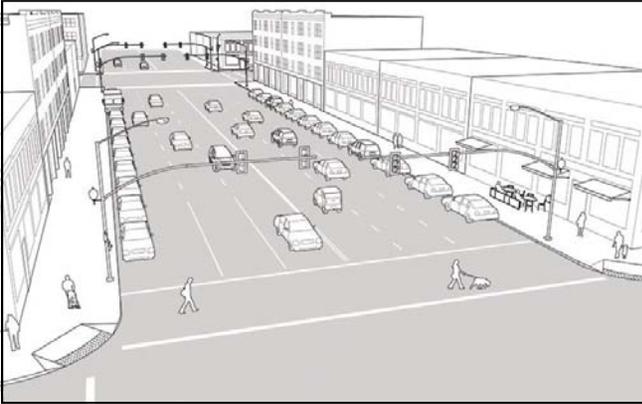


9. Recommendations

Before



After



Image source: NACTO.org (2015)

Figure 9.1 | Improving multimodal integration

The above before and after scenes show ways that existing streets can be improved to better integrate different modes of transportation without large investments in additional infrastructure or right-of-way expansion.

This chapter offers a summary of recommendations that were developed from the analyses and stakeholder input described in the previous chapters. Together, they represent a comprehensive set of projects that would lead to improved multimodal transportation throughout the Lincoln Park neighborhood over the next 30 years.

The recommendations were developed in concurrence with the development of the City of Duluth’s Lincoln Park Small Area Plan (SAP). They also reflect, in part, the recommendations of previous planning efforts, infrastructure investments being planned for in the coming years, and a number of recommendations that are anticipated to result from of the City’s SAP process.

Most of the recommendations are intended to improve multimodal integration within the constraints of existing public rights-of-way (see Figure 9.1). They were also developed with an appreciation for the limited availability of funding. That said, the MIC acknowledges that many of the improvements listed in the following pages would, collectively, cost more than the resources expected to be available to the City and others under recent funding trends. Therefore, these recommendations are being presented as an inventory of potential responses to the issues and opportunities that have been identified in this study, from which the City and stakeholders can pursue or ignore selectively going forward.

Explanation of the maps and tables

The recommendations of this study are presented as a corresponding set of maps and tables in the pages that follow. They are organized according to the different modes discussed in the preceding chapters, and the individual recommendations are listed

according to timeframes based on the levels of financial investment that are anticipated to implement those recommendations. Figure 9.2 shows the four cost categories used (Low, Medium, High, and Very High) to determine which timeframe to list a particular recommendation. Those timeframes are identified as:

- Short-range (year 2015 to 2019)
- Mid-range (year 2020 to 2029)
- Long-range (year 2030 and beyond)

Maps:

The recommended improvements are identified in maps 9.1 through 9.8 on the following pages. In general, the maps are arranged according to the different modal categories discussed in the prior chapters of this document. Maps 9.1 and 9.2, for instance, identify recommended improvements that are focused on motor vehicles and heavy trucks. Map 9.3 is focused on transit improvements, and maps 9.4 through 9.8 identify various improvements for active transportation users.

Within each map, the recommended improvements are denoted by both a symbol and a number. The numbers correspond to those items listed in the table on the pages preceding the map.

Tables:

Along with a brief description of each improvement, the tables include *possible* parties that could be involved with their implementation. Also included are estimates of the levels of investment needed for the implementation and maintenance of each improvements. Those levels correspond to the scale shown in Figure 9.2, and are provided as a “quick gauge” for stakeholders to reference when undertaking further planning efforts in the near future, or during meetings to discuss the scope or coordination of potential improvements projects in the area.

