



Final Report

CSAH 25 Conceptual Roadway Layout

St. Louis Park and Hennepin County

STLOU 138207 | January 15, 2019



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Executive Summary

Study Purpose

The City of St. Louis Park and Hennepin County initiated a planning process to transform a major transportation corridor within the community. The groundwork has been laid over the course of several previous and recent planning efforts to advance the development of a Conceptual Roadway Layout that creates an “urban boulevard” along the Hennepin County State Aid Highway 25 corridor (CSAH 25) in the City of St. Louis Park.

The CSAH 25 Conceptual Roadway Layout is intended to provide a framework for agency staff as future opportunities arise to make changes to the CSAH 25 Corridor which meet the goals established in this study. Further, many of the improvements identified augment and reinforce related efforts such as the planned CSAH 25/Beltline Pedestrian Improvements and the 2023 Minnetonka Boulevard reconstruction. Before advancement to a preliminary design phase, the conceptual designs identified in this report will require further vetting through feasibility studies and more detailed analysis in some instances, and they will require approvals from the appropriate agencies (City of St. Louis Park, Hennepin County, MnDOT).

CSAH 25 is a four-lane divided county road with a rural cross section, wide ditch median, frontage roads and generally, 200-foot right-of-way. CSAH 25 begins on the west end where the 45-mph expressway of Trunk Highway 7 ends at the signalized east ramp terminal intersection at Trunk Highway 100. At the east end, CSAH 25 merges with Minnetonka Boulevard (also CSAH 5) and connects to France Avenue. The Triangle neighborhood straddles CSAH 25 with residential and commercial land uses to the north and a combination of light industrial and new mixed used developments to the south.



Executive Summary (continued)

The existing wide corridor of 200-feet presents an opportunity to “rethink” CSAH 25 and this area – repurposing the right-of-way to better serve all modes of transportation, enhance sustainability and set the stage for community scale redevelopment.

Concept Development

The conceptual designs developed through this study redistribute the existing right-of-way, create a more compact roadway and provide alternatives for use of the remaining right-of-way. Concepts address access and mobility for auto/freight, bike, transit and pedestrian traffic within the context of the adjacent land uses. The concept development process began with compilation of existing conditions and a one-day design workshop at which several multidisciplinary consultant design team members and agency staff members reaffirmed the project vision and goals and then set to work on the development, analysis and review of multiple concepts for CSAH 25. The collaborative nature of the workshop provided quick feedback loops and a creative exchange of ideas providing a strong foundation of understanding for the concept refinement phase.

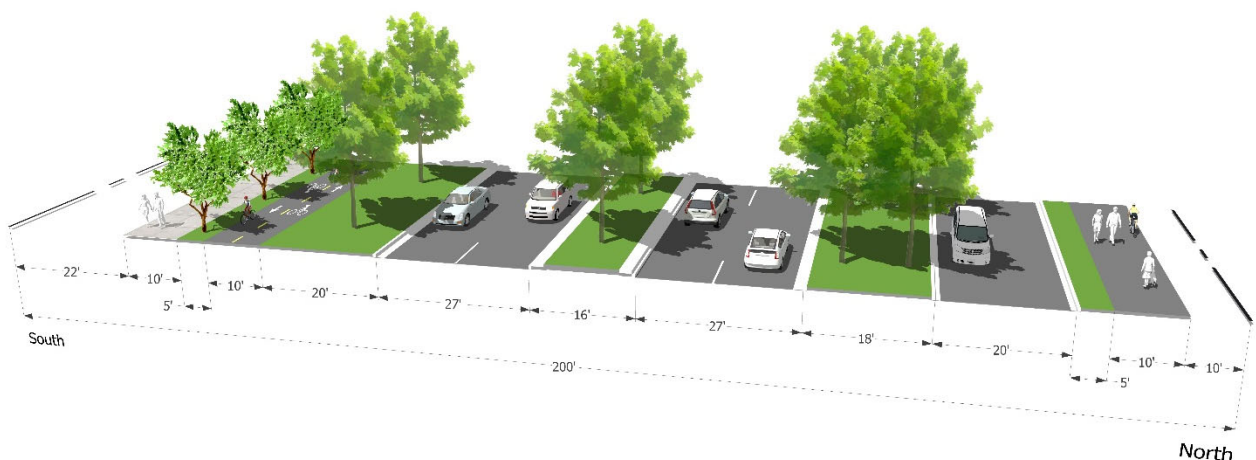
Following the design workshop, concepts were refined and reviewed over the course of several months with consideration given to the impacts to and from:

- Adjacent neighborhood and land uses
- Multimodal access, safety and operation
- Related nearby projects such as the planned CSAH 25/Beltline Pedestrian Improvements, Minnetonka Boulevard reconstruction, Green Line LRT Extension/Beltline Station and recent area redevelopment efforts

CSAH 25 Conceptual Roadway Layout

The CSAH 25 Conceptual Roadway Layout meets the project vision to:

“Create a vibrant urban boulevard in the heart of St. Louis Park that is safe and comfortable for all modes of travel.”



CSAH 25 is transformed to an urban street with parkway elements including a landscaped median and tree-lined boulevards. Continuous pedestrian and bicycle facilities are provided along the length of the corridor on the north and south sides. The North Frontage Road is maintained through most of the corridor with the South Frontage Road between Beltline Boulevard and Joppa Avenue repurposed

Executive Summary (continued)

for a protected bikeway, sidewalk and landscaping zone. Access to all existing parcels but one is maintained in the Conceptual Layout. The collection of landscape, gateway, multimodal, traffic calming and urban design improvements identified in the layout, in conjunction with a reduction in the existing speed limit, provide for a transition from the expressway character of TH 7 and CSAH 5 to the desired *urban boulevard* sending a clear message to all travelers that they are on a new segment of street in a unique place.

The east end of the corridor at the intersection of CSAH 25 and CSAH 5, or *confluence area*, was explored in detail through the concept development process with a number of concepts sketched and assessed. However, these detailed exercises provided clearer understanding of the many challenges to modifying the crossover intersection at CSAH 25 and Minnetonka Boulevard. The development and analysis of the concepts showed multiple issues related to access, circulation, traffic operations, urban character and multimodal connectivity under each of the alternatives. If there is interest in further exploration of a major design change at this connection of two high volume streets, it would require a more detailed study to refine alternatives and assess and compare impacts.

The Conceptual Roadway Layout includes near term improvements for the confluence area including the reduction of westbound Minnetonka Boulevard to a single lane from France Avenue to Inglewood Avenue matching the planned reconstruction of Minnetonka Boulevard as a three-lane street. Additional improvements are included in the layout to address multimodal connectivity, green infrastructure and landscaping, and gateway treatments in this area.

While maintaining the existing roadway alignment, several improvements were made to CSAH 25 addressing the existing corridor issues from the wide-open, high speed, rural cross section to the lack of connectivity for autos, pedestrians and people on bikes. The Conceptual Roadway Layout sets the stage for transformation to a more equitable, connected, vibrant, green, multimodal transportation and mixed use CSAH 25 Corridor in the City of St. Louis Park.

Planning Level Cost Estimates and Next Steps

The CSAH 25 Conceptual Roadway Layout follows the existing roadway alignment minimizing the costs and disruption associated with reconstruction that would be incurred with major shifts in alignment to the north or south. The planning level cost estimate for the roadway reconstruction is \$5,710,000. The roadway reconstruction cost combined with the cost of the additional improvements identified is \$8,894,000. This total does not include items funded under other projects or the costs of additional studies.

As noted above, the Conceptual Roadway Layout provides St. Louis Park and Hennepin County a framework to plan for near term and longer term improvements along the CSAH 25 Corridor with currently planned efforts as well as unknown future opportunities. The implementation of the various concept design elements is prioritized such that the City and County may:

- Develop capital improvement plans that allocate necessary resources
- Capitalize upon opportunities for implementation through related projects as identified in the layouts and implementation considerations such as the planned CSAH 25/Beltline Pedestrian Improvements and the 2023 Minnetonka Boulevard reconstruction.
- Require developers to fund the design elements that abut property – such as the HCRRA parcel in the southeast quadrant of Beltline Boulevard and CSAH 25.
- Seek additional funding sources such as the Regional Solicitation, State Health Improvement Plan (SHIP), the PeopleForBikes Community Grant Program, and potential for other State funds.

Executive Summary (continued)

- Seek partnership opportunities with public and private organizations.
- Seek partnerships for funding projects that involve multiple jurisdictions/agencies such as MnDOT, Minneapolis, Hennepin County/Hennepin County Regional Rail Authority and Metro Transit.

