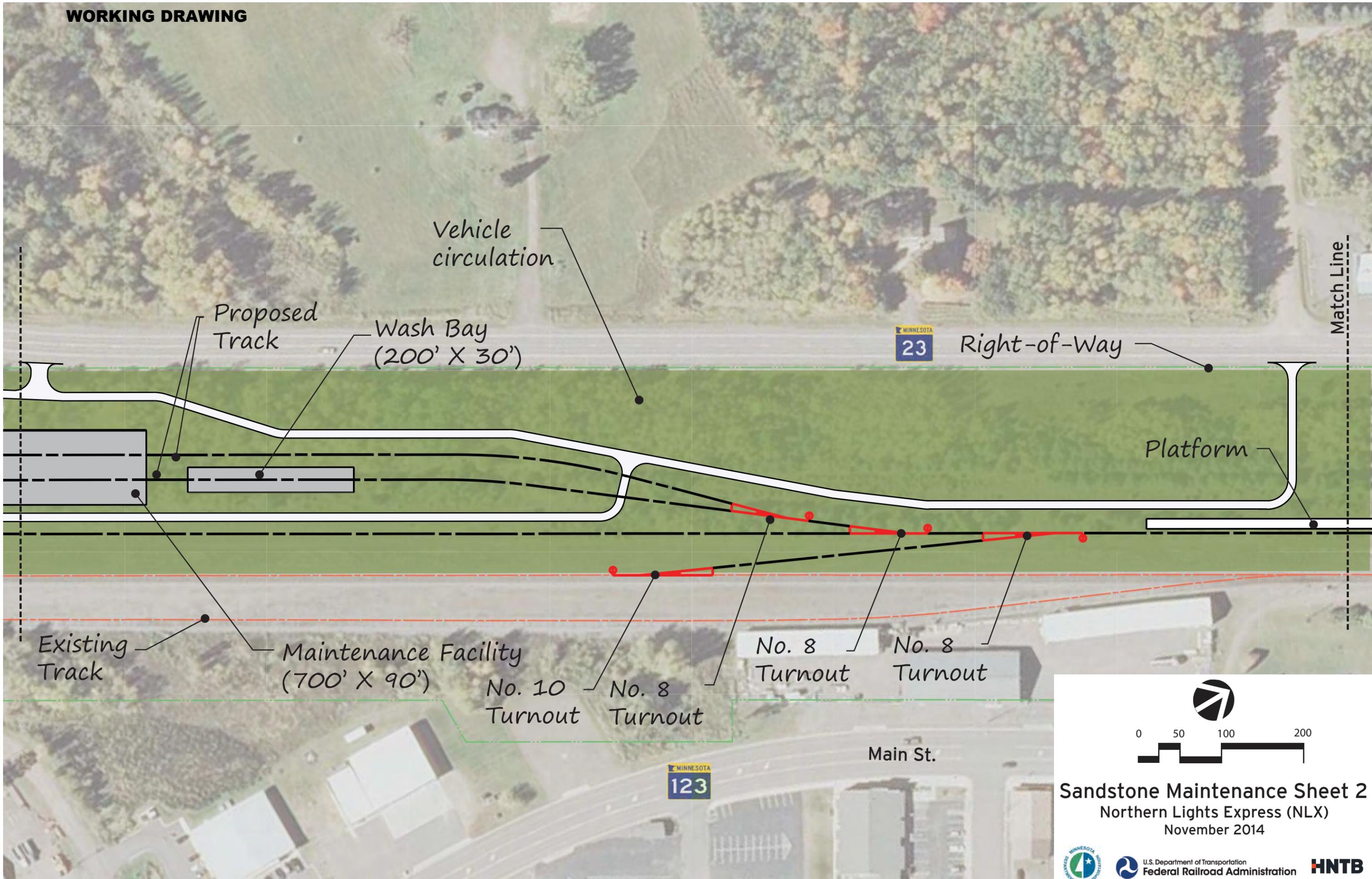
This appendix contains working drawings that were prepared for each maintenance and/or layover site and evaluated in **Section 5** of this report. The drawings were prepared for evaluation purposes only and the design features presented in the working drawings may be different from the final concept plans presented in **Section 6.2** and shown in **Appendix G**.





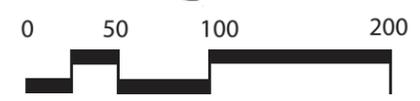
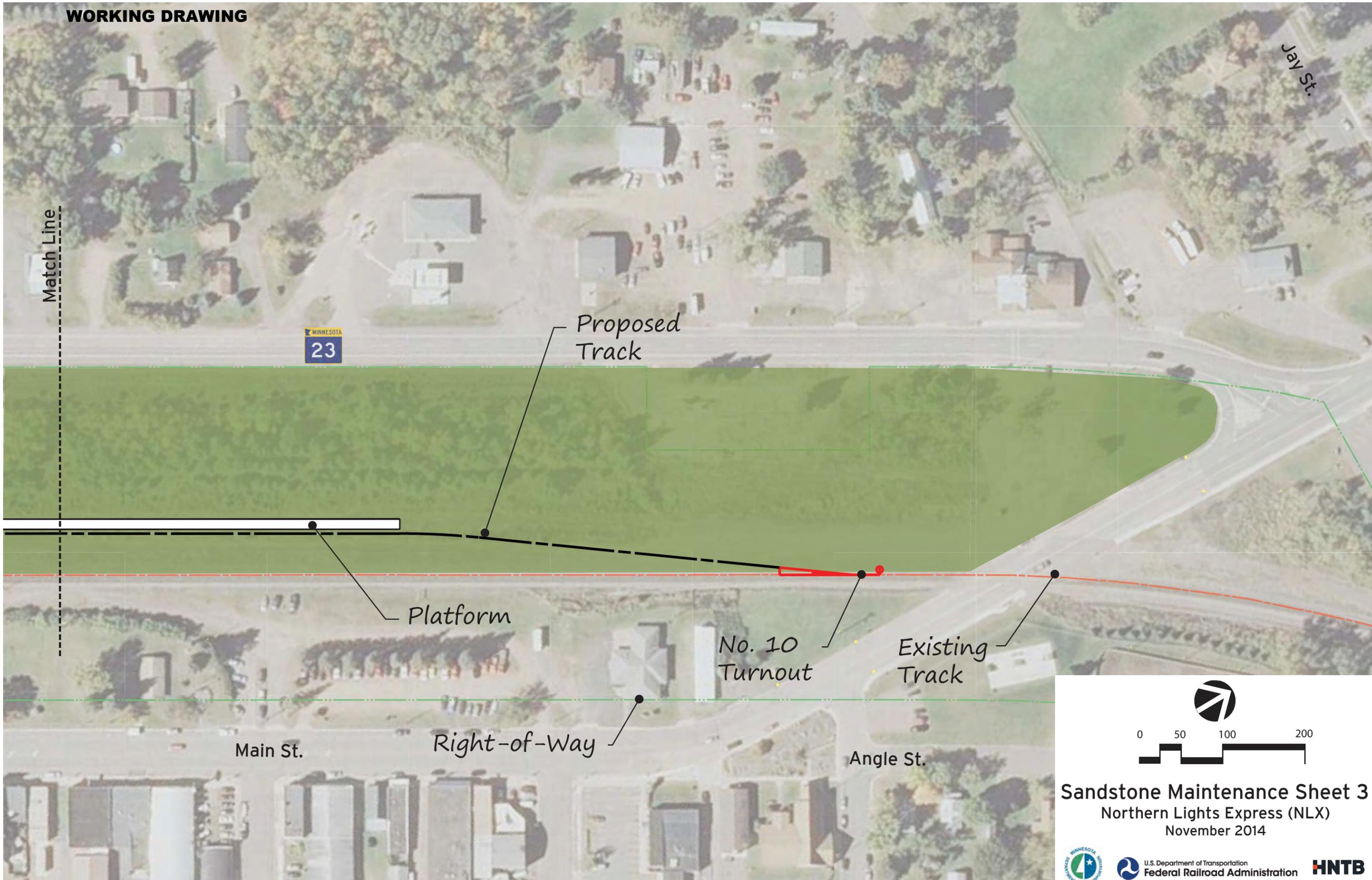
Sandstone Maintenance Sheet 1
Northern Lights Express (NLX)
November 2014

WORKING DRAWING



Sandstone Maintenance Sheet 2
Northern Lights Express (NLX)
November 2014

HNTB
| E-3 |



Sandstone Maintenance Sheet 3
 Northern Lights Express (NLX)
 November 2014



WORKING DRAWING

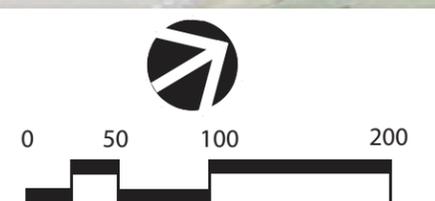
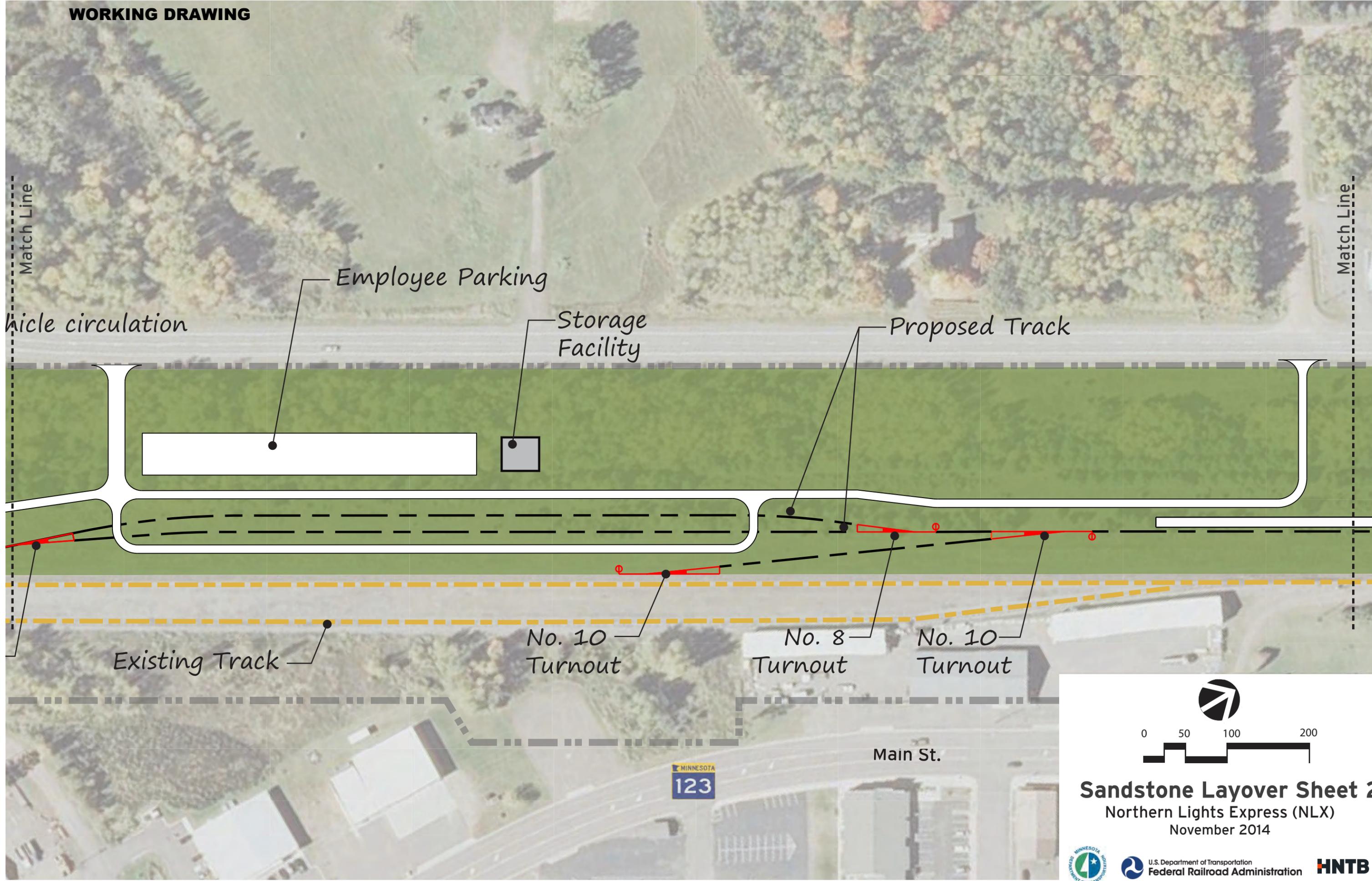


