# Southwest Light Rail Transit Bicycle Facility Assessment Technical Memorandum #2 Recommendations

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Toole Design Group

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## Introduction

This technical memorandum provides overall bike parking recommendations along the Southwest LRT alignment, as well as specific recommendations for each of the stations. A range of bike parking estimates are provided, based on assumptions of low, medium, and high bicycle mode share. The methodology used to derive these estimates is also described.

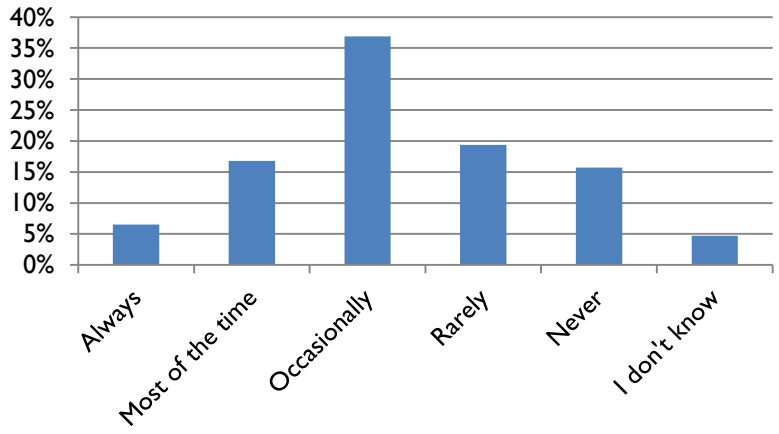
In addition, other design recommendations that would improve the bikeability of the Southwest LRT project are included. These include proposed network improvements, recommendations to address bicycle and pedestrian conflicts in the station areas and along the existing trails, as well as recommendations for vertical circulation at some station areas.

## Bike parking related survey responses

An online survey conducted for the project revealed how frequently and for what purpose LRT users plan to ride their bicycles to LRT stations. In addition, the survey asked respondents whether or not they would park and lock their bikes at stations, and if not, why. A summary of other survey questions is provided in Technical Memorandum #1.

Of the 1,290 respondents that answered the question about the frequency of parking and locking their bikes at an LRT station, most respondents (37%) said they would occasionally park and lock their bikes at an LRT station. A total of 35% of respondents said they would either rarely (19.4%) or never (15.7%) park and lock their bikes at an LRT station (Figure 1).

**Figure 1: Frequency of Bike Parking at LRT Station**




Among the survey respondents that said they would rarely or never park and lock their bikes at an LRT station, 444 answered a follow up question asking for the reason that they would not park their bikes at an LRT station (Figure 2). Forty-three percent of respondents indicated the need for bike use on both ends of their LRT trip. The next most common reason, with 23% of respondents, was the feeling that their bikes would be unsafe at the station. In addition, 14% of respondents said their bike is too valuable to leave at the station (even if locked appropriately). Nearly 20% of respondents identified other reasons for not parking their bikes at LRT stations, with a wide variety of reasons for not doing so.

Survey respondents also rated five different types of bike parking facilities on a scale of 1 to 5 (1 = I do not prefer, 5 = I strongly prefer). There was not a large difference in preference between types of parking, but the most preferred bike parking facility was a Bike Room/Indoor Parking, which received a rating of 3.8, followed by covered bike parking (Figure 3).

**Figure 2: Reasons for Not Parking Bike at LRT Station**

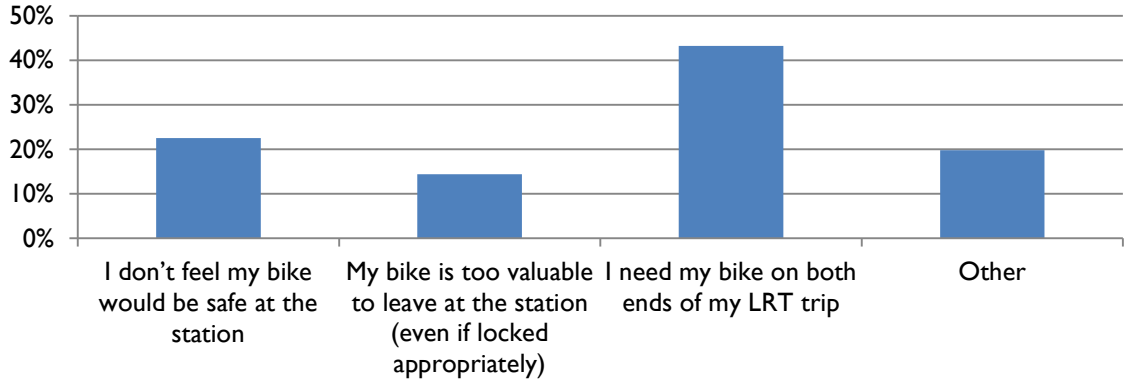
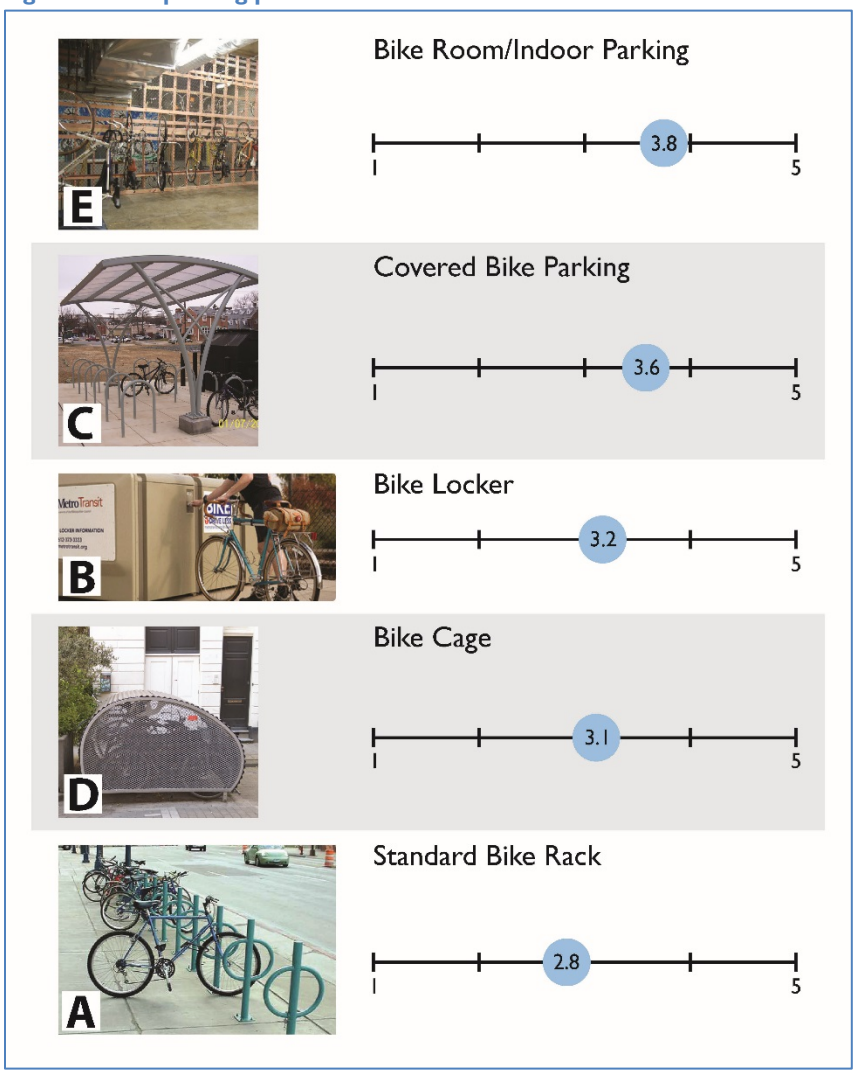



**Figure 3. Bike parking preferences**



# General bike parking recommendations

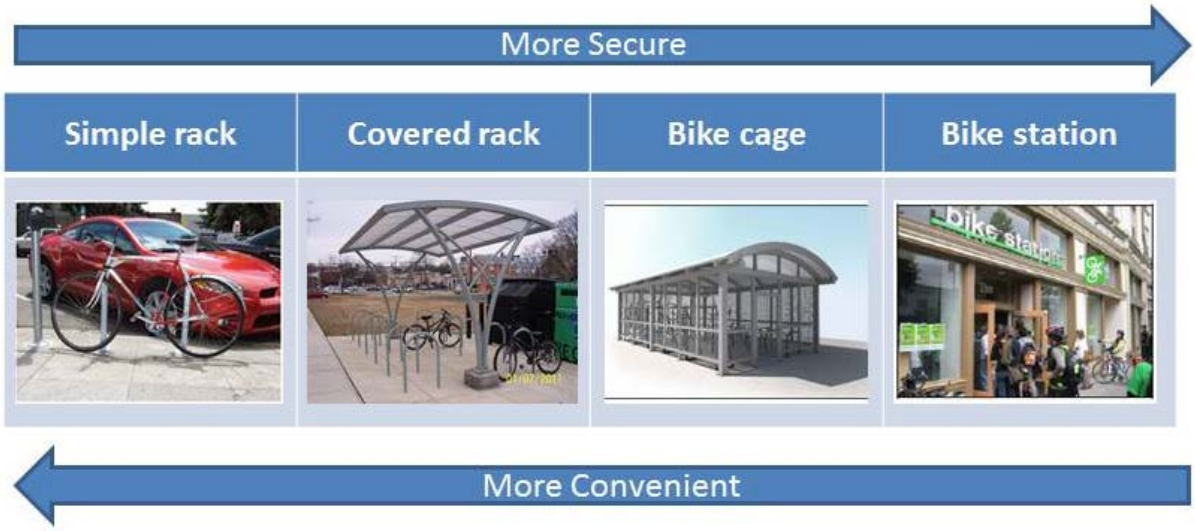
## Types of Bike Parking

A previous memorandum on bike parking best practices discussed the types of bike parking in detail, including simple racks, covered racks, bike cages, and bike stations/indoor bike parking. Bike parking in parking garages was also discussed. The two most important factors for bicyclists in selecting bike parking are convenience and security (Figure 4). Two types of bike parking are recommended for the Southwest LRT stations:

- short term - more convenient/less secure parking , and
- long term - less convenient/more secure parking.

The duration of use is actually not relevant to the design, some bicyclist may choose to use the more convenient parking for a longer duration, or the more secure parking for a shorter duration.

**Figure 4. Convenience and security of bike parking**




The Association of Pedestrian and Bicycle Professionals (APBP) recommends a 78%/22% ratio of "long term" to "short term" bike parking at transit facilities. For the Southwest LRT stations, two ratios are recommended. A 60% long term/ 40% short term ratio is recommended for stations in Minneapolis, where biking distances to the LRT station may be shorter. An 80% long term/20% short term ratio is recommended for stations in St Louis Park, Hopkins, Minnetonka, and Eden Prairie, where biking distances to the station may be longer. Longer distance commuters may be more likely to invest more money in their bicycle, and therefore may want more secure parking available.

## Short term parking

Survey respondents favored covered bike parking over simple bike racks and it is recommended that all short term bike parking at Southwest LRT stations be covered parking at a minimum to provide weather protection (Figure 5). The roof span of the structure should provide shelter for bike lengths and is ideally 8-foot minimum, though different bike rack designs could redefine this dimension. For lighting

purposes, some bike shelters utilize glass roofs to allow overhead street lighting to illuminate the bike parking area.

**Figure 5. Covered bike parking**

## Long term bike parking

**Figure 6. BikeLid®**

There are a number of options for long term bike parking. The appropriate type may depend on the quantity required at each station. Long term parking typically involves a locker, cage, or room with keycard or fob access. For the purposes of this analysis, long term parking for stations with 8 or less spaces (4 racks) required is assumed to be lockers or bike lids. Long term parking for stations with more than 8 spaces required is assumed to be bike cages. Bike cages are typically more cost effective per bike parking space and more sustainable long term than bike lockers as the cages are modular, and can be expanded to meet bike parking demand. Bike cages can be constructed for any number of bike parking spaces, including only one or two bicycles. Another option for long term biking includes "bike lids". Figure 6 is an example of a bike lid. Regardless of the structure used, it is recommended that long term bike parking access be provided at the system-wide level, rather than issuing the rental of one specific locker or space. Similar to a bike share or car share system, an electronic keycard would be issued to the user that would provide access to an entire network of secure bike parking around the region (at transit stations and other locations). The BikeLink™ program in the San Francisco Bay area is

a good example of this type of system. Participating agencies in that system include BART, Alameda-Contra Costa Transit, Cities of Oakland, and Berkeley. Pricing of long term bike parking should also be competitive with that of automobile parking near the station area.

## Additional amenities

At a minimum, it is recommended that a bike repair station be provided at each station (Figure 7). These compact installations include a bike pump, basic tools, and a stand to support a bike during repairs.

Additional amenities such as vending machines with emergency bicycle repair parts and accessories, or bike wash stations may be considered for areas with higher expected volumes of bike parking. Shower facilities are best implemented at bicycling destinations, such as employment centers. A Southwest LRT transit station would likely be a midway point in a bicyclist's journey to work. As a result, these station areas may not be the best location for shower facilities. Showers located near the Target Field station or the downtown Minneapolis Blue/Green line stations may be more effective.

Figure 7. Bike "fix it" station


## Placement

The location of bike parking at a transit station can influence the amount of conflict between pedestrians and bicyclists. Where possible, pedestrians and bicyclists should be separated with some sort of delineation to guide them in their correct paths, and bike parking locations should be clearly identified and easily accessible. Areas of conflict can be identified using signage, pavement markings or different colors of pavement. If there is only one bike parking location, it is critical to locate the facility where bicyclists can access it from all directions. In addition, bike parking should not be located too far from the platform as this could discourage bicyclists from using the facility.

## Maintenance

Maintenance of bike parking areas should include cleaning, prevention of improper/unsecured parking, and removal of abandoned bikes. The facility should be swept, trash receptacles placed in close proximity, and cleaning via power washing or other method to remove debris, chain oil, etc. to keep the facility in good working condition.

## Lighting

While lighting is not always required for bike parking locations, well-lit areas encourage bicyclists to park at the particular location and deters theft. The MnDOT Bikeway Facility Design Manual indicates that bike parking areas should be lit at levels similar to automobile parking.

## Bike parking demand estimate

The bikesheds developed and described in Technical Memorandum 1 were used to estimate the amount of bike parking demand for each of the Southwest LRT stations. The methodology for determining the demand is as follows:

- Total 2030 Southwest LRT boardings by segment
- Low, medium, and high bicycle mode share estimates
- Percentage of users who are expected to carry their bike onto the train
- 2030 estimated population per bikeshed
- Qualitative adjustment based on other factors (i.e. land use around the station, proximity to regional trail system)

The total 2030 projected ridership for the Southwest LRT for each of the corridor segments (defined in Technical Memorandum 1) is shown in Table 1.

**Table 1. Total 2030 LRT boardings by segment**

| Segment | Total Boardings |
|---|---|
| **Urban Minneapolis** | 343 |
| **Residential Minneapolis** | 4,097 |
| **St Louis Park / Hopkins** | 10,334 |
| **Minnetonka / Eden Prairie** | 9,280 |

A bicycle mode share estimate was used to determine how many of the people boarding the LRT in these areas might arrive at the station by bicycle. A high, medium, and low bicycle mode share estimate was developed for each of the four segments based on existing mode share as reported in the 2010 census as well as regional goals for future bicycle mode share. There is very little information available about bike-to-transit mode share for other regions, so assumptions are made based on local goals. Hennepin County and the City of Minneapolis are the only municipalities in the study area with published goals. The Hennepin County Bike Plan includes a goal of doubling the mode share of bicycling to work in the county from 1.8 percent to 3.6 percent by 2040. The Minneapolis Climate Action Plan lists a goal of 15 percent bicycling mode share by 2025. The rationale for each assumption is listed in Table 2.

Table 2. Bicycle mode share estimates by segment

| Segment Name | Stations | Mode Share to Transit Estimate | |
|---|---|---|---|
| Urban Minneapolis | • Royalston<br>• Van White | 2010 commute mode share – 3.0% | |
| | | Low Estimate – 4% | 2010 mode share rounded up |
| | | Medium Estimate – 6% | splits the difference between low and high estimate |
| | | High Estimate – 8% | based on Minneapolis 2025 Climate Action Plan goal, reduced to account for proximity to CBD |
| Residential Minneapolis | • Penn<br>• 21st Street<br>• West Lake | 2010 commute mode share – 4.3% | |
| | | Low Estimate – 5% | 2010 mode share rounded up |
| | | Medium Estimate – 10% | splits the difference between low and high estimate |
| | | High Estimate – 15% | based on Minneapolis 2025 Climate Action Plan goal |
| Saint Louis Park / Hopkins | • Beltline<br>• Wooddale<br>• Louisiana<br>• Blake<br>• Downtown Hopkins<br>• Shady Oak | 2010 commute mode share – 0.9% | |
| | | Low Estimate – 1% | 2010 mode share rounded up |
| | | Medium Estimate – 5% | splits the difference between low and high estimate |
| | | High Estimate – 9% | Splits the difference between Minneapolis 2025 goal (15%) and Hennepin County 2040 goal (3.6%) |
| Minnetonka / Eden Prairie | • Opus<br>• City West<br>• Golden Triangle<br>• Eden Prairie Town Center<br>• Southwest<br>• Mitchell | 2010 commute mode share – 0.1% | |
| | | Low Estimate – 1% | Rounding up 2010 mode share for error in very low existing mode share |
| | | Medium Estimate – 2.3% | splits the difference between low and high estimate |
| | | High Estimate – 3.6% | based on Hennepin County 2040 county-wide commute mode split goal. |

An assumption was made about the number of bicyclists who would carry their bike onto the train. Based on the survey results, it's expected that about 35% of people who bike to the station would not leave their bike there. However, for a conservative estimate of bike parking needs, this was rounded down to 25%. The low, medium, and high estimate of bike parking needs for each segment is presented in Table 3.

Table 3. Estimated bike parking needs by segment

| Segment | Total Boardings | Mode Share Estimate (low, medium, high) | Total Bike Ridership | Bike carry-on percentage | Bike parking needed |
|---|---|---|---|---|---|
| **Urban Minneapolis** | 343 | 4% | 14 | 25% | 10 |
| | | 6% | 21 | 25% | 15 |
| | | 8% | 27 | 25% | 21 |
| **Residential Minneapolis** | 4,097 | 5% | 205 | 25% | 154 |
| | | 10% | 410 | 25% | 307 |
| | | 15% | 615 | 25% | 461 |
| **St Louis Park / Hopkins** | 10,334 | 1% | 103 | 25% | 78 |
| | | 5% | 517 | 25% | 388 |
| | | 9% | 930 | 25% | 698 |
| **Minnetonka / Eden Prairie** | 9,280 | 1% | 93 | 25% | 70 |
| | | 2.3% | 213 | 25% | 160 |
| | | 3.6% | 334 | 25% | 251 |

The bike parking demand for each segment was then divided between the individual stations based on the estimated 2030 population of each bikeshed. The population of the bikeshed is the strongest indicator of bicyclists that may use the station and need bike parking. However, there are other factors in the attractiveness of a given station. The estimated population of the bikesheds were adjusted in order to account for these other, unquantified factors that may impact bike parking (Table 4). For example, the Shady Oak and Downtown Hopkins stations have more direct access to the regional trail network than the Blake and Louisiana stations. Adjustments were made as follows:

- Mitchell increased due to end-of-line location
- Southwest reduced due to availability of car parking
- Shady Oak increased due to end-of-line type of location, and connection to trail network
- Hopkins increased due to connection to trail network
- Blake, Louisiana, and Beltline decreased due to surrounding land use
- Penn reduced due to proximity to downtown Minneapolis
- Royalston reduced due to presence of existing LRT within bikeshed

The total amount of bike parking recommended for a given station remained the same. But, adjusting the estimated population of these stations allows for a more realistic distribution of bike parking within a segment. Lower bike parking needs estimates were rounded up to 8 parking spaces (4 racks), the assumed minimum parking that would be installed at a station. Table 5 summarizes the low, medium, and high bike parking demand estimates by station including the overlapping bikeshed areas. These calculations were performed based on the unique bikesheds for each station and an even divide of overlapping bikeshed areas as there is no way to be certain which station bicyclists in overlapping areas will choose to bike to. Unique and overlapping bikeshed areas for each station were described and mapped in Technical Memorandum 1.

Table 4. Bikeshed population ratios with overlapping bikesheds

| Stations | 2030 Bikeshed Population | Qualitative Multiplier | Effective Population | Bikeshed Population Ratio |
|---|---|---|---|---|
| Royalston | 41,288 | 0.5 | 20,644 | 0.51 |
| Van White | 19,877 | 1 | 19,877 | 0.49 |
| Penn | 7,404 | 0.75 | 5,553 | 0.14 |
| 21st Street | 12,839 | 1 | 12,839 | 0.33 |
| West Lake | 20,901 | 1 | 20,901 | 0.53 |
| Beltline | 9,473 | 0.8 | 7,578 | 0.12 |
| Wooddale | 24,091 | 1 | 24,091 | 0.39 |
| Louisiana | 5,243 | 0.8 | 4,194 | 0.07 |
| Blake | 8,593 | 0.8 | 6,875 | 0.11 |
| Hopkins | 9,862 | 1.25 | 12,328 | 0.20 |
| Shady Oak | 5,889 | 1.25 | 7,361 | 0.12 |
| Opus | 1,587 | 1 | 1,587 | 0.09 |
| City West | 731 | 1 | 731 | 0.04 |
| Golden Triangle | 1,352 | 1 | 1,352 | 0.08 |
| Eden Prairie | 4,237 | 1 | 4,237 | 0.24 |
| Southwest | 7,543 | 0.75 | 5,658 | 0.32 |
| Mitchell | 3,424 | 1.25 | 4,280 | 0.24 |

Table 5. Bike parking demand by station with overlapping bikesheds

| Stations | Low Parking Estimate | Medium Parking Estimate | High Parking Estimate |
|---|---|---|---|
| Royalston | 8 | 8 | 11 |
| Van White | 8 | 8 | 11 |
| Penn | 22 | 44 | 66 |
| 21st Street | 51 | 101 | 151 |
| West Lake | 82 | 164 | 246 |
| Beltline | 10 | 48 | 85 |
| Wooddale | 30 | 150 | 270 |
| Louisiana | 8 | 27 | 47 |
| Blake | 9 | 43 | 77 |
| Hopkins | 16 | 77 | 138 |
| Shady Oak | 10 | 46 | 83 |
| Opus | 8 | 15 | 23 |
| City West | 8 | 8 | 11 |
| Golden Triangle | 8 | 13 | 19 |
| Eden Prairie Town Center | 17 | 39 | 60 |
| Southwest | 23 | 51 | 80 |
| Mitchell | 17 | 39 | 61 |

## Recommendations

It is recommended that space be reserved for bike parking that will serve the highest estimated demand, based on the highest mode share assumptions. Bike parking for opening day should be implemented to serve either the low or medium demand, since these most closely reflect existing mode shares. However, each individual city should evaluate the characteristics and planned improvements in each station area, and should decide whether it would be feasible to provide the high demand on opening day. Also, the character of many of the station areas may significantly change due to redevelopment in the near future. Due to the redevelopment potential that has been identified in some areas, the bike parking estimates should be revisited in the future should significant redevelopment occur. In addition, it is recommended that network improvements proposed in the Hennepin County Transitional Station Area Action Plan (TSAAP) be pursued. Finally, this section describes a few location-specific bike-friendly design recommendations based on a review of the 30% design plans for the Southwest LRT.