Contents

Letter of Transmittal	
Certification Page	
Distribution	
Executive Summary	
Contents	

1	Background	1
1.1	CSAH 25 Corridor.....	1
2	Conceptual Design Process	4
2.1	Existing and Planned Conditions	4
2.2	Design Workshop	5
3	CSAH 25 Conceptual Layout	2
3.2	Corridor Wide and Segment Improvements	3
4	Corridor Wide Improvements – TH 100 to France Avenue	4
	Four Lane Urban Section	4
	Continuous Pedestrian and Bicycle Facilities.....	4
	Landscaped Boulevard.....	5
	Landscaped Medians	5
	Gateway Treatments	6
	Reduced Speed Limit.....	6
5	Segment A – TH 100 to Beltline Boulevard/Ottawa Avenue	8
	A-1 - South Frontage Road Trail	8
	A-2 - South Frontage Road Realignment	8
	A-3 - Raleigh & CSAH 25 Intersection.....	8
	A-4 - Continuous Sidewalk – North Side	10
	A-5 - Beltline Boulevard & CSAH 25 Intersection	11
	A-6 - Remove Channelized Right-turn lanes	11
	A-7 – Study of Ottawa Avenue	12
6	Segment B – Beltline Boulevard/Ottawa Avenue to Inglewood Avenue.....	13
	B-1 - North Frontage Road.....	13

Contents (continued)

B-2 - Provide Eastbound Right Turn Lane.....	13
B-3 - Green Line improvements to Lynn Avenue	15
B-4 - Lynn Avenue & CSAH 25 Intersection.....	15
B-5 – Intersections at Joppa Avenue and CSAH 25, Inglewood Avenue and CSAH 25	15
B-6 - South Frontage Road	16
 7 Segment C – Inglewood Avenue to France Avenue	17
C-1 Concept for Parking Bays.....	17
C-2 Minnetonka Boulevard Entrance.....	17
C-3 Crossings of CSAH 25 and Minnetonka Boulevard	19
 8 Planning Level Cost Estimates and Next Steps	20

List of Tables

Table 1 – Planning Level Cost Estimates	20
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List of Figures

Figure 1 – CSAH 25 Corridor	2
Figure 2 – Existing Cross Section	3
Figure 3 – Conceptual Layout Cross Section	3
Figure 4 – Annotated Corridor Layout Improvements A-1 thru A-7	9
Figure 5 – Annotated Corridor Layout Improvements B-1 thru B-6	14
Figure 6 – Annotated Corridor Layout Improvements C-1 thru C-3.....	18

List of Appendices

Appendix A	Traffic Volumes
Appendix B	Corridor Concepts and Analysis
Appendix C	Confluence Area Concepts and Analysis
Appendix D	Southeast Quadrant of CSAH 25-Beltline
Appendix E	Planning Level Cost Estimates

Final Report

CSAH 25 Conceptual Roadway Layout

Prepared for St. Louis Park and Hennepin County

1 Background

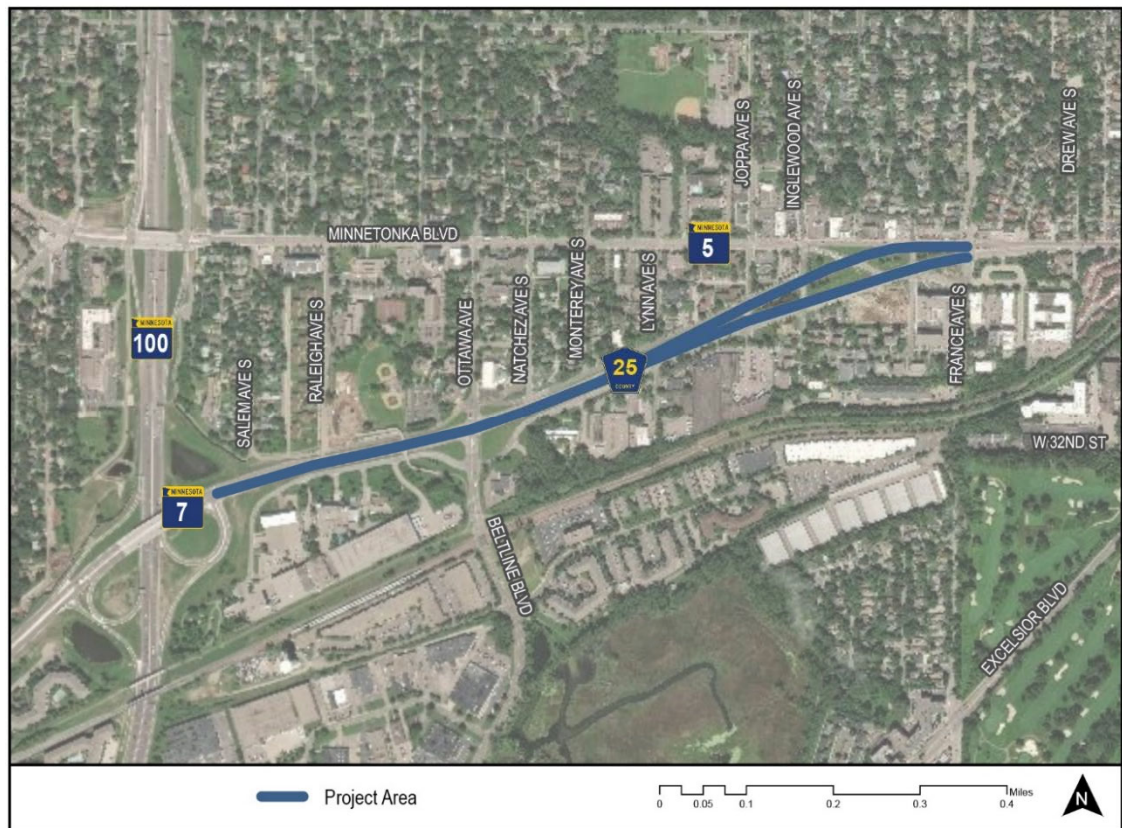
The City of St. Louis Park and Hennepin County initiated a planning process to transform a major transportation corridor within the community. The groundwork has been laid over the course of several thoughtful planning and design efforts to advance the development of conceptual designs that create an “urban boulevard” along the Hennepin County State Aid Highway 25 corridor (CSAH 25). The conceptual designs developed through this study redistribute the existing right-of-way, create a more compact roadway and provide alternatives for using the remaining right-of-way. Concepts address access and mobility for auto/freight, bike, transit and pedestrian traffic within the context of the adjacent land uses. The concept development, refinement and review process led to the development of the CSAH 25 Conceptual Roadway Layout.

Before advancement to a preliminary design phase, the conceptual designs proposed throughout the corridor and identified in Conceptual Roadway Layout will require further vetting, including more detailed analysis in some instances, and will require approvals from the appropriate agencies (City of St. Louis Park, Hennepin County, MnDOT). The conceptual designs in this report are intended to provide a framework for agency staff as future opportunities arise to make changes to the CSAH 25 Corridor. Further, many of the improvements identified augment and reinforce related efforts such as the planned CSAH 25/Beltline Pedestrian Improvements and the 2023 Minnetonka Boulevard reconstruction.

1.1 CSAH 25 Corridor

CSAH 25 is a Hennepin County roadway beginning on the west end where the 45-mph expressway of Trunk Highway 7 ends at the signalized east ramp terminal intersection at Trunk Highway 100. At the east end of the study corridor, CSAH 25 merges with Minnetonka Boulevard (also CSAH 5) with an intersection crossover design. The Triangle neighborhood straddles CSAH 25 with residential and commercial land uses to the north and a combination of light industrial and new mixed use developments to the south.

Figure 1 – CSAH 25 Corridor



There are a number of projects either planned or completed in the area of the CSAH 25 Study Corridor.

- TH 100 Improvements – This project reconstructed TH 100 at the TH 7 and Minnetonka Boulevard interchanges in St. Louis Park and also widened TH 100 to include three lanes in each direction.
- Metro Transit Green Line Light Rail Transit (LRT) and Beltline Transitional Station Area Action Plan – These projects will add an LRT station at Beltline Boulevard with recommendations for enhanced connectivity for pedestrians and bicyclists in the station area and to the Cedar Lake Trail.
- CSAH 25/Beltline Pedestrian Improvements – The project will construct pedestrian facilities along Beltline Boulevard/Ottawa Avenue from West 36th Street to Minnetonka Boulevard; fill gaps in the sidewalks along both sides of Ottawa Avenue and Lynn Avenue from CSAH 25 to Minnetonka Boulevard; and constructing a walkway along CSAH 25 from Beltline Boulevard to Lynn Avenue. In addition, streetscaping elements will be installed along CSAH 25 and Beltline Boulevard.
- Shoreham – The Shoreham is a mixed-use project near CSAH 25 and France Ave S that includes a 5-story building with 148 apartments (including 30 units designated affordable housing) and 20,000 square feet of commercial office space. The site was previously home to the ASAP, Inc. printing company, but will now host Bader Development's headquarters, as well as a new medical clinic projected to bring over 50 new jobs to the area.

- Parkway 25 – Parkway 25 is a five-story mixed-use development with 112 apartment units and 12,000 square feet of ground floor commercial space. The development includes surface and underground parking and outdoor amenity space at the cross streets of CSAH 25 and Minnetonka Boulevard.

CSAH 25 is centered between the 55-mph TH 7 corridor and the 30-mph urban arterial of Lake Street in neighboring Minneapolis. The current 45-mph rural cross section includes large ditches and frontage roadways resulting in 200 ft. of right-of-way and a significant amount of impervious surface for motorists. The residential neighborhood along the north side of the corridor is adjacent to this right-of-way, including the north frontage road and the high speed arterial, with no landscaping or physical buffer and limited access to and across the corridor

The combination of the current roadway design, the lack of non-motorized facilities, the higher speed limit and the proximity to the TH 7/TH 100 interchange make this corridor inhospitable to pedestrians and bicyclists as well as people accessing transit along and adjacent to the corridor. CSAH 25 is also a barrier for the residents and visitors to area businesses

The existing 200-foot wide corridor presents an opportunity to “rethink” this area by repurposing the right-of-way to better serve all modes of transportation, enhance sustainability and set the stage for community scale redevelopment.

2 Conceptual Design Process

The Conceptual Roadway Layout process looked closely at the character of the roadway and examined possibilities to improve and better utilize the road and right-of-way in the future. The primary elements considered included:

- Current design and character
- Future context
- Redistribution of the right-of-way
- Development opportunities/possibilities
- Addition of continuous bicycle and pedestrian facilities
- Narrowing and realignment of CSAH 25
- Options for the crossover intersection where CSAH 25 and Minnetonka Boulevard converge

The conceptual design process utilized for the CSAH 25 Conceptual Layout is summarized below.