Sandstone Layover Sheet 1
Northern Lights Express (NLX)
November 2014

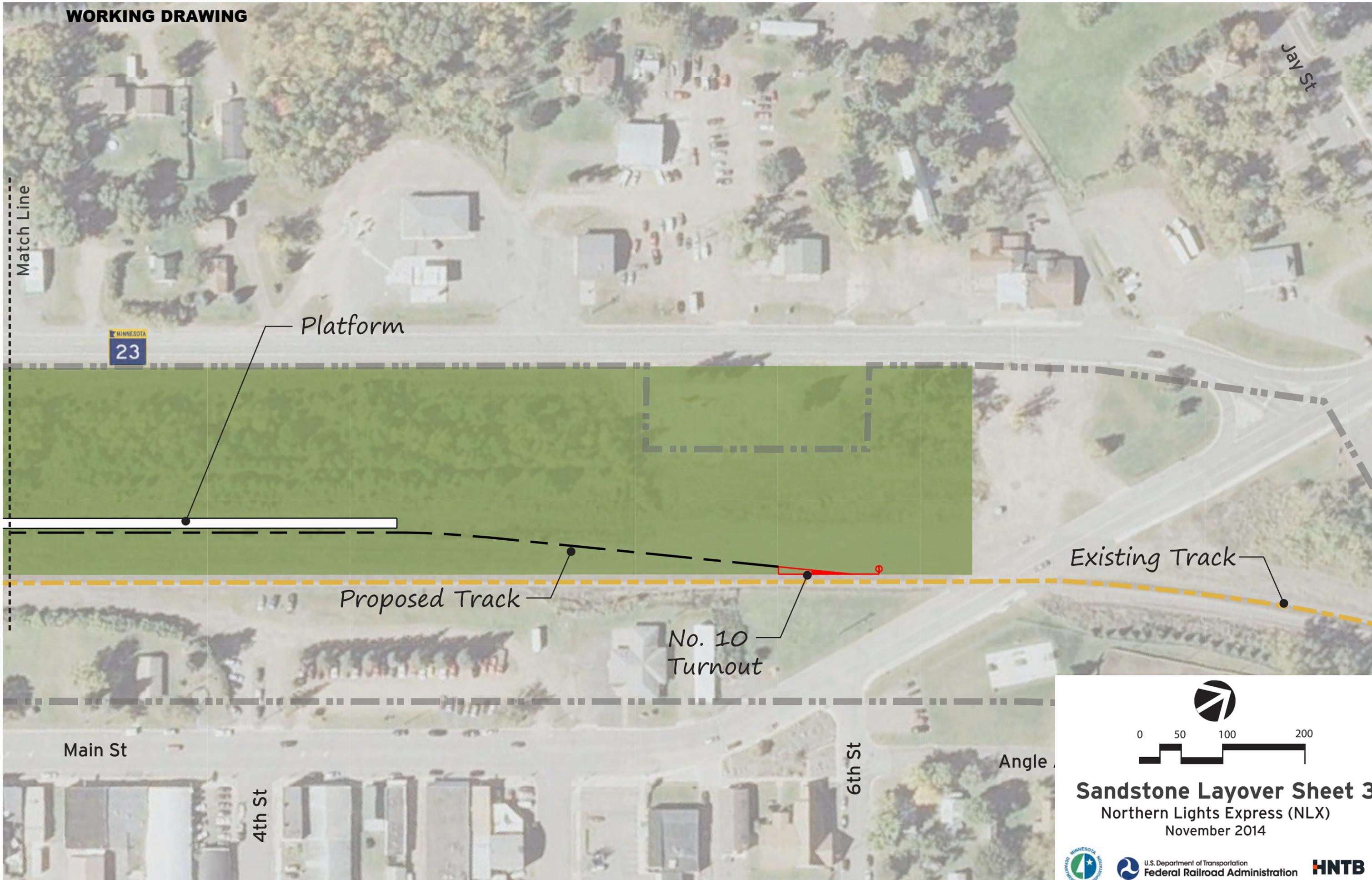


U.S. Department of Transportation
Federal Railroad Administration

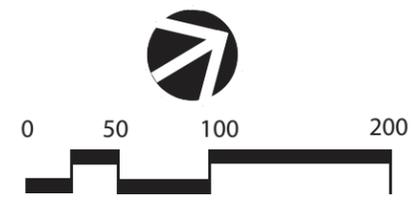




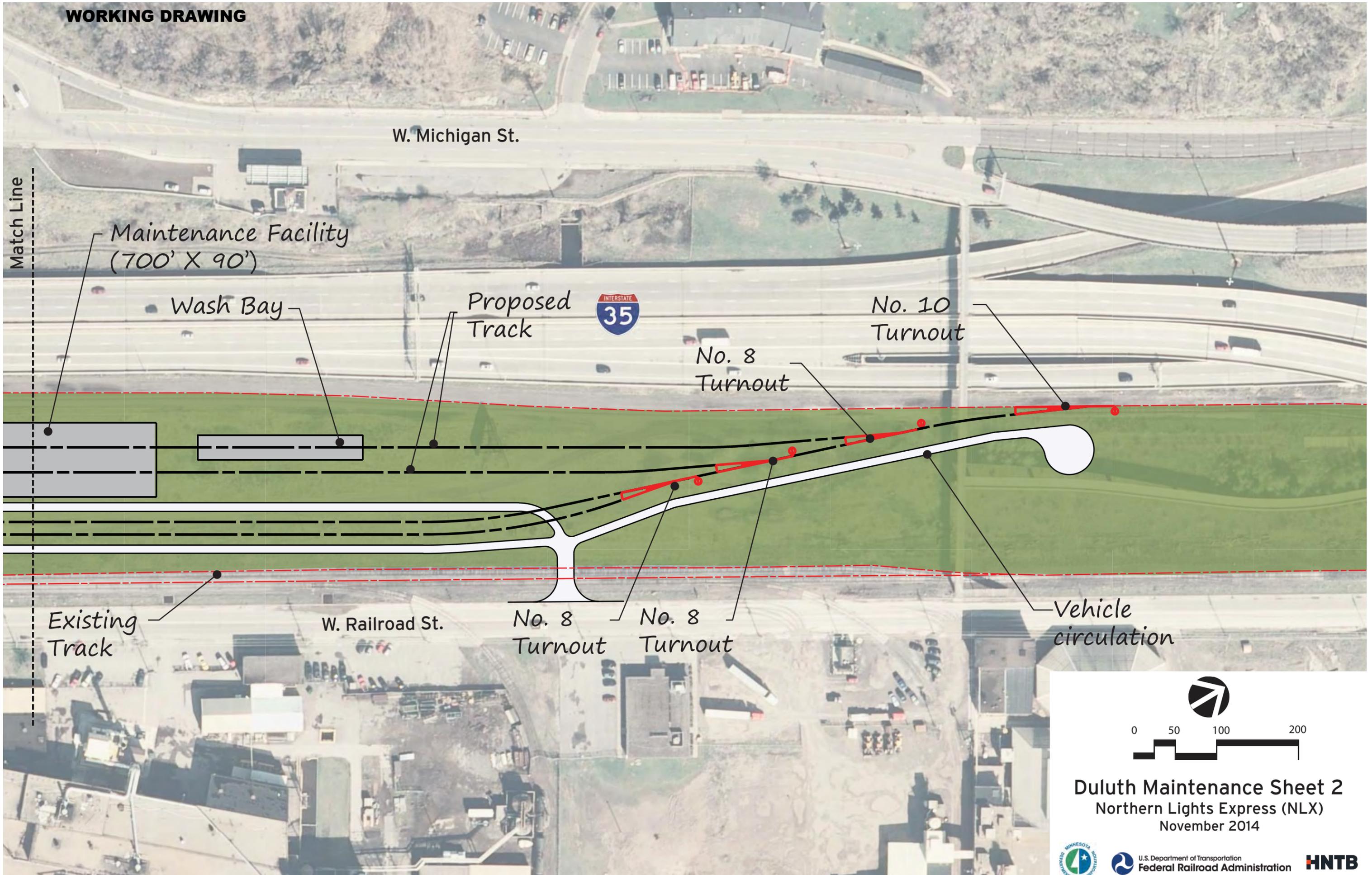
Sandstone Layover Sheet 2
Northern Lights Express (NLX)
November 2014



Sandstone Layover Sheet 3
 Northern Lights Express (NLX)
 November 2014



Duluth Maintenance Sheet 1
Northern Lights Express (NLX)
November 2014



W. Michigan St.

Maintenance Facility
(700' X 90')