### Bike parking recommendations

Bike parking should be considered a dynamic service provided to transit users, rather than a static one-time investment. While the demand for bike parking on opening day may be limited, it is critical to provide for an increase in usage – the square footage needed to serve the expected bike parking demand should be reserved early, before the station area is entirely occupied by other uses. However, building out the maximum expected parking on day one is also not recommended. Bike parking technology and available equipment are evolving quickly. Reserving spaced based on the highest mode share estimate but only installing parking based on the low or medium estimate for opening day may balance these competing factors.

In order to estimate the total square footage needed for bike parking at the Southwest LRT stations, the highest estimated bike parking demand with overlapping bikesheds was used. For the purposes of this analysis, long term parking for stations with 8 or less spaces (4 racks) required is assumed to be bike lockers. Long term parking for stations with more than 8 spaces required is assumed to be bike cages. In locations with more than 100 long term spaces needed (Hopkins, Wooddale, West Lake, and 21st Street), there may be justification for an indoor facility. Estimated bike parking space requirements are shown in Table 6.

**Table 6. Bike parking type recommendations and space requirements**

| Stations | Total Parking | Long term | Short term | Number of lockers (capacity: 2) | Cage capacity needed | Number of covered racks (capacity: 2) | Total square footage |
|---|---|---|---|---|---|---|---|
| Royalston | 11 | 6 | 5 | 3 | n/a | 3 | 264 |
| Van White | 11 | 6 | 5 | 3 | n/a | 3 | 264 |
| Penn | 66 | 39 | 27 | n/a | 39 | 14 | 920 |
| 21st Street | 151 | 90 | 61 | n/a | 90 | 31 | 1919 |
| West Lake | 246 | 147 | 99 | n/a | 147 | 50 | 2970 |
| Beltline | 85 | 68 | 17 | n/a | 68 | 9 | 1338 |

| Stations | Total Parking | Long term | Short term | Number of lockers (capacity: 2) | Cage capacity needed | Number of covered racks (capacity: 2) | Total square footage |
|---|---|---|---|---|---|---|---|
| Wooddale | 270 | 216 | 54 | n/a | 216 | 27 | 2913 |
| Louisiana | 47 | 37 | 10 | n/a | 37 | 5 | 682 |
| Blake | 77 | 61 | 16 | n/a | 61 | 8 | 1312 |
| Hopkins | 138 | 110 | 28 | n/a | 110 | 14 | 1470 |
| Shady Oak | 83 | 66 | 17 | n/a | 66 | 9 | 1338 |
| Opus | 23 | 18 | 5 | n/a | 18 | 3 | 630 |
| City West | 11 | 8 | 3 | 3 | n/a | 2 | 238 |
| Golden Triangle | 19 | 15 | 4 | n/a | 15 | 2 | 603 |
| Eden Prairie | 60 | 48 | 12 | n/a | 48 | 6 | 709 |
| Southwest | 80 | 64 | 16 | n/a | 64 | 8 | 1312 |
| Mitchell | 61 | 48 | 13 | n/a | 53 | 7 | 735 |

Bike parking space requirement estimates were based on the following products. There are a number of products available from various vendors, a specific brand of parking products is not being recommended here. Figure 8 illustrates a typical bicycle cage, the dimensions of this parking facility are 18.5 feet by 29.5 feet. Figure 9 illustrates a typical bike locker. While the locker is 74.5 inches long, an additional 5 feet was assumed on either side to allow space for the door to swing open, for a total of 56 square feet per locker. Finally, Figure 10 outlines the recommended bike parking layout for standard bike racks from the Hennepin County Bicycle Parking Standards. This layout and other standard bike parking space needs guidance was used to develop an estimated 24 square feet per rack assumption.

**Figure 8. Velodrom Guardian Double (vertical racks not shown)**

Figure 9. Dero 300-series two-bike bike locker

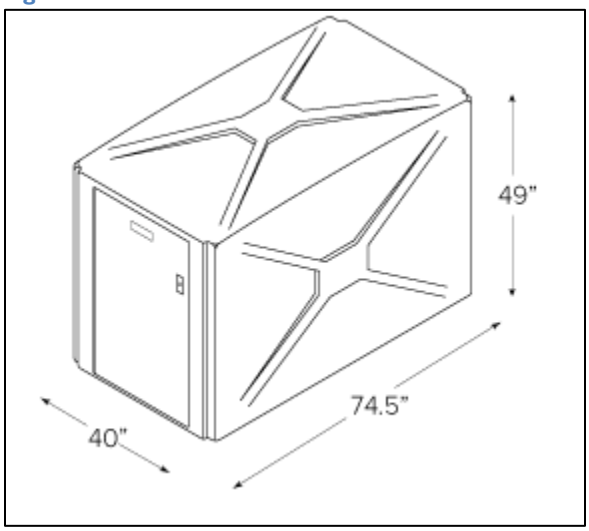
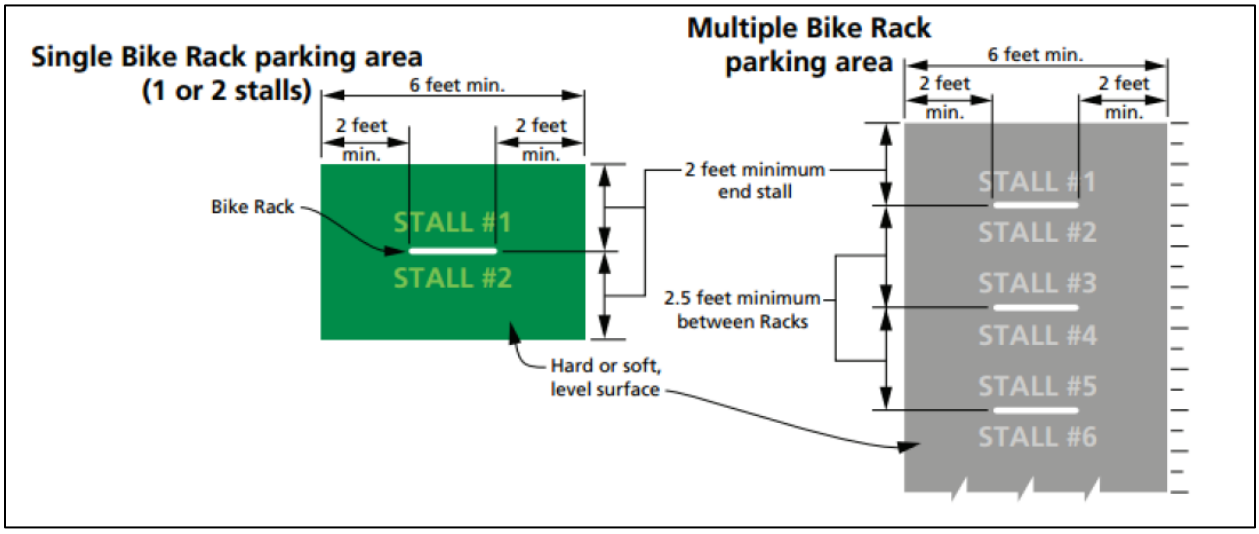



Figure 10. Hennepin County Bicycle Parking Standards




The approximate amount of square footage required for the maximum (high mode share) bike parking at each station was then placed on the Southwest LRT 30% design plans to illustrate the amount of space that might be required at each station area (Appendix A). This suggested placement also takes into account bicyclist access to the station platform and attempts to limit bicycle and pedestrian conflicts in the station area.

## Proposed network improvements

The Hennepin County Transitional Station Area Action Plan (TSAAP) was developed in 2014 to promote opening day readiness at each of the Southwest LRT station areas by bridging the gap between current conditions and future needs. The TSAAP identified and prioritized infrastructure improvements that enhance existing business, support mixed income housing opportunities, and encourage new development. A number of projects from this plan are already moving forward, including the implementation of on-road bikeways in the station areas. Specifically, one type of proposed improvement is the creation of new roadway and trail connections. Unlike bikeways proposed along

existing roadways, these new connections have the potential to result in a larger bikeshed for each of the stations. Table 7 summarizes the proposed roadways, bikeways and their anticipated impacts on the bikesheds. In some locations, the construction of these new roadways and bikeways would directly impact the ability of local residents to bike to the station, resulting in an increase in bicycle usage for those accessing the station. These improvements should be pursed to the fullest extent possible. Snapshots of these improvements as shown in the TSAAP are provided in Figures 11-21.

Table 7. Bikeshed impacts of proposed network improvements

| Station | 2030 Population | Bikeshed Area | Proposed Network Improvement | Impact to Bikeshed |
|---|---|---|---|---|
| **Royalston** | 29,882 | 2.9 $mi^2$ | None | n/a |
| **Van White** | 1,980 | 0.39$mi^2$ | None | n/a |
| **Penn** | 5,929 | 1.34 $mi^2$ | Enhancing existing footpath between the Cedar Lake Regional Trail and Kenwood Parkway for bicycle use | Improved access to the station from the south, potentially increasing size of bikeshed |
| **21st Street** | 4,331 | 0.89 $mi^2$ | None | n/a |
| **West Lake** | 19,272 | 2.1 $mi^2$ | New roadways between Calhoun Parkway and Excelsior Blvd | Improved access to Chain of Lakes Regional Park from station |
| **Beltline** | 4,903 | 0.95 $mi^2$ | New roadways connecting across Minnetonka Blvd | Improved access to the station from the north |
| **Wooddale** | 19,955 | 3.4 $mi^2$ | None | n/a |
| **Louisiana** | 3,071 | 0.71 $mi^2$ | None | n/a |
| **Blake** | 6,626 | 1.4 $mi^2$ | New roadways connecting to Excelsior Blvd and Blake Rd | Improved access to the station from the south and west |
| **Downtown Hopkins** | 8,107 | 1.8 $mi^2$ | None | n/a |
| **Shady Oak** | 4,459 | 1.8 $mi^2$ | Extension of 17th Street across MN River Bluffs Regional Trail, new connection between 17th and Shady Oak Rd | Improved access to the station from the south, potentially increasing the size of the bikeshed |
| **Opus** | 1,293 | 0.81$mi^2$ | New trails connect to existing land uses and across Bren Rd E | Improved access to the station from the west, potentially increasing the size of the bikeshed |
| **City West** | 79 | 0.044 $mi^2$ | New trails improve access to Shady Oak Rd | Improved access to the station from the south, potentially increasing the size of the bikeshed |
| **Golden Triangle** | 1,008 | 1.3 $mi^2$ | Extension of 70th and 69th Streets between Shady Oak Rd and Flying Cloud Dr | Improved access to the station from the east and west |
| **Eden Prairie** | 923 | 0.54 $mi^2$ | New roadway between Technology Dr and Regional Center Rd and between the station and Prairie Center Dr | Improved access to the station from the south and west, potentially increasing the size of the bikeshed |
| **Southwest** | 963 | 0.24 $mi^2$ | None | n/a |
| **Mitchell** | 146 | 0.32 $mi^2$ | New roadway between Technology Dr and Scenic Heights Rd | Improved access to the station from the south, potentially increasing the size of the bikeshed |

**Figure 11. TSAAP improvement key**

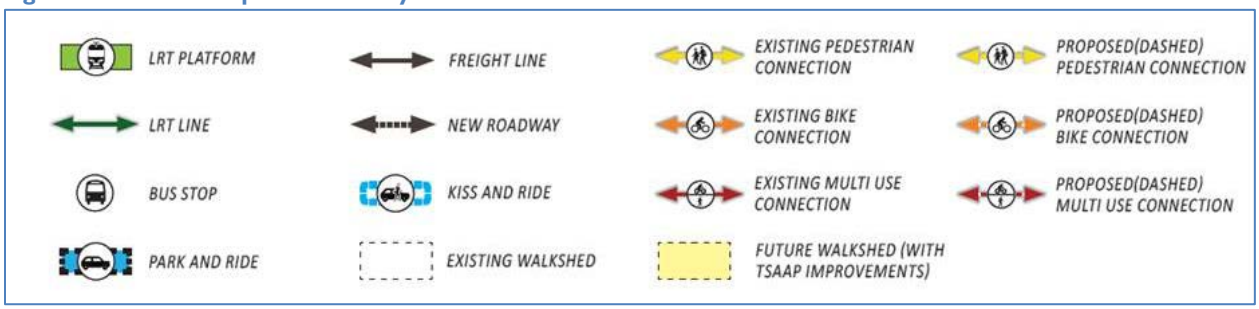



**Figure 12. Penn network improvements**

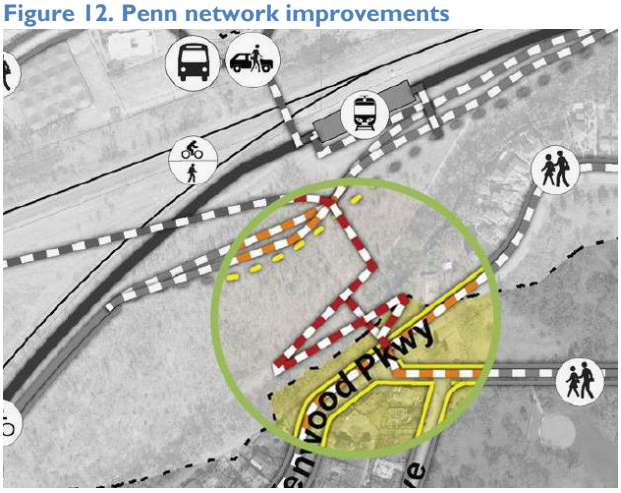


**Figure 13. West Lake network improvements**

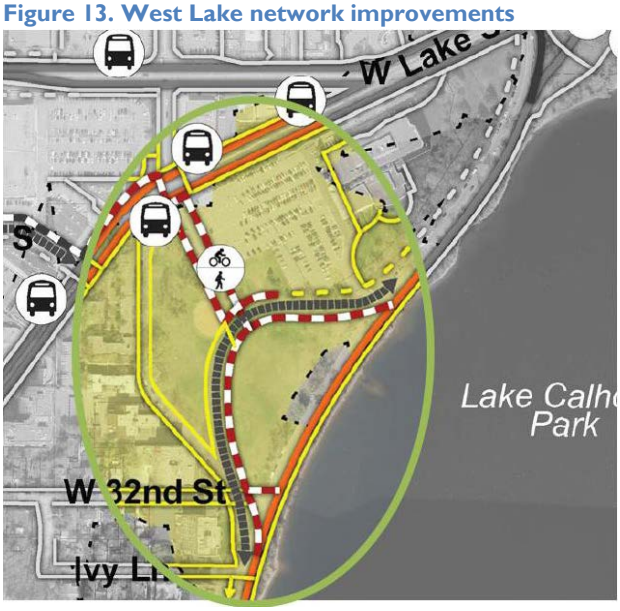



**Figure 14. Beltline network improvement**

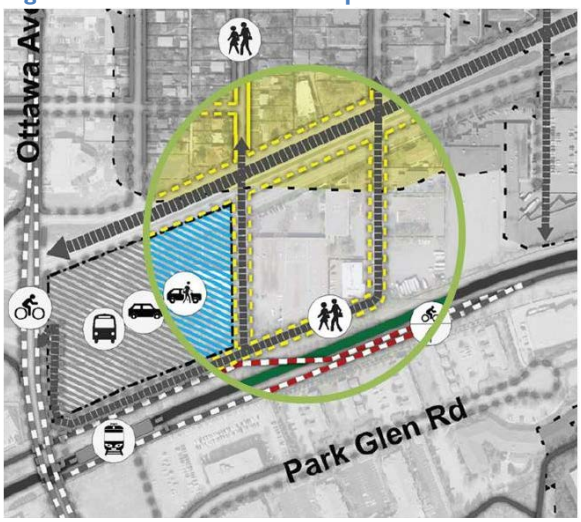



**Figure 15. Blake network improvements**

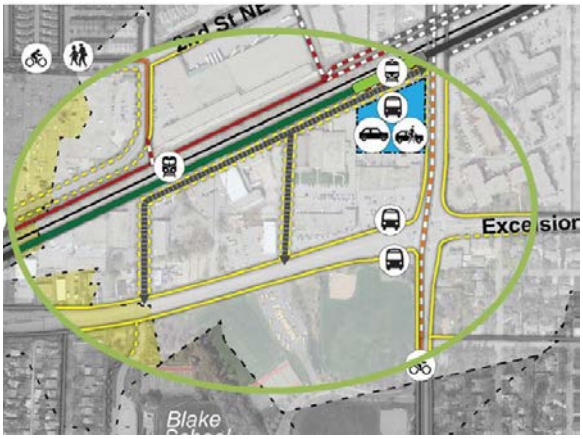


**Figure 16. Shady Oak network improvements**

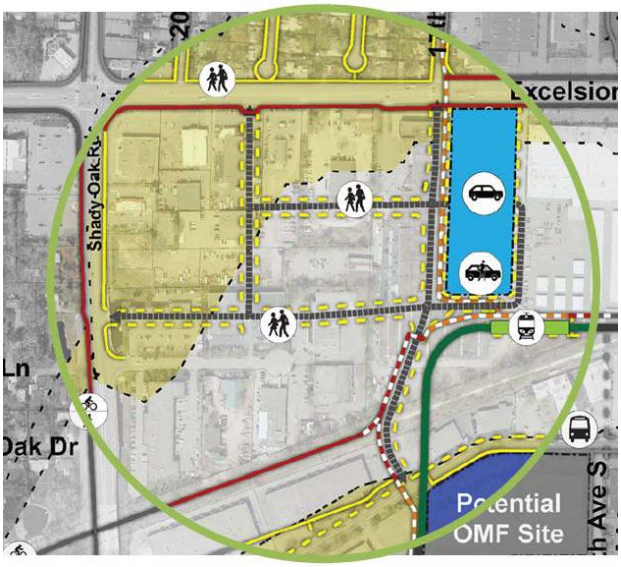



**Figure 17. Opus network improvements**

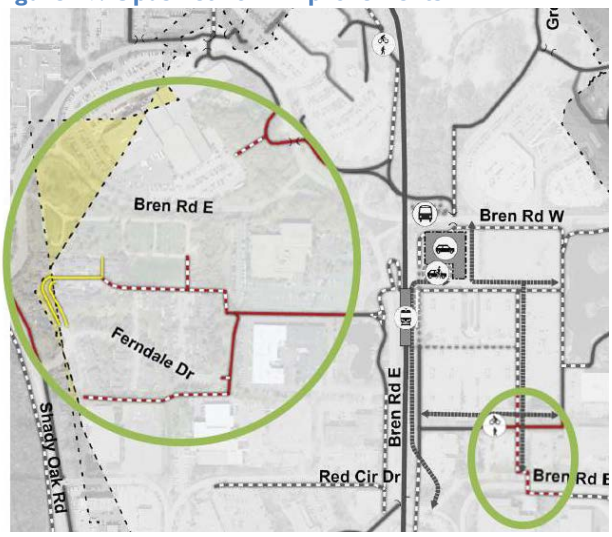



**Figure 18. City West network improvements**

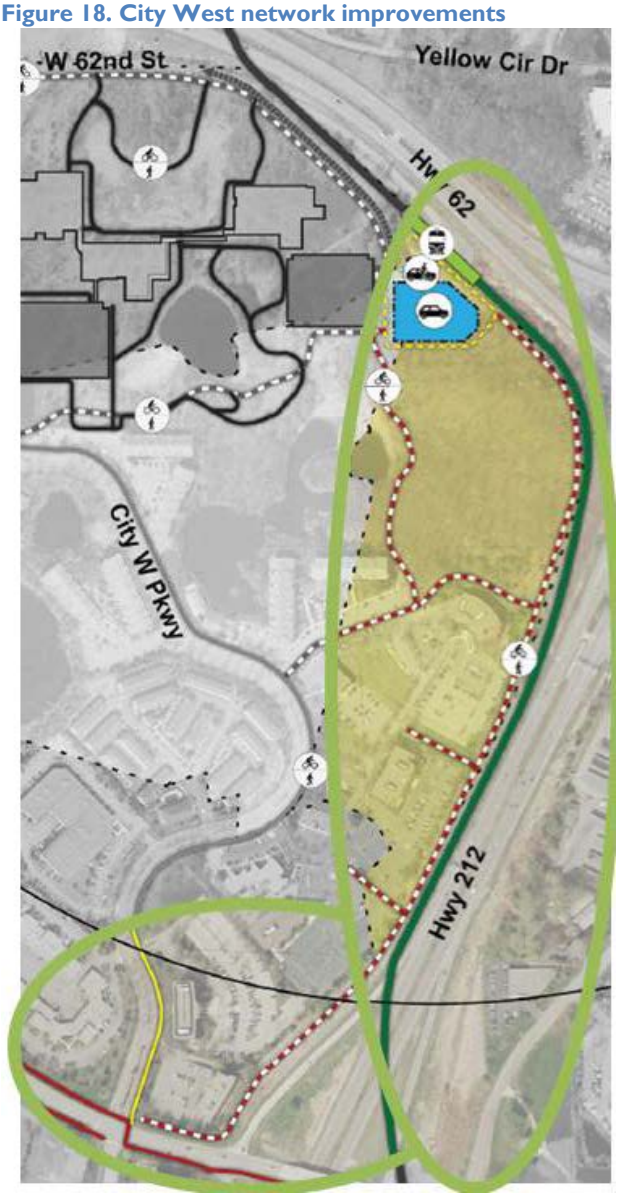


**Figure 19. Golden Triangle network improvements**

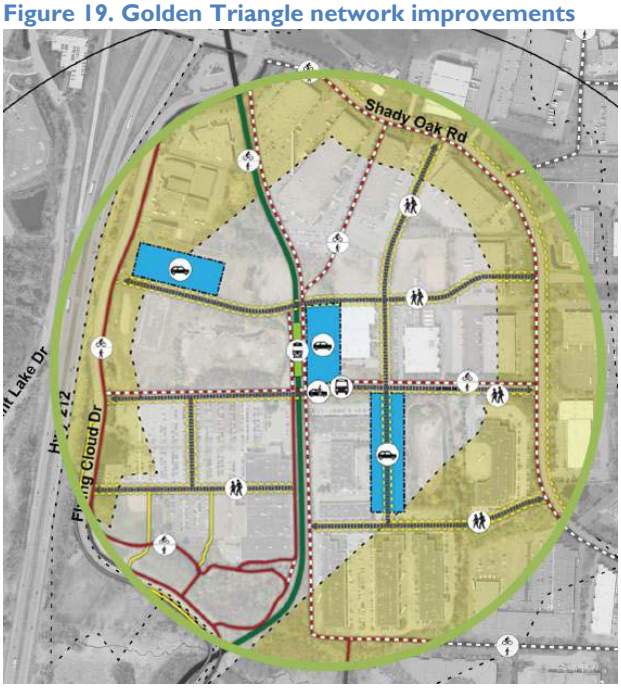



**Figure 20. Eden Prairie Town Center network improvements**

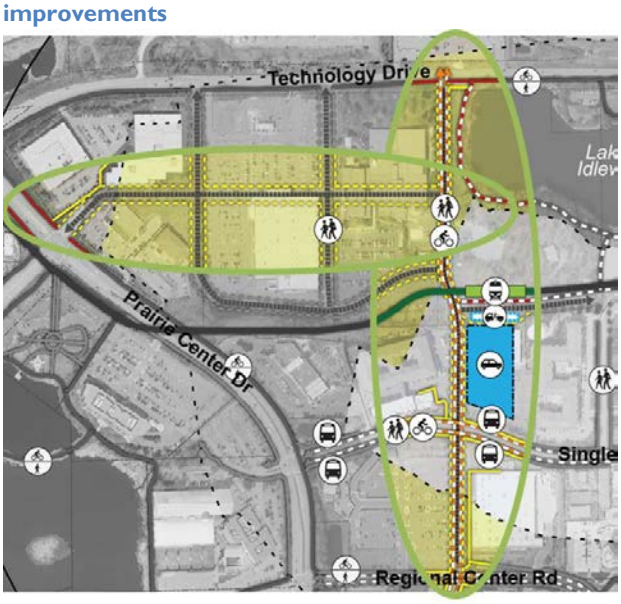
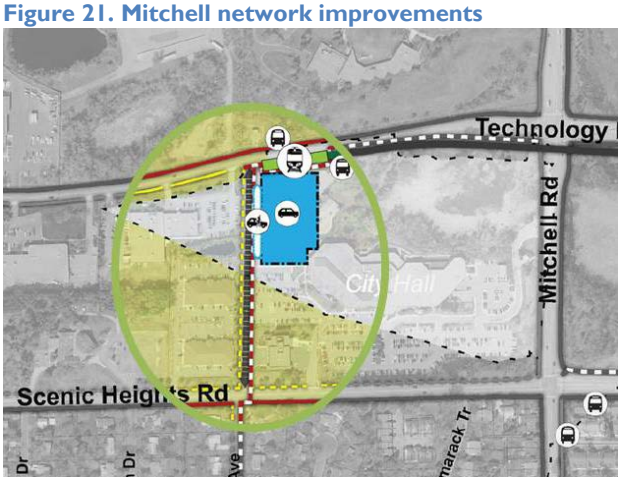