2.1 Existing and Planned Conditions

Prior to the design workshop the consultant team worked with City and County staff to compile existing conditions data and future land use/transit/transportation plans including the projects listed in Section 1.1 of this document.

The existing traffic volumes were obtained by others in March of 2015 to coincide with a period of minimal disruption of traffic due to the nearby TH 100 project and related bridge closures (the Minnetonka Boulevard Bridge over TH 100 was closed after the data was obtained). Two types of traffic volume data were collected including 48-hour directional tube counts and intersection turning movement counts at several locations in the CSAH 25 project area.

Data from the 48-hour tube counts was averaged and the summary of the daily traffic volume as well as the AM and PM peak hour volumes can be found in Appendix A. The intersection turning movement data was utilized in the “spot” traffic analysis of improvement alternatives. Since the data were obtained on different dates, the existing volume data were balanced between intersections where appropriate for the traffic analysis. The existing intersection volumes are also summarized in Appendix A.

Traffic simulation models from previous work in the study area were expanded based on the above traffic volume data in conjunction with traffic signal timing and geometric information. The existing traffic volumes were forecast to 2040 to ensure that the “spot” traffic analysis conducted for the design workshop considered future growth in the area. Traffic forecasts were prepared utilizing the forecasting work recently completed by SEH for the Beltline Station area analysis and the West Lake Multimodal Study which both utilized subarea models created from the Twin Cities Regional Travel Demand Model and socioeconomic data provided by St. Louis Park and

Minneapolis. The analysis resulted in a forecast growth of 0.9% per year which was applied to the existing volumes. The future 2040 intersection volumes are summarized in Appendix A.

2.2 Design Workshop

The concept development process began with a one-day design workshop on October 5, 2016. The participants at the design workshop included planning and engineering staff from the City of St. Louis Park and Hennepin County as well as engineers, landscape architects, urban designers and multimodal specialists from the consultant team.

The design workshop provided an efficient method to develop viable concepts quickly for the CSAH 25 project. Multidisciplinary team members worked collaboratively to identify and test potential concept alternatives to transform the existing linear space into an equitable, connected, self-sustaining, vibrant, green multimodal transportation and mixed use corridor. Agency staff check-in meetings at key points during the workshop provided critical feedback and direction on the design team work allowing for new concepts to take shape and others to be refined, analyzed or abandoned resulting in useful products at the end of the workshop.

One of the first steps completed in the workshop was to review the Project Vision and list of desired outcomes/goals for the corridor identified at the first Project Management Team (PMT) meeting.



Project Vision

The vision for CSAH 25 is to create a vibrant urban boulevard in the heart of St. Louis Park that is safe and comfortable for all modes of travel.

Project Goals

- Create a vibrant, memorable place in the heart of St. Louis Park.
- Create a sustainable urban design and street network that serves the community and promotes and complements appropriate redevelopment.
- Provide safe, comfortable, and enjoyable bicycling and pedestrian options for people of all ages and abilities.
- Integrate strategic green infrastructure elements throughout the corridor.
- Design safe and contextually appropriate transitions at the Highway 100 and France Avenue gateways.
- Provide guidance that will allow the corridor to evolve into a mixed-use destination that is well connected to community assets such as the Triangle neighborhood, North Cedar Lake Regional Trail and the future Green Line light rail station.

The existing conditions and future plan data were utilized in conjunction with site and traffic analysis during the workshop to guide the concept alternatives development, with the awareness that feasibility and opportunities for phased improvements were key to future implementation. The design team utilized layouts, hand sketches, SketchUp and MicroStation software and traffic analysis to analyze and develop concepts throughout the workshop. City and County staff joined



the workshop for an hour in the late morning and late afternoon to provide feedback and input toward the concept development process and share thoughts on the final presentation of concepts.

Design Workshop Concepts

Two main areas of the CSAH 25 study area were the focus of the design workshop:

- **Corridor Cross-Section (east of Beltline Boulevard)**
The initial alternatives for the cross section of CSAH 25 shifted the roadway alignment to the south. This strategy allowed for the opportunity to repurpose a portion of the northern-most right-of way for different potential land uses. These options eliminated the south frontage road and utilized the north frontage road in a variety of ways.
- **The Confluence Area (the crossover intersection of CSAH 25 and Minnetonka Boulevard)**
Several options were explored to modify the crossover intersection to provide for a multimodal lower speed connection of CSAH 25 to Minnetonka Boulevard. Concepts provided the potential for new land uses within the right-of-way and addressed safe, convenient and comfortable access for pedestrians and bicyclists in this increasingly urban area.

Corridor Cross Section Option 1 – Linear Green Space

This option includes a green space along the length of the CSAH 25 corridor on the north side. This concept provides for meandering paths for pedestrians and bicyclists as well as ponds and landscaping for water treatment and areas to rest. The linear park provides a buffer from CSAH 25 to the northern portion of the Triangle neighborhood. The sketch below illustrates this concept and additional SketchUp exhibits can be found in Appendix B.



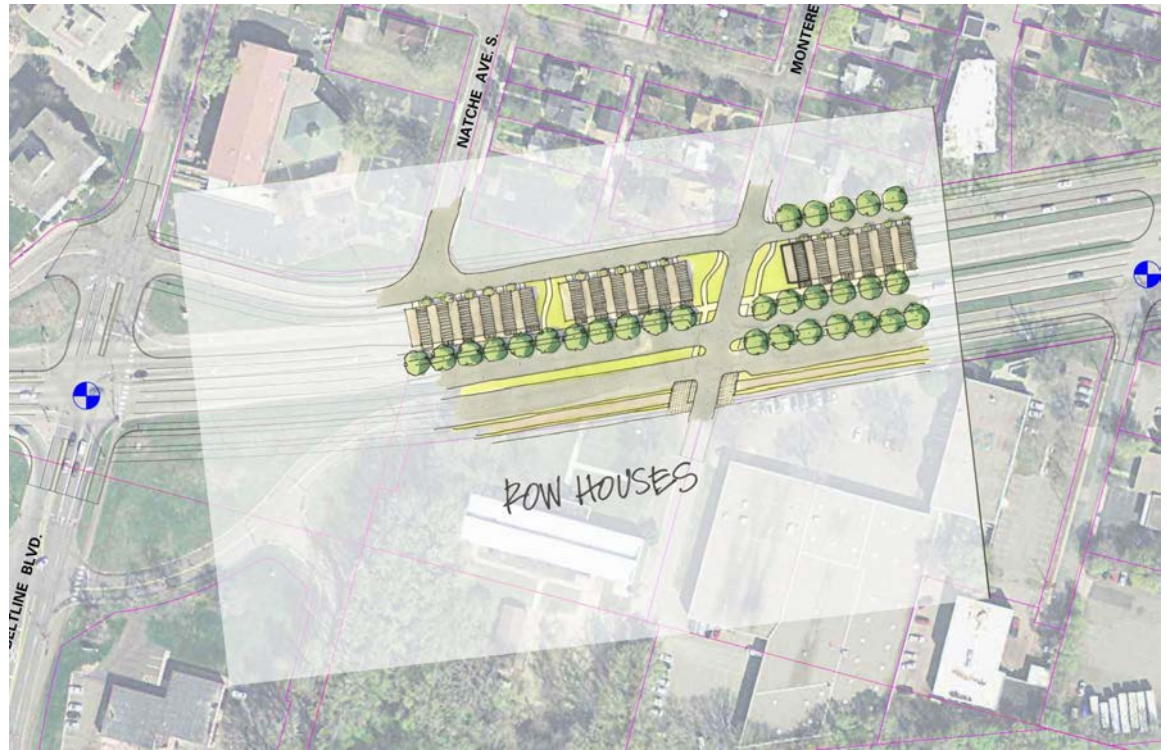
Corridor Cross Section Option 2 – Shared Street

Option 2 includes a shared street north of CSAH 25 in which pedestrians, bicycles and motor vehicles are intended to mix. This is a low speed and low auto volume street with a narrow width, varied pavement textures and colors and a meandering alignment which influences speeds and provides delineation for users. The shared street meets the circulation needs of adjacent residents while functioning as a space for leisure and recreation. The sketch below illustrates this concept. SketchUp models were not created for this concept based on feedback from the agency participants during the late morning meeting period of the design workshop.



Corridor Cross Section Option 3 – Row Houses

Row houses line the north side of CSAH 25 with curb protected parking bays and an alleyway behind that provides circulation for the row houses and nearby homes. Along CSAH 25, this option provides a continuous sidewalk, tree-lined boulevard and some on-street parking. The sketch below illustrates this concept and additional SketchUp exhibits can be found in Appendix B.



Confluence Area

The existing intersection of CSAH 25 with Minnetonka Boulevard is a crossover style intersection with traffic signals providing right-of-way for the movements across each corridor. The crossover design serves the high daily traffic volumes on CSAH 25 (16,700) and Minnetonka Boulevard (15,400) within acceptable levels. While this design is efficient for auto traffic operations it is a significant barrier for pedestrian and bicycle connectivity as well as local circulation for all modes of travel between CSAH 25 and Minnetonka Boulevard.



To illustrate the barrier this crossover intersection is to the area, consider the following example. A person living in the Parkway 25 building south of CSAH 25 who desires to have lunch at a restaurant directly to the north on Minnetonka Boulevard would need to walk $\frac{1}{4}$ mile (1,300-feet) to get to their destination, utilizing the available sidewalks along the South Frontage Road and the traffic signal at the France Avenue intersection with Minnetonka Boulevard. The distance would be the same for that person to drive an auto or ride a bicycle (on the street) between the two places. If the grid network was not interrupted in this area, the trip would be closer to 400-feet for all three modes.

As the neighborhood around the confluence area becomes increasingly more urban with mixed-use developments, the demand for safe, convenient and comfortable access through and across this area will also increase. Thus multiple concepts for the confluence area were developed, analyzed and discussed as part of the design workshop.