Wash Bay

Proposed
Track



No. 10
Turnout

No. 8
Turnout

Match Line

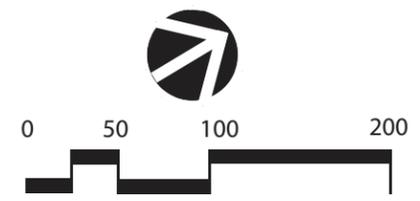
Vehicle
circulation

Existing
Track

W. Railroad St.

No. 8
Turnout

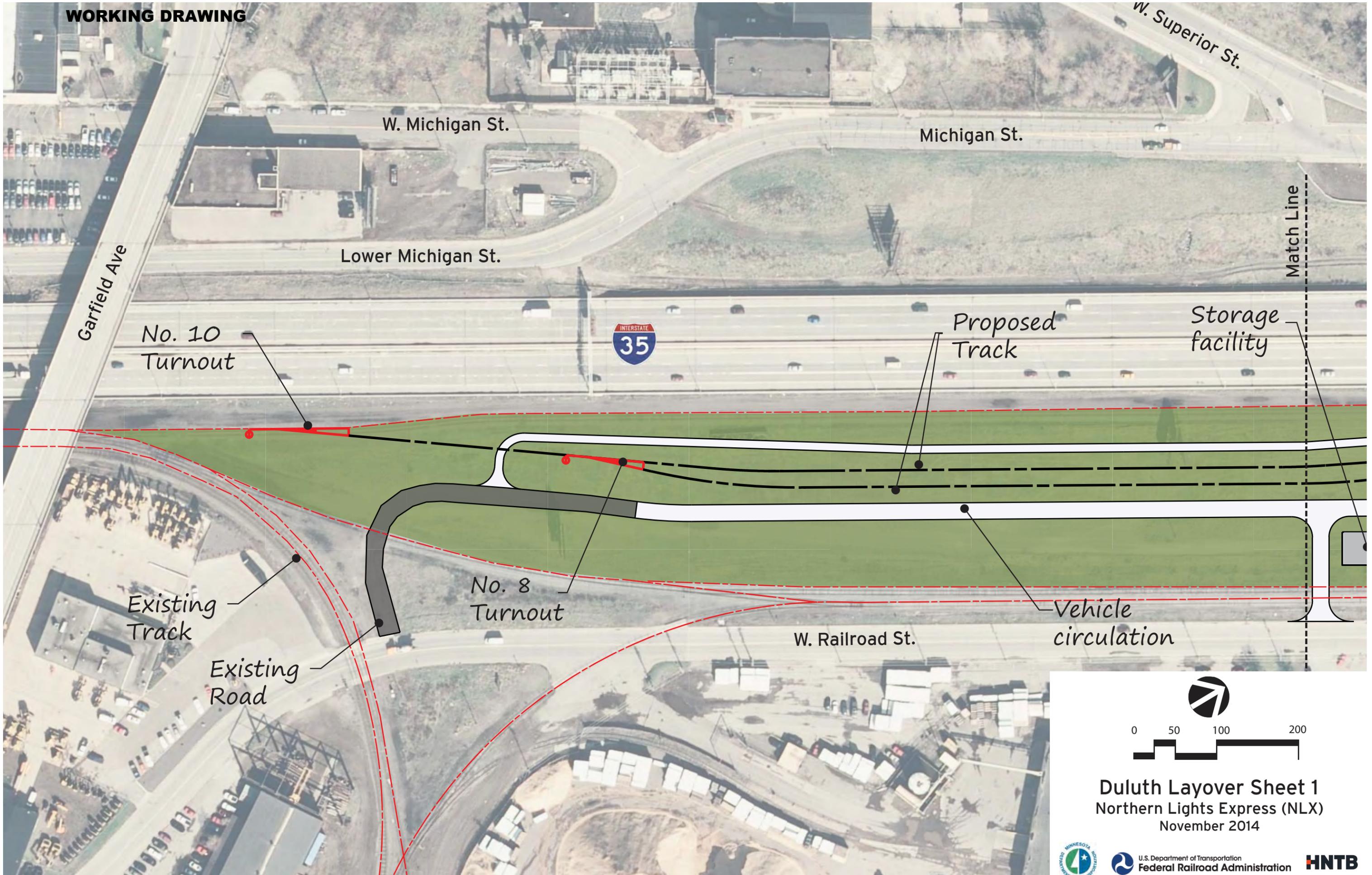
No. 8
Turnout



Duluth Maintenance Sheet 2
Northern Lights Express (NLX)
November 2014



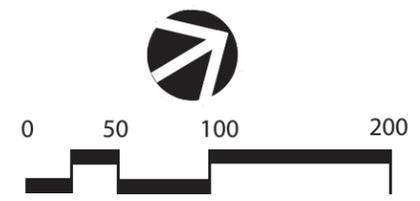
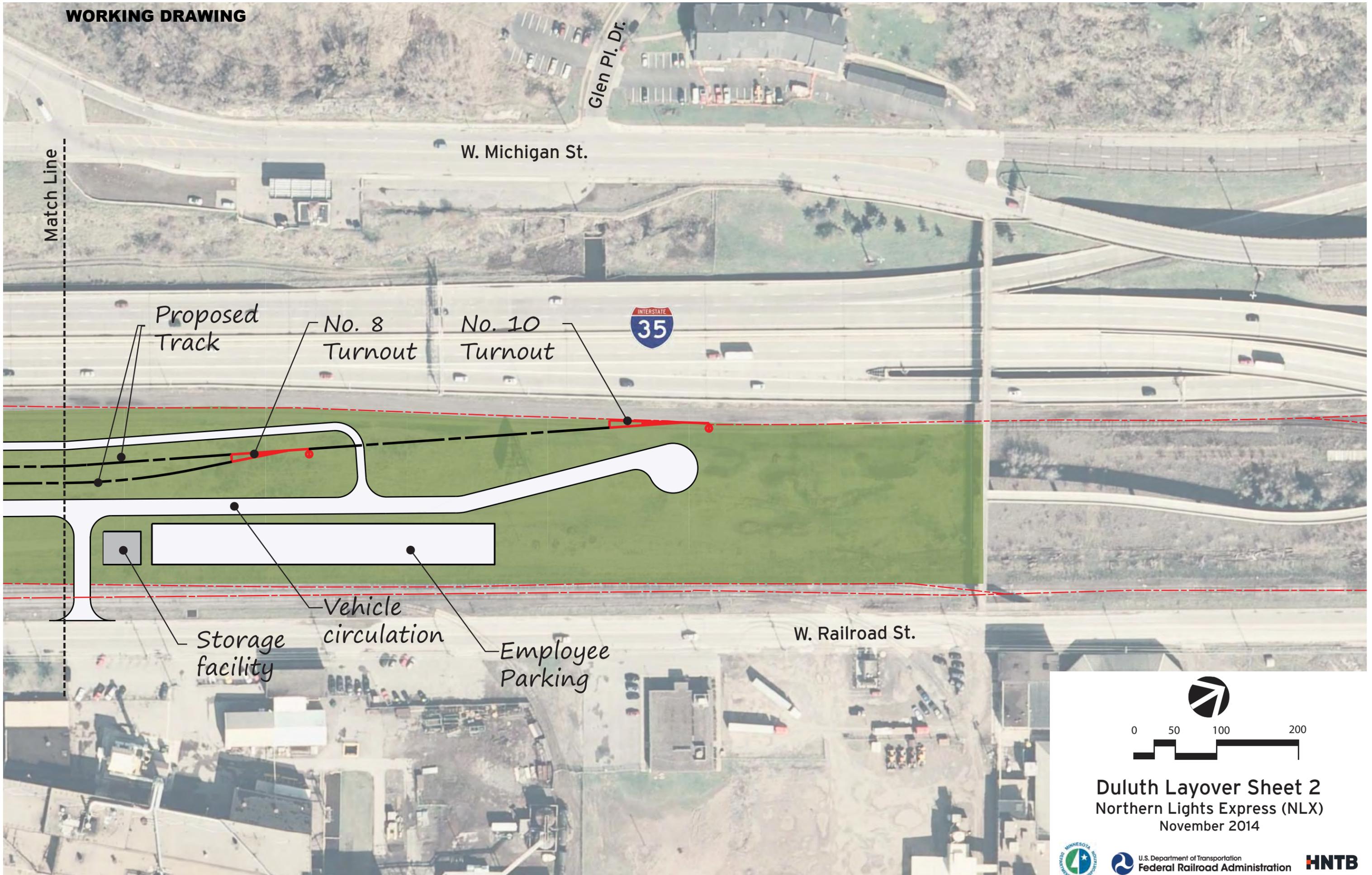
WORKING DRAWING



Duluth Layover Sheet 1
Northern Lights Express (NLX)
November 2014



WORKING DRAWING

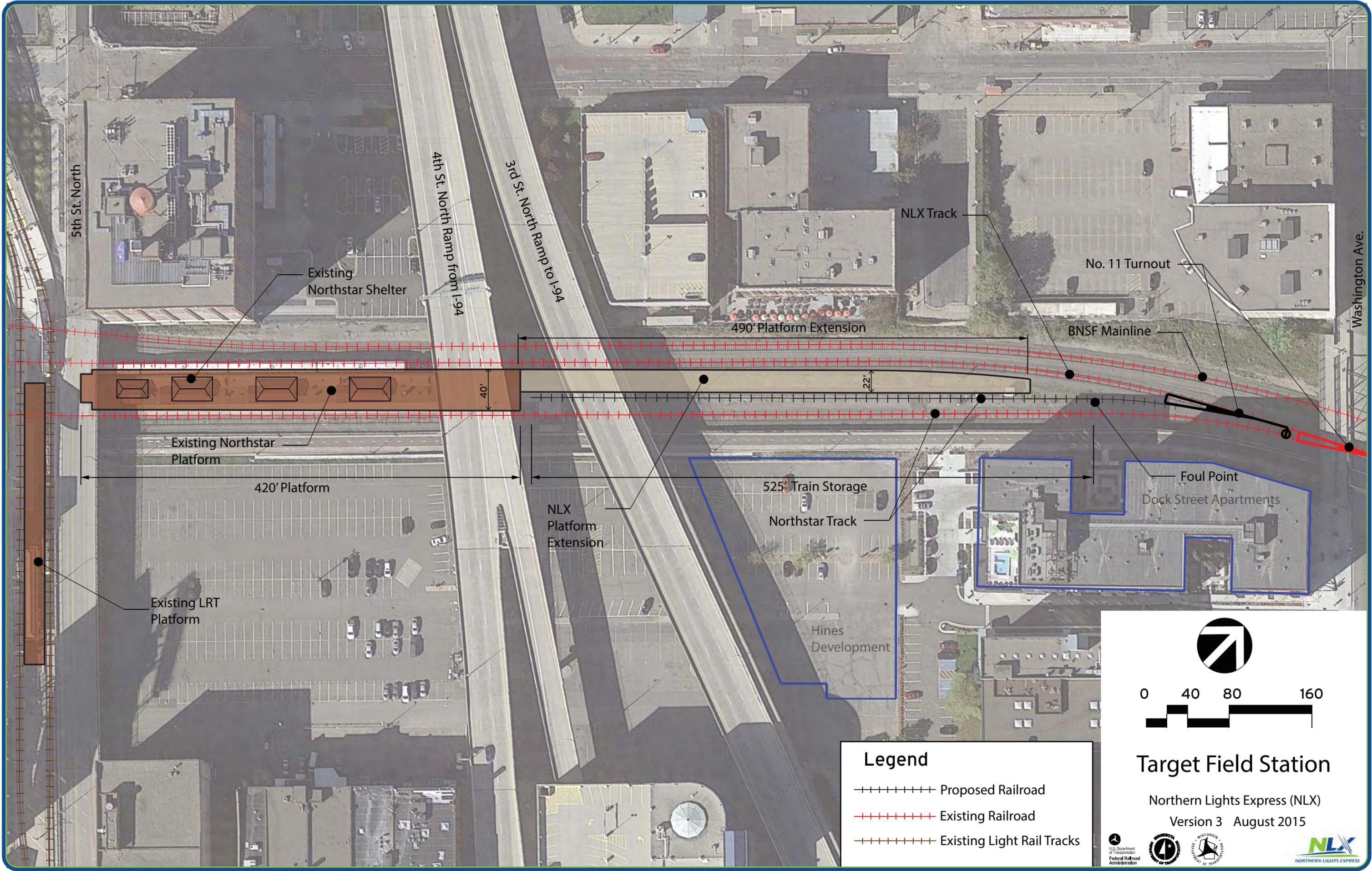


Duluth Layover Sheet 2
Northern Lights Express (NLX)
November 2014

APPENDIX F. Station Conceptual Plans

This appendix contains final conceptual site plans that were prepared for the selected site locations in station communities. These plans were used to develop cost estimates for NLX and to evaluate potential environmental and historic resource effects. **Section 6.1** of this report describes the conceptual plans for each station.





Legend

- +++++ Proposed Railroad
- +++++ Existing Railroad
- +++++ Existing Light Rail Tracks

0 40 80 160

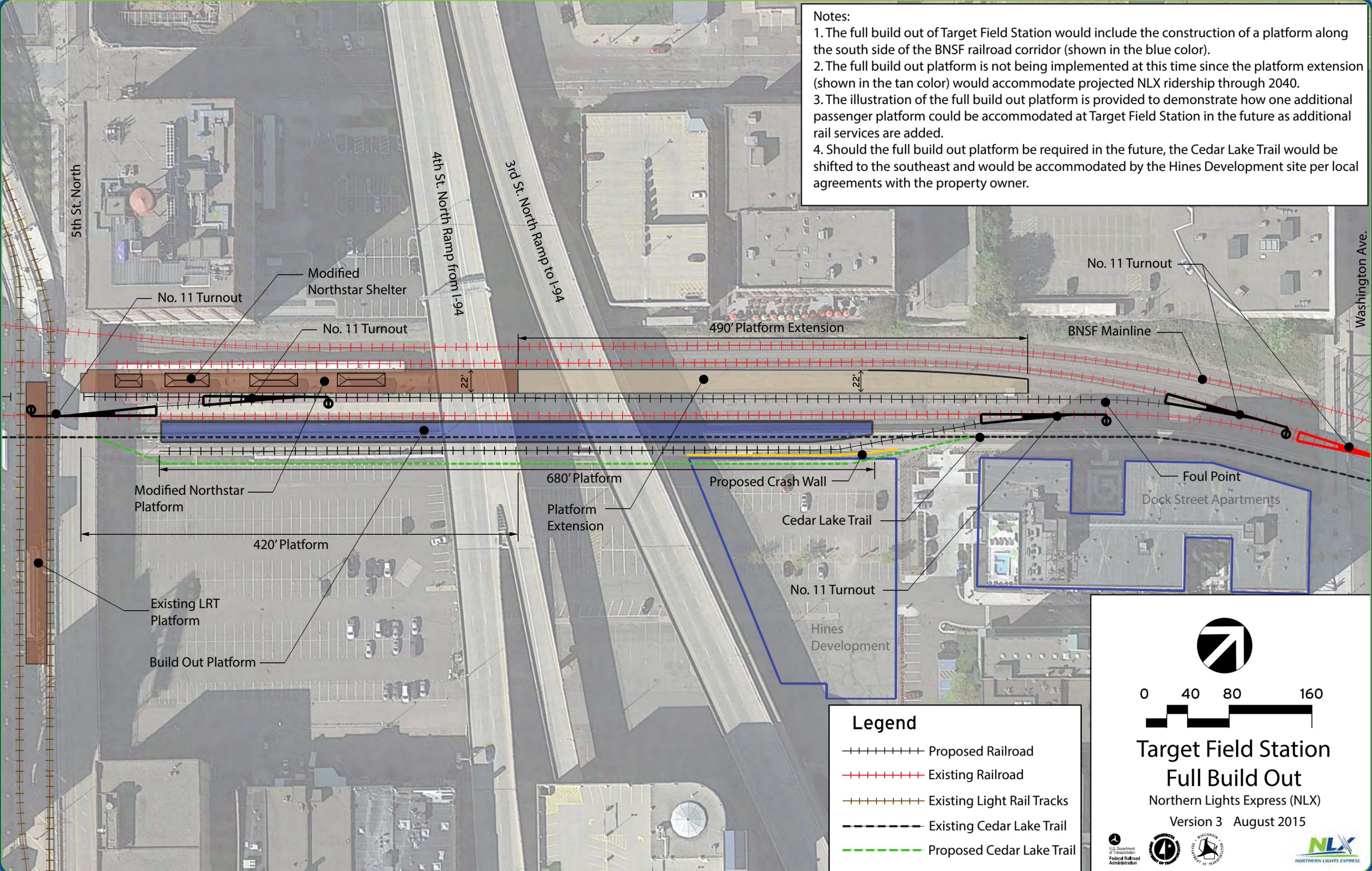
Target Field Station

Northern Lights Express (NLX)

Version 3 August 2015

Notes:

1. The full build out of Target Field Station would include the construction of a platform along the south side of the BNSF railroad corridor (shown in the blue color).
2. The full build out platform is not being implemented at this time since the platform extension (shown in the tan color) would accommodate projected NLX ridership through 2040.
3. The illustration of the full build out platform is provided to demonstrate how one additional passenger platform could be accommodated at Target Field Station in the future as additional rail services are added.
4. Should the full build out platform be required in the future, the Cedar Lake Trail would be shifted to the southeast and would be accommodated by the Hines Development site per local agreements with the property owner.



Legend

- +++++ Proposed Railroad
- +++++ Existing Railroad
- +++++ Existing Light Rail Tracks
- Existing Cedar Lake Trail
- Proposed Cedar Lake Trail


 0 40 80 160

Target Field Station
Full Build Out
 Northern Lights Express (NLX)
 Version 3 August 2015






Note: Future third main BNSF track to be west of existing track.
Exact location to be determined at a future date.