**Figure 21. Mitchell network improvements**

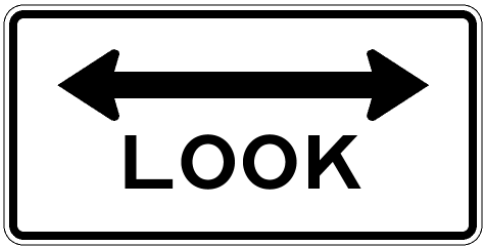


## Trail / station crossing recommendations

Ten of the 17 Southwest LRT station platforms are located adjacent to an existing trail. The Cedar Lake Regional Trail, Kenilworth Trail, and North Cedar Lake Regional Trail are some of the most heavily used trails in the Minneapolis/Saint Paul metropolitan region. At these locations, there is potential for conflicts between bicyclists traveling through the station area along the trail and transit users crossing the trail to the station platform. The majority of guidance on reducing conflicts between modes suggests designing for slower speeds, user predictability, and increased visibility between modes. These potential conflict locations are shown on the station area drawings in Appendix A.

Different pavement materials for different modes (e.g. asphalt for bicycles, concrete for pedestrians) can be used to clearly define the path for each mode. This is especially critical in areas such as the Van White and Penn Station areas where the trail appears to cross a large plaza. The location of bicycle parking within the station area will also influence the amount of conflicts between bicyclists and pedestrians. The path from the trail to bicycle parking should be clearly marked. In areas where it is anticipated that transit users may walk on the existing trail to reach a nearby destination, delineation between modes (through either pavement markings or different materials) on the trail may be necessary.

Figure 22. MUTCD R15-8 "Look" sign




Whenever possible, pedestrian movements across the trail should be channelized to specific crossing locations. These crossings should be designed to provide adequate sight distance in all directions. Fencing and landscaping should not block lines of sight for trail users approaching the station area. The trail crossings should also be clearly delineated in all directions to indicate that there is a change in condition that requires attention. Signage and pavement markings on the trail encouraging bicyclists to slow should be accompanied by signs warning transit users to "look for bikes" before crossing the trail. The "Look" sign frequently used at LRT crossings may be a good option to apply to trail crossing (Figure 21). The use of yield lines (shown in Figure 19 below) and crosswalks at trail crossings is also recommended.

## Trail intersections

The construction of the Southwest LRT along the Cedar Lake Regional Trail and Kenilworth Trail corridors affords the opportunity to make improvements to existing bikeways. Specifically, there are a number of intersections (trail to roadway or trail to trail) that could be improved. These locations are shown in Appendix A.

In St Louis Park, the intersections of the Cedar Lake Trail with **Beltline Blvd, Wooddale Ave, and Blake Rd** are sources of potential conflicts between bicyclists and motor vehicles. As part of the Southwest LRT design process, Hennepin County is currently pursuing funding to implement grade separated trail crossings in these locations.

The intersection of the **Kenilworth Trail and Cedar Lake Parkway** in Minneapolis is another current source of potential conflicts between bicyclists and motor vehicles. The confluence of two trails, two side streets, as well as sight distance along Cedar Lake Parkway creates a confusing and hectic

environment. The Southwest LRT 30% design plans indicate the installation of a traffic signal at this location. Is recommended that this be a fully operational signal (red, yellow, green indications), rather than a HAWK or rapid flashing beacon for the trail. The signal should include passive detection along the trail, effectively operating like a fully actuated traffic signal at a roadway intersection. A raised crossing would also make the trail more noticeable to drivers, and create the sense that the roadway is crossing the trail, instead of the other way around.

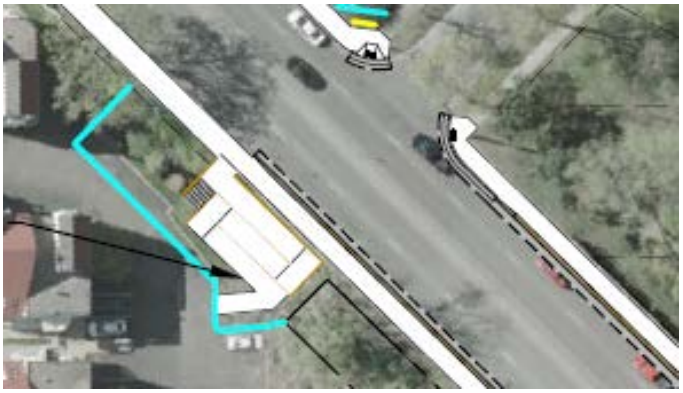
Finally, the three-way intersection of the **Cedar Lake Regional Trail, Kenilworth Trail and Midtown Greenway** just south of 21st Street could be improved. This T-intersection currently has poor sight distance and a sharp turning radius for bicyclists turning from westbound Midtown Greenway to northbound Kenilworth trail. The intersection is small and there is very little queuing space for bicyclist waiting to turn left across traffic. Pedestrians are also required to cross bicycle traffic to reach the pedestrian designated portion of the trail. There also tends to be a large speed differential between trail users in this area, and varying degrees of gap acceptance. As a result, the intersection can be hectic and stressful for trail users. One option to improve the operations of this intersection is the implementation of a non-motorized roundabout (Figure 22). In order to be effective, non-motorized roundabouts should be designed and signed such that the one-way direction of travel around the circle is obvious and cutting the inside corner is discouraged. The intersection should promote a reduction in travel speeds, and the center feature should prevent bicyclists and pedestrians from cutting through the middle.

**Figure 23. Example bicycle roundabout**

## Stairs, elevators, and switchback ramps

Finally, there are a number of locations in the Southwest LRT design where grade issues for pedestrian access to the stations results in the use of stairs. These locations are shown in Appendix A. For ADA access, stairs are typically accompanied by ramps or elevators (Figure 23). These features should all be designed to accommodate bicyclists as they access the station. Stairs should be designed to include a bicycle ramp or gutter to allow bicycles to be wheeled up and down the stairs (Figure 24). Elevators should be large enough

**Figure 24. Example stair/ramp design from West Lake station**



to easily accommodate multiple bicycles, including tandems and those with attachments such as trailers. This is especially important at the West Lake station, where bicycle usage to access the station is expected to be high. Finally, ramps requiring a switchback should be designed with a bicycle turning radius in mind. Sharp, 180 degree turns can be challenging to handle, especially for less experienced bicyclists. Visibility around these sharp corners is also poor, and may result in bicycle/pedestrian conflicts. Turning areas should be large enough for two bicycles and/or wheelchairs to pass one another.

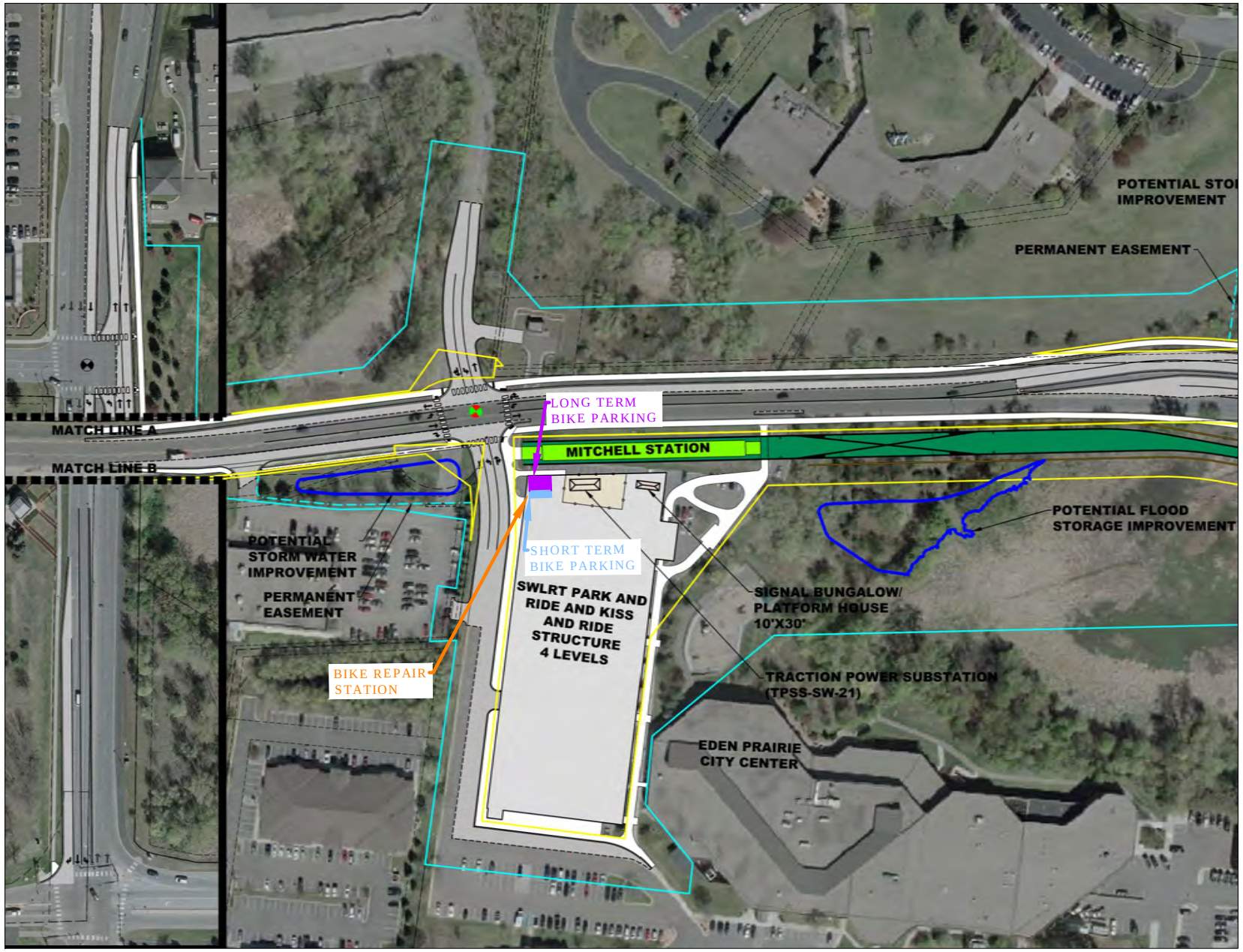
**Figure 25. Dutch transit access stairway with bicycle channel**

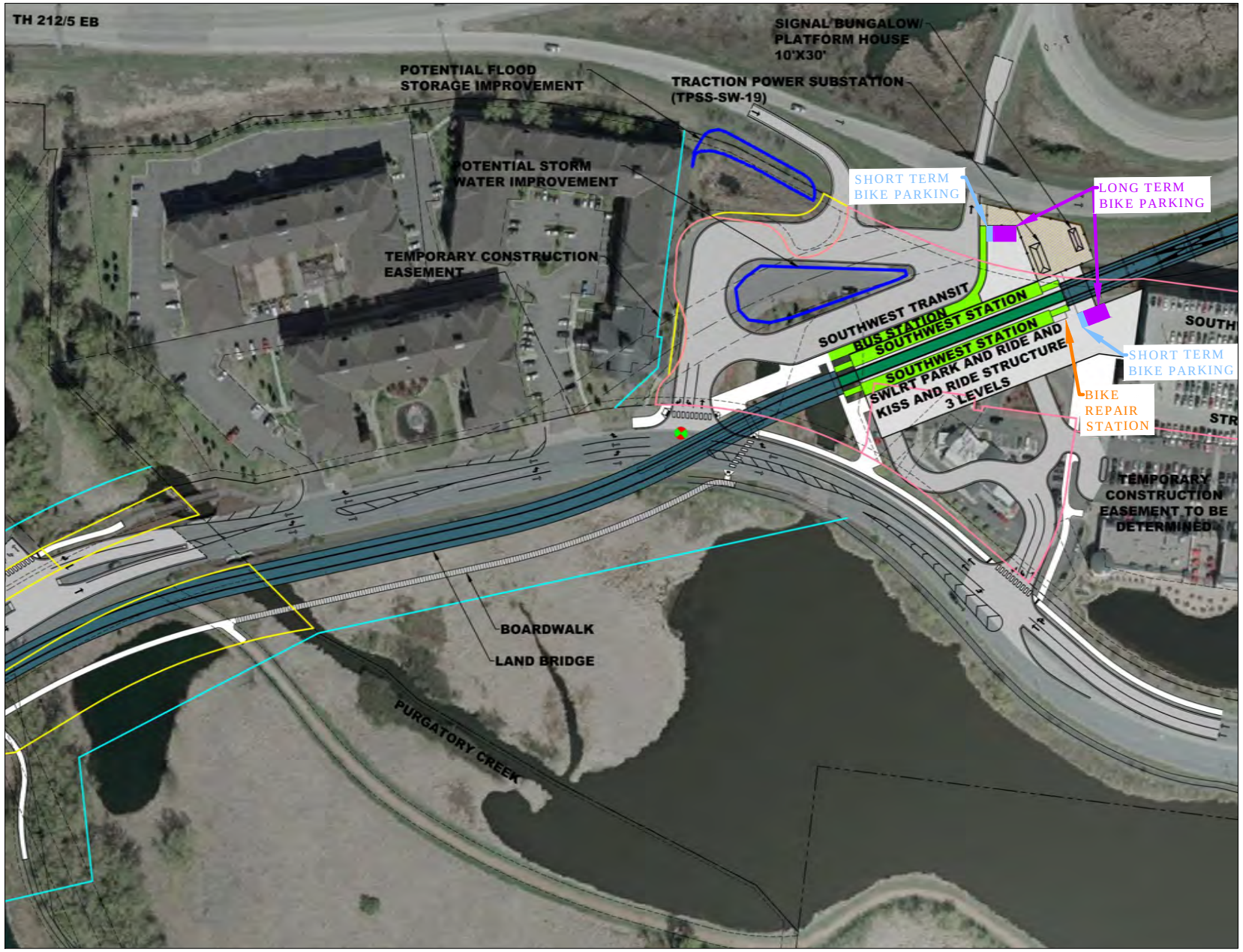
## Summary and Conclusions

The appropriate sizing of bicycle parking at the proposed station areas will be a critical factor in encouraging bicycle access to transit in Hennepin County on opening day and in the future. It will be critical to reserve space for future bike parking in the station areas as bicycle use in the region continues to grow. It is recommended that space be reserved to meet the maximum estimated bike parking demand at each station (based on high mode share estimates). The recommendations in this memorandum are intended to guide the allocation of space in the station area. A combination of convenient and secure parking is necessary for each station, although a firm commitment to a specific type of long term parking is not recommended. Bicycle parking technology and equipment is a rapidly evolving field, and future designs may provide for even more efficient, convenient, and secure storage.

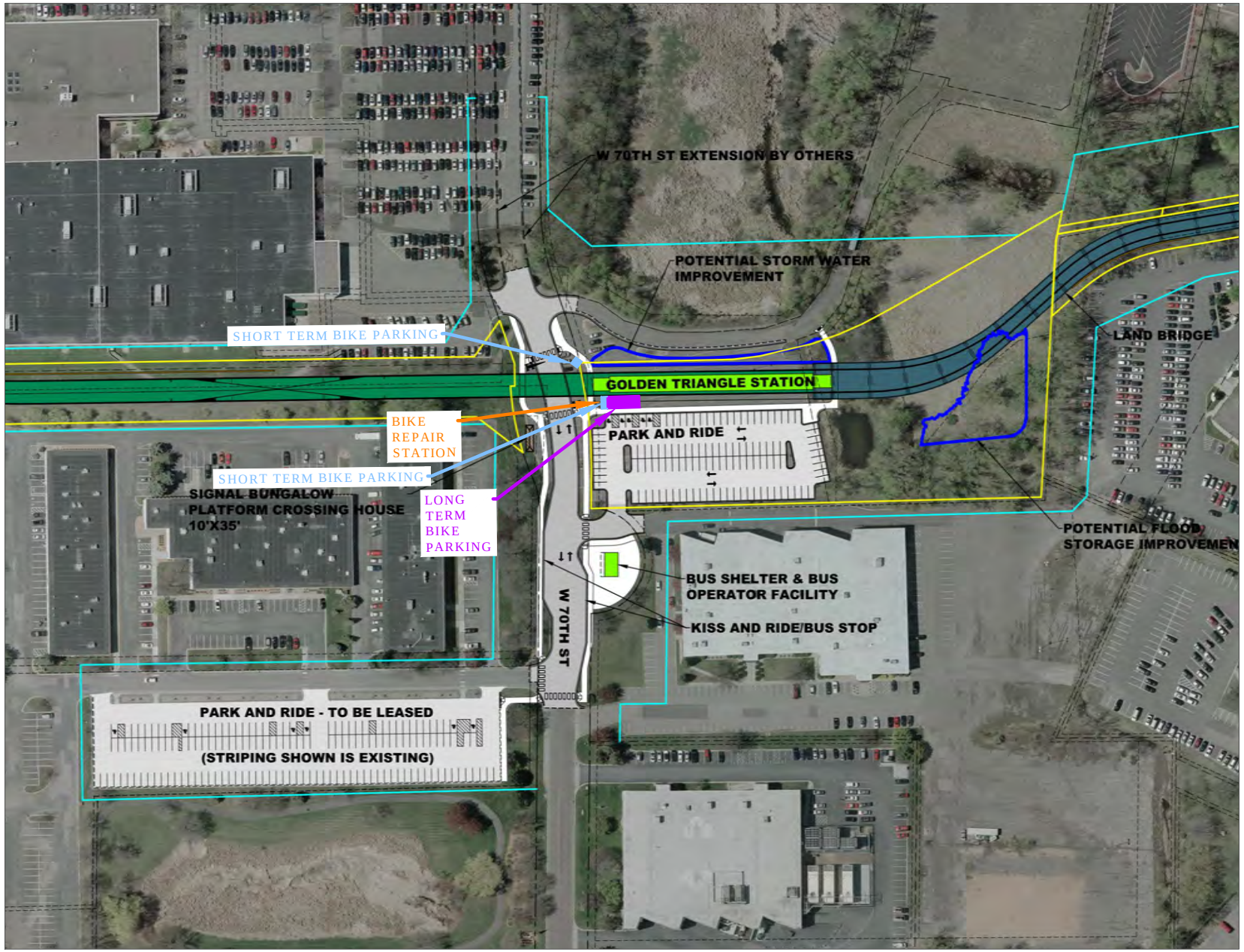
In addition, other improvements that may come along with the implementation of the Southwest LRT project may improve the overall bikeability of the area. Network improvements proposed in the TSAAP, as well as potential grade separation of the Cedar Lake Regional Trail from major crossroads will make biking to and from the Southwest LRT stations easier for many users. Finally, there are opportunities to address potential conflicts between bicyclists and pedestrians along the trail and at the station areas to improve safety and comfort for all users.