Concept Alternatives

More than ten concepts were sketched during the workshop. The following seven concept alternatives are shown in Appendix C:

- **Alternative 1** – Single five-leg and two lane roundabout connecting CSAH 25 to Huntington Ave and Minnetonka Boulevard. The westbound Minnetonka Boulevard leg from France Avenue is removed creating open space for development or landscaping.

This option also provides right-in/right-out connection from CSAH 25 to Glenhurst Avenue to the north and removes the South Frontage Road.

- **Alternative 2** – Single signalized T-intersection connecting CSAH 25 to Minnetonka Boulevard. The westbound Minnetonka Boulevard leg from France Avenue is removed creating open space for development or landscaping. However, this eliminates connectivity from CSAH 25 to Hunting and Glenhurst Avenues to the north due to turn lane storage needs and removes the South Frontage Road.
- **Alternative 3** – Two four-leg two-lane roundabouts with one at the France Avenue intersection and the other connecting CSAH 25 to Minnetonka Boulevard. The westbound Minnetonka Boulevard leg from France Avenue is removed creating open space for development or landscaping. This option also provides right-in/right-out connection from CSAH 25 to Glenhurst Avenue to the north and removes the South Frontage Road.
- **Alternative 4** – This concept connects the street grid with north-south streets at Inglewood, Huntington and Glenhurst Avenues. The Inglewood Avenue intersections with CSAH 25 and Minnetonka Boulevard are signalized and the other streets are two-way stop controlled. The westbound Minnetonka Boulevard leg from France Avenue is removed between France Avenue and Glenhurst Avenue. This option creates two large block areas for development. This option also provides right-in/right-out connection from CSAH 25 to Huntington and Glenhurst Avenues to the north. The South Frontage road is maintained.

Traffic Analysis

Due to the interest expressed during the workshop to connect the street grid and the high traffic volumes in the area, traffic analysis was conducted for this alternative to better understand its viability. A Synchro/SimTraffic model from a previous project was quickly modified to reflect the alternative and 2040 AM peak hour traffic volumes were rerouted to the new street connections, with the most volume assigned to Inglewood Avenue due to its signalized intersections. The detailed modeling results are found in Appendix C.

The initial model run utilized four lanes on Inglewood Avenue (Alternative 4A) with full length left turn lanes and shared through lanes in each direction (northbound and southbound). The model results showed complete gridlock, with delays of hundreds of seconds and full length queues throughout the model. This was due to the heavy demand to travel from westbound CSAH 25 to westbound Minnetonka Boulevard traveling through two traffic signals and at one of them, requiring a left turn (Minnetonka Boulevard/Inglewood Avenue).

The model was run again with six lanes on Inglewood Avenue (Alternative 4B), full length dual left turns and a shared through/right turn lane in both directions. Traffic operations improved under this geometry with delays in the range of 30-seconds per vehicle or less. This average delay relates to a Level of Service D, which is acceptable for future design¹.

¹ Intersection LOS as defined in the 2010 Highway Capacity Manual, is a qualitative performance measure that represents quality of service indicating how well an intersection is operating. Intersections are ranked from LOS A through LOS F. The LOS results are based on average delay per vehicle during the hour evaluated. This LOS correspond to specific delay threshold values. At a traffic signal LOS A, with a threshold of 10 seconds/vehicle, indicates the best traffic operation and LOS F, with a threshold of 80 seconds/vehicle, indicates an intersection where demand exceeds capacity. Overall intersection LOS A through D is considered to be acceptable traffic flow conditions in the Twin Cities Metropolitan area.

While this was a significant improvement to traffic operations, the wide six-lane cross section with full length northbound and southbound dual left turn lanes introduces concerns about the roadway function and safety for motorists, comfort and safety for pedestrians and continuity with the desired urban character in the area.

- **Alternative 5** – This concept removes one of the two crossover legs – westbound Minnetonka Boulevard and connects Inglewood Avenue to CSAH 25 and Minnetonka Boulevard with traffic signals. The westbound Minnetonka Boulevard leg from France Avenue is removed creating open space for development or landscaping. This option also provides limited connectivity to Huntington and Glenhurst Avenues to the north and removes the South Frontage Road.
- **Alternative 6** – This concept includes “dogbone” style roundabout intersections at Inglewood and France Avenues along CSAH 25. Like Alternative 4, it connects the street grid with north-south streets at Inglewood, Huntington and Glenhurst Avenues. The Inglewood Avenue intersection Minnetonka Boulevard is signalized and the other streets are two-way stop controlled. The westbound Minnetonka Boulevard leg from France Avenue is removed between France Avenue and Glenhurst Avenue. The “dogbone” design limits some movements and requires right-in/right-out access for Huntington and Glenhurst Avenues at CSAH 25. The option creates two large block areas for development and removes the South Frontage road.
- **Alternative 7**– This is a near term alternative that would require minor modifications to the confluence area. The primary change is to remove the choice lane from the westbound Minnetonka Boulevard diverge, resulting in two westbound lanes to CSAH 25 and one westbound lane to Minnetonka Boulevard. This option provides space for wider sidewalks, landscaping and/or on-street parking along the north side of Minnetonka Boulevard between France Avenue and Inglewood Avenue.

Only the near term option, Alternative 7, was carried forward to the *CSAH 25 Conceptual Layout* for this project due to the major impacts of the other alternatives on:

- Existing commercial land uses
- Existing block faces
- Pedestrian connectivity
- Connectivity for people on bikes
- Street network
- Traffic patterns
- Traffic operations

If changes are desired to the street design in the confluence area a more detailed study is required to explore these alternatives, develop hybrid or new alternatives and conduct a detailed assessment of impacts to a variety of factors.

3 CSAH 25 Conceptual Layout

The final CSAH 25 Conceptual Layout evolved from the design workshop concepts to address the entire corridor between TH 100 and France Avenue. Improvements were identified at the corridor level and for specific locations. Two key changes in the approach to the conceptual layout occurred following the design workshop:

- (1) **CSAH 25 Alignment** – The CSAH 25 alignment was maintained along the existing centerline rather than shifting the alignment to the south. This approach minimizes the costs and disruption associated with a reconstruction which would be far greater if the alignment were shifted to the south. This would include major expenses such as relocation of utilities, modifications to all intersecting roadways, changes to drainage patterns, reconstruction of all traffic signal systems, etc.

While maintaining the existing alignment, several improvements may be made to address the existing corridor issues and transform it into an equitable, connected, vibrant, green multimodal transportation and mixed use CSAH 25 Corridor.

- (2) **Confluence Area** – It was determined that Alternative 7 would be advanced at this time for the confluence area. The alternatives development and analysis conducted for the confluence area showed multiple issues related to access, circulation, traffic operations, urban character and multimodal connectivity under each of the alternatives.

The design workshop exercise provided clearer understanding of the many challenges to modifying the crossover intersection of CSAH 25 and Minnetonka Boulevard. If there is interest in further exploration of a major design change at this connection, it would require a more detailed study to refine alternatives and assess and compare impacts.

Similar to item 1 above, there are additional modifications that may be made to the confluence area in the nearer term to address some of the issues related to connectivity, safety and access. Opportunities include the planned reconstruction of Minnetonka Boulevard in 2023 and the study of potential non-motorized connections between the South Frontage Road and Minnetonka Boulevard.

Conceptual Layout

Throughout the course of the project the concepts developed as part of the Design Workshop continued to be refined and reviewed by City and County staff at several levels to determine the viability of identified improvements. Throughout this process, the focus remained on meeting the project goals. These goals include transformation of the corridor character supporting both the existing residential edge to the north and redevelopment to the south while serving multimodal travelers of all ages and abilities.

Several improvements were identified for CSAH 25 that address project goals. The improvements can be categorized into two types:

- Corridor Wide Improvements – generally apply to the length of the study corridor
- Segment Improvements – improvements to a specific location on one of the three corridor segments

3.2 Corridor Wide and Segment Improvements

Improvements were identified that impact the full length of the CSAH 25 study corridor. These include the following eight items:

1. Four lane urban section (with curb and gutter)
2. Separated continuous protected bikeway and sidewalk
3. Landscaped boulevard
4. Landscaped medians
5. Gateway treatments
6. Continuous multi-use trail
7. Marked crosswalks at cross street intersections
8. Reduced speed limit

The Existing and Conceptual Layout roadway cross sections shown below illustrate many of the changes.

Figure 2 – Existing Cross Section

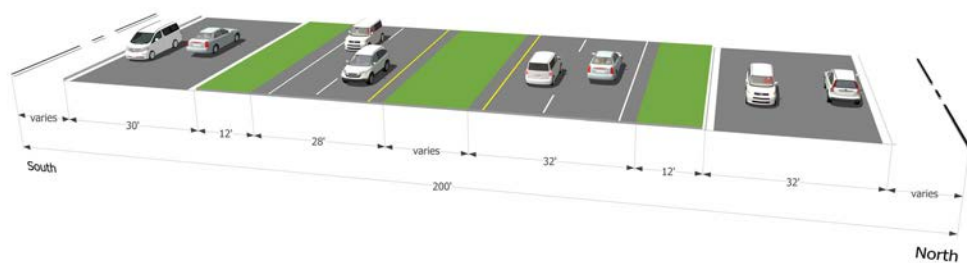


Figure 3 – Conceptual Layout Cross Section



Improvements were identified for each of three segments along the CSAH 25 Corridor as follows:

Corridor Segments

- Segment A – TH 100 to Beltline Boulevard/Ottawa Avenue
- Segment B – Beltline Boulevard/Ottawa Avenue to Inglewood Avenue
- Segment C – Inglewood Avenue to France Avenue (Confluence Area)

4 Corridor Wide Improvements – TH 100 to France Avenue

Improvements were identified for the entire length of the study corridor between the TH-100 East Ramp Terminal intersection and France Avenue. Generally, the concept is a four lane urban section including parkway elements such as landscaped medians and boulevards and continuous adjacent pedestrian and bicycle facilities. They are identified on the layout exhibits (Figures 4-6) and are described in detail below.