Future grade separation
(County Project)

Pending County Project
completion, sidewalk to
be under roadway

Crosswalk

Metro Transit
Park and Ride

Warming shelter

8' trail on structure
(County Project)

Fencing

Station building

Bike parking

Warming shelter

Platform (500' x 12')

Future platform
extension (300')

Passenger &
bus dropoff

Walkway

Station parking
spaces (160)

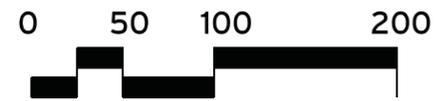
Parking Expansion

Ring road
(Future Project)

Shared Use Path
(Future Project)

Legend

- Property boundaries
- +++++ Railroad

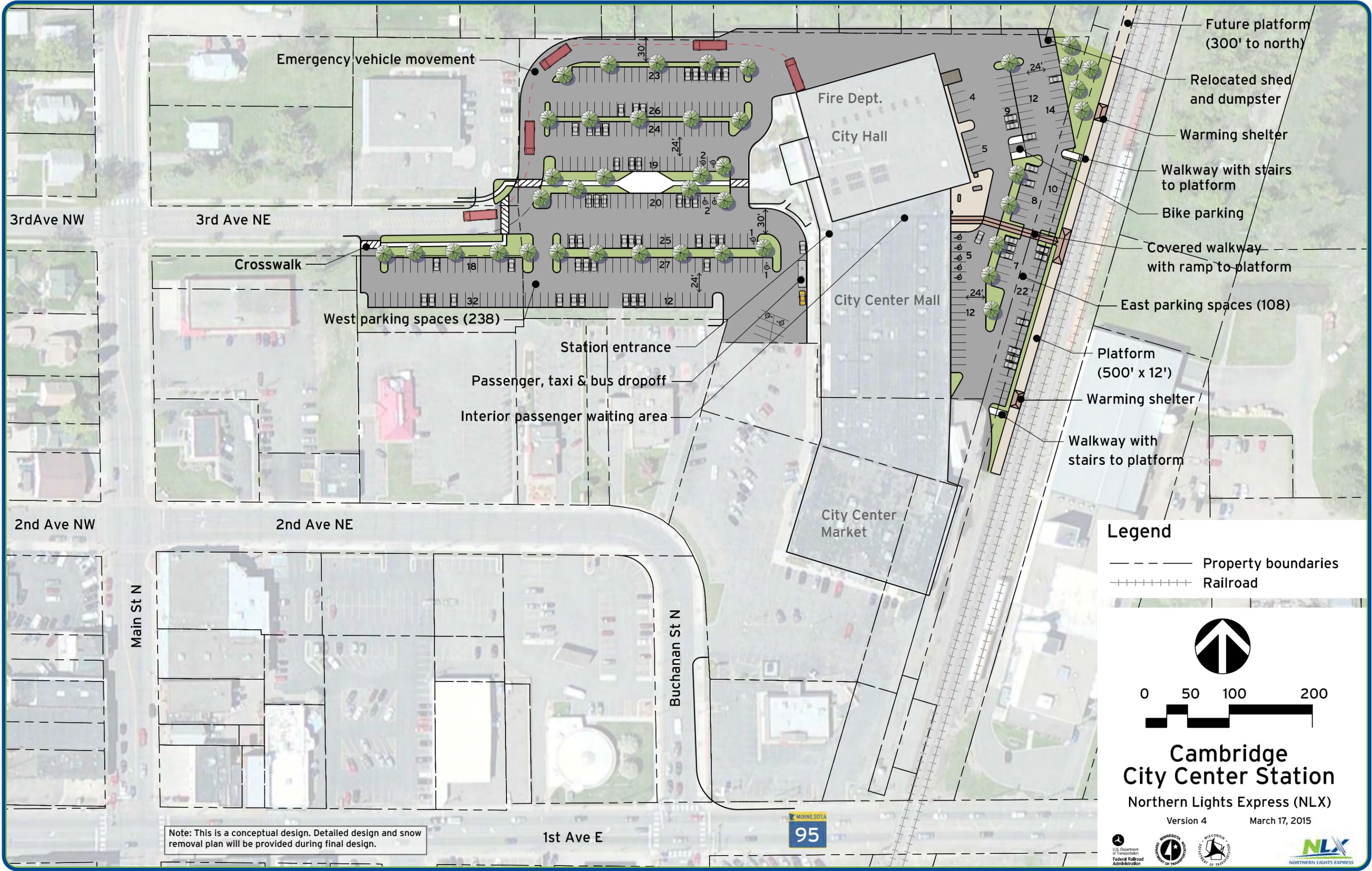


**Coon Rapids
Foley Blvd Station**

Northern Lights Express (NLX)

Version 2 April 10, 2015

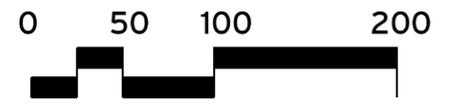




Note: This is a conceptual design. Detailed design and snow removal plan will be provided during final design.

Legend

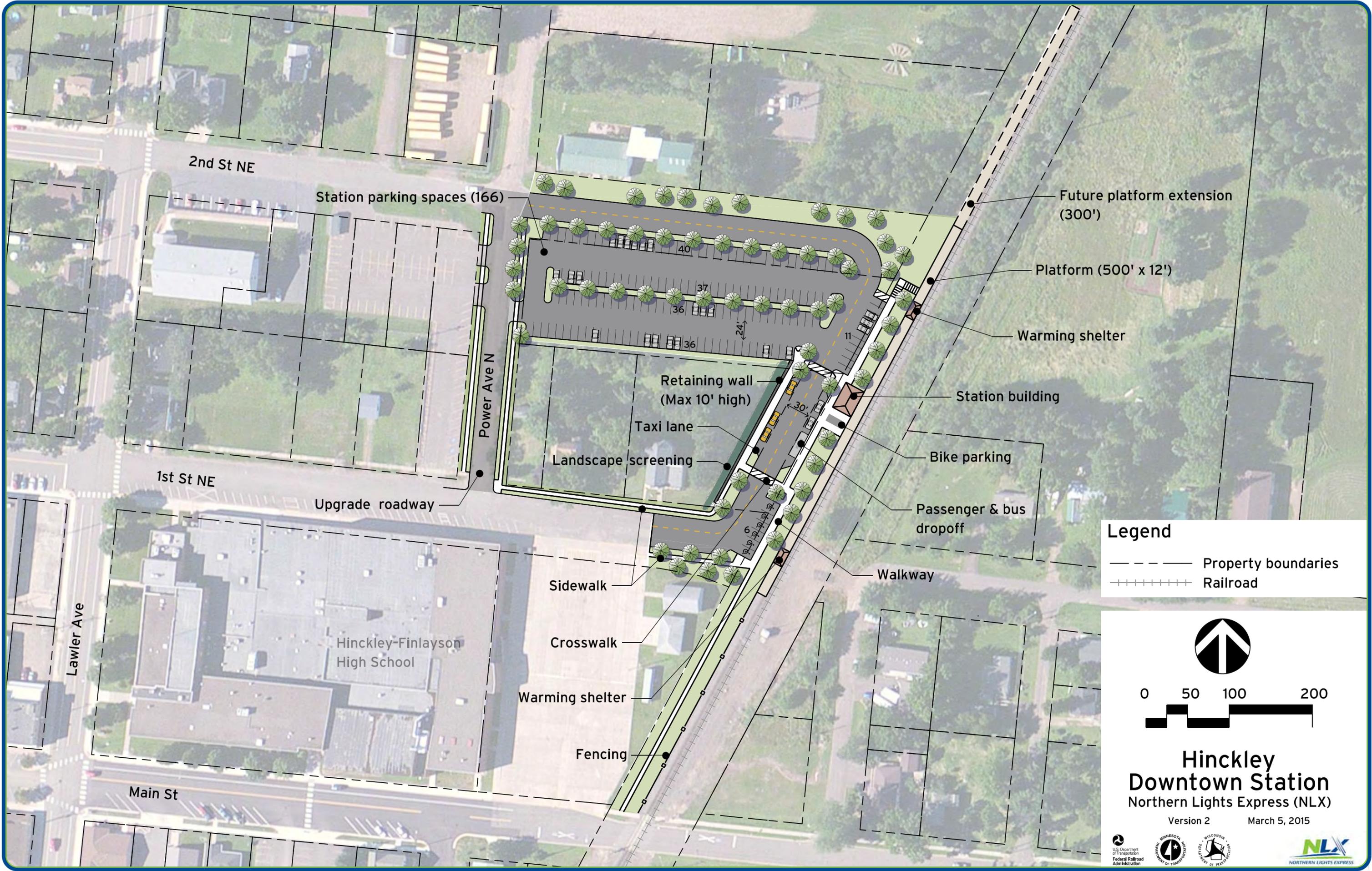
- Property boundaries
- Railroad



Cambridge City Center Station
Northern Lights Express (NLX)

Version 4 March 17, 2015





Legend

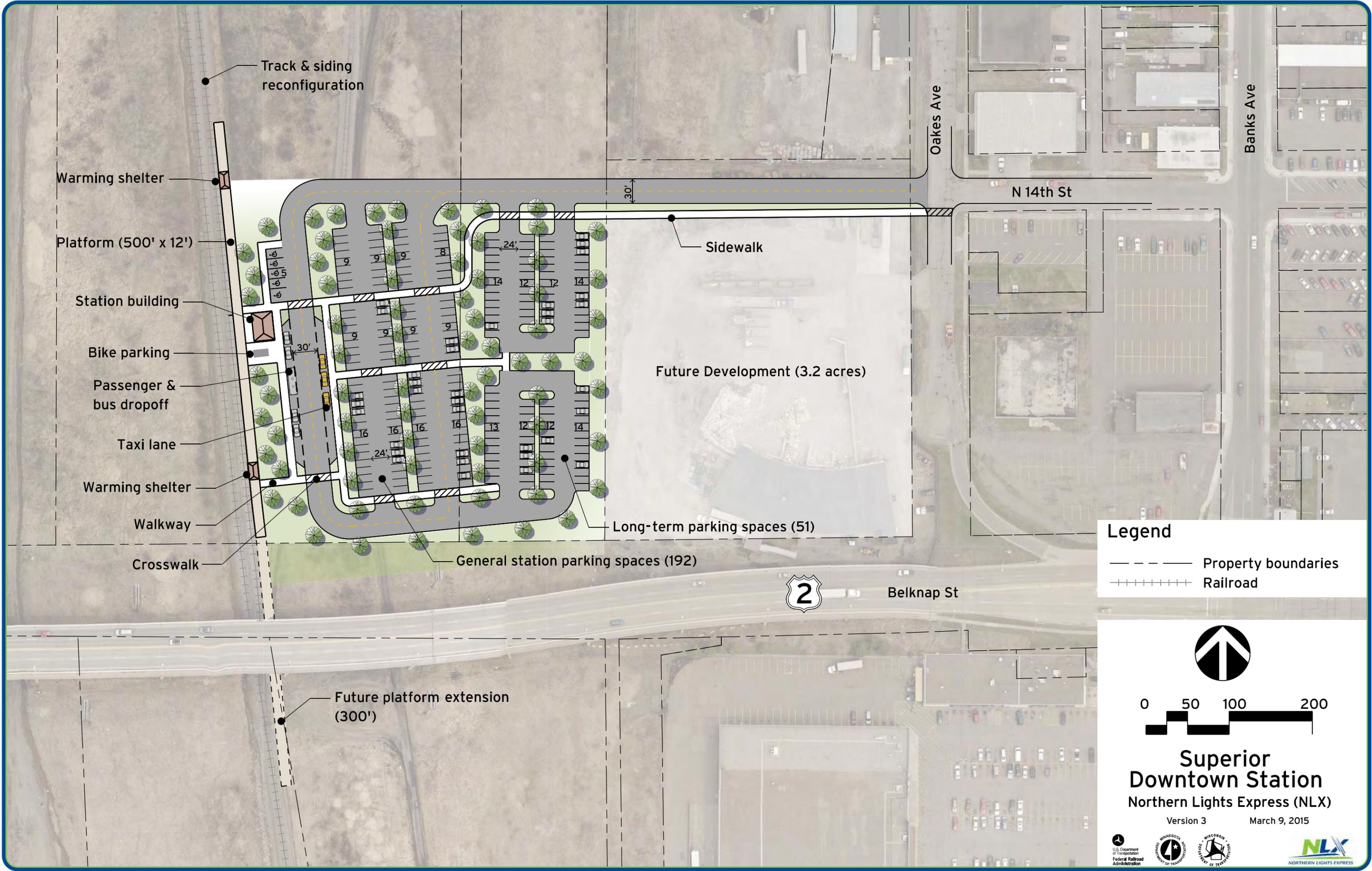
- Property boundaries
- +++++ Railroad

0 50 100 200

A north arrow pointing upwards and a scale bar showing increments of 50 units up to 200.