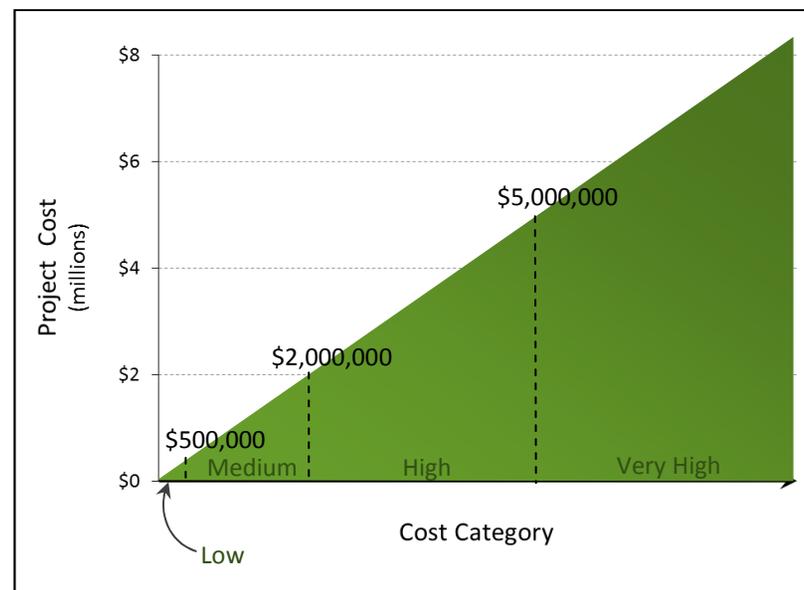


Image source: MIC (2015)

Figure 9.2 | Range of cost estimates for recommended improvements

The estimated costs of recommended improvements represent current prices (U.S. dollars, year 2015). The costs of each recommended improvement includes estimates for engineering, labor, and materials and is represented as belonging to one of four cost bands: “Low” (\$0 - \$500,000), “Medium” (\$500,000 - \$2 million), “High” (\$2 million - \$5 million), “Very High” (>\$5 million).

Map 9.1 | Recommended short-range (2016-2019) improvements for motor vehicles

The numbered features in this map correspond to recommendations 1 through 9 in Table 9.1 on page 117. Included are recommendations to convert existing one-way segments to two-way travel, as well as a call for some additional analysis of the intersections or roadway segments that showed signs of potential safety or operational issues in this study. Also recommended are studies to determine the feasibility of creating future road connections in the neighborhood.



Map 9.2 | Recommended mid-range (2020–2029) improvements for motor vehicles

The features in this map correspond with recommendations 10 through 16 in Table 9.1. The recommendations include the resurfacing or reconstruction of priority road segments, improving vehicle clearance at the historical bridge on Jenswold Street, and enhancement of a public parking area below US Highway 53 at Superior Street & 22nd Avenue W.

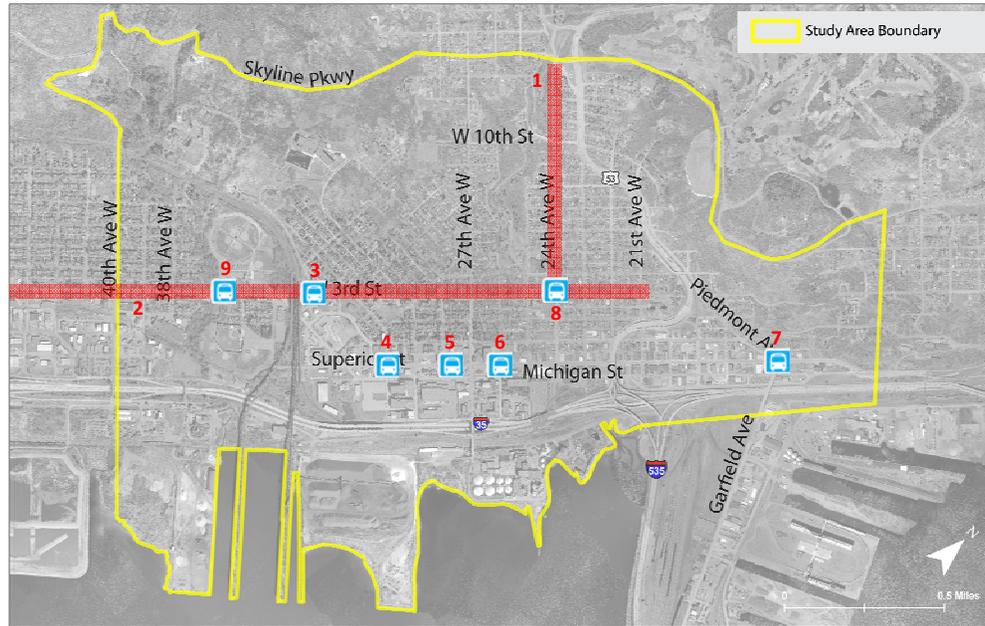


Table 9.1 | Recommendations focused on improvements for motor vehicles and heavy trucks