Four Lane Urban Section

Reconstruct CSAH 25 with a divided four lane urban section with curb and gutter.

Discussion

The existing rural section for CSAH 25 is generally 28 to 32-feet from edge of roadway to edge of roadway in each direction. The travel lanes are 12-feet wide, shoulders are 1 to 4-feet and the width of the ditch median varies between 12 and 30-feet, expanding further on the east end approaching the crossover intersection. Applying the principals of a road diet, the curb to curb width in each direction can be reduced by 5-feet, with travel lanes of 12-feet with 1-foot curb reaction on the left and 2-foot curb reaction on the right. A 16-foot landscaped median with ample room for trees and low vegetation can be constructed.

Implementation considerations

- No funding is allocated for the project at this time
- Requires a full reconstruction of CSAH 25 and approvals and coordination with City of St. Louis Park, Hennepin County, MnDOT and Metro Transit
- Requires coordination with the planned redevelopment of the southeast quadrant at the Beltline Boulevard intersection to provide adequate boulevard, bicycle and pedestrian space

Continuous Pedestrian and Bicycle Facilities

Include a continuous bicycle and pedestrian facilities along the length of the corridor including a protected bikeway and trail.

Discussion

There is currently no comfortable, convenient and safe dedicated facility for pedestrians or bicyclists to travel along the CSAH 25 corridor and gain access to the proposed Green Line LRT Beltline LRT Station. The wide right-of-way and adjacent land uses support the need for dedicated facilities on the north and south sides of CSAH 25. Further, the wide right-of-way provides ample space to repurpose right-of-way for pedestrians and bicyclists.

The City obtained federal funding to address sidewalk needs gaps along CSAH 25 between Beltline Boulevard and Lynn Avenue as part of the planned CSAH 25/Beltline Pedestrian Improvements project. Sidewalk improvements to Lynn Avenue, Ottawa Avenue and Beltline Boulevard are also included in the project.

Implementation considerations

- Include buffers to the street in the form of trees, low vegetation and pedestrian scale lighting
- Requires coordination with the planned redevelopment of the Hennepin County Regional Rail Authority (HCRRA) parcel in the southeast quadrant at the Beltline Boulevard intersection to provide adequate boulevard, bicycle and pedestrian space
- Requires the coordination with the Green Line LRT Extension construction, Federal grant funding for the CSAH 25/Beltline Pedestrian Improvements project and the Future Ottawa Avenue design
- Requires coordination over time as redevelopment occurs along the South Frontage Road
- Requires discussions with property owners adjacent to the CSAH 25
- Attention must be paid to the design and control at locations where these facilities cross streets

Landscaped Boulevard

Develop highly landscaped boulevards along CSAH 25.

Discussion

Consistent corridor landscaping elements in conjunction with gateway treatments near TH 100 will assist in facilitating the transition of the roadway character from freeway (TH 7) to the desired urban boulevard.

These landscaping improvements combined with other geometric elements including curb and gutter, narrower auto lanes and improved pedestrian and bicycle facilities as well as a potential reduction in speed limit will combine to transform CSAH 25 into a more complete street.

Landscaping will also provide a buffer from motor vehicles for trail and sidewalk users along CSAH 25 and also assist with stormwater treatment.

Implementation considerations

- Develop a consistent and maintainable corridor landscape plan
- Include trees, low vegetation and pedestrian scale lighting
- Provide minimum boulevard of 8-feet along corridor

Landscaped Medians

Develop landscaped medians along CSAH 25 east of TH 100.

Discussion

Landscaped medians with vertical elements such as trees and lighting will assist in the transformation of the corridor character, traffic calming and the treatment of stormwater. Additional vertical elements may also deter pedestrian crossing between intersections where they are not anticipated by motorists.

Implementation considerations

- Develop a consistent and maintainable corridor landscape plan
- Include trees, low vegetation and lighting

Gateway Treatments

East of TH 100 implement elements to mark the transition to a lower speed street such as monument signing, lighting or hardscape features that complement the corridor landscape plan.

At the Beltline Boulevard/Ottawa Avenue intersection include landscaping and gateway treatments.

West of France Avenue, near the confluence area of Minnetonka Boulevard and CSAH 25 include gateway treatments such as monument signing, lighting or hardscape features that complement the corridor landscape plan and introduce travelers to the City of St. Louis Park.

Discussion

West of TH-100, TH 7 has a speed limit of 55-mph in advance of the TH-7/Wooddale Avenue interchange with a reduction to 45-mph as TH-7 approaches the signalized intersections at the TH 100 interchange. TH 7 to the west functions like a freeway, with grade separated access until the TH 100 interchange which introduces traffic signals on the corridor to serve the ramp intersections. TH 7 becomes CSAH 25 east of the east ramp terminal where the speed limit remains 45-mph. The transition of this roadway from the freeway context west of TH 100 to an urban boulevard begins with the reduced speed limit of 45-mph within the MnDOT section but will require the additional corridor wide improvements discussed in this section.

Gateway treatments send a clear message to travelers that they have reached a particular place or are on a new segment of street, typically with reduced speeds. They place a higher emphasis on aesthetics and are used to identify specific neighborhoods or key destinations in an urban setting. In addition to the geometric features such as the narrowing of travel lanes and addition of urban curb and gutter, gateways may include landscaping, medians, lighting, signing, archways, or other identifiable features. This combination of treatments with improved pedestrian and bicycle facilities as well as a potential reduction in the corridor speed limit will transform CSAH 25 into a more complete street.

Implementation considerations

- Develop a consistent and maintainable corridor landscape plan
- Include gateway treatments at TH-100 and at the east border of the City such as monument signing and lighting

Reduced Speed Limit

Reduce the speed limit of CSAH 25 east of TH 100 in conjunction with a roadway redesign.

Discussion

The existing speed limit of 45-mph is not consistent with project goals of creating a sustainable urban design with safe, comfortable, and enjoyable bicycling and pedestrian options for people of all ages and abilities. The reduction in speed limit from 55-mph of 45-mph within the TH 7 section

west of TH 100 and the signalized ramp terminal intersections set the stage for further speed reduction on the CSAH 25 Corridor. A reduction in speed limit from 45-mph in conjunction with the other corridor wide improvements will combine to transform CSAH 25 into a more complete street.

Implementation considerations

- Speed limits are set by the MnDOT Commissioner based upon an engineering and traffic investigation. These factors are considered:
 - Road type and condition
 - Location and type of access points (intersections, entrances, etc.)
 - Sufficient length of roadway (1/4 mile minimum)
 - Existing traffic control devices (sign, signals, etc.)
 - Crash history traffic volume sight distances (curve, hill, etc.)
 - Test drive results
- Motorist travel speeds are not reduced only through speed limit reduction. They must be addressed through roadway design elements such as, but not limited to, urban curb/gutter, lane widths, landscaping and pedestrian scale lighting

5 Segment A – TH 100 to Beltline Boulevard/Ottawa Avenue

The Conceptual Layout for Segment A including the corridor wide improvements are shown in Figure 4 and described below. The implementation priority is listed for each improvement on a scale of *Priority 1* through *Priority 4*, with Priority 1 representing the highest priority improvements and Priority 4 representing the lowest priority to implement.

A-1 - South Frontage Road Trail

Develop a trail between Lilac Park and CSAH 25 to connect to Carpenter Park at the Raleigh Avenue intersection or the pedestrian bridge.

Discussion

This more directly connects the historic park to the existing network across the barrier of CSAH 25.

Implementation Considerations – Priority 4

- Alignment shown is due to MnDOT ROW constraints
- A minimum 8-ft boulevard is preferred between the trail and South Frontage Road

A-2 - South Frontage Road Realignment

Realignment of the South Frontage Road to the south in this area allows direct access to CSAH 25 through a new intersection at Raleigh Avenue.

Discussion

This provides adequate space for a northbound approach from the South Frontage Road to the intersection while maintaining access to the existing light industrial parcels. It also allows for a landscaped buffer along CSAH 25 to convey to motorists a change in roadway character from the freeway section to the west.