**Hinckley
Downtown Station**
Northern Lights Express (NLX)
Version 2 March 5, 2015





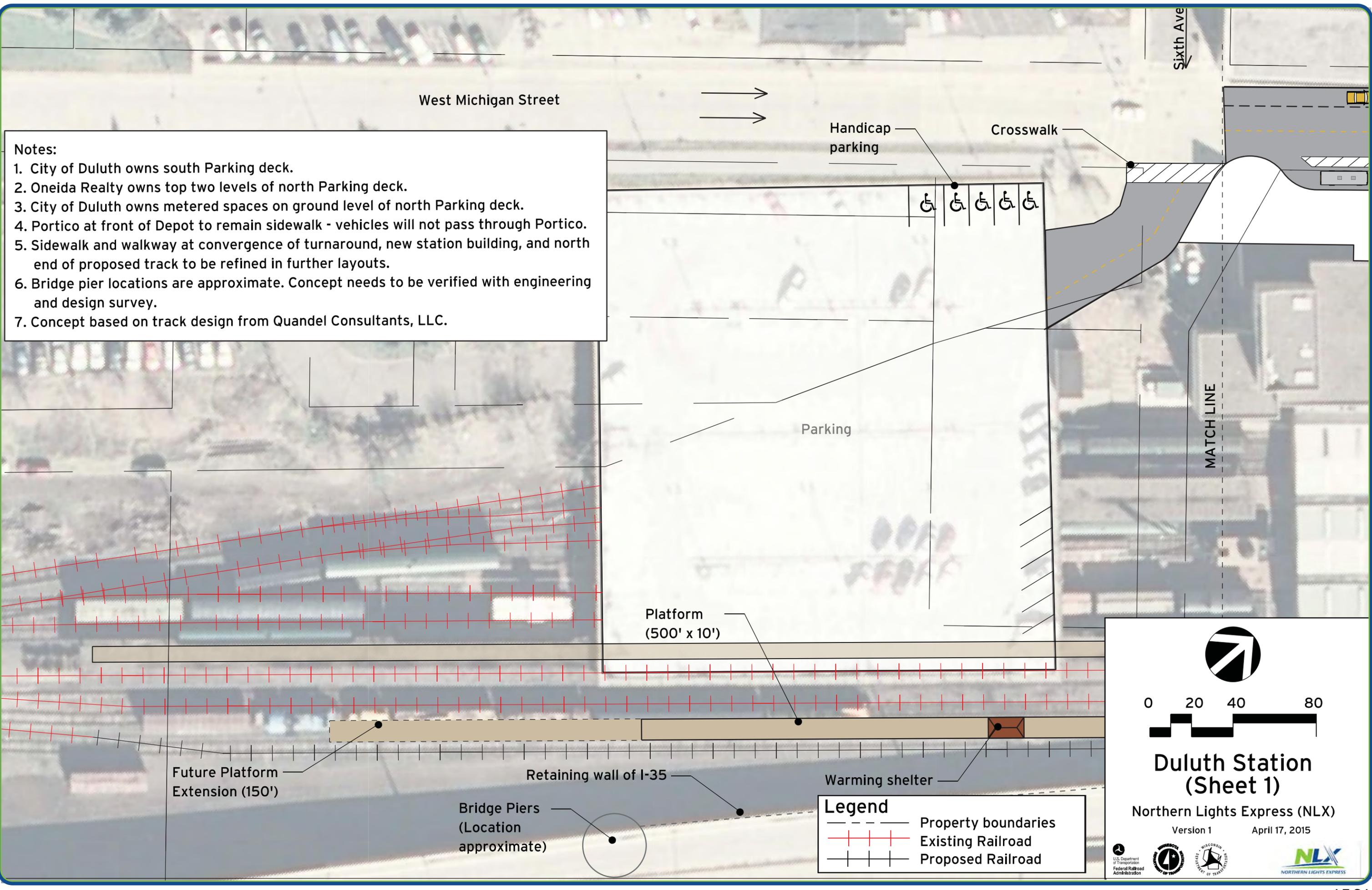
Legend

- Property boundaries
- ++++ Railroad

0 50 100 200

**Superior
Downtown Station**
Northern Lights Express (NLX)
Version 3 March 9, 2015





- Notes:**
1. City of Duluth owns south Parking deck.
 2. Oneida Realty owns top two levels of north Parking deck.
 3. City of Duluth owns metered spaces on ground level of north Parking deck.
 4. Portico at front of Depot to remain sidewalk - vehicles will not pass through Portico.
 5. Sidewalk and walkway at convergence of turnaround, new station building, and north end of proposed track to be refined in further layouts.
 6. Bridge pier locations are approximate. Concept needs to be verified with engineering and design survey.
 7. Concept based on track design from Quandel Consultants, LLC.

Handicap parking
 Crosswalk

Parking

Platform
 (500' x 10')

Future Platform
 Extension (150')

Retaining wall of I-35

Bridge Piers
 (Location
 approximate)

Warming shelter

Legend

- Property boundaries
- +++ Existing Railroad
- +++ Proposed Railroad

Sixth Ave

MATCH LINE

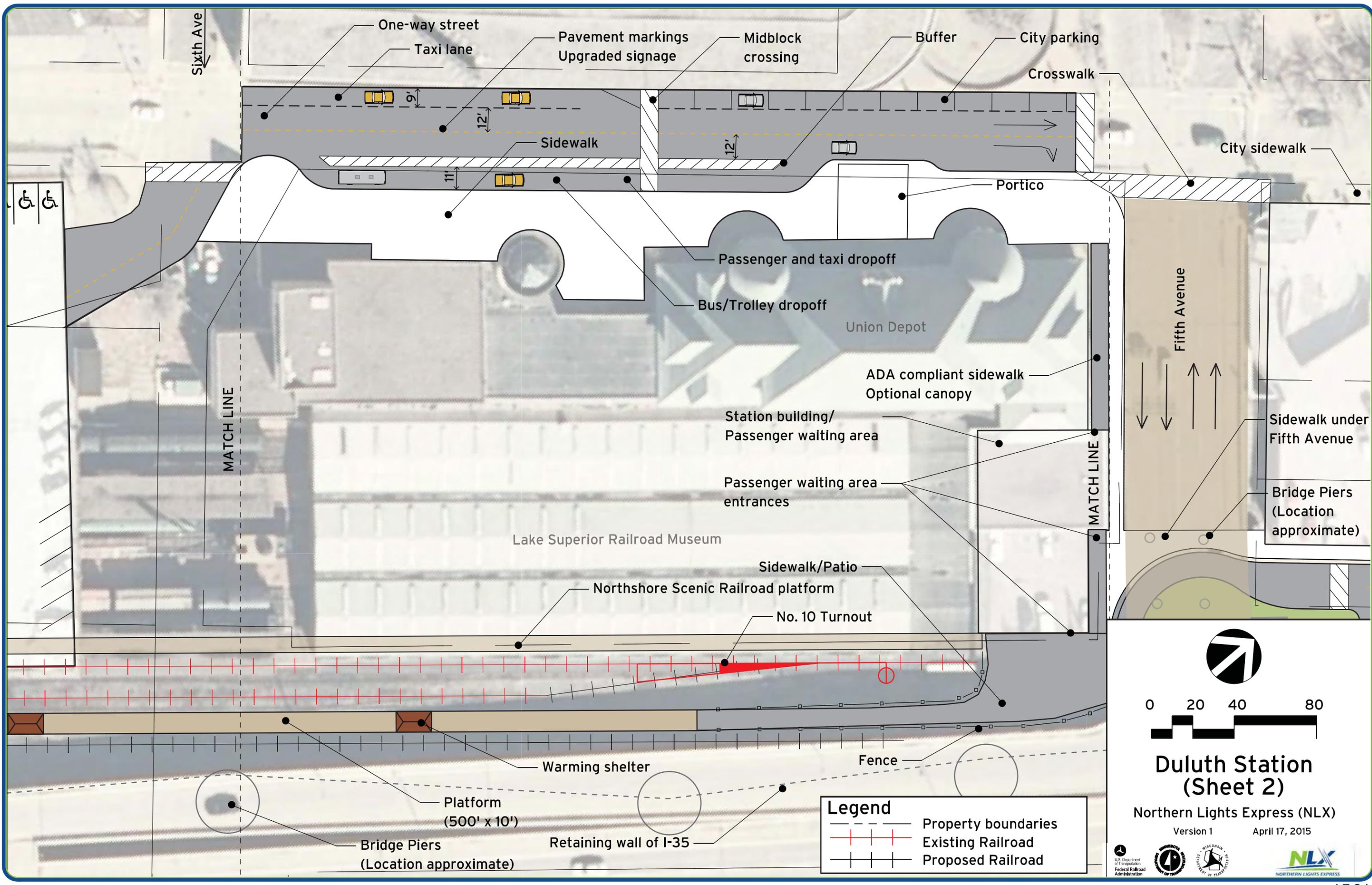


**Duluth Station
 (Sheet 1)**

Northern Lights Express (NLX)

Version 1 April 17, 2015





MATCH LINE

MATCH LINE

Legend

- Property boundaries
- +++ Existing Railroad
- Proposed Railroad

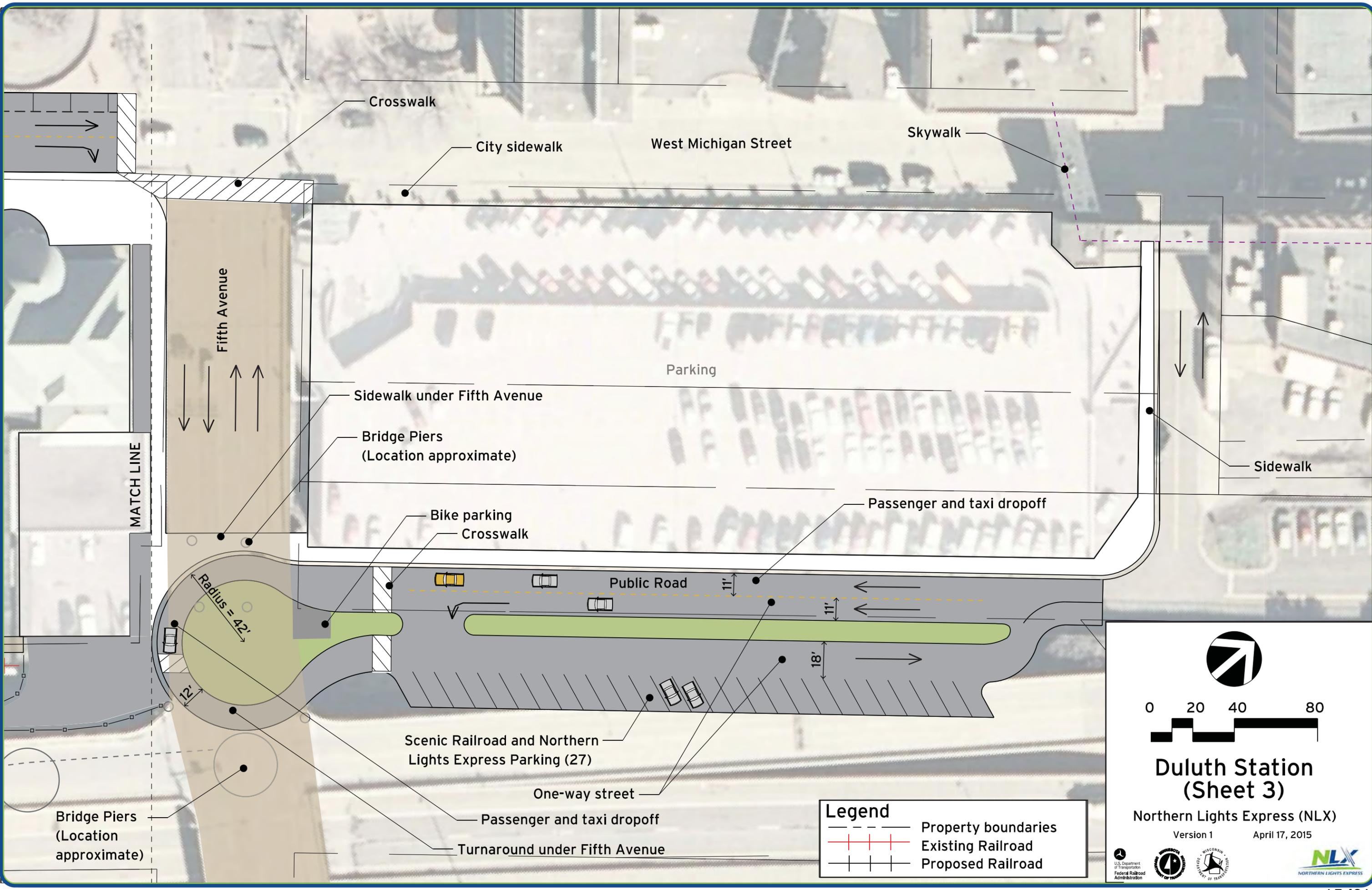


Duluth Station (Sheet 2)

Northern Lights Express (NLX)

Version 1 April 17, 2015





Crosswalk

City sidewalk

West Michigan Street

Skywalk

Fifth Avenue

Parking

Sidewalk under Fifth Avenue

Bridge Piers
(Location approximate)

Sidewalk

MATCH LINE

Bike parking
Crosswalk

Passenger and taxi dropoff

Public Road

Radius = 42'

11'

11'

18'

Scenic Railroad and Northern
Lights Express Parking (27)

One-way street

Passenger and taxi dropoff

Turnaround under Fifth Avenue

Bridge Piers
(Location approximate)

Legend

-  Property boundaries
-  Existing Railroad
-  Proposed Railroad



Duluth Station (Sheet 3)

Northern Lights Express (NLX)