Time Frame	Map ID	Recommended Improvements	Implementing Entities	Cost of Implementation	Cost of Maintenance
Short-range (2015-2019)	1 (Map 9.1)	Study intersection safety and operations at Skyline Parkway & 24th Avenue W. Investigate need for additional stop-control or needed improvements to intersection geometry.	City of Duluth, MIC	Low	NA
	2 (Map 9.1)	Conduct a study of intersection design and operations at Superior St. & Garfield Ave. - Consider the impacts of adjacent developments, looking specifically at the interactions of traffic volumes, heavy truck movements, transit operations, and bike and pedestrian crossings.	City of Duluth, MIC	Low	NA
	3 (Map 9.1)	Conduct a more detailed study of traffic safety and operations on Grand Avenue between 40th Avenue W and 38th Avenue W. Assess the potential conflicts between motorists, cyclists, transit operations, and pedestrian crossings.	City of Duluth, MIC	Low	NA
	4 (Map 9.1)	Conduct a more detailed study of traffic safety and operations on W 3rd Street between Lincoln Park Middle School Road and Exeter Street. Specifically assess the potential conflicts between motorists, cyclists, and pedestrian crossings.	City of Duluth, MIC	Low	NA
	5 (Map 9.1)	Assess safety and operational needs along 27th Avenue W between W 1st Street and Helm Street. Look for opportunities to consolidate accesses and improve pedestrian safety. Develop a plan for a future redesign of the segment, seeking ways to accommodate projected increases in traffic, but also ways to improve the street environment for pedestrian and cyclists.	City of Duluth, MIC	Low	NA
	6 (Map 9.1)	Convert existing one-way segment to a two-way segment on Michigan Street between 21st Avenue W and 18th Avenue W.	City of Duluth	Low	Low
	7 (Map 9.1)	Convert existing one-way segment to a two-way segment on W 1st Street between 30th Avenue W and 22nd Avenue W.	City of Duluth	Low	Low
	8 (Map 9.1)	Study feasibility of a future road connection between Lower Michigan Street and Courtland Street. If feasible, coordinate with MnDOT’s planning for future “Can of Worms” redesign.	City of Duluth, MIC, MnDOT	Low	NA
	9 (Map 9.1)	Study feasibility of a future realignment that directly connects W 3rd Street to Piedmont Avenue. If feasible, coordinate with MnDOT’s planning for future “Can of Worms” redesign.	City of Duluth, MIC, MnDOT	Low	NA
Mid-range (2020-2029)	10 (Map 9.2)	Continue to maintain and protect the road segment between US 53 and Piedmont Avenue to be used for Oversized/Overweight staging area.	MnDOT, City of Duluth	Low	Low
	11 (Map 9.2)	Resurface or reconstruct Wellington Street from Anson Avenue to Grand Forks Avenue. Address needed sidewalk repairs.	City of Duluth	Medium to High	Medium
	12 (Map 9.2)	Resurface or reconstruct 20th Avenue W from Superior Street to W 1st Street.	City of Duluth	Medium to High	Medium
	13 (Map 9.2)	Resurface or reconstruct 27th Avenue W from Skyline Parkway to W 1st Street.	City of Duluth	Medium to High	Medium
	14 (Map 9.2)	Resurface or reconstruct Courtland Street from the CN ore dock to WLSSD.	City of Duluth	Medium to High	Medium
	15 (Map 9.2)	Redesign public parking spaces below US 53 to have Superior St. & 22nd Ave W be the focal point. Improve surfaces, landscaping and lighting. Market it to shoppers and as a trail head for users of the Cross City Trail.	City of Duluth	High	Medium
	16 (Map 9.2)	Raise the height of bridge (or lower the road) on Jenswold Street to allow for the passage of semi-trailer trucks.	City of Duluth, Port Authority	High	Medium

Map 9.3 | Recommended transit improvements

The features in this map represent recommendations focused on improvements to the regular-route transit service in the Lincoln Park neighborhood. These recommendations include creating a transit-overlay zoning district along W 3rd Street, creating or improving certain bus stop locations, and studying the need for specific transit amenities along 24th Avenue W.