This appendix presents the estimated square footage required for bike parking at each station based on the high mode share calculations. The opening day/low mode share requirements would be smaller. Also shown are locations for additional bike amenities and improvements discussed in Technical Memorandum 2, such as repair stations, potential conflict points in the station areas, and other design features that may be improved for bicycle use

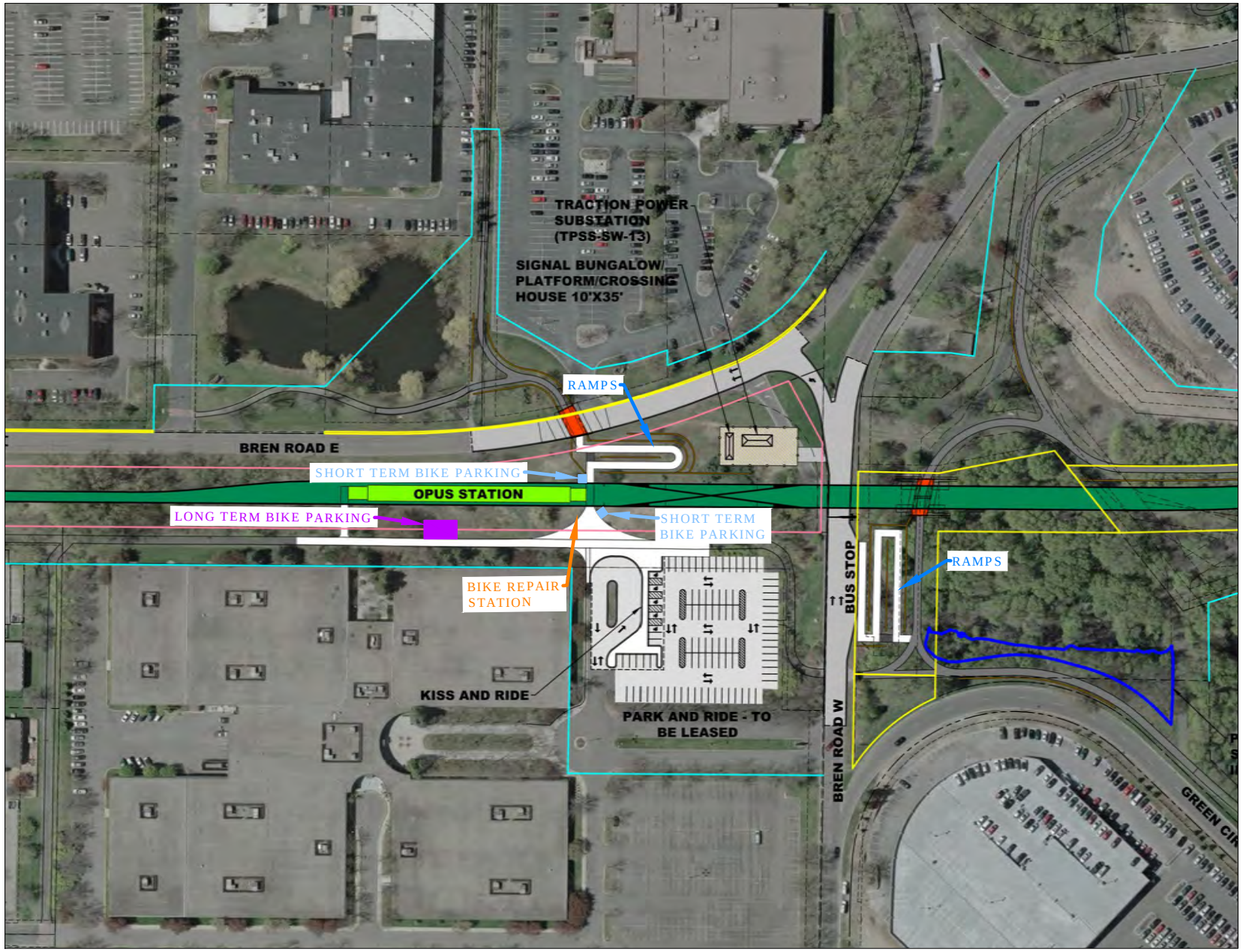

POTENTIAL STO
IMPROVEMENT
PERMANENT EASEMENT
LONG TERM
BIKE PARKING
MATCH LINE A
MATCH LINE B
MITCHELL STATION
POTENTIAL FLOOD
STORAGE IMPROVEMENT
POTENTIAL
STORM WATER
IMPROVEMENT
PERMANENT
EASEMENT
SHORT TERM
BIKE PARKING
SWLRT PARK AND
RIDE AND KISS
AND RIDE
STRUCTURE
4 LEVELS
SIGNAL BUNGALOW/
PLATFORM HOUSE
10'X30'
BIKE REPAIR
STATION
TRACTION POWER SUBSTATION
(TPSS-SW-21)
EDEN PRAIRIE
CITY CENTER

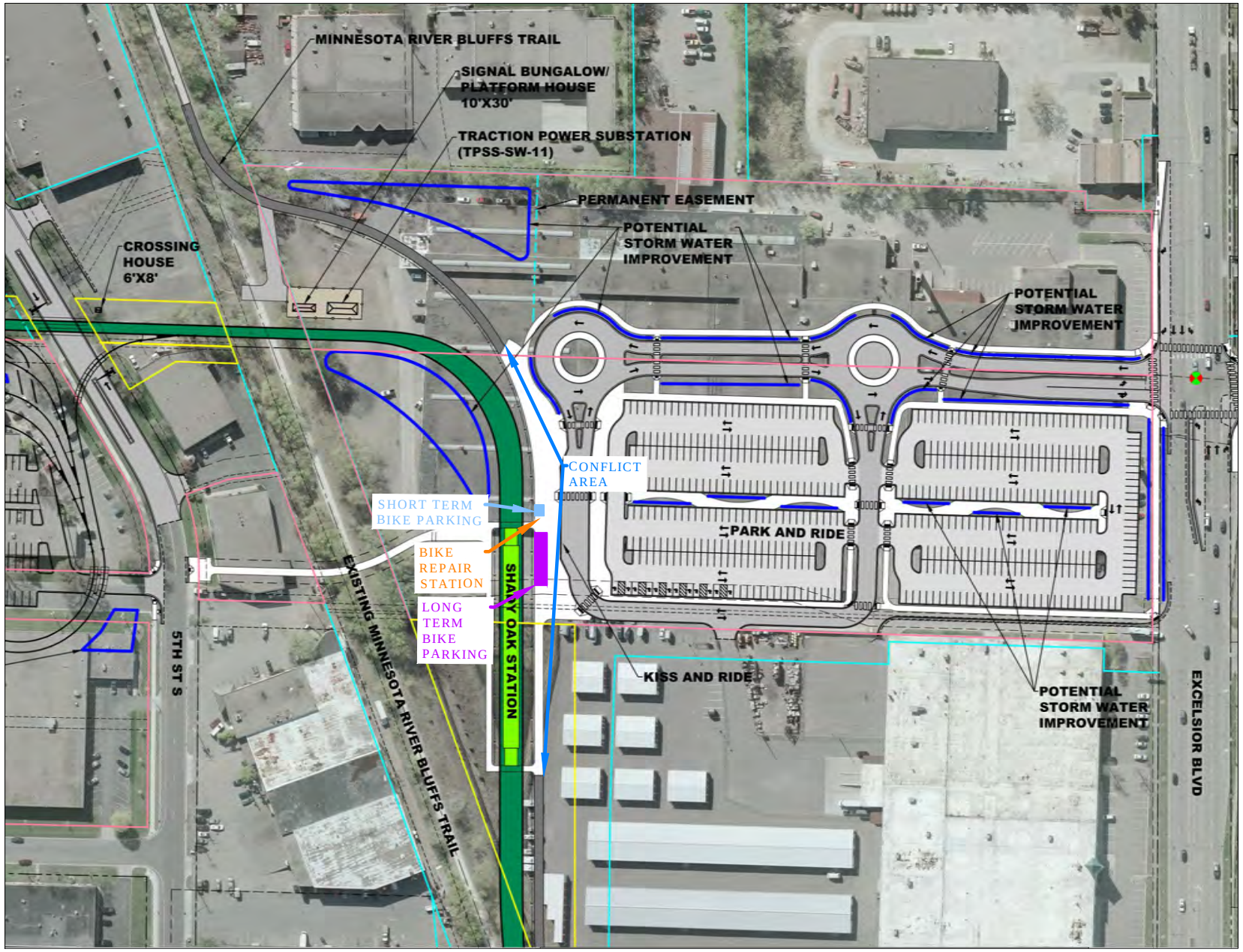

TH 212/5 EB
SIGNAL BUNGALOW/
PLATFORM HOUSE
10'X30'
POTENTIAL FLOOD
STORAGE IMPROVEMENT
TRACTION POWER SUBSTATION
(TPSS-SW-19)
POTENTIAL STORM
WATER IMPROVEMENT
SHORT TERM
BIKE PARKING
LONG TERM
BIKE PARKING
TEMPORARY CONSTRUCTION
EASEMENT
SOUTHWEST TRANSIT
BUS STATION
SOUTHWEST STATION
SOUTHWEST STATION
SWLRT PARK AND RIDE AND
KISS AND RIDE STRUCTURE
3 LEVELS
SHORT TERM
BIKE PARKING
BIKE
REPAIR
STATION
TEMPORARY
CONSTRUCTION
EASEMENT TO BE
DETERMINED
BOARDWALK
LAND BRIDGE
PURGATORY CREEK

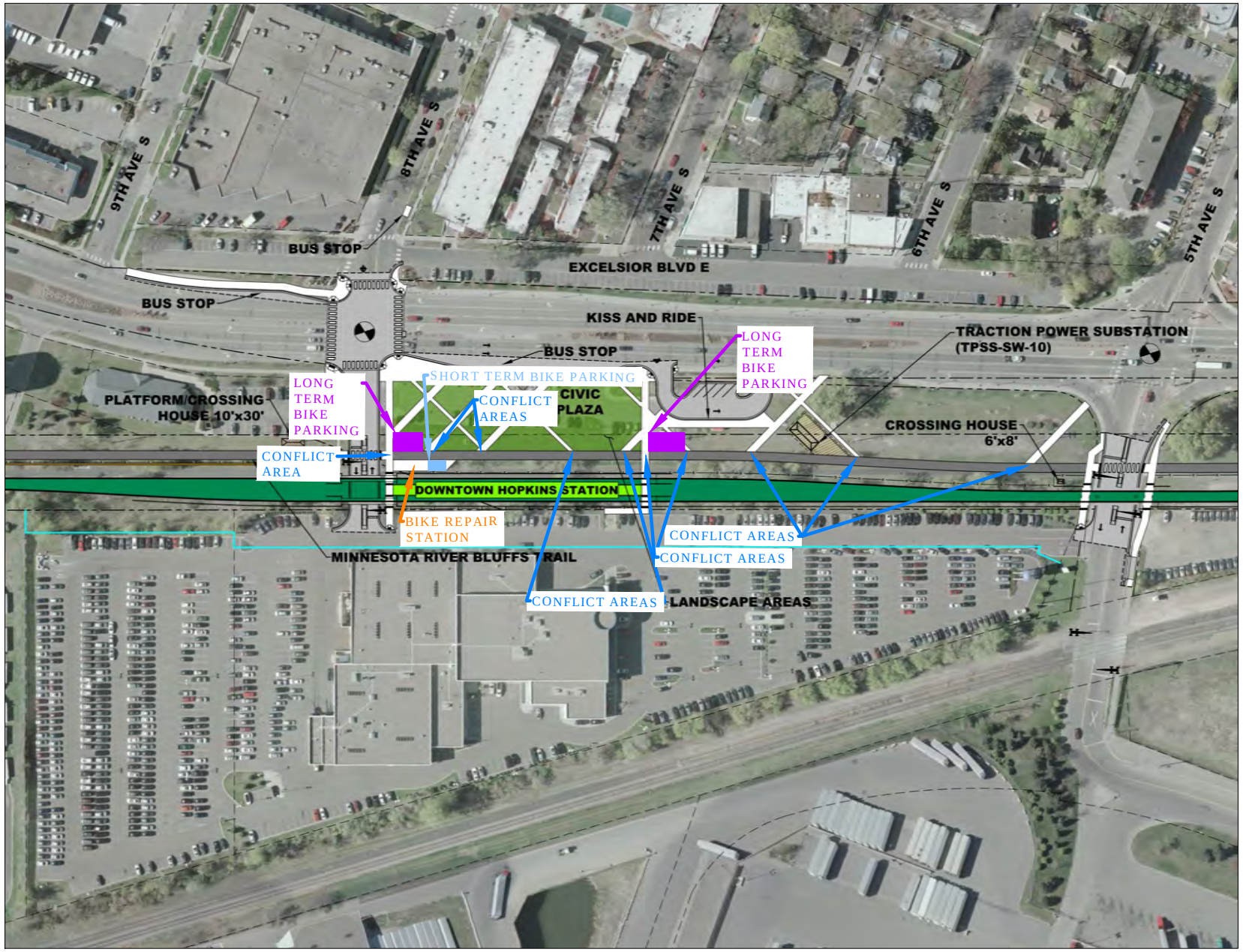

PLATFORM HOUSE
10'X30'
TRACTION POWER SUBSTATION
(TPSS-SW-18)
LAKE IDLEWILD
TOWN CENTER STATION PARK AND RIDE
A 160 STALL PARK AND RIDE IS PLANNED IN THE STATION AREA.
LOCATION WITHIN PROXIMITY TO THE STATION AREA TO BE DETERMINED
IN ADVANCED DESIGN. AREA FOR PARK AND RIDE TO BE LEASED.
TOWN CENTER STATION
EDEN ROAD
LONG TERM
BIKE PARKING
SHORT TERM
BIKE PARKING
BIKE
REPAIR
STATION
EDEN ROAD
GLEN LANE

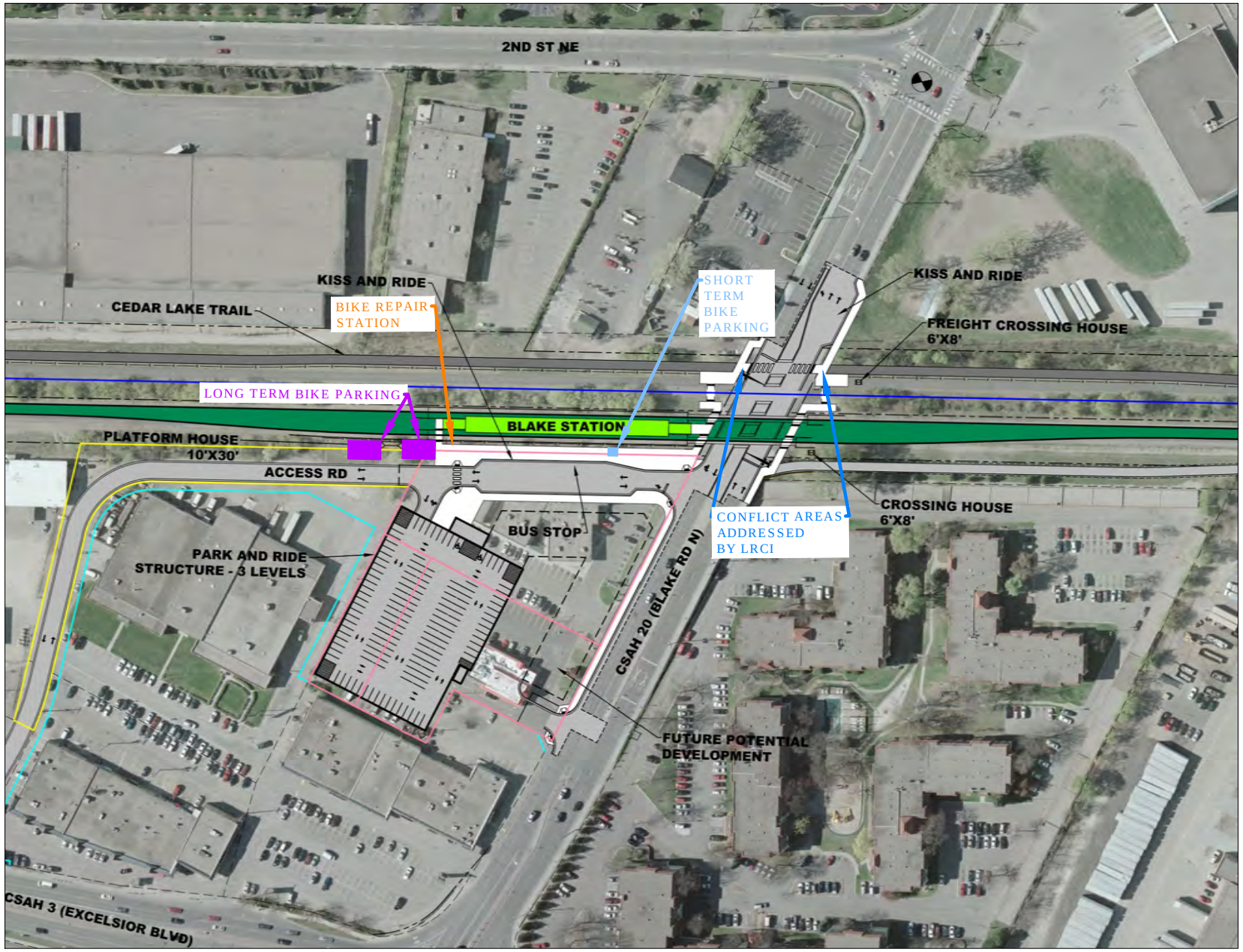

W 70TH ST EXTENSION BY OTHERS
POTENTIAL STORM WATER IMPROVEMENT
SHORT TERM BIKE PARKING
LAND BRIDGE
GOLDEN TRIANGLE STATION
BIKE REPAIR STATION
PARK AND RIDE
SHORT TERM BIKE PARKING
SIGNAL BUNGALOW PLATFORM CROSSING HOUSE 10'X35'
LONG TERM BIKE PARKING
POTENTIAL FLOOD STORAGE IMPROVEMEN
BUS SHELTER & BUS OPERATOR FACILITY
W 70TH ST
KISS AND RIDE/BUS STOP
PARK AND RIDE - TO BE LEASED
(STRIPING SHOWN IS EXISTING)

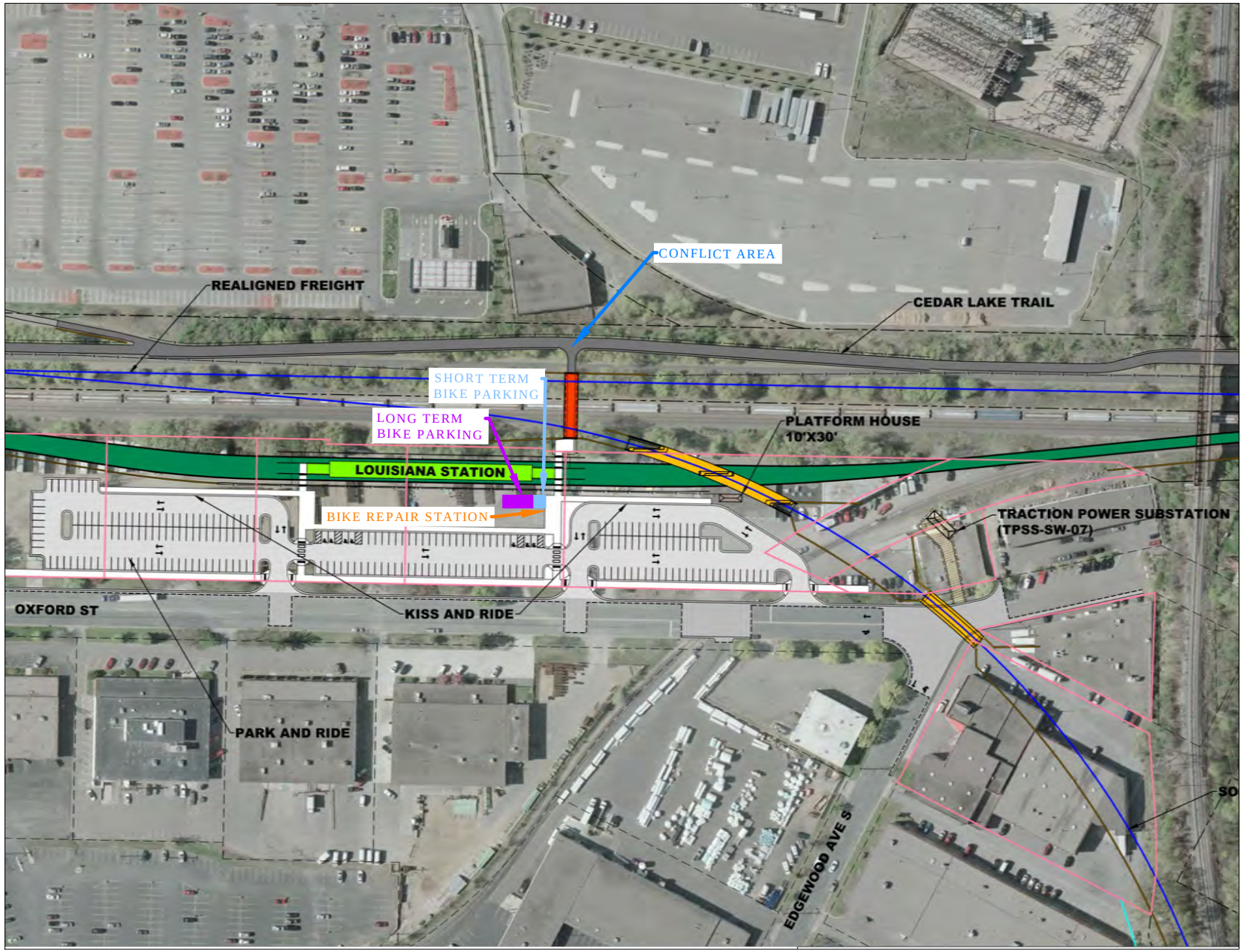

CONSTRUCTION BY OTHERS
W 62ND ST
YELLOW
LONG AND SHORT TERM BIKE PARKING
BIKE REPAIR STATION
KISS AND RIDE
PARK AND RIDE
CITY WEST STATION
TH 62 EB
TH 62 WB
POTENTIAL STORM WATER IMPROVEMENT
PLATFORM HOUSE 10'X30'
TRACTION POWER SUBSTATION (TPSS-SW-14)