Version 1

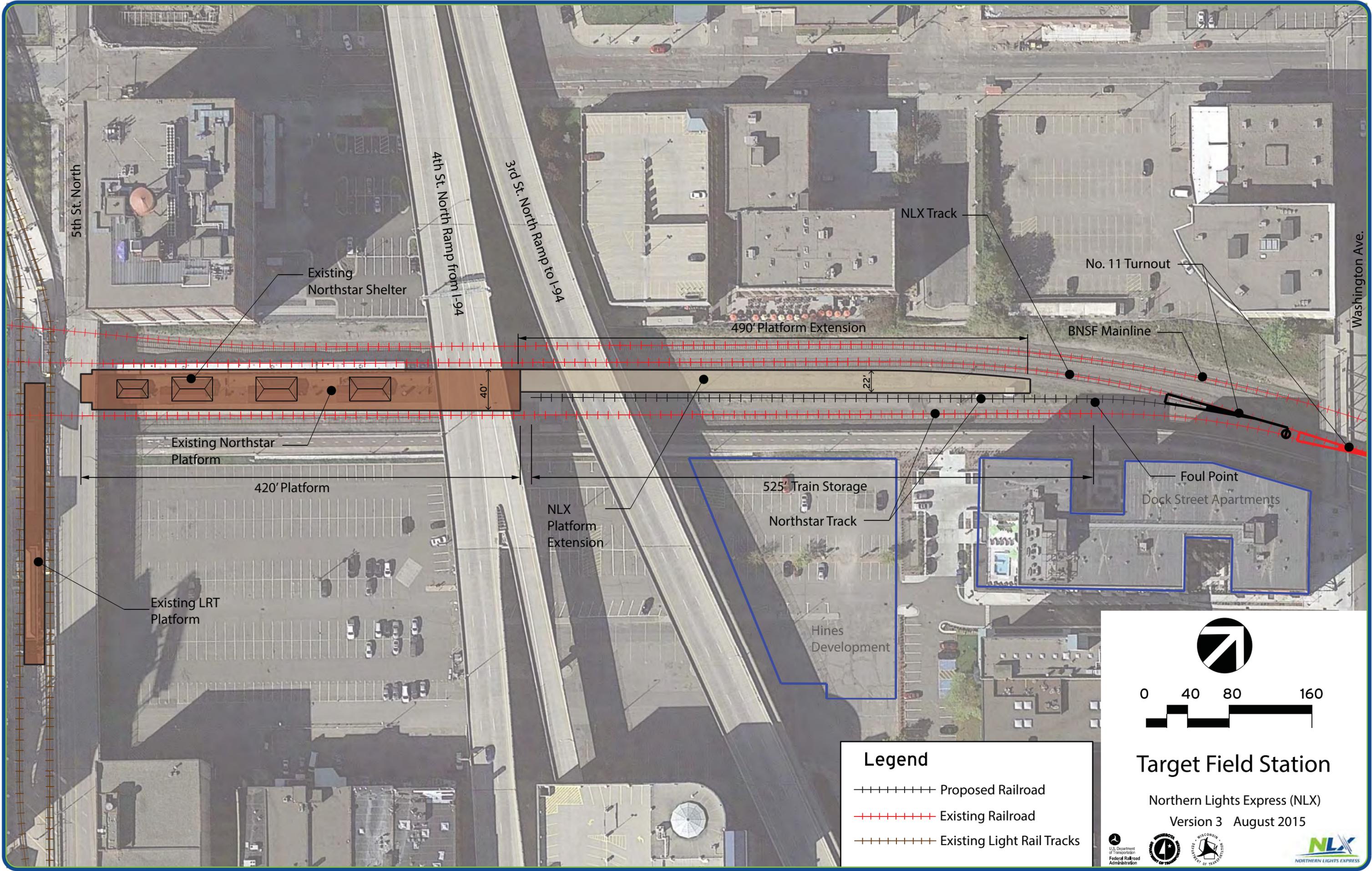
April 17, 2015



APPENDIX G. Maintenance and Layover Facility Conceptual Plans

This appendix contains conceptual site plans for the maintenance and layover site alternatives. Final site selection is dependent on the completion of the NLX operations plan. These plans were used to develop cost estimates for NLX and to evaluate potential environmental and historic resource effects. **Section 6.2** of this report describes the conceptual site plans.





Legend

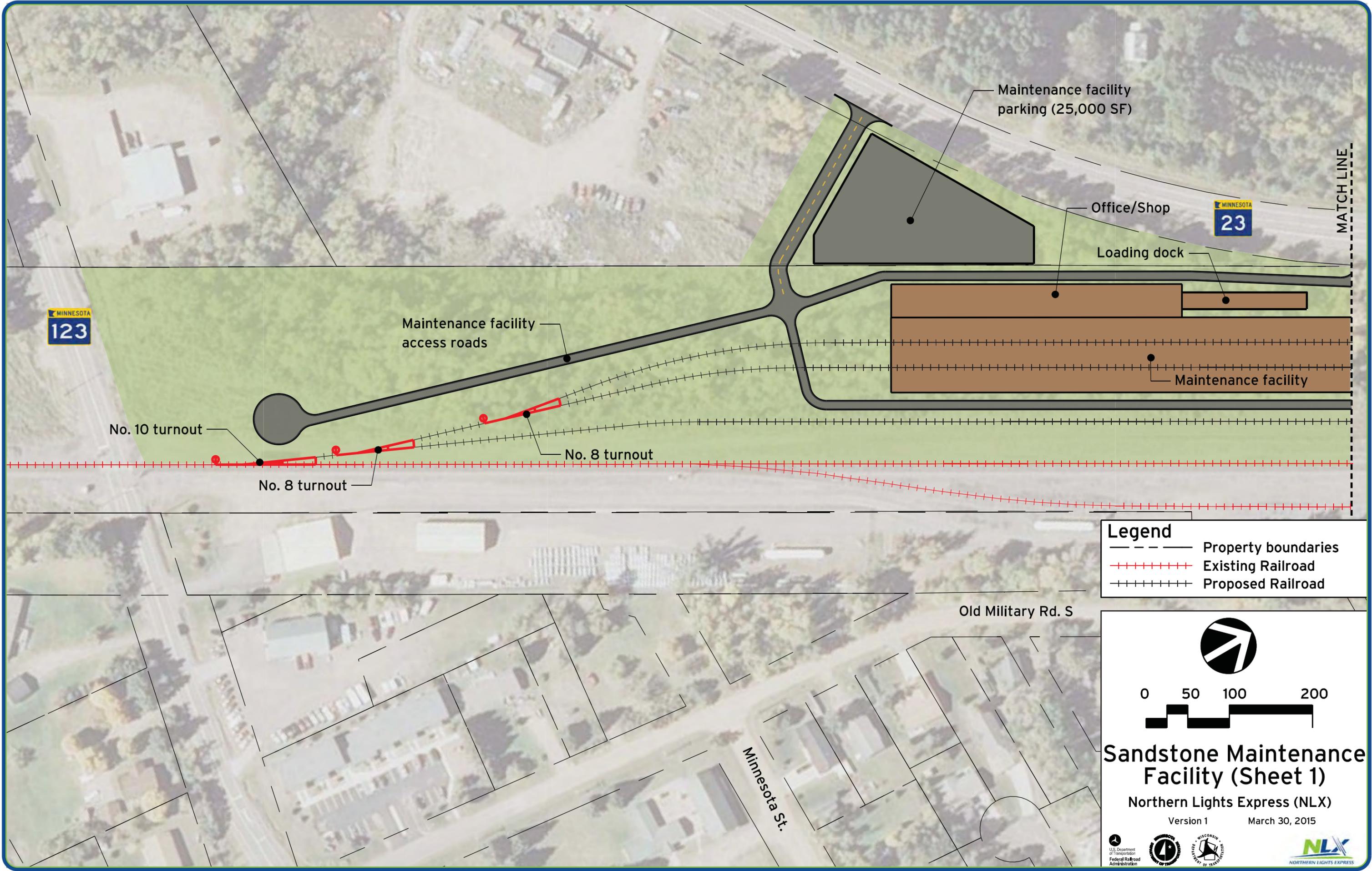
- +++++ Proposed Railroad
- ++++ Existing Railroad
- ++++ Existing Light Rail Tracks

0 40 80 160

Target Field Station

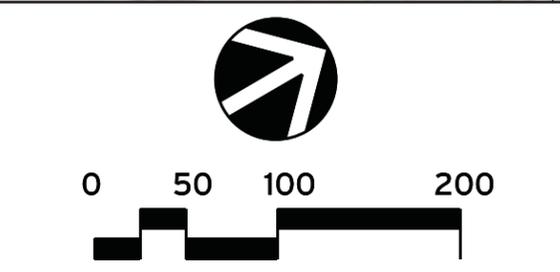
Northern Lights Express (NLX)

Version 3 August 2015



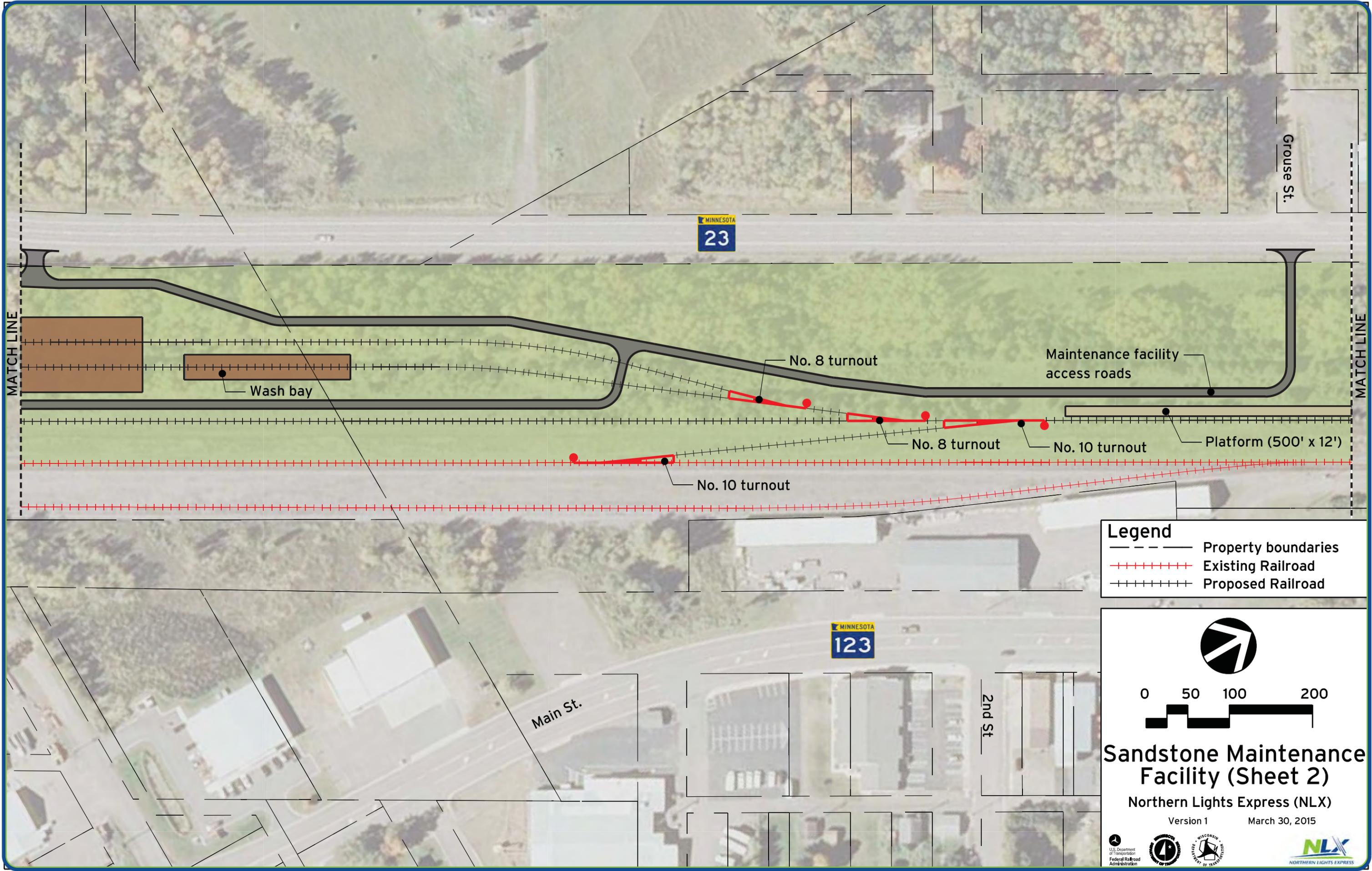
Legend

	Property boundaries
	Existing Railroad
	Proposed Railroad



Sandstone Maintenance Facility (Sheet 1)
 Northern Lights Express (NLX)
 Version 1 March 30, 2015





MATCH LINE

MATCH LINE

Grouse St.