Map 9.4 | Recommended sidewalk improvements

This map shows the location of sidewalk segments that are being recommended as priority segments in the Lincoln Park neighborhood. These segments are deemed important because they are estimated to be serving a substantial number of pedestrian movements, are on a transit line, on a slope, or are on routes recognized as important walking routes to the Lincoln Park Middle School.

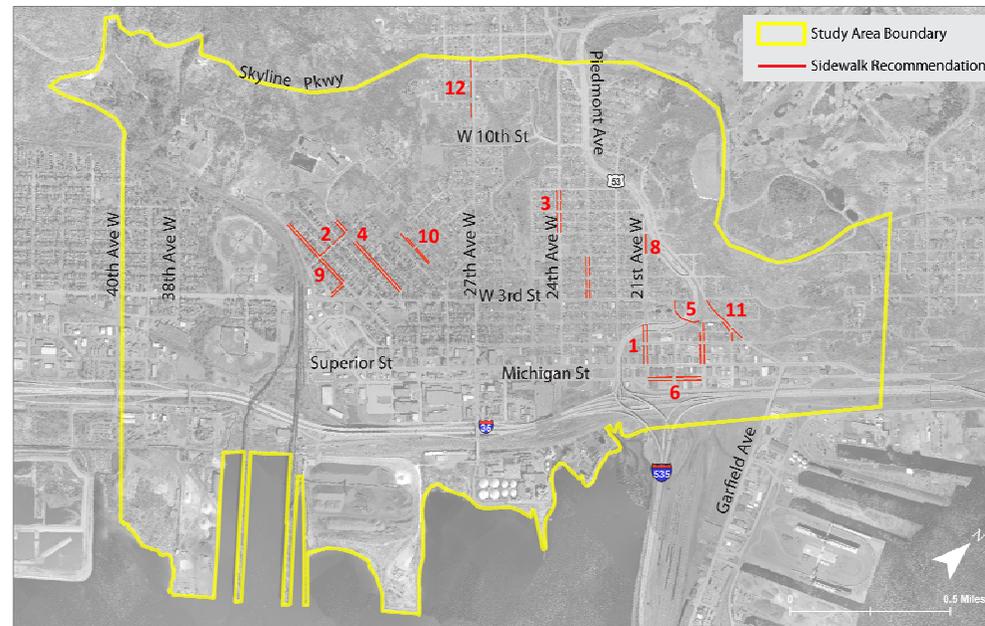
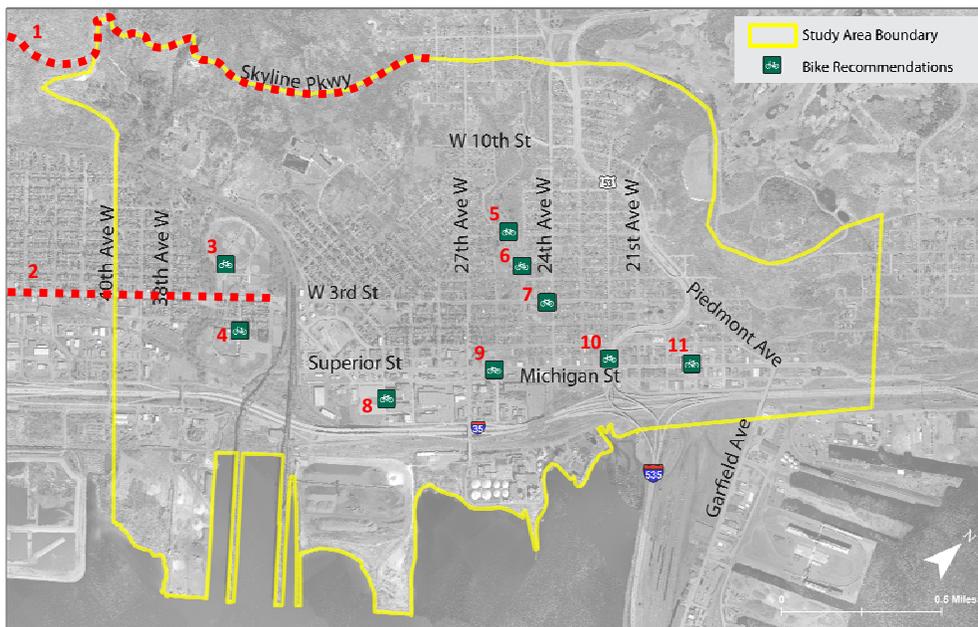