Implementation Considerations – Priority 4

- Requires just under half an acre of right-of-way (0.42 acre)

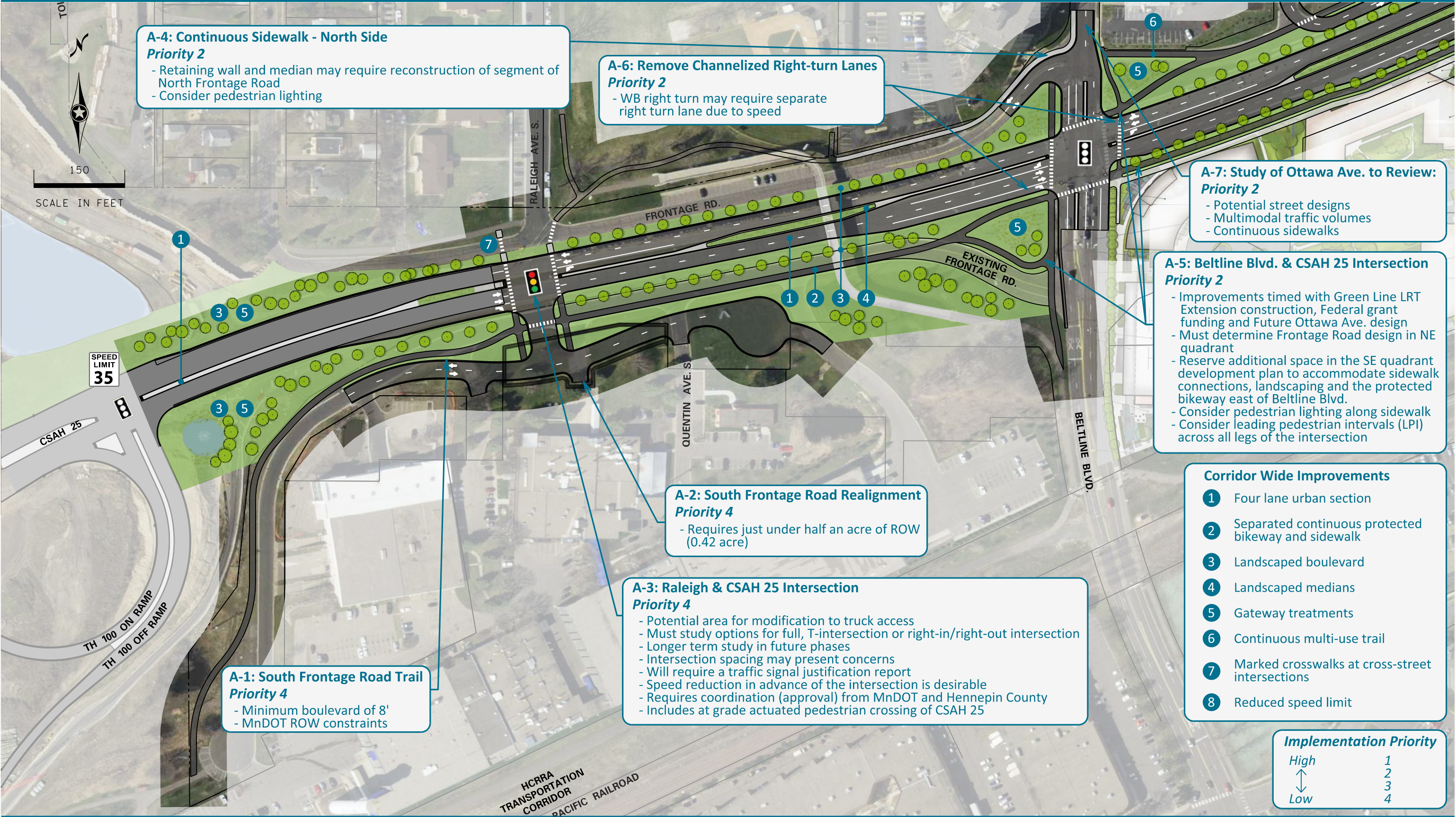
A-3 - Raleigh & CSAH 25 Intersection

Develop a new three-leg signalized intersection at CSAH 25 and the South Frontage Road in the vicinity of Raleigh Avenue.

Discussion

The existing intersection of the South Frontage Road with Beltline Boulevard is within 200-feet of CSAH 25. Future traffic analysis shows that vehicle queues from the CSAH 25 and Beltline Boulevard intersection block the South Frontage Roadway such that left turns cannot be made from the Frontage Road onto northbound Beltline Boulevard. Further the channelized eastbound right turn from CSAH 25 onto southbound Beltline Boulevard presents a sight distance challenge for the South Frontage Road intersection.

CSAH 25 Conceptual Roadway Layout



Beltline Boulevard

Beltline Boulevard is the only north-south roadway east of TH 100 which connects across the railroad tracks in St. Louis Park. It is also the only roadway with north-south connectivity between TH 100 and Dupont Avenue in Minneapolis, 2.4 miles to the east, due to the railroad, geography of the Lakes and Lakewood Cemetery. As such Beltline Boulevard plays a significant role in facilitating local trips off of the regional system resulting in continued growth in forecast traffic demands. Further, there will be demand from both motorized and non-motorized traffic related to the proposed Green Line LRT Beltline Station. The elimination of this South Frontage Road access to Beltline Boulevard improves traffic operation and reduces conflicts at the key intersection of Beltline Boulevard with CSAH 25.

The short spacing and sight distance constraints of the existing South Frontage Road intersection with CSAH 25 in conjunction with the blocking and traffic demand along Beltline Boulevard due to its function as a major multimodal connection make it desirable to provide access for the South Frontage Road and its light industrial parcels at a different location.

Traffic Signal Control and Spacing

This new signalized intersection at CSAH 25 would be located approximately 750-feet from the east TH 100 ramp and 900-feet west of Beltline Boulevard which is greater than block spacing for a corridor in an urban area with the level of density occurring along CSAH 25 and in the range of the existing traffic signal spacing along Excelsior Boulevard (CSAH 3).

While demand volumes may not meet traffic signal warrants, the presence of heavy vehicle traffic from the light industrial land uses making a left turn from the intersection toward TH 100 may require a traffic signal for adequate gaps and safe clearance through the intersection. The proposed traffic signal would be fully-actuated coordinated, such that it would rest in green for the mainline (CSAH 25) and only transition to red upon a call for northbound, maintaining progression along the mainline.

Implementation Considerations – Priority 4

- While this is a potential area for modification to truck access, further study should be conducted for the options of full access, T-intersection or right-in/right-out intersection
- Intersection spacing may present concerns
- Will require a traffic signal justification report
- Speed reduction in advance of the intersection is desirable
- Requires coordination (approval) from MnDOT and Hennepin County
- Includes at-grade actuated pedestrian crossing of CSAH 25

A-4 - Continuous Sidewalk – North Side

Provide continuous sidewalk along the north side of CSAH 25 between Carpenter Park and Ottawa Avenue.

Discussion

The absence of a continuous sidewalk results in the need for people to walk on the street and through parking lots to access Carpenter Park or travel along the CSAH 25 corridor.

Implementation Considerations – Priority 2

- Requires reconstruction of a segment of the North Frontage Road due to the retaining wall and median in the area of Park Tower apartments
- Consider pedestrian lighting along sidewalk
- Improvements timed with Green Line LRT Extension construction, Federal grant funding and Future Ottawa Ave. design

A-5 - Beltline Boulevard & CSAH 25 Intersection

Provide direct sidewalk connections to trails along CSAH 25 and Beltline Boulevard and also across all legs of the intersection of Beltline Boulevard/Ottawa Avenue and CSAH 25.

Discussion

The walk connections as shown provide direct access without sending pedestrians out of their way and provides landscape space to emphasize the intersection as a key location in the corridor.

Implementation Considerations – Priority 2

- Improvements timed with Green Line LRT Extension construction, Federal grant funding for the CSAH 25/Beltline Pedestrian Improvements project and the Future Ottawa Ave. design
- Reserve additional space in the SE quadrant development plan to accommodate sidewalk connections, landscaping and the protected bikeway east of Beltline Boulevard. See Appendix D for detailed dimensions in this area which define the lane, sidewalk and boulevard widths in addition to distance from the parcel lines.
- Consider pedestrian lighting along sidewalk
- Consider Leading Pedestrian Intervals (LPI) across all legs of the intersection
- Must determine Frontage Road design in NE quadrant

A-6 - Remove Channelized Right-turn lanes

Eliminate the channelized right-turn lanes at the intersection of CSAH 25 and Beltline Boulevard/Ottawa Avenue.

Discussion

Channelized right-turn lanes or slip lanes can be a detrimental to pedestrian safety when they allow motorists to maintain high speeds through the turn, do not optimize sight lines to the crosswalk, and do not reduce the crossing distance for pedestrians. Further, future traffic operations analysis conducted by SEH as part of the Beltline Station independent review does not demonstrate a need for the free-flowing movements.

Based on future turning movement forecasts it is recommended to include a standard right-turn lane for the eastbound direction. In the westbound direction a shared through/right-turn lane is adequate for the demand volumes, however, a separate right-turn lane is recommended if motor vehicle speeds and the speed limit are not reduced from the existing 45-mph.

Implementation considerations – Priority 2

- Westbound right turn may require separate right turn lane due to speed.
- Improvements timed with Green Line LRT Extension construction, Federal grant funding and Future Ottawa Ave. design

A-7 – Study of Ottawa Avenue

The future design of Ottawa Avenue north of CSAH 25 should be determined through a future study.

Discussion

Since Ottawa Avenue is the extension of Beltline Boulevard to the north, it is part of the only roadway with north-south connectivity in the area of St. Louis Park. As such Ottawa Avenue plays a significant role in facilitating local trips across the community and to and from of the regional system. The study should assess opportunities for multimodal accommodation along Ottawa Avenue as well as opportunities and needs for on-street parking and the design of Frontage Road intersections.

The City obtained funding to address sidewalk gaps along Ottawa Avenue as part of the planned CSAH 25/Beltline Pedestrian Improvements project. The determination of the street cross section including sidewalks has not been made and requires additional study or review.

Implementation Considerations – Priority 2

- Study will occur as part of the CSAH 25/Beltline Pedestrian Improvements project
- Study will include review of street designs, multimodal traffic demand (latent and actual) and continuous sidewalks
- Study must also consider the City's recently updated Connect the Park Plan for non-motorized travel through this area of the City

6 Segment B – Beltline Boulevard/Ottawa Avenue to Inglewood Avenue

The Conceptual Layout for Segment B including the corridor wide improvements are shown in Figure 5 and described below. The implementation priority is listed for each improvement on a scale of *Priority 1* through *Priority 4*, with Priority 1 representing the highest priority improvements and Priority 4 representing the lowest priority to implement.

B-1 - North Frontage Road

Review opportunities to modify the North Frontage Road to remove the direct connection to Ottawa Avenue and maintain connections to the remaining north-south streets.