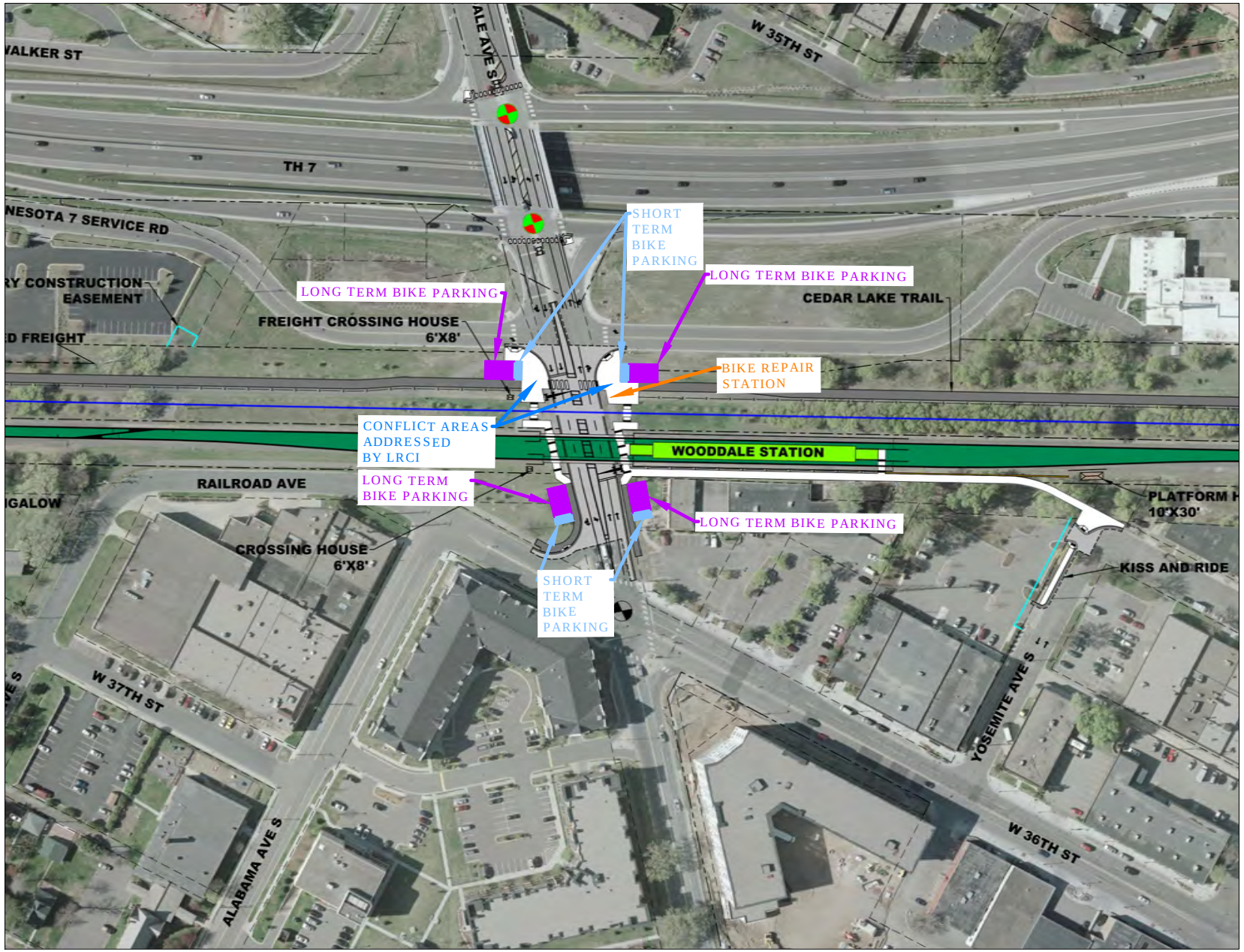

TRACTION POWER SUBSTATION (TPSS-SW-13)
SIGNAL BUNGALOW/ PLATFORM/CROSSING HOUSE 10'X35'
RAMPS
BREN ROAD E
SHORT TERM BIKE PARKING
OPUS STATION
LONG TERM BIKE PARKING
SHORT TERM BIKE PARKING
BIKE REPAIR STATION
KISS AND RIDE
PARK AND RIDE - TO BE LEASED
BUS STOP
RAMPS
BREN ROAD W
GREEN CIR

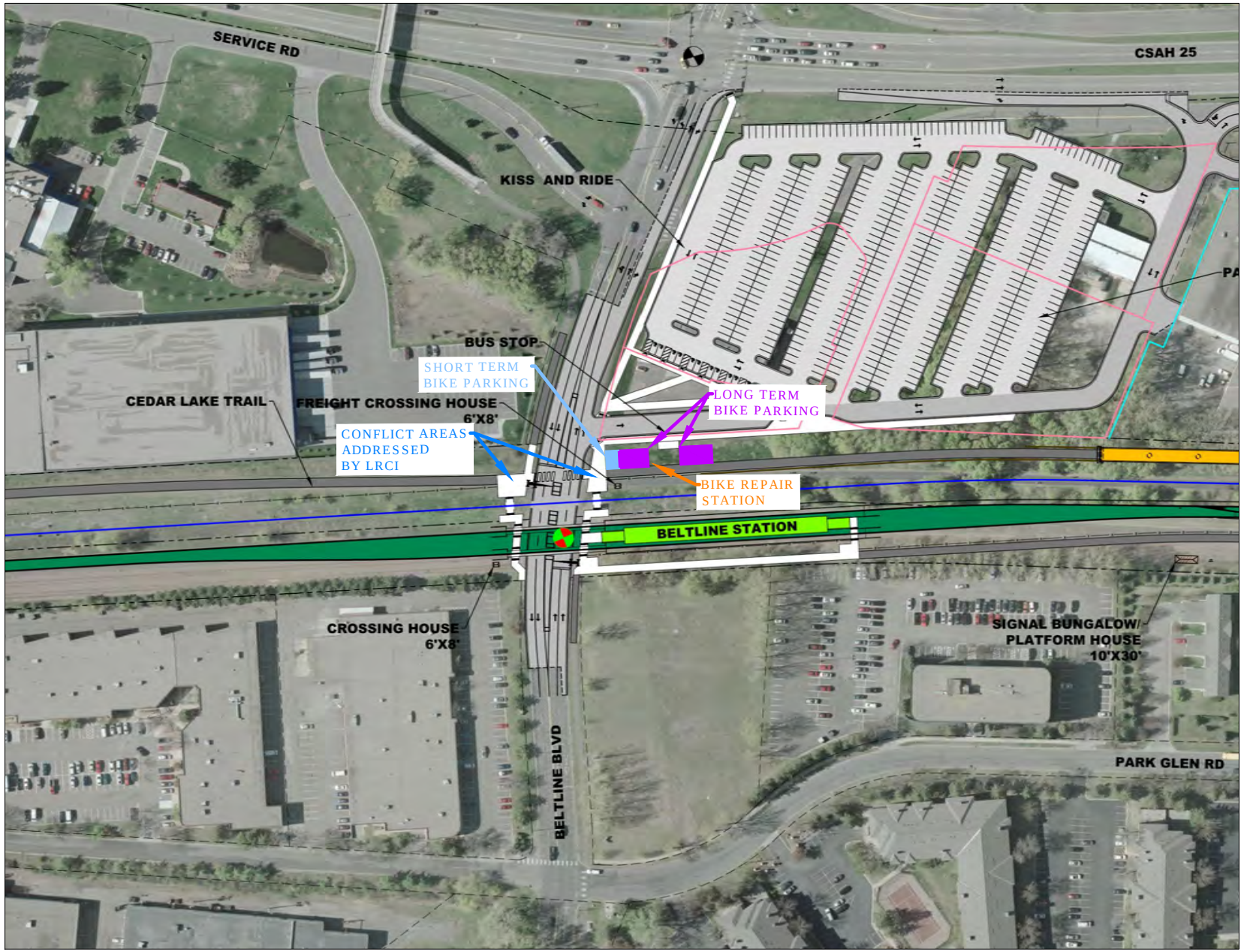

MINNESOTA RIVER BLUFFS TRAIL
SIGNAL BUNGALOW/ PLATFORM HOUSE 10'X30'
TRACTION POWER SUBSTATION (TPSS-SW-11)
PERMANENT EASEMENT
POTENTIAL STORM WATER IMPROVEMENT
CROSSING HOUSE 6'X8'
POTENTIAL STORM WATER IMPROVEMENT
CONFLICT AREA
SHORT TERM BIKE PARKING
BIKE REPAIR STATION
LONG TERM BIKE PARKING
PARK AND RIDE
SHADY OAK STATION
EXISTING MINNESOTA RIVER BLUFFS TRAIL
5TH ST S
KISS AND RIDE
POTENTIAL STORM WATER IMPROVEMENT
EXCELSIOR BLVD

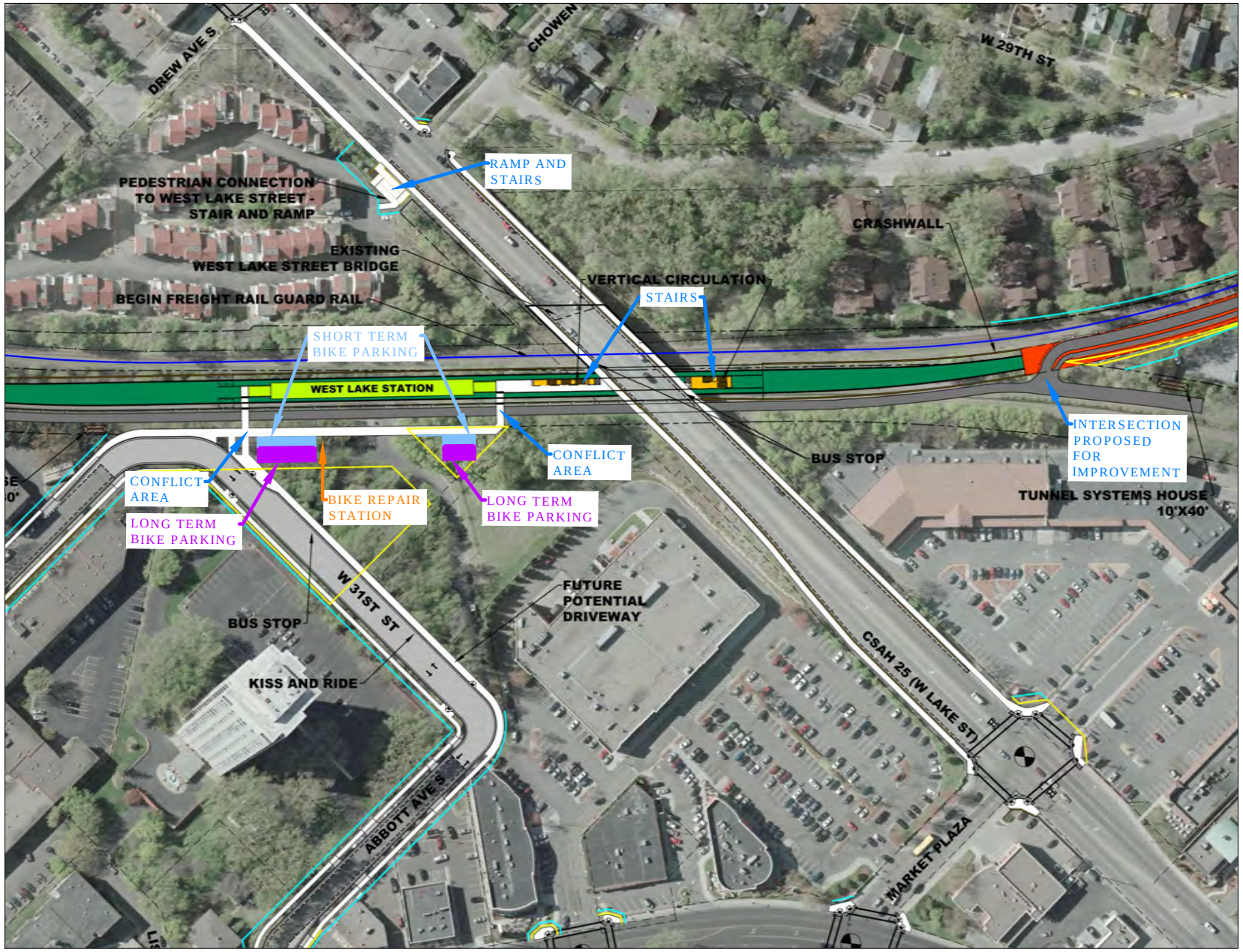

9TH AVE S
8TH AVE S
7TH AVE S
6TH AVE S
5TH AVE S
BUS STOP
EXCELSIOR BLVD E
BUS STOP
KISS AND RIDE
BUS STOP
TRACTION POWER SUBSTATION
(TPSS-SW-10)
LONG TERM BIKE PARKING
SHORT TERM BIKE PARKING
CONFLICT AREAS
CIVIC PLAZA
PLATFORM/CROSSING HOUSE 10'x30'
LONG TERM BIKE PARKING
CROSSING HOUSE 6'x8'
CONFLICT AREA
DOWNTOWN HOPKINS STATION
BIKE REPAIR STATION
CONFLICT AREAS
CONFLICT AREAS
MINNESOTA RIVER BLUFFS TRAIL
CONFLICT AREAS
LANDSCAPE AREAS


2ND ST NE
KISS AND RIDE
CEDAR LAKE TRAIL
BIKE REPAIR STATION
SHORT TERM BIKE PARKING
KISS AND RIDE
FREIGHT CROSSING HOUSE 6'X8'
LONG TERM BIKE PARKING
BLAKE STATION
PLATFORM HOUSE 10'X30'
ACCESS RD
BUS STOP
CONFLICT AREAS ADDRESSED BY LRCI
CROSSING HOUSE 6'X8'
PARK AND RIDE STRUCTURE - 3 LEVELS
CSAH 20 (BLAKE RD N)
FUTURE POTENTIAL DEVELOPMENT
CSAH 3 (EXCELSIOR BLVD)


CONFLICT AREA
REALIGNED FREIGHT
CEDAR LAKE TRAIL
SHORT TERM
BIKE PARKING
LONG TERM
BIKE PARKING
PLATFORM HOUSE
10'X30'
LOUISIANA STATION
BIKE REPAIR STATION
TRACTION POWER SUBSTATION
(TPSS-SW-07)
OXFORD ST
KISS AND RIDE
PARK AND RIDE
EDGEWOOD AVE S

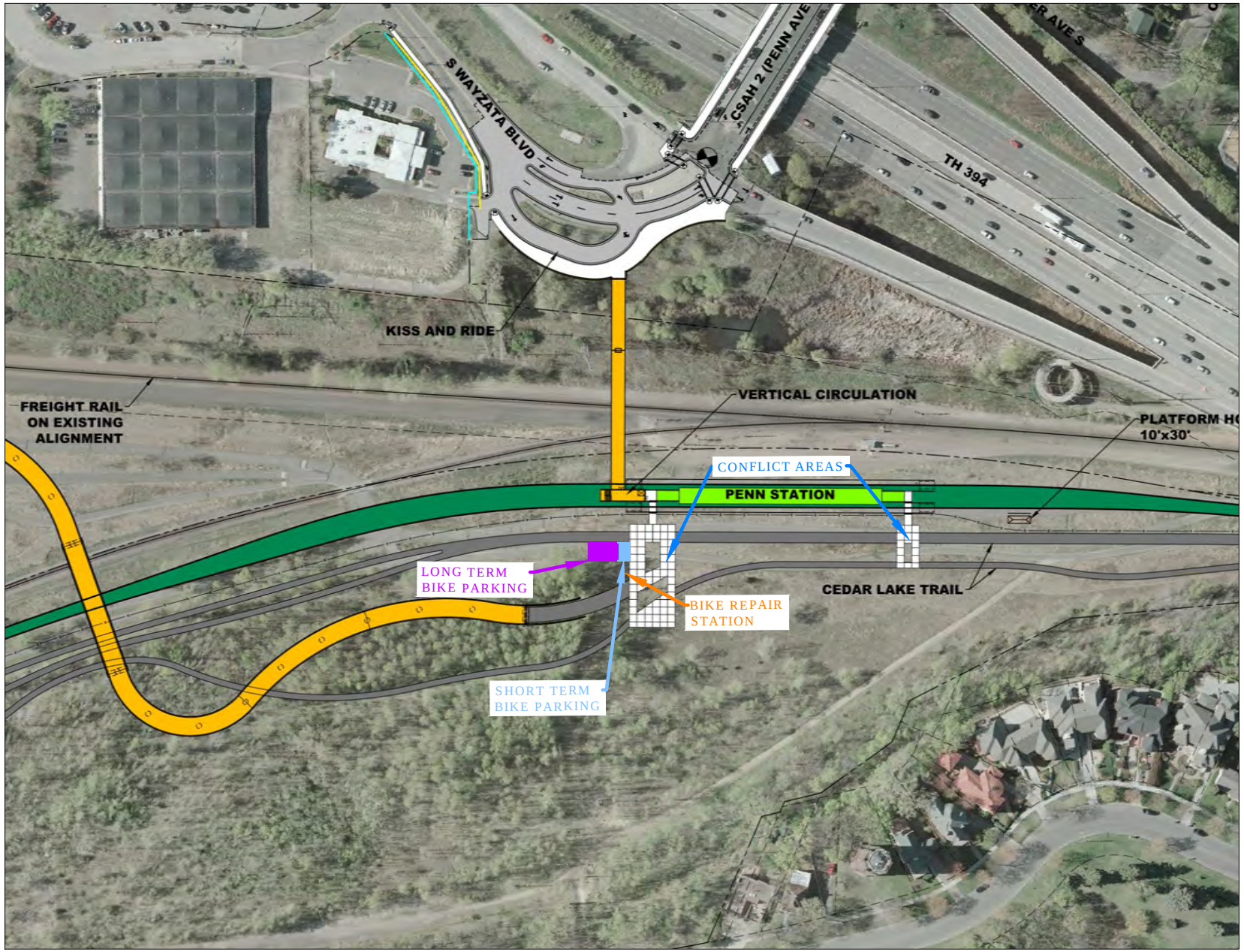

W 35TH ST
TH 7
NESOTA 7 SERVICE RD
CONSTRUCTION EASEMENT
D FREIGHT
FREIGHT CROSSING HOUSE 6'X8'
CEDAR LAKE TRAIL
SHORT TERM BIKE PARKING
LONG TERM BIKE PARKING
LONG TERM BIKE PARKING
BIKE REPAIR STATION
CONFLICT AREAS ADDRESSED BY LRCI
WOODDALE STATION
RAILROAD AVE
LONG TERM BIKE PARKING
LONG TERM BIKE PARKING
PLATFORM H 10'X30'
CROSSING HOUSE 6'X8'
KISS AND RIDE
SHORT TERM BIKE PARKING
W 37TH ST
YOSEMITE AVE S
ALABAMA AVE S
W 36TH ST

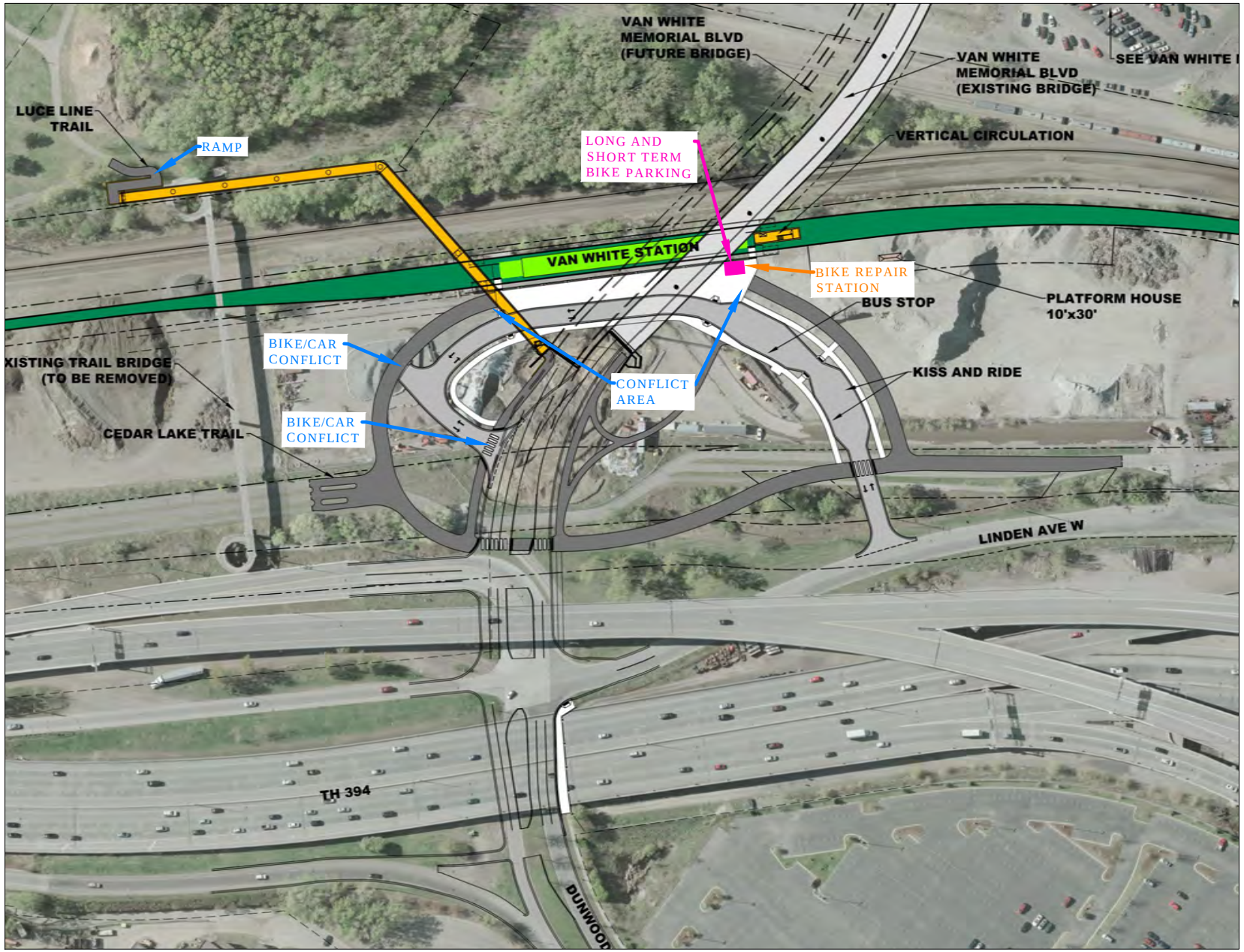

SERVICE RD
CSAH 25
KISS AND RIDE
BUS STOP
SHORT TERM
BIKE PARKING
LONG TERM
BIKE PARKING
CEDAR LAKE TRAIL
FREIGHT CROSSING HOUSE
6'X8'
CONFLICT AREAS
ADDRESSED
BY LRCI
BIKE REPAIR
STATION
BELTLINE STATION
CROSSING HOUSE
6'X8'
SIGNAL BUNGALOW/
PLATFORM HOUSE
10'X30'
BELTLINE BLVD
PARK GLEN RD


DREW AVE S
CHOWEN
W 29TH ST
RAMP AND STAIRS
PEDESTRIAN CONNECTION TO WEST LAKE STREET - STAIR AND RAMP
EXISTING WEST LAKE STREET BRIDGE
BEGIN FREIGHT RAIL GUARD RAIL
CRASHWALL
VERTICAL CIRCULATION STAIRS
SHORT TERM BIKE PARKING
WEST LAKE STATION
INTERSECTION PROPOSED FOR IMPROVEMENT
CONFLICT AREA
BUS STOP
TUNNEL SYSTEMS HOUSE 10'X40'
CONFLICT AREA
BIKE REPAIR STATION
LONG TERM BIKE PARKING
LONG TERM BIKE PARKING
W 31ST ST
FUTURE POTENTIAL DRIVEWAY
BUS STOP
KISS AND RIDE
CSAH 25 (W LAKE ST)
ABBOTT AVE S
MARKET PLAZA


SUNSET BLVD
CEDAR LAKE
PARK LN
INTERSECTION PROPOSED FOR IMPROVEMENT
ACTION POWER SUBSTATION
SS-SW-04)
BEGIN FREIGHT RAIL GUARD RAIL
END FREIGHT RAIL GUARD RAIL
BURNHAM RD
TUNNEL SYSTEMS HOUSES 10'X30' 10'X40'
REALIGNED FREIGHT RAIL
CRASHWALL
RTH TRAIL
RT TUNNEL
W 28TH ST
FREIGHT CROSSING HOUSE 6'X6'
INTERSECTION CONTROL
XERXES AVE S
CEDAR LAKE PKWY
KENILWORTH TRAIL
BENTON BLVD
W 29TH ST