Table 9.2 | Recommendations focused on improvements for regular-route transit service

Time Frame	Map ID	Recommended Improvements	Implementing Entities	Cost of Implementation	Cost of Maintenance
Short-range (2015-2019)	1 (Map 9.3)	Study the need for specific transit amenities and sidewalk improvements on 24th Avenue W.	DTA, MIC	Low	NA
	2 (Map 9.3)	Create a transit-overlay zoning district along W 3rd Street westward from 21st Avenue W out to 59th Avenue W in the Spirit Valley neighborhood that supports transit-supported development forms and streetscape designs.	City of Duluth	Low	NA
	3 (Map 9.3)	Establish a shuttle service between the Lincoln Park Middle School and W 3rd Street. Construct necessary facilities to navigate vehicles; install a bus shelter, and coordinate the scheduling of the service with the DTA’s regular-route buses.	ISD 709, DTA, City of Duluth	High	Low
Mid-range (2020-2029)	4 (Map 9.3)	Construct a bulb out in the shoulder for a bus stop waiting in the shoulder of the south side of Superior Street to serve riders from the Clyde Iron/Heritage Center while keeping the travel-ways open on the Cross City Trail and spur trail.	City of Duluth, DTA	High	Low
	5 (Map 9.3)	Create a bus stop with benches and other amenities in the vacant right-of-way at 28th Avenue W on the south side of Superior Street. Install a paved surface and benches in order to help keep bus riders from waiting in the Cross City Trail. Consider also removing the bus stop at 27th Avenue W to help direct riders to wait at the new bus stop.	City of Duluth, DTA	Medium	Low to Medium
	6 (Map 9.3)	Create a bus stop in the vacant right-of-way at 26th Avenue W on the south side of Superior Street. Install a paved surface and benches in order to help keep bus riders from waiting in the Cross City Trail. Consider also removing the bus stop at 27th Avenue W to help direct riders to wait at the new bus stop.	City of Duluth, DTA	Medium	Low to Medium
	7 (Map 9.3)	Enhance bus stops at the intersection of Superior Street & Garfield Avenue to better support the transfer point for buses traveling to and from the City of Superior. Also support this area with better traffic signal programming and pedestrian-crossing amenities.	City of Duluth, DTA	High	Medium to High
	8 (Map 9.3)	Construct transit shelters at the intersection of W 3rd Street & 24th Avenue W to serve as the future primary connection point for route transfers in the neighborhood.	DTA, City of Duluth	High	Medium
	9 (Map 9.3)	Create an enhanced bus stop with shelters, benches and amenities as future development occurs in this area. Orient these stops to serve users of the adjacent recreational areas, as well as any commercial and residential development that may occur there.	City of Duluth, Developer, DTA	Medium to High	Low to Medium

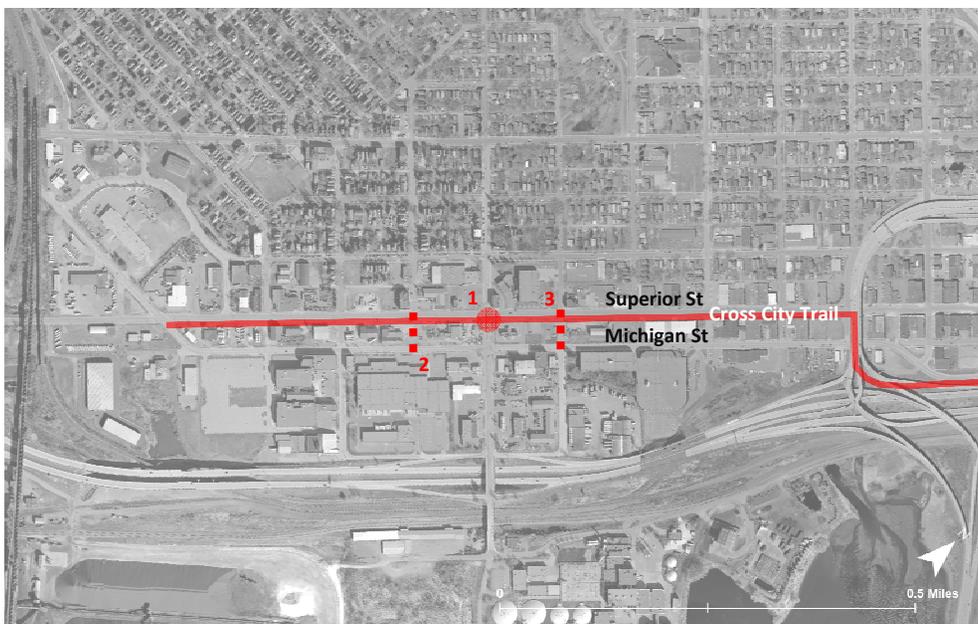
Table 9.3 | Recommendations focused on improving priority sidewalk segments