Discussion

The traffic volumes obtained (Appendix A) show that the North Frontage Road has a low daily volume of under 375 vehicles per day in this area. The existing connection to Ottawa Avenue has a wide approach which is less than 80-feet from CSAH 25. This short distance between the major intersection at CSAH 25 and this minor intersection limits the storage and complicates the operation of motorists in this area. It also creates a wide street crossing for pedestrians to traverse and the proximity to the channelized westbound right turn presents sight distance challenges between turning motorists and the motorists and pedestrians on the North Frontage Road.

Due to the connections to the other north-south roadways and the street grid, this connection is redundant.

Implementation Considerations – Priority 3

- Study with B-5 Improvements (intersections at Joppa Avenue and CSAH 25, Inglewood Avenue and CSAH 25)
- Consider connecting Frontage Rd. to Natchez Ave.
- Accommodate access to the building in the NE quadrant of Ottawa Avenue and the North Frontage Road

B-2 - Provide Eastbound Right Turn Lane

Reduce the radius at the southwest corner of Monterey Avenue and CSAH 25 for the eastbound right-turn lane.

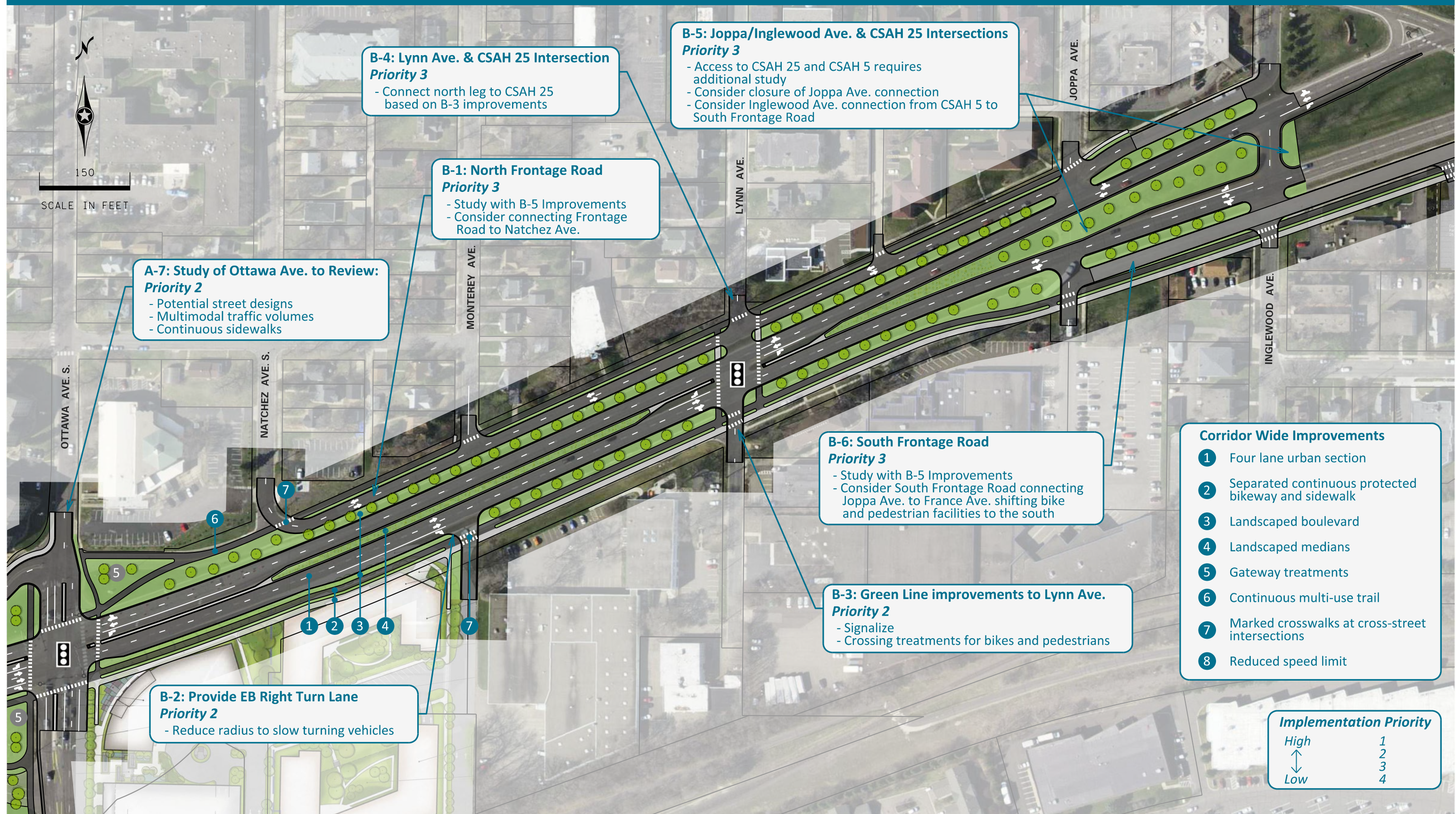
Discussion

Reduce the corner radius currently shown in the development and Green Line plans to slow turning vehicles which cross the sidewalk and protected bikeway.

Implementation Considerations – Priority 2

- Improvements timed with Green Line LRT Extension construction
- Reserve additional space in the SE quadrant development plan to accommodate a future sidewalk and protected bikeway as well as landscaping features east of Beltline Boulevard. See Appendix D for detailed dimensions in this area which define the lane, sidewalk and boulevard widths in addition to distance from the parcel lines.

CSAH 25 Conceptual Roadway Layout



B-3 - Green Line improvements to Lynn Avenue

Implement the proposed improvements to Lynn Avenue included in the Green Line LRT Extension project.

Discussion

The proposed T-intersection at Lynn Avenue will be signalized as part of the Green Line LRT Extension. This will include connectivity to the park and ride facility for the Beltline Station. The planned signalized intersection should also provide for enhanced pedestrian crossings of CSAH 25 and the Frontage Roadways under the near term conditions since this will provide a controlled crossing of CSAH 25 for non-motorized trips to access the redevelopment surrounding the new LRT station.

Implementation Considerations – Priority 2

- Improvements timed with Green Line LRT Extension construction and should be coordinated with the planned CSAH 25/Beltline Pedestrian Improvements project which adds sidewalks to Lynn Avenue.
- Signalize intersection
- Include crossing treatments for bikes and pedestrians.
- Study the potential to connect to the north leg of Lynn Avenue
- Reserve additional space to accommodate a future sidewalk and protected bikeway as well as landscaping features adjacent to CSAH 25.

B-4 - Lynn Avenue & CSAH 25 Intersection

Create a 4-leg signalized intersection at Lynn Avenue and CSAH 25, including the north leg.

Discussion

Establishing the street grid across CSAH 25 will provide access between the residents of the Triangle neighborhood to future redevelopment and the Beltline LRT Station.

Implementation Considerations – Priority 3

- Coordinate with the planned CSAH 25/Beltline Pedestrian Improvements project which adds sidewalks to Lynn Avenue
- Connect north leg to CSAH 25 based on B-3 improvements (Green Line LRT Extension improvements to Lynn Avenue)
- Include crossing treatments for bikes and pedestrians.

B-5 – Intersections at Joppa Avenue and CSAH 25, Inglewood Avenue and CSAH 25

Provide access across CSAH 25 at one of these two intersections and maintain right-in/right-out access at the remaining intersection.

Discussion

The way in which these intersections connect to CSAH 25 in the future must be considered together. The opportunity to improve connectivity by establishing a grid network across CSAH 25

should be explored to meet the goals of this study including the creation of a sustainable urban design and street network that serves the community and promotes and complements appropriate redevelopment.

As the character of CSAH 25 is transformed from its current state, it is reasonable to consider unsignalized connections across CSAH 25 in the future, in particular since one currently exists at Joppa Avenue. However, the location of Inglewood Avenue or Joppa Avenue for this connection should be evaluated to assess impacts to the adjacent development, traffic safety and circulation as well as connectivity to Minnetonka Boulevard. Inglewood Avenue has a signalized intersection at Minnetonka Boulevard while Joppa Avenue does not.

Implementation Considerations – Priority 3

- Must consider the planned improvements with the Minnetonka Boulevard reconstruction in 2023
- Access to CSAH 25 and Minnetonka Boulevard requires additional study
- Consider closure of Joppa Avenue connection
- Consider Inglewood Avenue connection from Minnetonka Boulevard to South Frontage Road

B-6 - South Frontage Road

Eliminate the South Frontage Road between Beltline Boulevard and Joppa Avenue.

Discussion

The Conceptual Layout shows a protected bikeway, sidewalk and landscaped boulevard along the south side of CSAH 25 in the existing location of the South Frontage Road. The street connections to CSAH 25 will provide adequate access as redevelopment occurs south of CSAH 25 and in the near term, all but one of the existing parcels (the apartment building at 4405 CSAH 25) may be accessed without the south Frontage Roadway, though such a change would require some modifications to on-site circulation.

Repurposing the South Frontage Road right-of-way in this area meets the study goal of providing safe, comfortable, and enjoyable bicycling and pedestrian options for people of all ages and abilities.

The removal of the South Frontage Road east of Joppa Avenue would prove more challenging due to way in which the recent redevelopments at Parkway 25 and The Shoreham were planned to connect to the South Frontage Road.

Implementation Considerations – Priority 3

- Coordinate with the planned CSAH 25/Beltline Pedestrian Improvements project which adds sidewalks to the south side of CSAH 25
- Study with B-5 Improvements (intersections at Joppa Avenue and CSAH 25, Inglewood Avenue and CSAH 25)
- Reconstruct the South Frontage Road between Joppa Avenue and France Avenue shifting the bicycle and pedestrian facilities to the south

7 Segment C – Inglewood Avenue to France Avenue

The Conceptual Layout for Segment C including the corridor wide improvements are shown in Figure 6 and described below. The implementation priority is listed for each improvement on a scale of Priority 1 through Priority 4, with Priority 1 representing the highest priority improvements and Priority 4 representing the lowest priority to implement.