CONNECTION TO EAST CEDAR BEACH
S UPTON AVE
BEGIN FREIGHT RAIL GUARD RAIL
FREIGHT CROSSING HOUSE 6'X8'
PLATFORM CROSSING HOUSE 10'X30'
END FREIGHT RAIL GUARD RAIL
FREIGHT RAIL ON EXISTING ALIGNMENT
CONFLICT AREAS
21ST STREET STATION
CONFLICT AREA
THOMAS AVE S
RAMP AND STAIRS
LONG TERM BIKE PARKING
BIKE REPAIR STATION
W 21ST ST
BUS STOP
THOMAS AVE S
SHORT TERM BIKE PARKING
KISS AND RIDE
SHERIDAN AVE S
W 24TH ST
SHERIDAN AVE S
SHERIDAN AVE S
W 22ND


S WAYZATA BLVD
CSAH 2 (PENN AVE
TH 394
KISS AND RIDE
FREIGHT RAIL
ON EXISTING
ALIGNMENT
VERTICAL CIRCULATION
PLATFORM H
10'x30'
CONFLICT AREAS
PENN STATION
LONG TERM
BIKE PARKING
BIKE REPAIR
STATION
CEDAR LAKE TRAIL
SHORT TERM
BIKE PARKING


VAN WHITE MEMORIAL BLVD (FUTURE BRIDGE)
VAN WHITE MEMORIAL BLVD (EXISTING BRIDGE)
SEE VAN WHITE
LUCE LINE TRAIL
RAMP
LONG AND SHORT TERM BIKE PARKING
VERTICAL CIRCULATION
VAN WHITE STATION
BIKE REPAIR STATION
BUS STOP
PLATFORM HOUSE 10'x30'
BIKE/CAR CONFLICT
XISTING TRAIL BRIDGE (TO BE REMOVED)
CONFLICT AREA
KISS AND RIDE
BIKE/CAR CONFLICT
CEDAR LAKE TRAIL
LINDEN AVE W
TH 394
DUNWOOD


MINNEAPOLIS FARMERS MARKET
ROYALSTON AVE N
ROYALSTON STATION
5TH AVE N
N 7TH ST
HOLDEN ST N
LONG AND SHORT TERM BIKE PARKING
BIKE REPAIR STATION
PLATFORM HOUSE 10'x30'
CROSSING HOUSE 6'x8'
REALIGNED FREIGHT RAIL
FREIGHT RAIL ON EXISTING ALIGNMENT
N 12TH ST

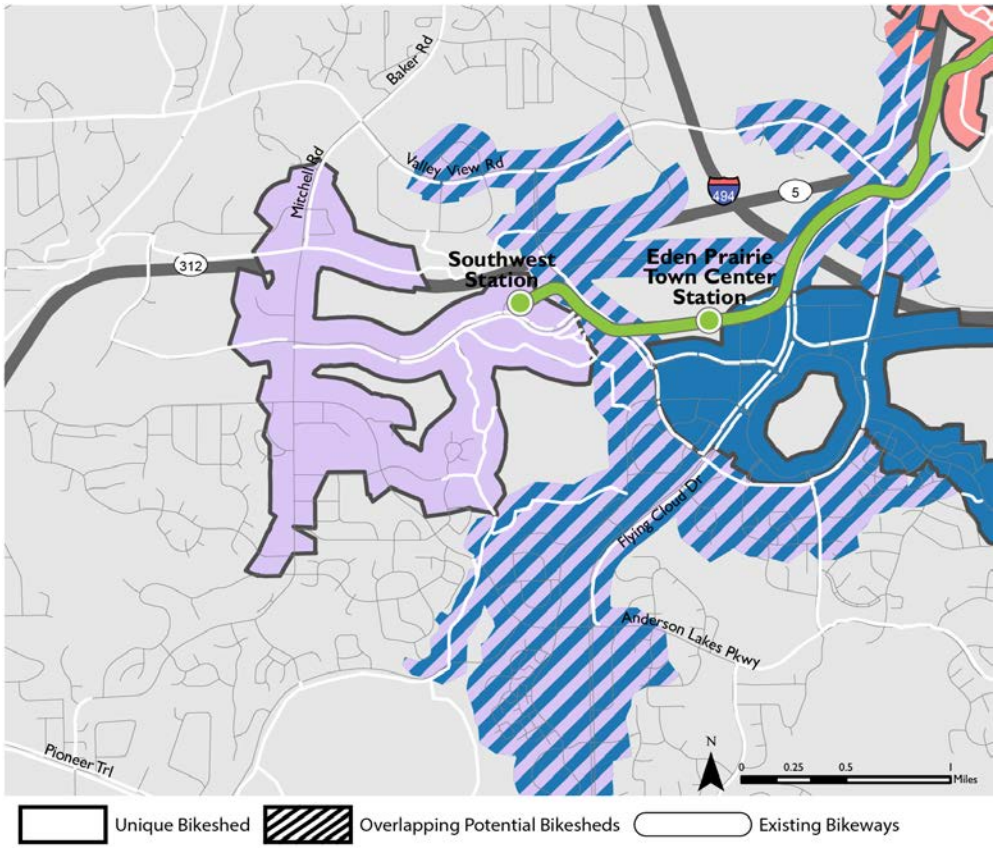
# Southwest LRT Bike Facility Assessment

# Addendum 1

In July 2015, the Metropolitan Council adopted a resolution recommending that Southwest Station would be the Southwest LRT's westernmost stop, eliminating the Mitchell Road Station. This addendum to the Southwest LRT Bike Facility Assessment reports provides an update to the analysis presented in each of the three Technical Memoranda with the Mitchell Station removed. This update includes:

1. Revised bikeshed for Southwest Station
2. Revised bike parking estimates for the Minnetonka-Eden Prairie segment
3. Revised prioritization for Eden Prairie projects
4. Revised prioritization for Hennepin County projects
5. Revised prioritization for overall projects

## 1. Revised Southwest Station Bikeshed




| Bikeshed Statistics | |
|---|---|
| 2010 Population | 2,224 |
| Bike Mode Share | 0.1% |
| Area | 0.76 $mi^2$ |
| Intersection Ratio | 0.88 |
| Total Bikeways | 4.3 mi |
| Anticipated LRT Ridership | 4,212 |

The Southwest station bikeshed increased from 0.24 to 0.76 square miles without the Mitchell Station. The population within the bikeshed increased from 736 to 2,224, encompassing a large portion of the overlap area that was previously identified between the two stations.

Due to the grades in the area, this station has a large overlap in potential bikesheds with the station to the east. This overlap includes a number of residential areas. In order to exert 34 kJ of effort or less to travel to/from the LRT, bicyclists in this area would likely to travel to the Eden Prairie Town Center station on their way to the LRT and then return home from the Southwest station.

There are some major barriers to bicycling in the area, namely US Highway 212 directly north of the station, Purgatory Creek to the south, as well as several other wetland areas. The only major roadways in the bikeshed are Technology Drive and Mitchell Road.

Like all stations in this segment, the bicycle mode share in the Southwest bikeshed is 0%. However, due to the availability of a motor vehicle park and ride, this station is expected to have the highest LRT ridership.

## 2. Revised Bike Parking Recommendations for Minnetonka-Eden Prairie Segment

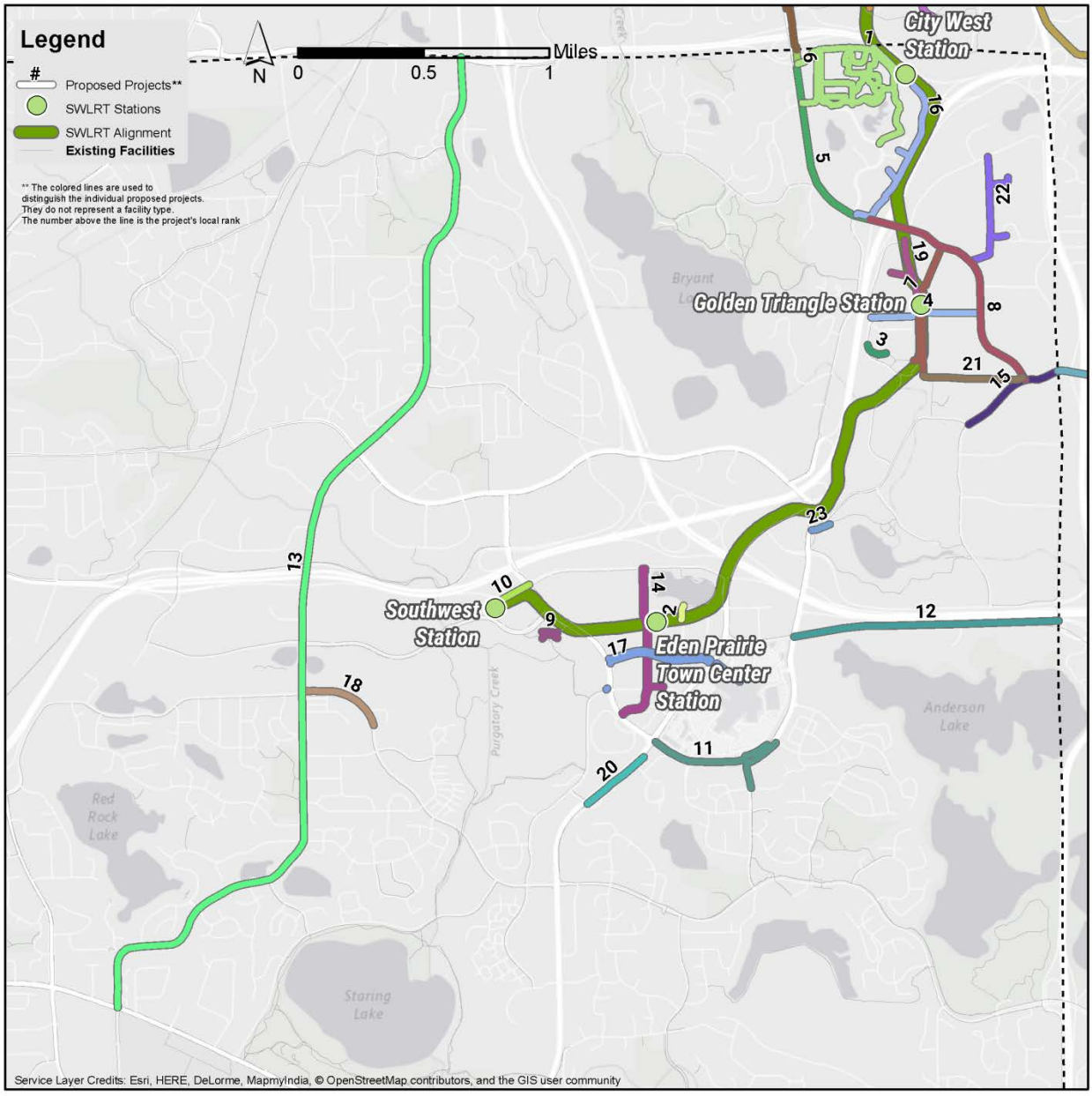
Bike parking estimates were recalculated for the entire Minnetonka-Eden Prairie segment to redistribute bike parking among the other stations in the segment. Estimates more heavily favored the Southwest Station.

| Station | 2030 Bikeshed Population | Qualitative Multiplier | Effective Population | Bikeshed Population Ratio | Low Parking Estimate | Medium Parking Estimate | High Parking Estimate |
|---|---|---|---|---|---|---|---|
| **Opus** | 1,587 | 1 | 1,587 | 0.10 | 8 | 13 | 20 |
| **City West** | 731 | 1 | 731 | 0.05 | 8 | 8 | 9 |
| **Golden Triangle** | 1,352 | 1 | 1,352 | 0.09 | 8 | 11 | 17 |
| **Eden Prairie** | 4,237 | 1 | 4,237 | 0.28 | 15 | 34 | 52 |
| **Southwest** | 5,940 | 1.25 | 7,425 | 0.48 | 26 | 59 | 91 |

| Stations | Total Parking | Long term | Short term | Number of lockers (capacity: 2) | Cage capacity needed | Number of covered racks (capacity: 2) | Total square footage |
|---|---|---|---|---|---|---|---|
| **Opus** | 20 | 16 | 4 | n/a | 16 | 2 | 572 |
| **City West** | 9 | 7 | 2 | 3 | n/a | 1 | 91 |
| **Golden Triangle** | 17 | 13 | 4 | n/a | 13 | 2 | 572 |
| **Eden Prairie** | 52 | 41 | 11 | n/a | 41 | 6 | 616 |
| **Southwest** | 91 | 72 | 19 | 36 | n/a | 10 | 1061 |

## 3. Revised Eden Prairie Project Prioritization

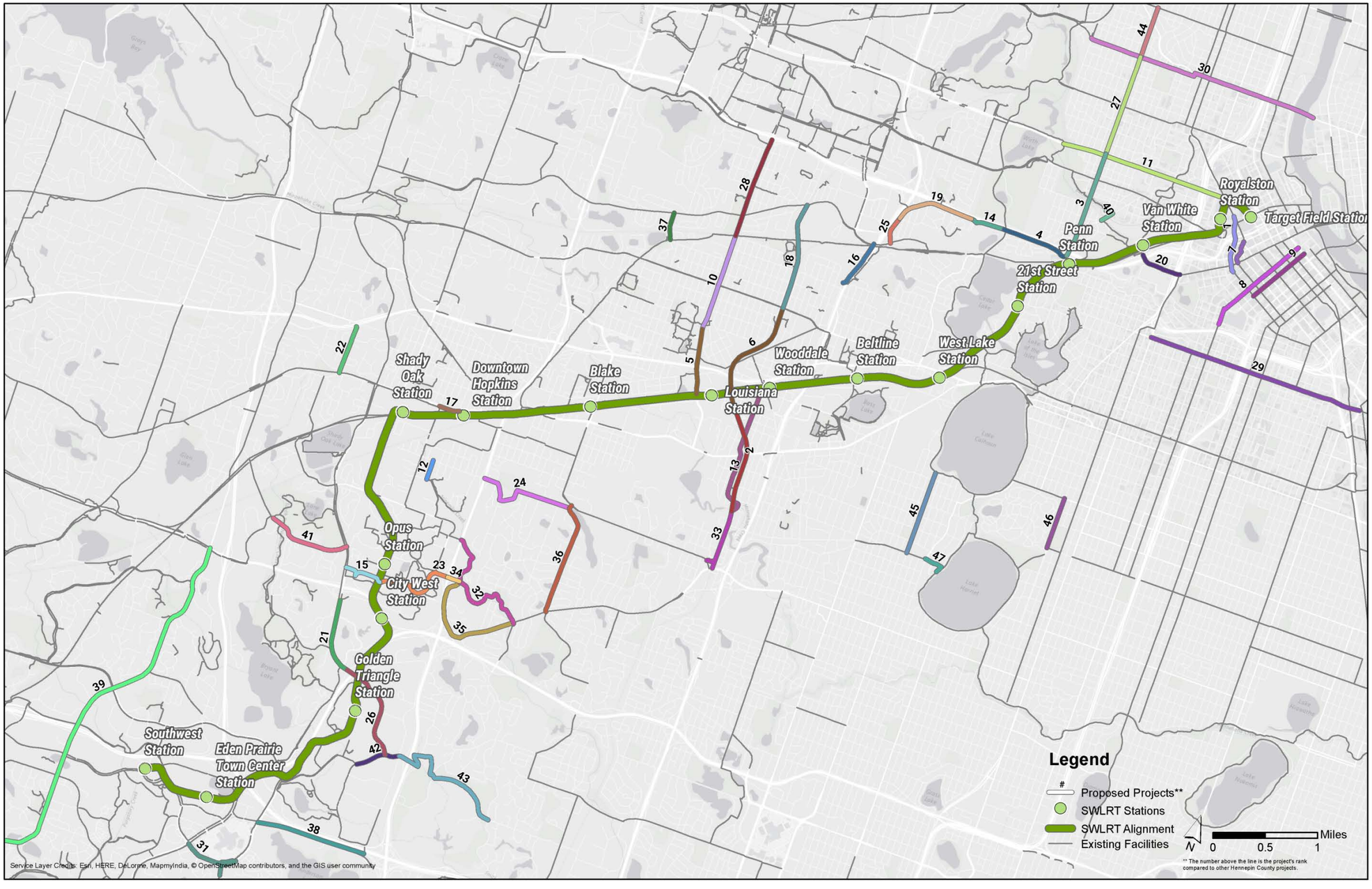
Project prioritization was recalculated without the Mitchell Station. Because of the increased bikeshed for the Southwest station, projects near the Mitchell Station were still considered for prioritization, however their score was reduced because they became further from a station. This reduced score carried through into the Hennepin County, and overall project prioritization.



**Revised Eden Prairie Project Prioritization Table**

| Rank | Project # | Location | Station Distance | Trail Distance | Gap Filled | Pop Served | Jobs Served | Top 25 Gap | Multiple Plans | Total Score |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 97 | City West Station Area | 2.93 | 1.19 | 1.50 | 0.01 | 0.04 | 0.00 | 0.50 | **6.17** |
| 2 | 85 | Eden Prairie Town Center Station Area | 2.85 | 0.85 | 1.50 | 0.12 | 0.04 | 0.00 | 0.50 | **5.86** |
| 3 | 92 | East of Flying Cloud Drive | 2.63 | 0.60 | 1.50 | 0.02 | 0.60 | 0.00 | 0.50 | **5.85** |
| 4 | 90 | 70th Street W | 2.95 | 0.64 | 1.50 | 0.01 | 0.08 | 0.00 | 0.50 | **5.68** |
| 5 | 94 | Shady Oak Road | 2.39 | 1.18 | 1.50 | 0.02 | 0.01 | 0.00 | 0.50 | **5.60** |
| 6 | 96 | Shady Oak Road | 2.33 | 1.21 | 1.50 | 0.04 | 0.00 | 0.00 | 0.50 | **5.59** |
| 7 | 91 | Parallel to Shady Oak Road | 2.99 | 0.53 | 1.50 | 0.01 | 0.00 | 0.00 | 0.50 | **5.54** |
| 8 | 93 | Shady Oak Road | 2.63 | 0.78 | 1.50 | 0.01 | 0.00 | 0.00 | 0.50 | **5.41** |
| 9 | 3 | Near Technology Drive | 2.67 | 1.25 | 0.00 | 0.10 | 0.74 | 0.00 | 0.50 | **5.27** |
| 10 | 218 | Technology Drive | 3.00 | 1.43 | 0.00 | 0.13 | 0.01 | 0.00 | 0.50 | **5.07** |
| 11 | 81 | Prairie Center Drive | 2.26 | 0.74 | 1.50 | 0.04 | 0.01 | 0.00 | 0.50 | **5.04** |
| 12 | 86 | 78th Street W | 2.14 | 0.47 | 1.50 | 0.01 | 0.00 | 0.00 | 0.50 | **4.62** |
| 13 | 2 | Mitchell Road | 1.80 | 2.25 | 0.00 | 0.04 | 0.00 | 0.00 | 0.50 | **4.60** |
| 14 | 4 | New Road from Technology Drive to Prairie Center Drive | 2.94 | 1.02 | 0.00 | 0.02 | 0.02 | 0.00 | 0.50 | **4.50** |
| 15 | 88 | Valley View Road | 2.24 | 0.17 | 1.50 | 0.00 | 0.00 | 0.00 | 0.50 | **4.42** |
| 16 | 8 | East of City West Parkway | 2.91 | 0.86 | 0.00 | 0.01 | 0.14 | 0.00 | 0.50 | **4.42** |
| 17 | 5 | Singletree Lane | 2.81 | 1.01 | 0.00 | 0.02 | 0.05 | 0.00 | 0.50 | **4.39** |
| 18 | 1 | Anderson Lakes Parkway | 1.70 | 1.81 | 0.00 | 0.10 | 0.02 | 0.00 | 0.50 | **4.10** |
| 19 | 169 | Golden Triangle Station Area | 2.92 | 0.65 | 0.00 | 0.01 | 0.00 | 0.00 | 0.50 | **4.08** |
| 20 | 205 | Flying Cloud Drive | 2.16 | 0.81 | 0.00 | 0.05 | 0.03 | 0.00 | 0.50 | **3.55** |
| 21 | 168 | Golden Triangle Station Area | 2.56 | 0.39 | 0.00 | 0.01 | 0.00 | 0.00 | 0.50 | **3.46** |
| 22 | 7 | Parallel to Washington Avenue S | 2.59 | 0.51 | 0.00 | 0.00 | 0.09 | 0.00 | 0.00 | **3.19** |
| 23 | 6 | Near Prairie Center Drive | 1.88 | 2.03 | 0.00 | 0.01 | 0.29 | 0.00 | 0.5 | **3.19** |