Time Frame	Map ID	Recommended Improvements	Implementing Entities	Cost of Implementation	Cost of Maintenance
Short-range (2015-2019)	1 (Map 9.4)	Replace sidewalks on 21st Avenue W between W 2nd Street and Superior Street and bring into compliance with current ADA design standards.	City of Duluth	Medium	Low
	2 (Map 9.4)	Replace sidewalks on Atlantic Avenue between Vernon Street and Devonshire Street and bring into compliance with current ADA design standards.	City of Duluth	Medium	Low
	3 (Map 9.4)	Do spot repairs to sidewalks on 24th Avenue W between W 8th Street and W 7th Street.	City of Duluth	Low	Low
Mid-range (2020-2029)	4 (Map 9.4)	Repair/replace sidewalk segments on Devonshire Street between Michigan Avenue and the street’s western terminus. Upgrade curb cuts to meet current ADA standards. *Coordinate with recommendation 1 in Table 9.6 on page 124.	City of Duluth	Medium to High	Low
	5 (Map 9.4)	Repair, replace, and construct sidewalk segments on the southwest side of 20th Avenue W / 19th Avenue W between W 3rd Street and Superior Street.	City of Duluth	Medium to High	Low
	6 (Map 9.4)	Replace the sidewalk segments in poor condition on Michigan Street between 22nd Avenue W and 19th Avenue W and bring curb cuts up to current ADA design standards.	City of Duluth	Medium	Low
	7 (Map 9.4)	Replace the sidewalk segments in poor condition on the northeast side of 23rd Avenue W between W 4th Street and W 3rd Street. Bring curb cut up to current ADA design standards.	City of Duluth	Low	Low
	8 (Map 9.4)	Replace sidewalks on 21st Avenue W between W 5th Street and W 6th Street and bring into compliance with current ADA design standards.	City of Duluth	Medium	Low
	9 (Map 9.4)	Repair/replace sidewalks on Vernon Street between Anson Avenue and Pacific Avenue. Repair/replace sidewalk segments on Pacific Avenue between W 3rd Street and Chestnut Street. Bring curb cuts up to current ADA standards.	City of Duluth	Medium to High	Low
	10 (Map 9.4)	Repair/replace sidewalks on at least one side of Wicklow Street between Pacific Avenue and Winnipeg Avenue. Upgrade curb cuts to current ADA design standards.	City of Duluth	Medium	Low
	11 (Map 9.4)	Repair/replace sidewalk segments on Piedmont Avenue between W 3rd Street and W 1st Street. Upgrade curb cuts to current ADA design standards.	City of Duluth	Medium to High	Low
	12 (Map 9.4)	Replace sidewalk on northwest side of 24th Avenue W between Skyline Parkway and W 11th Street. Upgrade widths and curb cuts to be compliant with current ADA design standards.	City of Duluth	Medium	Low



Map 9.5 | Recommended short-range (2016-2019) improvements for cyclists

This map shows recommendations focused on relatively inexpensive, short-range improvements that can be in support of cycling in the Lincoln Park neighborhood. These recommendations include restriping segments of Skyline Parkway and Grand Avenue to create more room for cyclists, as well as nine locations for creating or improving bike parking facilities.