C-1 Concept for Parking Bays

Develop concepts to implement parking bays along the north side of Minnetonka Boulevard in conjunction with the street reconstruction planned for 2023.

Discussion

The modification to westbound Minnetonka Boulevard through this area to a single lane presents an opportunity for expanded sidewalks, curb extensions and parking bays. Each of these elements can provide traffic calming and a buffer to the commercial businesses along Minnetonka Boulevard between France Avenue and Inglewood Avenue. While the concept may remove 1 to 2 existing parking spaces, the resulting narrowed roadway, slowed traffic and widened sidewalk will improve the experience for the pedestrians exiting and entering the parked vehicles.

Further, if pedestrian crossings are implemented (see concept C-3) across CSAH 25 and Minnetonka Boulevard, the curb extensions will improve the visibility of the pedestrians and shorten their crossing distance reducing their exposure to auto traffic.

Implementation Considerations – Priority 1

- Protect parking with curb extensions
- Must consider the planned improvements with the Minnetonka Boulevard reconstruction in 2023

C-2 Minnetonka Boulevard Entrance

Reduce Minnetonka Boulevard to one westbound lane west of France Avenue.

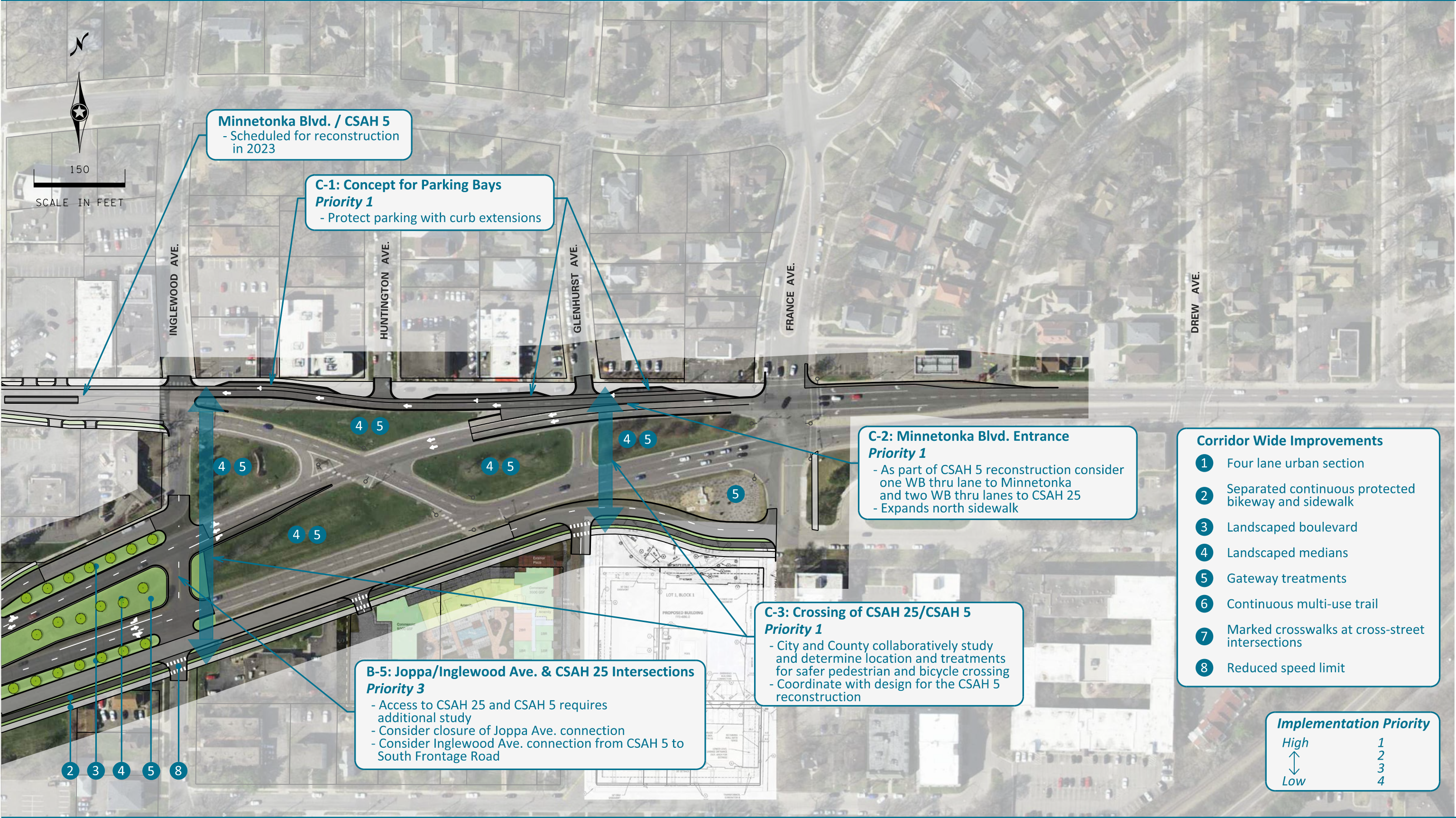
Discussion

The modification to westbound Minnetonka Boulevard through this area to a single lane ties in directly with the preliminary design for the 2023 Minnetonka Boulevard reconstruction project. The reconstruction project will convert the street from four lanes to three lanes with bicycle lanes. In addition to establishing the lane reduction for the 2023 project, this design presents opportunities for expanded sidewalks, curb extensions and parking bays. Each of these elements can provide traffic calming and a buffer to the commercial businesses along Minnetonka Boulevard between France Avenue.

Implementation Considerations – Priority 1

- As part of Minnetonka Boulevard reconstruction provide one westbound thru lane to Minnetonka and two westbound thru lanes to CSAH 25
- Expand the north sidewalk and protect parking with curb extensions

CSAH 25 Conceptual Roadway Layout



C-3 Crossings of CSAH 25 and Minnetonka Boulevard

Determine the appropriate treatments and location(s) to provide safe and comfortable pedestrian crossing between CSAH 25 and Minnetonka Boulevard.

Discussion

As discussed in Section 2.2 of this document, the confluence area and existing crossover intersection design present significant challenges for pedestrians and people on bikes to cross CSAH 25 and Minnetonka Boulevard. There are no sidewalk or trail connections nor devices to assist with a controlled crossing west of France Avenue and the planned signalized intersection at Lynn Avenue.

As the neighborhood around the confluence area becomes increasingly more urban with mixed-use developments, the demand for safe, convenient and comfortable access through and across this area will also increase. While the crossover intersection remains in place and without major changes to CSAH 25 in the confluence area, the agencies should review the area and determine the most appropriate crossing location(s) and related treatments to improve multimodal connectivity.

Implementation Considerations – Priority 1

- City and County collaboratively study and determine location and treatments for safer pedestrian and bicycle crossing
- Coordinate with design for the Minnetonka Boulevard reconstruction

8 Planning Level Cost Estimates and Next Steps

Concept level cost estimates were developed using the layouts shown in Figures 4 through 6 and 2017 MnDOT average unit prices for items that could be quantified. For items such as stormwater and removals and clearing that cannot be quantified at this time due to level of detail in the current concepts a percent of the roadway costs was applied. Detailed cost information can be found in Appendix E. A summary of the costs in 2021 dollars is shown in Table 1.

Table 1 – Planning Level Cost Estimates

Concept	Concept Cost Estimate
Full Reconstruction	\$5,710,000
A-1 South Frontage Road Trail	\$823,000
A-2 South Frontage Road Realignment	\$501,000
A-3 Raleigh & CSAH 25 Intersection	\$602,000
A-4 North Side Sidewalk (West of Beltline)	\$98,000
A-5 Beltline Boulevard & CSAH 25 Intersection	Already Funded
A-6 Channelized Right Turn Lanes	Already Funded
A-7 Study of Ottawa Avenue	To be studied further
B-1 North Frontage Road	\$708,000
B-2 Provide EB Right Turn Lane	Already Funded
B-3 Green Line improvements to Lynn Avenue	Already Funded
B-4 Lynn Ave & CSAH 25 Intersection – North leg	\$127,000
B-5 Joppa/Inglewood Ave & CSAH 25	\$325,000
B-6 South Frontage Road	To be studied further
C-1 Concept for Parking Bays	To be studied further
C-2 Minnetonka Boulevard Entrance	To be studied further
C-3 Crossings of CSAH 25 & Minnetonka Blvd	To be studied further
TOTAL COST	\$8,894,000

The CSAH 25 Conceptual Roadway Layout provides St. Louis Park and Hennepin County a framework to plan for near term and longer term improvements along the CSAH 25 Corridor with currently planned efforts as well as unknown future opportunities. The implementation of the various concept design elements is prioritized such that the City and County may:

- Capitalize upon opportunities for implementation through related projects as identified in the layouts and implementation considerations such as the planned CSAH 25/Beltline Pedestrian Improvements and the 2023 Minnetonka Boulevard reconstruction.
- Seek partnerships for funding projects that involve multiple jurisdictions/agencies such as MnDOT, Minneapolis, Hennepin County/Hennepin County Regional Rail Authority (HCRRA) and Metro Transit.
- Require developers to fund the design elements that abut property – such as the HCRRA parcel in the southeast quadrant of Beltline Boulevard and CSAH 25.
- Seek additional funding sources such as the Regional Solicitation, State Health Improvement Plan (SHIP), the PeopleForBikes Community Grant Program, and potential for other State funds.

- Seek partnership opportunities with public and private organizations.
- Develop capital improvement plans that allocate necessary resources.



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