MINNESOTA
23

Wash bay

No. 8 turnout

Maintenance facility
access roads

No. 8 turnout

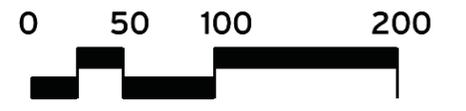
No. 10 turnout

Platform (500' x 12')

No. 10 turnout

Legend

- Property boundaries
- Existing Railroad
- Proposed Railroad



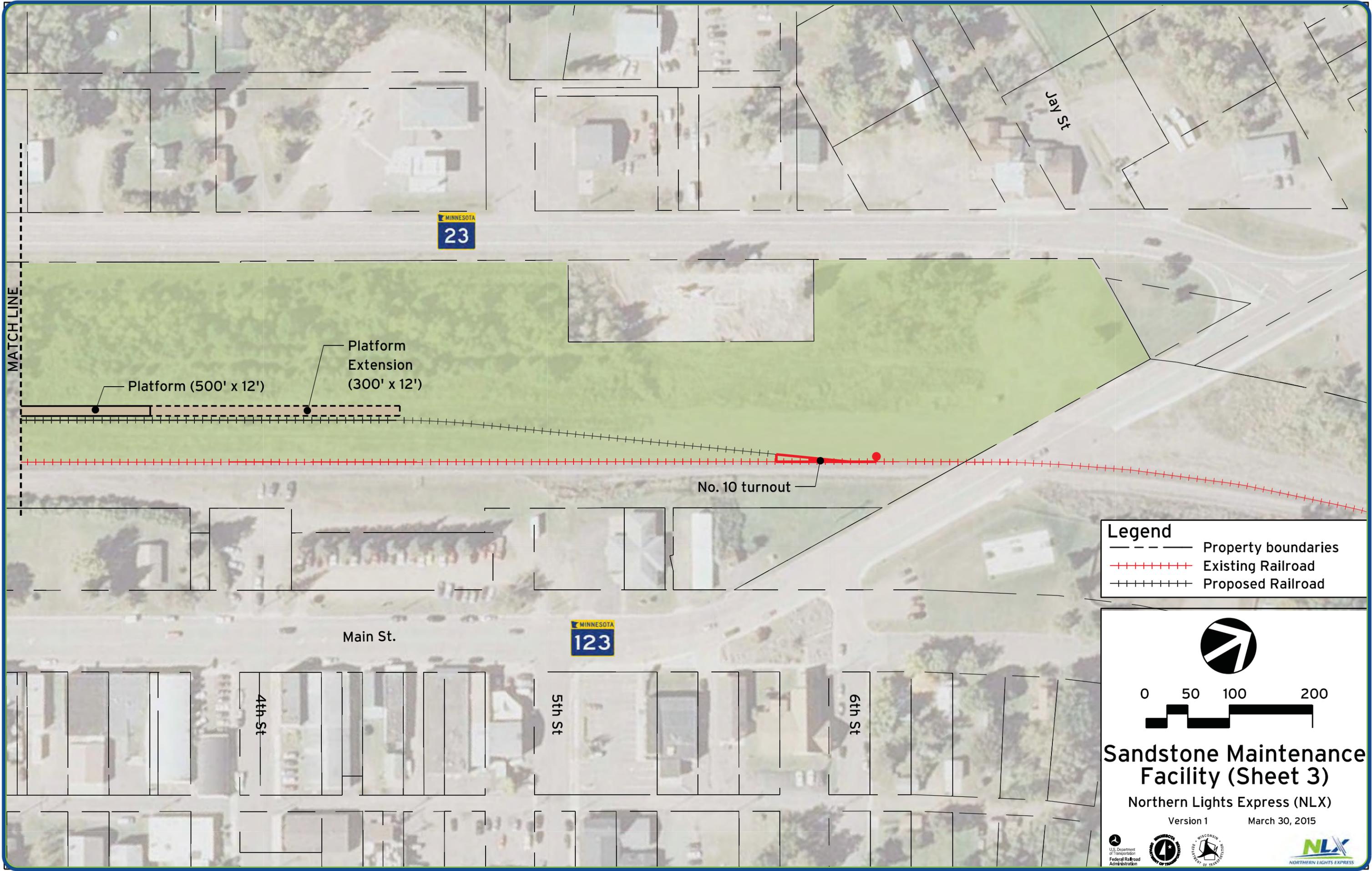
Sandstone Maintenance Facility (Sheet 2)

Northern Lights Express (NLX)

Version 1

March 30, 2015



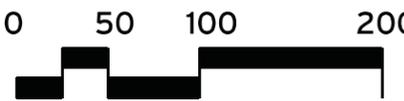


Legend

- Property boundaries
- Existing Railroad
- Proposed Railroad



0 50 100 200



Sandstone Maintenance Facility (Sheet 3)
 Northern Lights Express (NLX)
 Version 1 March 30, 2015



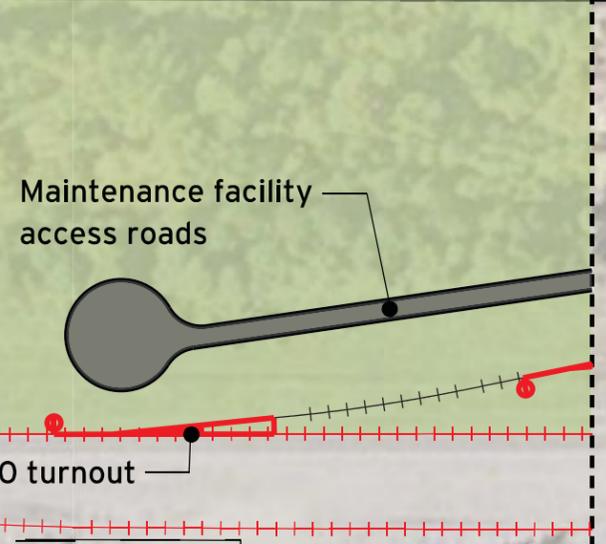




MATCH LINE

MINNESOTA
23

MINNESOTA
123



Legend	
	Property Boundaries
	Existing Railroad
	Proposed Railroad

Old Military Rd. S

Minnesota St.

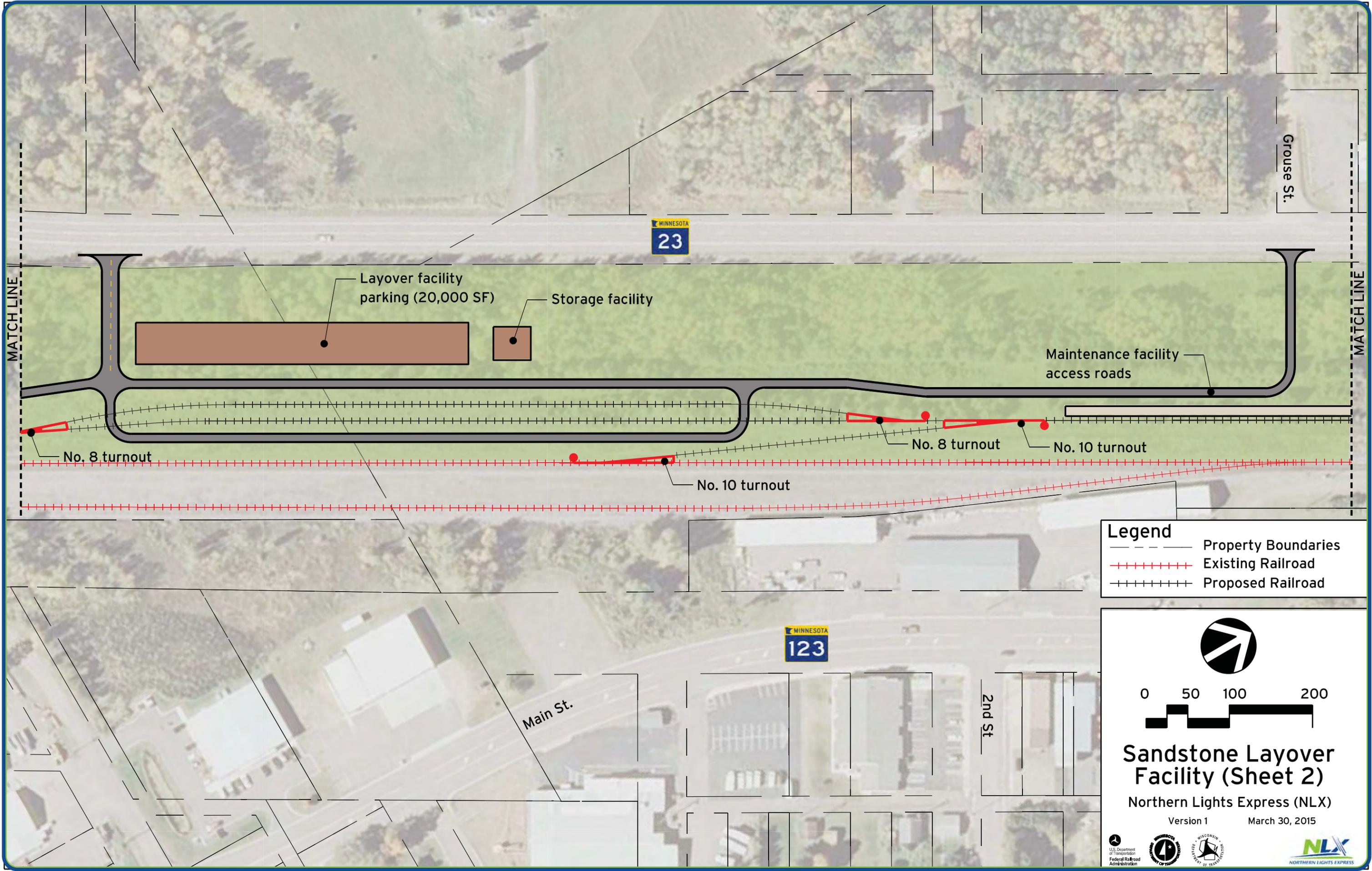


Sandstone Layover Facility (Sheet 1)

Northern Lights Express (NLX)

Version 1 March 30, 2015





MATCH LINE

MATCH LINE

Grouse St.

MINNESOTA
23

Layover facility
parking (20,000 SF)

Storage facility

Maintenance facility
access roads

No. 8 turnout

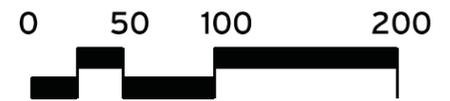
No. 8 turnout

No. 10 turnout

No. 10 turnout

Legend

-  Property Boundaries
-  Existing Railroad
-  Proposed Railroad



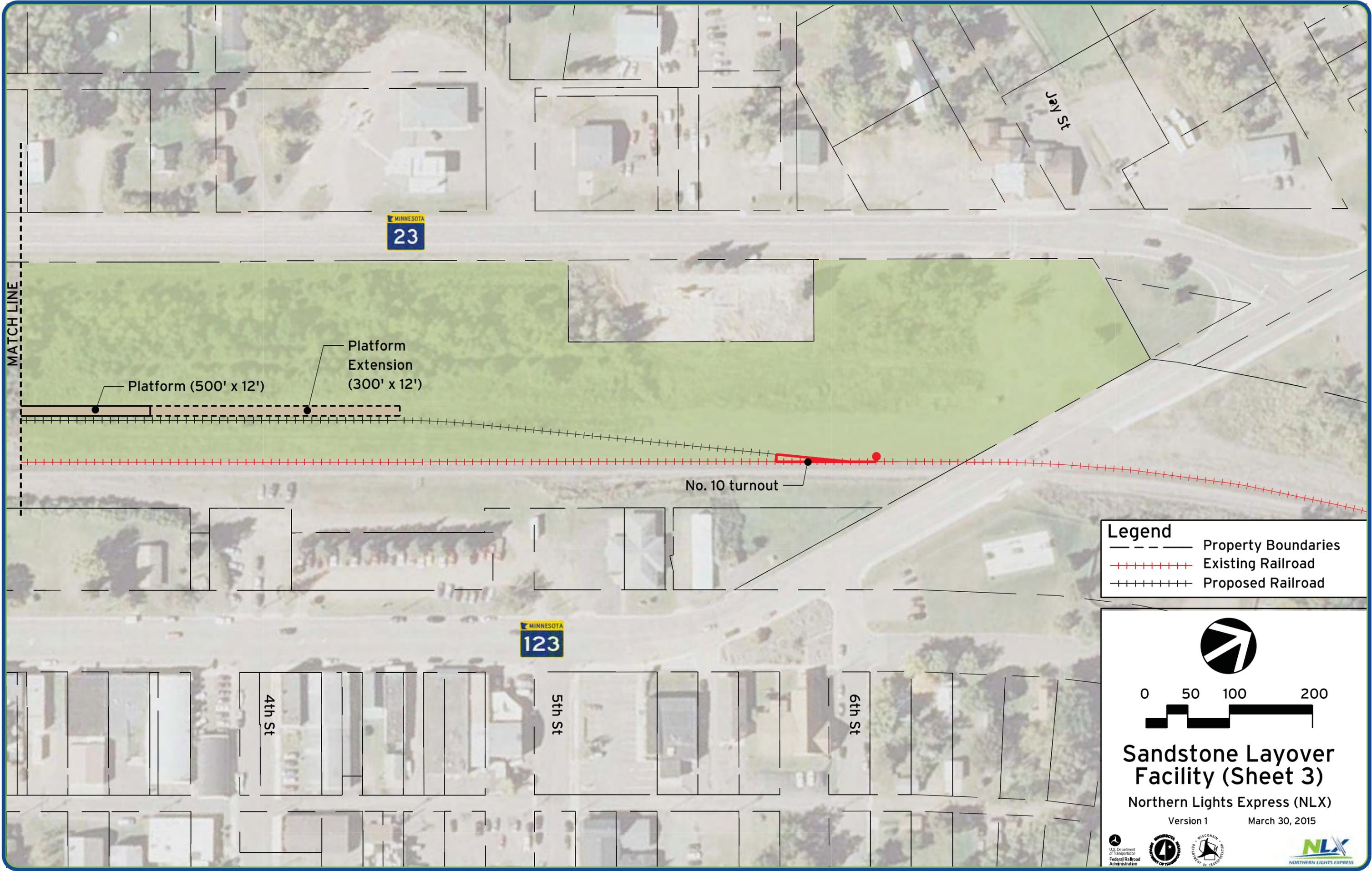
**Sandstone Layover
Facility (Sheet 2)**

Northern Lights Express (NLX)