Map 9.6 | Recommended improvements to help mitigate safety risks at 27th Avenue W & Superior Street

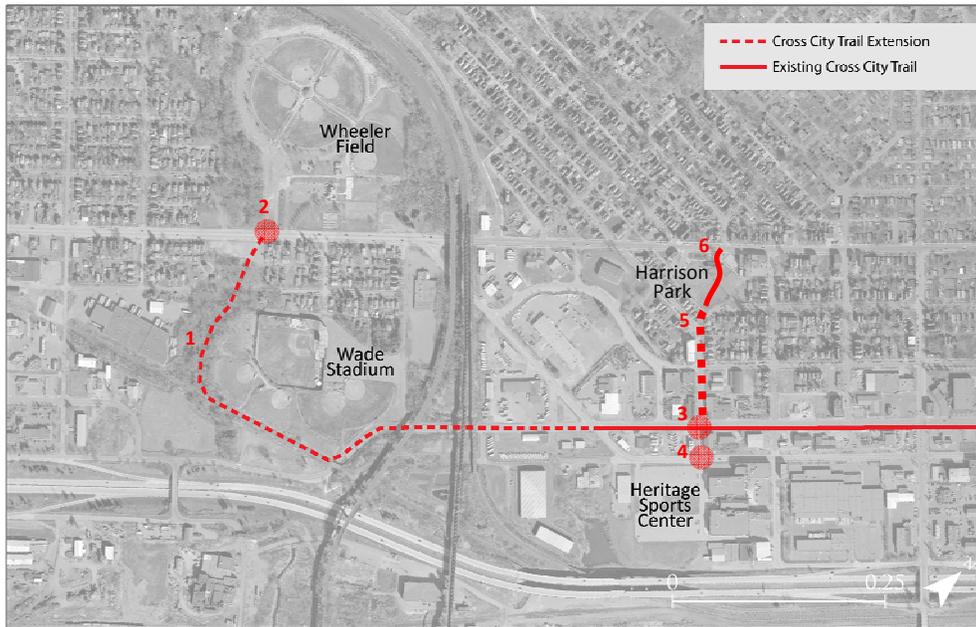
This map shows three improvements that could be made to help reduce the potential for conflicts between motorists and cyclists and pedestrians at the busy intersection of 27th Avenue W & Superior Street. These include painting the Cross City trail across the intersection of 27th Avenue W and adding bike-signal heads to the traffic signals there. They also include formalizing pedestrian pathways between Superior Street and Michigan Street at 28th Avenue W and at 26th Avenue W as alternative routes that can help pedestrians avoid traveling along 27th Avenue W.

Table 9.4 | Recommended short-range improvements for cyclists

Time Frame	Map ID	Recommended Improvements	Implementing Entities	Cost of Implementation	Cost of Maintenance
Short-range (2015-2019)	1 (Map 9.5)	Restripe Skyline Parkway to narrow the travel lanes and allow for wider shoulder widths for cyclists and pedestrians. Add sharrow markings to travel lanes to help notify motorists of possible encounter with cyclists around blind corners. Extend treatment from 24th Avenue W to as far west as Getchell Road.	City of Duluth	Low	Low
	2 (Map 9.5)	Convert parking lane on the north side of Grand Avenue to a marked bike lane from Carlton Street westward to the Spirit Valley neighborhood.	City of Duluth	Low	Low
	3 (Map 9.5)	Install bike racks at Wheeler Fields recreational area.	City of Duluth	Low	Low
	4 (Map 9.5)	Install additional bike parking at Wade Stadium recreational area.	City of Duluth	Low	Low
	5 (Map 9.5)	Install bike parking near upper parking area in Lincoln Park.	City of Duluth	Low	Low
	6 (Map 9.5)	Install bike parking near lower parking area or the pavilion in Lincoln Park.	City of Duluth	Low	Low
	7 (Map 9.5)	Install bike parking near the entrance to the Boys & Girls Club.	Private party, Non-profit	Low	Low
	8 (Map 9.5)	Install bike parking at the west-side entrance of the Clyde Iron/Heritage Center complex.	Private party, Non-profit	Low	Low
	9 (Map 9.5)	Install bike parking in the unused right-of-way at Superior Street and 26th Avenue W. *Coordinate with recommendation 6 in Table 9.2 on page 119 and recommendation 13 in Table 9.4.	City of Duluth	Low	Low
	10 (Map 9.5)	Install bike parking near parking area under US Hwy 53 and the trailhead to the Cross City Trail. *Coordinate with recommendation 15 in Table 9.1 on page 117.	City of Duluth	Low	Low
	11 (Map 9.5)	Install additional bike parking at pocket-park at Superior Street & 19th Avenue W.	City of Duluth	Low	Low