## 4. Revised Hennepin County Project Prioritization

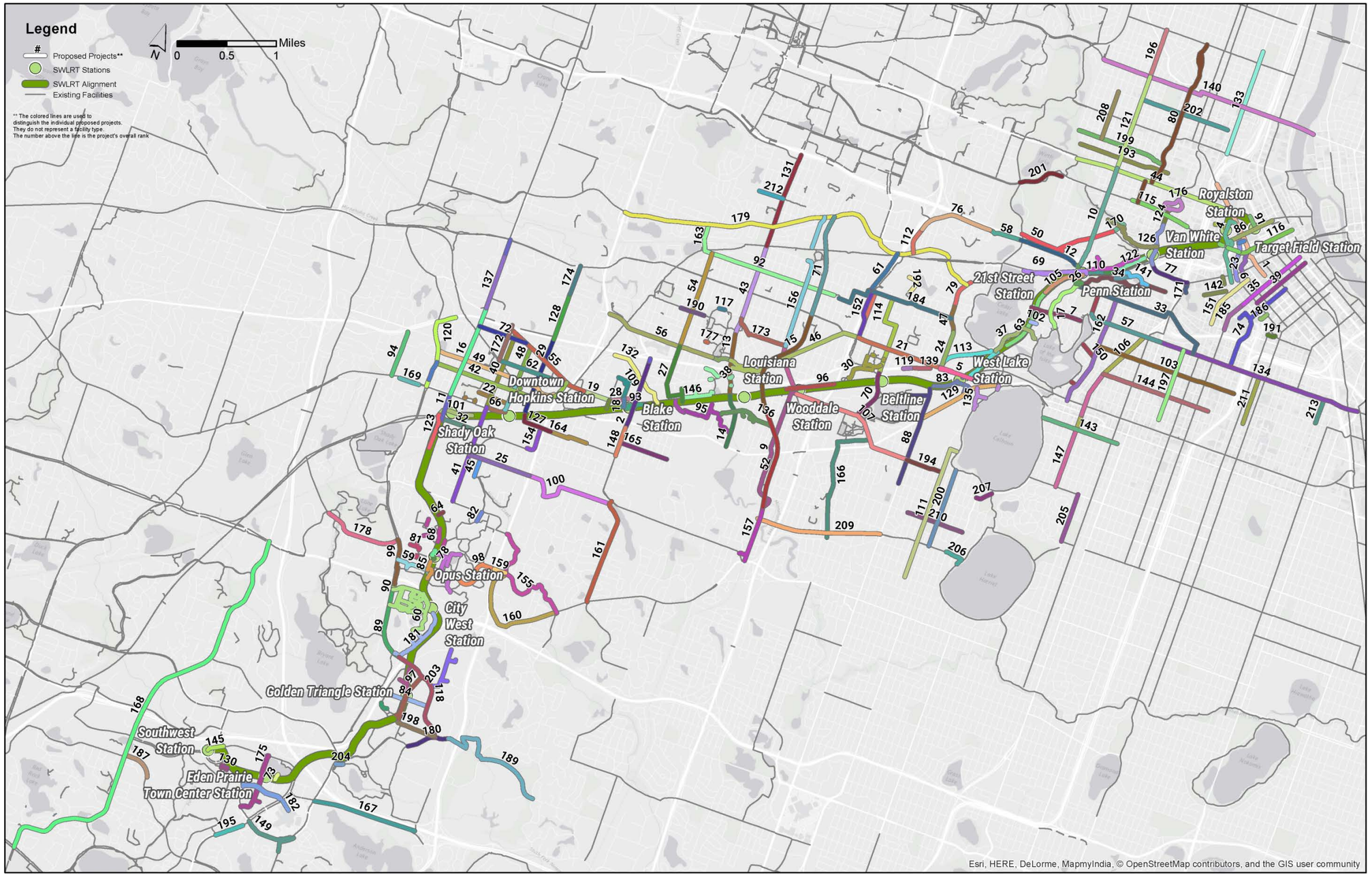


**Revised Hennepin County Project Prioritization Table**

| Rank | Project # | Location | Station Distance | Trail Distance | Gap Filled | Pop Served | Jobs Served | Top 25 Gap | Multiple Plans | Total Score |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 164 | 10th Street N | 2.79 | 2.50 | 1.50 | 0.14 | 0.11 | 0.00 | 0.50 | **7.54** |
| 2 | 135 | Brookside Avenue | 2.92 | 2.47 | 1.50 | 0.07 | 0.01 | 0.00 | 0.50 | **7.46** |
| 3 | 216 | Penn Avenue S | 2.87 | 2.44 | 1.50 | 0.12 | 0.00 | 0.00 | 0.50 | **7.43** |
| 4 | 198 | Wayzata Boulevard | 2.88 | 2.44 | 1.50 | 0.04 | 0.01 | 0.00 | 0.50 | **7.36** |
| 5 | 129 | Louisiana Avenue S | 2.78 | 2.50 | 1.50 | 0.06 | 0.01 | 0.00 | 0.50 | **7.34** |
| 6 | 204 | N-S Trail East of Wooddale Station | 2.70 | 2.50 | 1.50 | 0.04 | 0.03 | 0.00 | 0.50 | **7.27** |
| 7 | 166 | Hawthorne Avenue | 2.62 | 2.34 | 1.50 | 0.14 | 0.51 | 0.00 | 0.00 | **7.11** |
| 8 | 201 | Marquette Avenue | 2.19 | 2.13 | 1.50 | 0.16 | 0.80 | 0.00 | 0.00 | **6.79** |
| 9 | 162 | 2nd Avenue S | 2.07 | 2.07 | 1.50 | 0.10 | 1.00 | 0.00 | 0.00 | **6.74** |
| 10 | 209 | Louisiana Avenue S | 2.02 | 2.49 | 1.50 | 0.10 | 0.00 | 0.00 | 0.50 | **6.61** |
| 11 | 148 | 6th Avenue N | 2.69 | 2.28 | 1.50 | 0.10 | 0.01 | 0.00 | 0.00 | **6.58** |
| 12 | 111 | 9th Avenue S | 2.19 | 2.13 | 1.50 | 0.22 | 0.00 | 0.50 | 0.00 | **6.55** |
| 13 | 210 | N-S Trail East of Wooddale Station | 2.53 | 2.30 | 1.50 | 0.06 | 0.01 | 0.00 | 0.00 | **6.40** |
| 14 | 199 | Wayzata Boulevard | 1.91 | 2.27 | 1.50 | 0.01 | 0.01 | 0.00 | 0.50 | **6.21** |
| 15 | 98 | Red Circle Drive | 2.76 | 1.39 | 1.50 | 0.02 | 0.02 | 0.00 | 0.50 | **6.18** |
| 16 | 197 | Wayzata Boulevard | 1.57 | 2.50 | 1.50 | 0.08 | 0.02 | 0.00 | 0.50 | **6.17** |
| 17 | 83 | Excelsior Boulevard | 2.92 | 2.47 | 0.00 | 0.08 | 0.03 | 0.50 | 0.00 | **6.00** |
| 18 | 132 | Beltline Boulevard | 1.80 | 2.50 | 1.50 | 0.07 | 0.00 | 0.00 | 0.00 | **5.87** |
| 19 | 184 | Wayzata Boulevard | 1.54 | 2.25 | 1.50 | 0.03 | 0.00 | 0.00 | 0.50 | **5.83** |
| 20 | 52 | Dunwoody Boulevard | 2.85 | 2.46 | 0.00 | 0.00 | 0.01 | 0.00 | 0.50 | **5.82** |
| 21 | 94 | Shady Oak Road | 2.39 | 1.18 | 1.50 | 0.02 | 0.01 | 0.00 | 0.50 | **5.60** |
| 22 | 104 | Fairview Avenue | 1.89 | 2.13 | 1.50 | 0.03 | 0.00 | 0.00 | 0.00 | **5.56** |
| 23 | 170 | Bren Road E | 2.74 | 1.23 | 1.50 | 0.00 | 0.05 | 0.00 | 0.00 | **5.53** |
| 24 | 173 | Interlachen Boulevard | 2.01 | 1.98 | 1.50 | 0.04 | 0.01 | 0.00 | 0.00 | **5.53** |
| 25 | 183 | Quentin Avenue S | 0.94 | 2.46 | 1.50 | 0.05 | 0.00 | 0.00 | 0.50 | **5.45** |
| 26 | 93 | Shady Oak Road | 2.63 | 0.78 | 1.50 | 0.01 | 0.00 | 0.00 | 0.50 | **5.41** |
| 27 | 196 | North-South Route | 1.54 | 1.67 | 1.50 | 0.14 | 0.00 | 0.00 | 0.50 | **5.36** |
| 28 | 128 | Louisiana Avenue S | 0.69 | 2.49 | 1.50 | 0.07 | 0.01 | 0.00 | 0.50 | **5.26** |
| 29 | 153 | Franklin Avenue E | 1.62 | 1.83 | 1.50 | 0.24 | 0.04 | 0.00 | 0.00 | **5.22** |
| 30 | 151 | Golden Valley Road | 1.28 | 1.75 | 1.50 | 0.08 | 0.01 | 0.00 | 0.50 | **5.12** |
| 31 | 81 | Prairie Center Drive | 2.26 | 0.74 | 1.50 | 0.04 | 0.01 | 0.00 | 0.50 | **5.04** |
| 32 | 99 | Trail east of Londonderry Drive | 1.86 | 1.49 | 1.50 | 0.04 | 0.01 | 0.00 | 0.00 | **4.90** |
| 33 | 185 | Brookside Avenue | 1.25 | 1.53 | 1.50 | 0.06 | 0.00 | 0.00 | 0.50 | **4.85** |
| 34 | 171 | Londonderry Drive | 2.04 | 1.19 | 1.50 | 0.06 | 0.00 | 0.00 | 0.00 | **4.79** |
| 35 | 100 | Lincoln Drive | 2.07 | 1.16 | 1.50 | 0.04 | 0.00 | 0.00 | 0.00 | **4.77** |
| 36 | 115 | Blake Road S | 1.50 | 1.71 | 1.50 | 0.03 | 0.00 | 0.00 | 0.00 | **4.74** |
| 37 | 133 | Virginia Avenue S | 0.61 | 2.50 | 1.50 | 0.10 | 0.00 | 0.00 | 0.00 | **4.71** |
| 38 | 86 | 78th Street W | 2.14 | 0.47 | 1.50 | 0.01 | 0.00 | 0.00 | 0.50 | **4.62** |
| 39 | 2 | Mitchell Road | 1.80 | 2.25 | 0.00 | 0.04 | 0.00 | 0.00 | 0.50 | **4.60** |
| 40 | 56 | Cedar Lake Road N | 2.36 | 2.16 | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | **4.59** |
| 41 | 9 | Bren Road | 2.38 | 2.04 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | **4.45** |
| 42 | 88 | Valley View Road | 2.24 | 0.17 | 1.50 | 0.00 | 0.00 | 0.00 | 0.50 | **4.42** |

| Rank | Project # | Location | Station Distance | Trail Distance | Gap Filled | Pop Served | Jobs Served | Top 25 Gap | Multiple Plans | Total Score |
|---|---|---|---|---|---|---|---|---|---|---|
| **43** | 89 | Hilary Lane | 2.06 | 0.00 | 1.50 | 0.01 | 0.00 | 0.00 | 0.50 | **4.07** |
| **44** | 195 | North-South Route | 0.33 | 1.00 | 1.50 | 0.17 | 0.01 | 0.00 | 0.50 | **3.50** |
| **45** | 67 | Xerxes Avenue S | 1.58 | 1.77 | 0.00 | 0.09 | 0.00 | 0.00 | 0.00 | **3.45** |
| **46** | 160 | Dupont Avenue S | 0.41 | 1.14 | 1.50 | 0.10 | 0.00 | 0.00 | 0.00 | **3.15** |
| **47** | 159 | 44th Street W | 0.30 | 1.11 | 1.50 | 0.21 | 0.02 | 0.00 | 0.00 | **3.13** |

## 5. Revised Corridor Project Prioritization



**Revised Corridor Project Prioritization Table**

| Overall Rank | Local Rank | Project # | Municipality | Location | Station Distance | Trail Distance | Gap Filled | Pop Served | Jobs Served | Top 25 Gap | Multiple Plans | Total Score |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 165 | MINNEAPOLIS | 7th Street N | 2.79 | 2.48 | 1.50 | 0.06 | 0.48 | 0.50 | 0.50 | **8.31** |
| 2 | 1 | 122 | HOPKINS | Blake Road N | 2.93 | 2.49 | 1.50 | 0.12 | 0.04 | 0.50 | 0.50 | **8.09** |
| 3 | 2 | 117 | HOPKINS | 8th Avenue S | 2.89 | 2.45 | 1.50 | 0.17 | 0.02 | 0.50 | 0.50 | **8.04** |
| 4 | 2 | 163 | MINNEAPOLIS | Royalston Avenue N | 2.98 | 2.49 | 1.50 | 0.14 | 0.02 | 0.00 | 0.50 | **7.63** |
| 5 | 3 | 126 | MINNEAPOLIS | Lake Street W | 2.92 | 2.50 | 1.50 | 0.15 | 0.05 | 0.00 | 0.50 | **7.62** |
| 6 | 4 | 164 | MINNEAPOLIS | 10th Street N | 2.79 | 2.50 | 1.50 | 0.14 | 0.11 | 0.00 | 0.50 | **7.54** |
| 7 | 5 | 141 | MINNEAPOLIS | 21st Street W | 2.94 | 2.49 | 1.50 | 0.08 | 0.00 | 0.00 | 0.50 | **7.51** |
| 8 | 6 | 181 | MINNEAPOLIS | 3rd Avenue N | 2.74 | 2.44 | 1.50 | 0.06 | 0.73 | 0.00 | 0.00 | **7.47** |
| 9 | 1 | 135 | ST. LOUIS PARK | Brookside Avenue | 2.92 | 2.47 | 1.50 | 0.07 | 0.01 | 0.00 | 0.50 | **7.46** |
| 10 | 7 | 216 | MINNEAPOLIS | Penn Avenue S | 2.87 | 2.44 | 1.50 | 0.12 | 0.00 | 0.00 | 0.50 | **7.43** |
| 11 | 3 | 206 | HOPKINS | 17th Avenue Extension | 2.88 | 2.50 | 1.50 | 0.02 | 0.00 | 0.00 | 0.50 | **7.40** |
| 12 | 8 | 198 | MINNEAPOLIS | Wayzata Boulevard | 2.88 | 2.44 | 1.50 | 0.04 | 0.01 | 0.00 | 0.50 | **7.36** |
| 13 | 2 | 129 | ST. LOUIS PARK | Louisiana Avenue S | 2.78 | 2.50 | 1.50 | 0.06 | 0.01 | 0.00 | 0.50 | **7.34** |
| 14 | 3 | 131 | ST. LOUIS PARK | Louisiana Avenue S | 2.78 | 2.50 | 1.50 | 0.03 | 0.01 | 0.00 | 0.50 | **7.32** |
| 15 | 4 | 204 | ST. LOUIS PARK | N-S Trail East of Wooddale Station | 2.70 | 2.50 | 1.50 | 0.04 | 0.03 | 0.00 | 0.50 | **7.27** |
| 16 | 4 | 107 | HOPKINS | 17th Avenue | 2.71 | 2.48 | 1.50 | 0.08 | 0.00 | 0.00 | 0.50 | **7.27** |
| 17 | 9 | 143 | MINNEAPOLIS | Kenwood Parkway | 2.79 | 2.39 | 1.50 | 0.08 | 0.00 | 0.00 | 0.50 | **7.26** |
| 18 | 5 | 167 | HOPKINS | Connection north-south through 43 Hoops | 2.92 | 2.49 | 1.50 | 0.20 | 0.13 | 0.00 | 0.00 | **7.23** |
| 19 | 6 | 193 | HOPKINS | 2nd Street NE | 2.67 | 2.43 | 1.50 | 0.08 | 0.02 | 0.00 | 0.50 | **7.19** |
| 20 | 5 | 123 | ST. LOUIS PARK | Blake Road N | 2.21 | 2.14 | 1.50 | 0.32 | 0.51 | 0.00 | 0.50 | **7.19** |
| 21 | 6 | 124 | ST. LOUIS PARK | Minnetonka Boulevard | 2.66 | 2.35 | 1.50 | 0.13 | 0.01 | 0.00 | 0.50 | **7.14** |
| 22 | 7 | 113 | HOPKINS | 1st Street S | 2.82 | 2.40 | 1.50 | 0.15 | 0.24 | 0.00 | 0.00 | **7.12** |
| 23 | 10 | 166 | MINNEAPOLIS | Hawthorne Avenue | 2.62 | 2.34 | 1.50 | 0.14 | 0.51 | 0.00 | 0.00 | **7.11** |
| 24 | 11 | 139 | MINNEAPOLIS | France Avenue S | 2.64 | 2.33 | 1.50 | 0.11 | 0.00 | 0.00 | 0.50 | **7.08** |
| 25 | 8 | 110 | HOPKINS | 7th Street S | 2.29 | 2.17 | 1.50 | 0.09 | 0.00 | 0.50 | 0.50 | **7.04** |
| 26 | 12 | 144 | MINNEAPOLIS | Penn Station Area | 3.00 | 2.50 | 1.50 | 0.03 | 0.00 | 0.00 | 0.00 | **7.03** |
| 27 | 7 | 215 | ST. LOUIS PARK | Texas Avenue S | 2.36 | 2.50 | 1.50 | 0.08 | 0.00 | 0.00 | 0.50 | **6.94** |
| 28 | 9 | 194 | HOPKINS | 2nd Street NE | 2.86 | 2.44 | 1.50 | 0.12 | 0.01 | 0.00 | 0.00 | **6.93** |
| 29 | 10 | 121 | HOPKINS | 5th Avenue N | 2.74 | 2.49 | 1.50 | 0.14 | 0.02 | 0.00 | 0.00 | **6.87** |
| 30 | 8 | 136 | ST. LOUIS PARK | Salem Avenue S | 2.77 | 2.47 | 1.50 | 0.09 | 0.04 | 0.00 | 0.00 | **6.87** |
| 31 | 13 | 145 | MINNEAPOLIS | Trail parallel to Cedar Lake Trail | 2.87 | 2.48 | 1.50 | 0.01 | 0.00 | 0.00 | 0.00 | **6.87** |
| 32 | 11 | 114 | HOPKINS | 5th Street S | 2.86 | 2.46 | 1.50 | 0.00 | 0.04 | 0.00 | 0.00 | **6.87** |
| 33 | 14 | 147 | MINNEAPOLIS | Douglas Avenue | 2.78 | 2.38 | 1.50 | 0.15 | 0.02 | 0.00 | 0.00 | **6.83** |
| 34 | 15 | 142 | MINNEAPOLIS | Kenwood Parkway | 2.83 | 2.45 | 1.50 | 0.03 | 0.00 | 0.00 | 0.00 | **6.81** |
| 35 | 16 | 201 | MINNEAPOLIS | Marquette Avenue | 2.19 | 2.13 | 1.50 | 0.16 | 0.80 | 0.00 | 0.00 | **6.79** |
| 36 | 9 | 125 | ST. LOUIS PARK | Walker Street | 2.39 | 2.20 | 1.50 | 0.18 | 0.00 | 0.00 | 0.50 | **6.78** |
| 37 | 17 | 140 | MINNEAPOLIS | Burnham Road | 2.71 | 2.49 | 1.50 | 0.06 | 0.00 | 0.00 | 0.00 | **6.75** |
| 38 | 10 | 130 | ST. LOUIS PARK | Lake Street W | 2.74 | 2.42 | 1.50 | 0.05 | 0.03 | 0.00 | 0.00 | **6.74** |
| 39 | 18 | 162 | MINNEAPOLIS | 2nd Avenue S | 2.07 | 2.07 | 1.50 | 0.10 | 1.00 | 0.00 | 0.00 | **6.74** |
| 40 | 12 | 207 | HOPKINS | 11th Avenue N | 2.62 | 2.43 | 1.50 | 0.07 | 0.10 | 0.00 | 0.00 | **6.73** |

| Overall Rank | Local Rank | Project # | Municipality | Location | Station Distance | Trail Distance | Gap Filled | Pop Served | Jobs Served | Top 25 Gap | Multiple Plans | Total Score |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 41 | 13 | 112 | HOPKINS | 11th Avenue S | 2.62 | 2.50 | 1.50 | 0.10 | 0.01 | 0.00 | 0.00 | **6.72** |
| 42 | 14 | 109 | HOPKINS | Main Street | 2.61 | 2.45 | 1.50 | 0.08 | 0.06 | 0.00 | 0.00 | **6.70** |
| 43 | 11 | 209 | ST. LOUIS PARK | Louisiana Avenue S | 2.02 | 2.49 | 1.50 | 0.10 | 0.00 | 0.00 | 0.50 | **6.61** |
| 44 | 19 | 148 | MINNEAPOLIS | 6th Avenue N | 2.69 | 2.28 | 1.50 | 0.10 | 0.01 | 0.00 | 0.00 | **6.58** |
| 45 | 15 | 111 | HOPKINS | 9th Avenue S | 2.19 | 2.13 | 1.50 | 0.22 | 0.00 | 0.50 | 0.00 | **6.55** |
| 46 | 12 | 180 | ST. LOUIS PARK | Lake Street W | 2.61 | 2.33 | 1.50 | 0.05 | 0.01 | 0.00 | 0.00 | **6.50** |
| 47 | 13 | 138 | ST. LOUIS PARK | France Avenue S | 2.25 | 2.14 | 1.50 | 0.08 | 0.00 | 0.00 | 0.50 | **6.47** |
| 48 | 16 | 116 | HOPKINS | 8th Avenue N | 2.53 | 2.27 | 1.50 | 0.14 | 0.01 | 0.00 | 0.00 | **6.45** |
| 49 | 17 | 108 | HOPKINS | 1st Street N | 2.43 | 2.42 | 1.50 | 0.08 | 0.01 | 0.00 | 0.00 | **6.44** |
| 50 | 20 | 146 | MINNEAPOLIS | Cedar Lake Road S | 2.54 | 2.33 | 1.50 | 0.06 | 0.01 | 0.00 | 0.00 | **6.44** |
| 51 | 21 | 71 | MINNEAPOLIS | Royalston Station Area | 2.97 | 2.41 | 0.00 | 0.96 | 0.09 | 0.00 | 0.00 | **6.42** |
| 52 | 14 | 210 | ST. LOUIS PARK | N-S Trail East of Wooddale Station | 2.53 | 2.30 | 1.50 | 0.06 | 0.01 | 0.00 | 0.00 | **6.40** |
| 53 | 1 | 101 | MINNETONKA | Across Bren Road | 2.97 | 1.35 | 1.50 | 0.02 | 0.00 | 0.00 | 0.50 | **6.34** |
| 54 | 15 | 175 | ST. LOUIS PARK | Texas Avenue S | 1.76 | 2.47 | 1.50 | 0.10 | 0.01 | 0.00 | 0.50 | **6.33** |
| 55 | 18 | 192 | HOPKINS | Minnetonka Mills Road | 2.25 | 2.50 | 1.50 | 0.06 | 0.00 | 0.00 | 0.00 | **6.31** |
| 56 | 16 | 179 | ST. LOUIS PARK | 36th Street W | 2.21 | 2.50 | 1.50 | 0.08 | 0.00 | 0.00 | 0.00 | **6.28** |
| 57 | 22 | 219 | MINNEAPOLIS | Franklin Avenue W | 2.34 | 2.14 | 1.50 | 0.20 | 0.03 | 0.00 | 0.00 | **6.21** |
| 58 | 23 | 199 | MINNEAPOLIS | Wayzata Boulevard | 1.91 | 2.27 | 1.50 | 0.01 | 0.01 | 0.00 | 0.50 | **6.21** |
| 59 | 2 | 98 | MINNETONKA | Red Circle Drive | 2.76 | 1.39 | 1.50 | 0.02 | 0.02 | 0.00 | 0.50 | **6.18** |
| 60 | 1 | 97 | EDEN PRAIRIE | City West Station Area | 2.93 | 1.19 | 1.50 | 0.01 | 0.04 | 0.00 | 0.50 | **6.17** |
| 61 | 17 | 197 | ST. LOUIS PARK | Wayzata Boulevard | 1.57 | 2.50 | 1.50 | 0.08 | 0.02 | 0.00 | 0.50 | **6.17** |
| 62 | 19 | 118 | HOPKINS | 2nd Street N | 2.23 | 2.33 | 1.50 | 0.10 | 0.00 | 0.00 | 0.00 | **6.16** |
| 63 | 24 | 44 | MINNEAPOLIS | 21 Street Station Area | 2.98 | 2.50 | 0.00 | 0.05 | 0.00 | 0.00 | 0.50 | **6.03** |
| 64 | 3 | 102 | MINNETONKA | 11th Avenue S | 2.35 | 1.68 | 1.50 | 0.14 | 0.36 | 0.00 | 0.00 | **6.02** |
| 65 | 18 | 26 | ST. LOUIS PARK | 21st Street Station Area | 2.94 | 2.50 | 0.00 | 0.08 | 0.01 | 0.00 | 0.50 | **6.02** |
| 66 | 20 | 83 | HOPKINS | Excelsior Boulevard | 2.92 | 2.47 | 0.00 | 0.08 | 0.03 | 0.50 | 0.00 | **6.00** |
| 67 | 4 | 172 | MINNETONKA | Opus Station Area | 3.00 | 1.33 | 1.50 | 0.17 | 0.00 | 0.00 | 0.00 | **5.99** |
| 68 | 5 | 214 | MINNETONKA | West of Green Circle Drive | 2.82 | 1.62 | 1.50 | 0.05 | 0.00 | 0.00 | 0.00 | **5.99** |
| 69 | 25 | 48 | MINNEAPOLIS | Excelsior Boulevard | 2.98 | 2.49 | 0.00 | 0.01 | 0.00 | 0.00 | 0.50 | **5.99** |
| 70 | 19 | 33 | ST. LOUIS PARK | Cedar Lake Trail | 2.93 | 2.50 | 0.00 | 0.04 | 0.01 | 0.00 | 0.50 | **5.97** |
| 71 | 20 | 132 | ST. LOUIS PARK | Beltline Boulevard | 1.80 | 2.50 | 1.50 | 0.07 | 0.00 | 0.00 | 0.00 | **5.87** |
| 72 | 21 | 119 | HOPKINS | 4th Street N | 1.83 | 2.44 | 1.50 | 0.08 | 0.01 | 0.00 | 0.00 | **5.86** |
| 73 | 2 | 85 | EDEN PRAIRIE | Eden Prairie Town Center Station Area | 2.85 | 0.85 | 1.50 | 0.12 | 0.04 | 0.00 | 0.50 | **5.86** |
| 74 | 26 | 161 | MINNEAPOLIS | 3rd Avenue S | 1.93 | 1.91 | 1.50 | 0.16 | 0.36 | 0.00 | 0.00 | **5.85** |
| 75 | 3 | 92 | EDEN PRAIRIE | East of Flying Cloud Drive | 2.63 | 0.60 | 1.50 | 0.02 | 0.60 | 0.00 | 0.50 | **5.85** |
| 76 | 1 | 184 | GOLDEN VALLEY | Wayzata Boulevard | 1.54 | 2.25 | 1.50 | 0.03 | 0.00 | 0.00 | 0.50 | **5.83** |
| 77 | 27 | 52 | MINNEAPOLIS | Dunwoody Boulevard | 2.85 | 2.46 | 0.00 | 0.00 | 0.01 | 0.00 | 0.50 | **5.82** |
| 78 | 6 | 217 | MINNETONKA | Opus Station Area | 2.95 | 1.33 | 1.50 | 0.01 | 0.03 | 0.00 | 0.00 | **5.82** |
| 79 | 21 | 137 | ST. LOUIS PARK | France Avenue S | 1.91 | 2.33 | 1.50 | 0.06 | 0.00 | 0.00 | 0.00 | **5.81** |
| 80 | 28 | 149 | MINNEAPOLIS | Irving Avenue N | 2.15 | 2.00 | 1.50 | 0.11 | 0.00 | 0.00 | 0.00 | **5.77** |
| 81 | 7 | 213 | MINNETONKA | Opus Station Area | 2.73 | 1.47 | 1.50 | 0.03 | 0.03 | 0.00 | 0.00 | **5.76** |
| 82 | 8 | 103 | MINNETONKA | South of Westbrooke Way | 2.14 | 1.68 | 1.50 | 0.38 | 0.00 | 0.00 | 0.00 | **5.69** |