Version 1

March 30, 2015



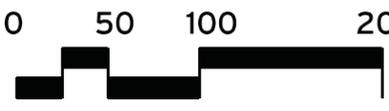


Legend

- Property Boundaries
- Existing Railroad
- Proposed Railroad



0 50 100 200

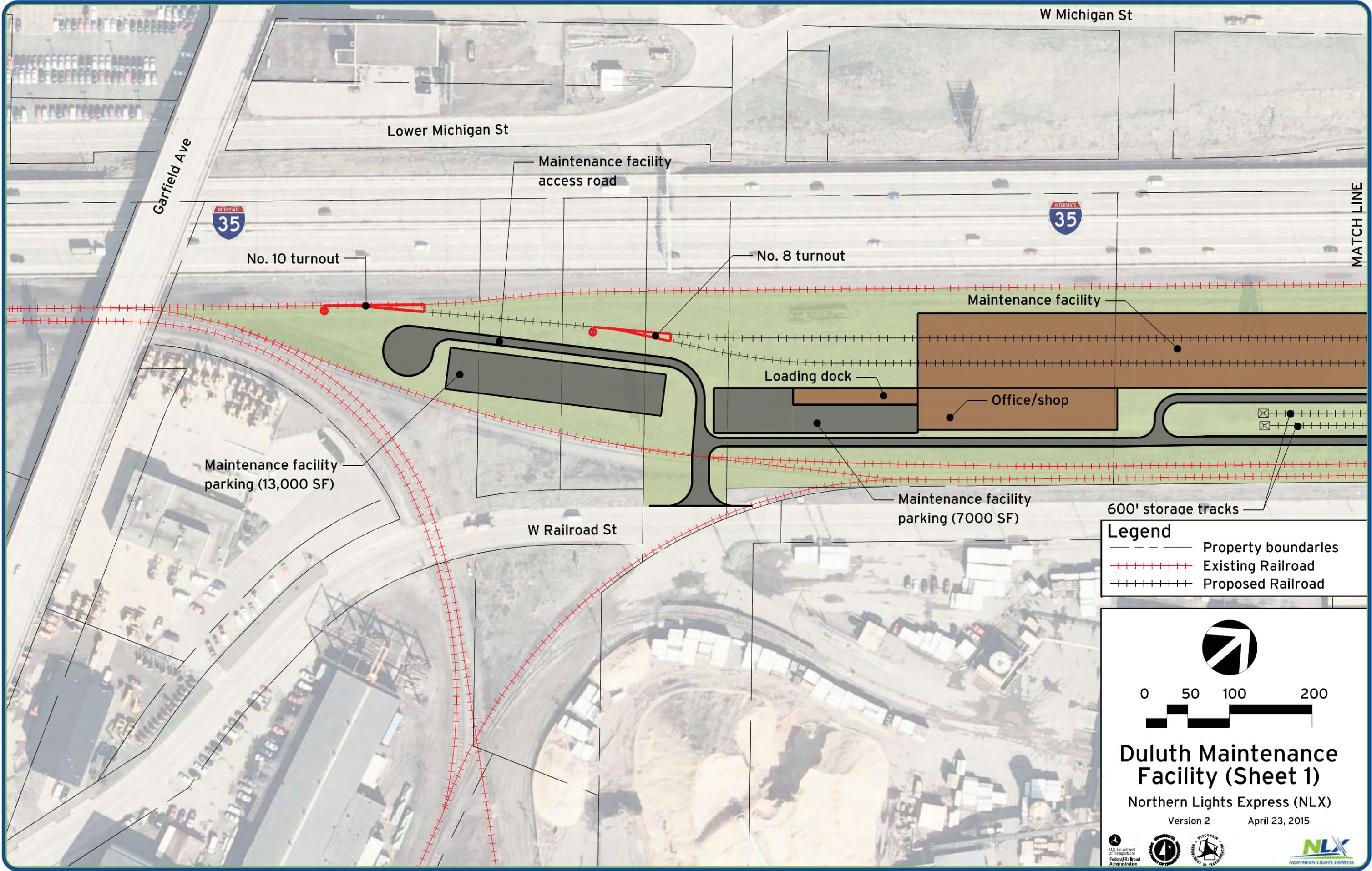


Sandstone Layover Facility (Sheet 3)
Northern Lights Express (NLX)

Version 1 March 30, 2015







W Michigan St

Lower Michigan St

Garfield Ave



No. 10 turnout

No. 8 turnout

Maintenance facility access road

Maintenance facility

Loading dock

Office/shop

Maintenance facility parking (13,000 SF)

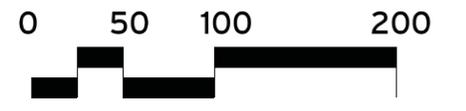
Maintenance facility parking (7000 SF)

600' storage tracks

W Railroad St

Legend

- Property boundaries
- Existing Railroad
- Proposed Railroad



Duluth Maintenance Facility (Sheet 1)

Northern Lights Express (NLX)

Version 2 April 23, 2015



W Michigan St



Maintenance facility

Wash bay

No. 10 turnout

No. 8 turnout

Superior hiking trail
(elevated over
roadway and track)

No. 8 turnout

600' storage tracks

Maintenance facility
access road

W Railroad St

Legend

- Property boundaries
- ++++ Existing Railroad
- ++++ Proposed Railroad



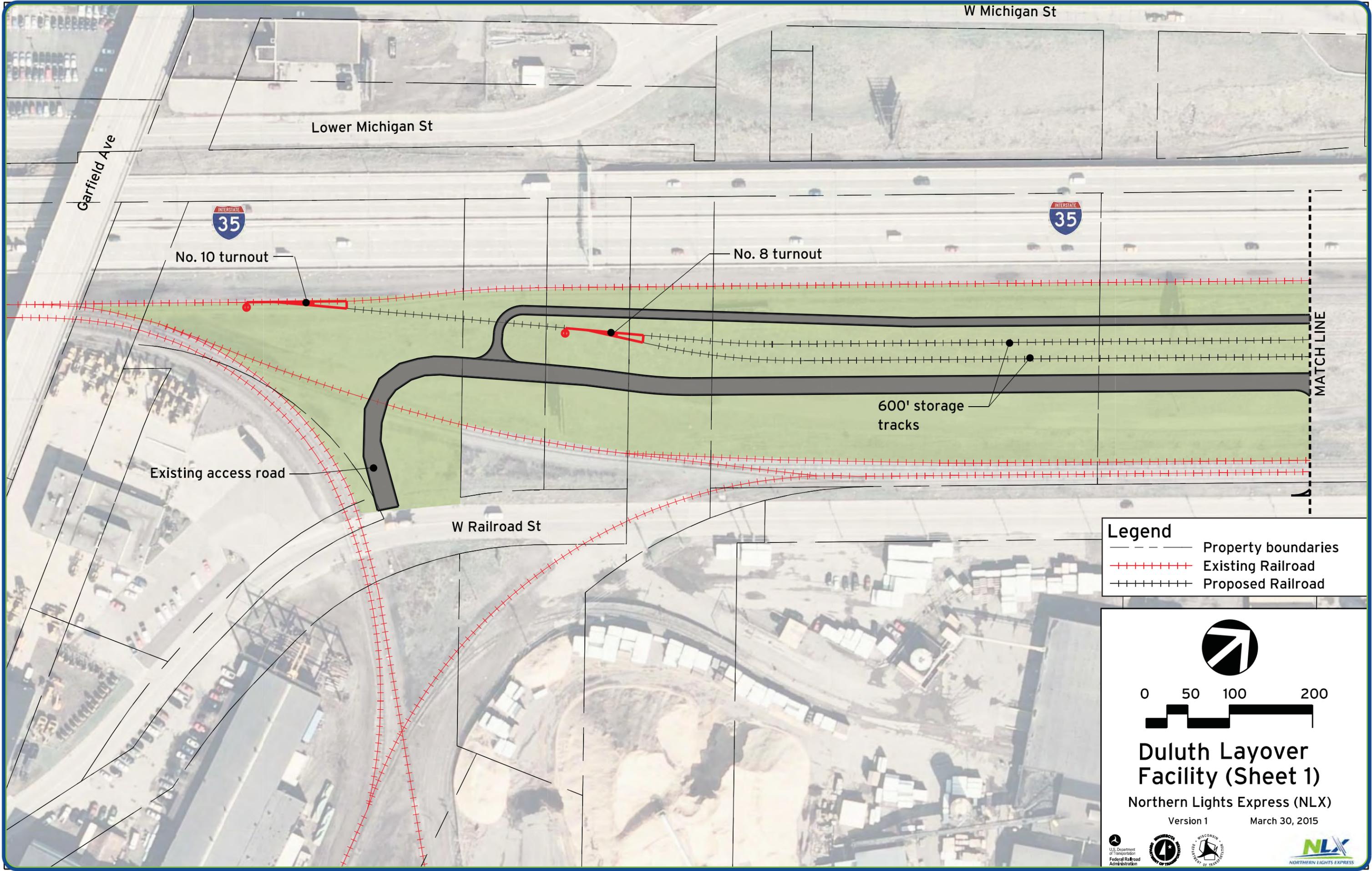
Duluth Maintenance Facility (Sheet 2)

Northern Lights Express (NLX)

Version 2

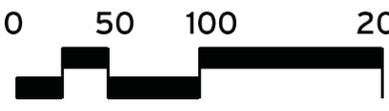
April 23, 2015





Legend

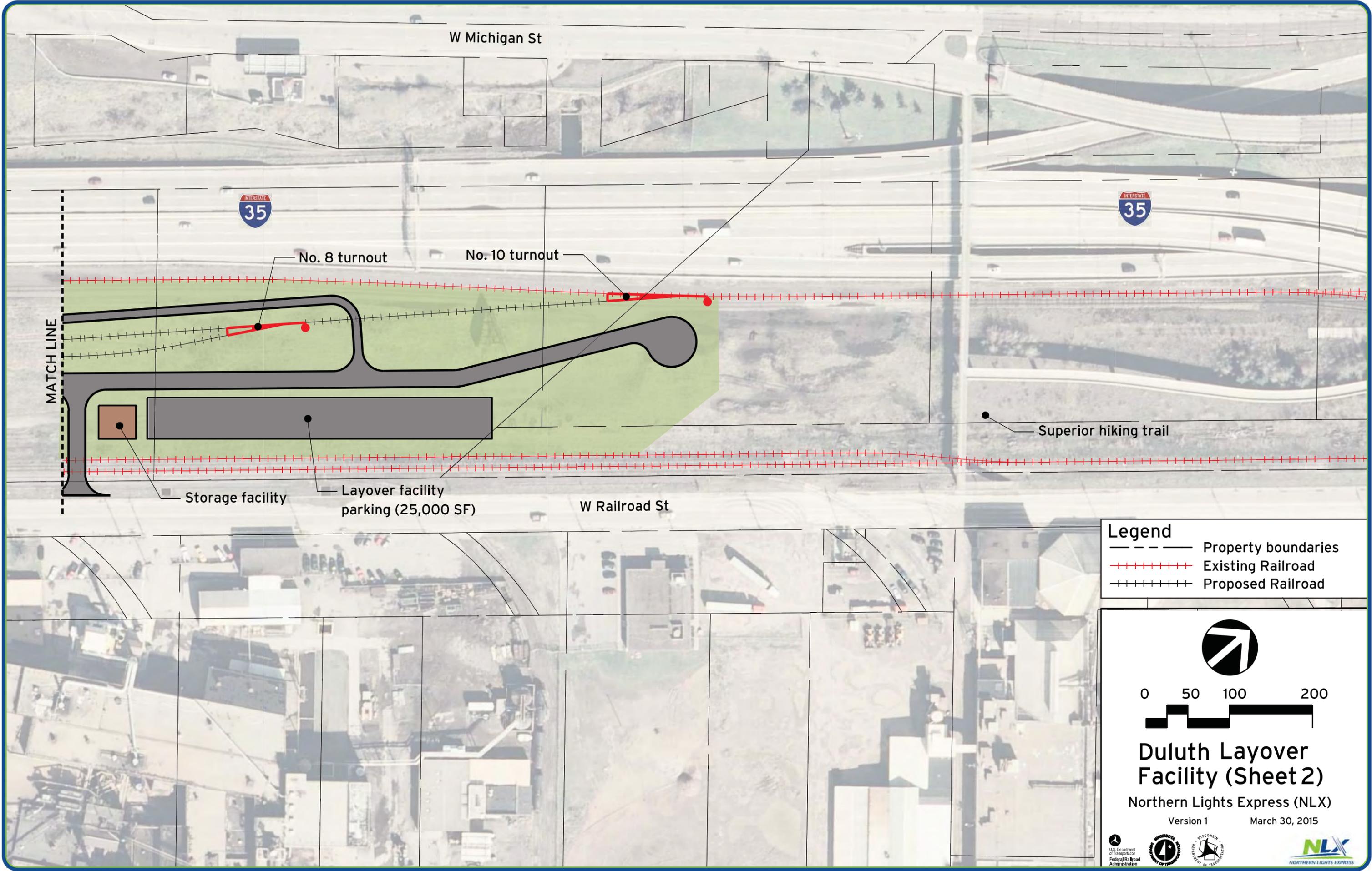
-  Property boundaries
-  Existing Railroad
-  Proposed Railroad


 0 50 100 200


Duluth Layover Facility (Sheet 1)
 Northern Lights Express (NLX)
 Version 1 March 30, 2015







Legend

- Property boundaries
- Existing Railroad
- Proposed Railroad

0 50 100 200

Duluth Layover Facility (Sheet 2)

Northern Lights Express (NLX)

Version 1 March 30, 2015