Table 9.5 | Recommendations focused on reducing risks along 27th Avenue W between Superior Street and Michigan Street

Time Frame	Map ID	Recommended Improvements	Implementing Entities	Cost of Implementation	Cost of Maintenance
Short-range (2015-2019)	1 (Map 9.6)	Add bike-specific signal heads to the traffic signal system at Superior Street & 27th Avenue W for users of the Cross City Trail. Paint solid bike lane marking across 27th Avenue W.	City of Duluth	Low	Low
	2 (Map 9.6)	Formalize a pedestrian pathway in the right-of-way at 28th Avenue W with a paved surface. *Coordinate with recommendation 5 in Table 9.2 on page 119.	City of Duluth, Non-profit	Low	Low
	3 (Map 9.6)	Formalize a pedestrian pathway in the right-of-way at 26th Avenue W with a paved surface. *Coordinate with recommendation 6 in Table 9.2 on page 119 and recommendation 9 in Table 9.3.	City of Duluth, Non-profit	Low	Low



Map 9.7 | Recommended connections to the Cross City Trail

This map shows recommendations aimed at capitalizing on the recent Cross City Trail investment by creating connections between existing recreational activity centers. Those connections include enhanced street crossings on Superior Street and Michigan Street at 30th Avenue W, as well as a paved, on-street bikeway connection to Harrison Park, and the construction of a greenway portion of the Cross City Trail along Merritt Creek.



Map 9.8 | Recommended future trails and greenways

The features in this map represent future trail segments that will improve connectivity and access to different activity centers and transit lines. These include a paved Devonshire Trail connection and a W 10th Street connection to the middle school, as well as a pathway to and through Lincoln Park and the waterfront at 21st Avenue W.

Table 9.6 | Recommendations focused on creating improved connections between neighborhood activity centers

Time Frame	Map ID	Recommended Improvements	Implementing Entities	Cost of Implementation	Cost of Maintenance
Short-range (2015-2019)	1 (Map 9.7)	Extend the Cross City Trail along Merritt Creek to create a greenway segment, while still connecting to both the Wade Stadium and Wheeler Fields recreational areas.	City of Duluth	High	High
	2 (Map 9.7)	Create a high-visibility, enhanced crossing on Grand Avenue connecting the Cross City Trail to the Entrance of Wheeler Fields.	City of Duluth	Low to Medium	Low
	3 (Map 9.7)	Install a curb-cut to the Cross City Trail at Superior Street & 30th Avenue W. Create a high-visibility, enhanced crossing across Superior Street.	City of Duluth	Medium	Low
	4 (Map 9.7)	Create a high-visibility, enhanced crossing at Michigan Street & 30th Avenue W to improve the safety of the spur trail connection to the entrance of the Clyde Iron/Heritage Center complex.	City of Duluth	Low to Medium	Low
Mid-range (2020-2029)	5 (Map 9.7)	Install a painted bike lane from Superior Street to Harrison Park along the north side of 30th Avenue W and Grand Forks Avenue.	City of Duluth	Low	Low
	6 (Map 9.7)	Update Harrison Park: rearrange the park’s amenities and construct a paved use path that links a Grand Forks entrance to the Harrison Community Club building.	City of Duluth	Medium to High	Medium
	7 (Map 9.8)	Convert the existing Devonshire Trail to a multiuse, paved path ; ensure ADA compliant design.	City of Duluth	Medium	Low
	8 (Map 9.8)	Construct a paved, multi-use trail connecting W 10th Street to Anson Avenue.	City of Duluth	Medium to High	Low
	9 (Map 9.8)	Construct a paved, multi-use trail across Lincoln Park that connects W 6th Street to W 6th Street and uses the existing bridge across Miller Creek.	City of Duluth	Medium to High	Low
	10 (Map 9.8)	Create an active transportation corridor and possible greenway segment in/along 26th Avenue W between Lincoln Park and the Cross City Trail. Include a high-visibility crossing across Superior Street.	City of Duluth	Medium to High	Low to Medium
	11 (Map 9.8)	In coordination with MnDOT’s planning for a future redesign of the “Can of Worms” interchange, create an active transportation connection to the waterfront at 21st Avenue W (either on-street or a separate facility) . *Coordinate with recommendation 8 in Table 9.1 on page 117.	City of Duluth	Medium to High	Low to Medium