| Overall Rank | Local Rank | Project # | Municipality | Location | Station Distance | Trail Distance | Gap Filled | Pop Served | Jobs Served | Top 25 Gap | Multiple Plans | Total Score |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 83 | 29 | 40 | MINNEAPOLIS | West Lake Station Area | 2.96 | 2.50 | 0.00 | 0.19 | 0.04 | 0.00 | 0.00 | **5.69** |
| 84 | 4 | 90 | EDEN PRAIRIE | 70th Street W | 2.95 | 0.64 | 1.50 | 0.01 | 0.08 | 0.00 | 0.50 | **5.68** |
| 85 | 9 | 212 | MINNETONKA | Opus Station Area | 2.89 | 1.27 | 1.50 | 0.01 | 0.01 | 0.00 | 0.00 | **5.68** |
| 86 | 30 | 72 | MINNEAPOLIS | Cedar Lake Trail | 2.98 | 2.49 | 0.00 | 0.07 | 0.11 | 0.00 | 0.00 | **5.64** |
| 87 | 31 | 190 | MINNEAPOLIS | Cedar Lake Trail | 2.63 | 2.50 | 0.00 | 0.01 | 0.00 | 0.00 | 0.50 | **5.64** |
| 88 | 22 | 82 | ST. LOUIS PARK | France Avenue S | 2.58 | 2.49 | 0.00 | 0.06 | 0.00 | 0.00 | 0.50 | **5.64** |
| 89 | 5 | 94 | EDEN PRAIRIE | Shady Oak Road | 2.39 | 1.18 | 1.50 | 0.02 | 0.01 | 0.00 | 0.50 | **5.60** |
| 90 | 6 | 96 | EDEN PRAIRIE | Shady Oak Road | 2.33 | 1.21 | 1.50 | 0.04 | 0.00 | 0.00 | 0.50 | **5.59** |
| 91 | 32 | 74 | MINNEAPOLIS | 5th Street N | 2.98 | 2.50 | 0.00 | 0.02 | 0.08 | 0.00 | 0.00 | **5.58** |
| 92 | 23 | 134 | ST. LOUIS PARK | 28th Street W | 1.47 | 2.50 | 1.50 | 0.10 | 0.00 | 0.00 | 0.00 | **5.57** |
| 93 | 22 | 15 | HOPKINS | Trail Underpass at Blake Road | 3.00 | 2.50 | 0.00 | 0.04 | 0.02 | 0.00 | 0.00 | **5.56** |
| 94 | 10 | 104 | MINNETONKA | Fairview Avenue | 1.89 | 2.13 | 1.50 | 0.03 | 0.00 | 0.00 | 0.00 | **5.56** |
| 95 | 24 | 19 | ST. LOUIS PARK | Trail along Minnehaha Creek | 2.56 | 2.44 | 0.00 | 0.05 | 0.01 | 0.00 | 0.50 | **5.55** |
| 96 | 25 | 31 | ST. LOUIS PARK | Wooddale Station Area | 2.98 | 2.50 | 0.00 | 0.06 | 0.00 | 0.00 | 0.00 | **5.54** |
| 97 | 7 | 91 | EDEN PRAIRIE | Parallel to Shady Oak Road | 2.99 | 0.53 | 1.50 | 0.01 | 0.00 | 0.00 | 0.50 | **5.54** |
| 98 | 11 | 170 | MINNETONKA | Bren Road E | 2.74 | 1.23 | 1.50 | 0.00 | 0.05 | 0.00 | 0.00 | **5.53** |
| 99 | 12 | 95 | MINNETONKA | Shady Oak Road | 2.45 | 1.55 | 1.50 | 0.03 | 0.01 | 0.00 | 0.00 | **5.53** |
| 100 | 1 | 173 | EDINA | Interlachen Boulevard | 2.01 | 1.98 | 1.50 | 0.04 | 0.01 | 0.00 | 0.00 | **5.53** |
| 101 | 23 | 202 | HOPKINS | Shady Oak Station Area | 2.99 | 2.50 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | **5.50** |
| 102 | 33 | 45 | MINNEAPOLIS | 24th Street W | 2.84 | 2.47 | 0.00 | 0.18 | 0.00 | 0.00 | 0.00 | **5.49** |
| 103 | 34 | 156 | MINNEAPOLIS | 24th Street W | 1.85 | 1.87 | 1.50 | 0.23 | 0.03 | 0.00 | 0.00 | **5.48** |
| 104 | 35 | 54 | MINNEAPOLIS | Van White Station Area | 2.98 | 2.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | **5.48** |
| 105 | 36 | 46 | MINNEAPOLIS | Cedar Lake Trail | 2.96 | 2.49 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | **5.48** |
| 106 | 37 | 211 | MINNEAPOLIS | Hennepin Avenue | 1.71 | 1.92 | 1.50 | 0.27 | 0.09 | 0.00 | 0.00 | **5.48** |
| 107 | 26 | 29 | ST. LOUIS PARK | Monterey Drive | 2.92 | 2.45 | 0.00 | 0.08 | 0.02 | 0.00 | 0.00 | **5.48** |
| 108 | 38 | 49 | MINNEAPOLIS | Penn Station Area | 2.91 | 2.46 | 0.00 | 0.11 | 0.00 | 0.00 | 0.00 | **5.48** |
| 109 | 24 | 13 | HOPKINS | Parallel to Tyler Avenue N | 2.83 | 2.42 | 0.00 | 0.22 | 0.01 | 0.00 | 0.00 | **5.47** |
| 110 | 39 | 189 | MINNEAPOLIS | Cedar Lake Trail | 2.93 | 2.49 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | **5.46** |
| 111 | 40 | 158 | MINNEAPOLIS | Zenith Avenue S | 1.90 | 1.96 | 1.50 | 0.09 | 0.00 | 0.00 | 0.00 | **5.45** |
| 112 | 27 | 183 | ST. LOUIS PARK | Quentin Avenue S | 0.94 | 2.46 | 1.50 | 0.05 | 0.00 | 0.00 | 0.50 | **5.45** |
| 113 | 41 | 41 | MINNEAPOLIS | Sunset Boulevard | 2.81 | 2.50 | 0.00 | 0.11 | 0.01 | 0.00 | 0.00 | **5.44** |
| 114 | 28 | 32 | ST. LOUIS PARK | Ottawa Avenue S | 2.88 | 2.45 | 0.00 | 0.10 | 0.01 | 0.00 | 0.00 | **5.43** |
| 115 | 42 | 58 | MINNEAPOLIS | Glenwood Avenue | 2.76 | 2.50 | 0.00 | 0.11 | 0.06 | 0.00 | 0.00 | **5.43** |
| 116 | 43 | 73 | MINNEAPOLIS | 2nd Avenue N | 2.71 | 2.37 | 0.00 | 0.09 | 0.24 | 0.00 | 0.00 | **5.42** |
| 117 | 29 | 127 | ST. LOUIS PARK | West of 32nd Street W | 1.60 | 2.00 | 1.50 | 0.32 | 0.00 | 0.00 | 0.00 | **5.42** |
| 118 | 8 | 93 | EDEN PRAIRIE | Shady Oak Road | 2.63 | 0.78 | 1.50 | 0.01 | 0.00 | 0.00 | 0.50 | **5.41** |
| 119 | 30 | 34 | ST. LOUIS PARK | Highway 7 | 2.61 | 2.41 | 0.00 | 0.29 | 0.09 | 0.00 | 0.00 | **5.41** |
| 120 | 13 | 10 | MINNETONKA | Shady Oak Road | 2.42 | 2.42 | 0.00 | 0.05 | 0.00 | 0.00 | 0.50 | **5.40** |
| 121 | 44 | 196 | MINNEAPOLIS | North-South Route | 1.54 | 1.67 | 1.50 | 0.14 | 0.00 | 0.00 | 0.50 | **5.36** |
| 122 | 45 | 191 | MINNEAPOLIS | Cedar Lake Trail | 2.87 | 2.47 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | **5.34** |
| 123 | 14 | 80 | MINNETONKA | East of K-Tel | 2.80 | 2.50 | 0.00 | 0.02 | 0.01 | 0.00 | 0.00 | **5.32** |
| 124 | 46 | 57 | MINNEAPOLIS | Fremont Avenue N | 2.51 | 2.24 | 0.00 | 0.05 | 0.02 | 0.00 | 0.50 | **5.32** |

| Overall Rank | Local Rank | Project # | Municipality | Location | Station Distance | Trail Distance | Gap Filled | Pop Served | Jobs Served | Top 25 Gap | Multiple Plans | Total Score |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 125 | 25 | 14 | HOPKINS | Tyler Avenue N | 2.67 | 2.50 | 0.00 | 0.12 | 0.02 | 0.00 | 0.00 | **5.31** |
| 126 | 47 | 55 | MINNEAPOLIS | Trail east of Cedar Lake Road N | 2.88 | 2.40 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | **5.30** |
| 127 | 26 | 187 | HOPKINS | 3rd Street S | 2.75 | 2.50 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | **5.29** |
| 128 | 27 | 208 | HOPKINS | Oak Ridge Road | 1.61 | 2.12 | 1.50 | 0.05 | 0.00 | 0.00 | 0.00 | **5.28** |
| 129 | 48 | 43 | MINNEAPOLIS | Excelsior Boulevard | 2.77 | 2.38 | 0.00 | 0.09 | 0.04 | 0.00 | 0.00 | **5.28** |
| 130 | 9 | 3 | EDEN PRAIRIE | Near Technology Drive | 2.67 | 1.25 | 0.00 | 0.10 | 0.74 | 0.00 | 0.50 | **5.27** |
| 131 | 31 | 128 | ST. LOUIS PARK | Louisiana Avenue S | 0.69 | 2.49 | 1.50 | 0.07 | 0.01 | 0.00 | 0.50 | **5.26** |
| 132 | 28 | 18 | HOPKINS | Trail to Van Buren Way N | 2.60 | 2.49 | 0.00 | 0.14 | 0.01 | 0.00 | 0.00 | **5.24** |
| 133 | 49 | 152 | MINNEAPOLIS | Lyndale Avenue N | 1.81 | 1.83 | 1.50 | 0.09 | 0.01 | 0.00 | 0.00 | **5.24** |
| 134 | 50 | 153 | MINNEAPOLIS | Franklin Avenue E | 1.62 | 1.83 | 1.50 | 0.24 | 0.04 | 0.00 | 0.00 | **5.22** |
| 135 | 51 | 42 | MINNEAPOLIS | Calhoun Boulevard W | 2.69 | 2.37 | 0.00 | 0.12 | 0.03 | 0.00 | 0.00 | **5.22** |
| 136 | 32 | 178 | ST. LOUIS PARK | Louisiana Station Area | 2.78 | 2.36 | 0.00 | 0.02 | 0.01 | 0.00 | 0.00 | **5.18** |
| 137 | 15 | 105 | MINNETONKA | Hopkins Crossroad | 1.27 | 2.32 | 1.50 | 0.06 | 0.00 | 0.00 | 0.00 | **5.15** |
| 138 | 29 | 203 | HOPKINS | Shady Oak Road | 2.37 | 2.19 | 0.00 | 0.08 | 0.01 | 0.00 | 0.50 | **5.15** |
| 139 | 33 | 35 | ST. LOUIS PARK | Highway 7 | 2.51 | 2.39 | 0.00 | 0.18 | 0.05 | 0.00 | 0.00 | **5.13** |
| 140 | 52 | 151 | MINNEAPOLIS | Golden Valley Road | 1.28 | 1.75 | 1.50 | 0.08 | 0.01 | 0.00 | 0.50 | **5.12** |
| 141 | 53 | 188 | MINNEAPOLIS | Cedar Lake Trail Spur | 2.59 | 2.50 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | **5.11** |
| 142 | 54 | 77 | MINNEAPOLIS | Yale Place | 2.26 | 2.22 | 0.00 | 0.51 | 0.11 | 0.00 | 0.00 | **5.10** |
| 143 | 55 | 154 | MINNEAPOLIS | 31st Street W | 1.56 | 1.81 | 1.50 | 0.19 | 0.04 | 0.00 | 0.00 | **5.10** |
| 144 | 56 | 157 | MINNEAPOLIS | 26th Street W | 1.53 | 1.73 | 1.50 | 0.30 | 0.04 | 0.00 | 0.00 | **5.10** |
| 145 | 10 | 218 | EDEN PRAIRIE | Technology Drive | 3.00 | 1.43 | 0.00 | 0.13 | 0.01 | 0.00 | 0.50 | **5.07** |
| 146 | 34 | 176 | ST. LOUIS PARK | Pennsylvania Avenue S | 2.51 | 2.48 | 0.00 | 0.06 | 0.01 | 0.00 | 0.00 | **5.05** |
| 147 | 57 | 155 | MINNEAPOLIS | Hennepin Avenue | 1.53 | 1.74 | 1.50 | 0.23 | 0.05 | 0.00 | 0.00 | **5.05** |
| 148 | 30 | 16 | HOPKINS | Blake Road S | 2.67 | 2.32 | 0.00 | 0.06 | 0.00 | 0.00 | 0.00 | **5.05** |
| 149 | 11 | 81 | EDEN PRAIRIE | Prairie Center Drive | 2.26 | 0.74 | 1.50 | 0.04 | 0.01 | 0.00 | 0.50 | **5.04** |
| 150 | 58 | 63 | MINNEAPOLIS | 25th Street W | 2.58 | 2.31 | 0.00 | 0.14 | 0.00 | 0.00 | 0.00 | **5.04** |
| 151 | 59 | 70 | MINNEAPOLIS | Lasalle Avenue | 2.18 | 2.12 | 0.00 | 0.39 | 0.33 | 0.00 | 0.00 | **5.03** |
| 152 | 35 | 37 | ST. LOUIS PARK | Toledo Avenue S | 2.23 | 2.19 | 0.00 | 0.09 | 0.01 | 0.00 | 0.50 | **5.02** |
| 153 | 60 | 47 | MINNEAPOLIS | Trail along I-394 | 2.51 | 2.45 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | **4.99** |
| 154 | 31 | 11 | HOPKINS | Second Avenue S | 2.46 | 2.39 | 0.00 | 0.02 | 0.03 | 0.00 | 0.00 | **4.90** |
| 155 | 2 | 99 | EDINA | Trail east of Londonderry Drive | 1.86 | 1.49 | 1.50 | 0.04 | 0.01 | 0.00 | 0.00 | **4.90** |
| 156 | 36 | 25 | ST. LOUIS PARK | Dakota Avenue S | 2.29 | 2.48 | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | **4.85** |
| 157 | 3 | 185 | EDINA | Brookside Avenue | 1.25 | 1.53 | 1.50 | 0.06 | 0.00 | 0.00 | 0.50 | **4.85** |
| 158 | 37 | 177 | ST. LOUIS PARK | Cedar Lake Trail Spur | 2.27 | 2.50 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | **4.82** |
| 159 | 4 | 171 | EDINA | Londonderry Drive | 2.04 | 1.19 | 1.50 | 0.06 | 0.00 | 0.00 | 0.00 | **4.79** |
| 160 | 5 | 100 | EDINA | Lincoln Drive | 2.07 | 1.16 | 1.50 | 0.04 | 0.00 | 0.00 | 0.00 | **4.77** |
| 161 | 6 | 115 | EDINA | Blake Road S | 1.50 | 1.71 | 1.50 | 0.03 | 0.00 | 0.00 | 0.00 | **4.74** |
| 162 | 61 | 64 | MINNEAPOLIS | Irving Avenue S | 2.32 | 2.27 | 0.00 | 0.15 | 0.01 | 0.00 | 0.00 | **4.74** |
| 163 | 38 | 133 | ST. LOUIS PARK | Virginia Avenue S | 0.61 | 2.50 | 1.50 | 0.10 | 0.00 | 0.00 | 0.00 | **4.71** |
| 164 | 32 | 79 | HOPKINS | 2nd Street S | 2.30 | 2.35 | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 | **4.71** |
| 165 | 33 | 17 | HOPKINS | Goodrich Street | 2.43 | 2.20 | 0.00 | 0.06 | 0.00 | 0.00 | 0.00 | **4.69** |
| 166 | 39 | 28 | ST. LOUIS PARK | Quentin Avenue S | 2.05 | 2.01 | 0.00 | 0.12 | 0.01 | 0.00 | 0.50 | **4.69** |

| Overall Rank | Local Rank | Project # | Municipality | Location | Station Distance | Trail Distance | Gap Filled | Pop Served | Jobs Served | Top 25 Gap | Multiple Plans | Total Score |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 167 | 12 | 86 | EDEN PRAIRIE | 78th Street W | 2.14 | 0.47 | 1.50 | 0.01 | 0.00 | 0.00 | 0.50 | **4.62** |
| 168 | 13 | 2 | EDEN PRAIRIE | Mitchell Road | 1.81 | 2.25 | 0.00 | 0.04 | 0.00 | 0.00 | 0.50 | **4.60** |
| 169 | 16 | 186 | MINNETONKA | Pioneer Road | 2.32 | 2.23 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | **4.60** |
| 170 | 62 | 56 | MINNEAPOLIS | Cedar Lake Road N | 2.36 | 2.16 | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | **4.59** |
| 171 | 63 | 53 | MINNEAPOLIS | Lyndale Avenue N | 2.29 | 2.23 | 0.00 | 0.01 | 0.04 | 0.00 | 0.00 | **4.57** |
| 172 | 34 | 12 | HOPKINS | 12th Avenue N | 2.12 | 2.36 | 0.00 | 0.09 | 0.00 | 0.00 | 0.00 | **4.57** |
| 173 | 40 | 21 | ST. LOUIS PARK | 33rd Street W | 2.29 | 2.13 | 0.00 | 0.08 | 0.04 | 0.00 | 0.00 | **4.54** |
| 174 | 17 | 120 | MINNETONKA | Oak Ridge Road | 1.00 | 1.98 | 1.50 | 0.06 | 0.00 | 0.00 | 0.00 | **4.54** |
| 175 | 14 | 4 | EDEN PRAIRIE | New Road from Technology Drive to Prairie Center Drive | 2.94 | 1.02 | 0.00 | 0.02 | 0.02 | 0.00 | 0.50 | **4.50** |
| 176 | 64 | 182 | MINNEAPOLIS | Van White Memorial Boulevard | 2.25 | 2.16 | 0.00 | 0.07 | 0.01 | 0.00 | 0.00 | **4.49** |
| 177 | 41 | 23 | ST. LOUIS PARK | 35th Street W | 1.98 | 2.03 | 0.00 | 0.44 | 0.00 | 0.00 | 0.00 | **4.45** |
| 178 | 18 | 9 | MINNETONKA | Bren Road | 2.38 | 2.04 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | **4.45** |
| 179 | 42 | 24 | ST. LOUIS PARK | Cedar Lake Road | 1.87 | 2.50 | 0.00 | 0.05 | 0.02 | 0.00 | 0.00 | **4.44** |
| 180 | 15 | 88 | EDEN PRAIRIE | Valley View Road | 2.24 | 0.17 | 1.50 | 0.00 | 0.00 | 0.00 | 0.50 | **4.42** |
| 181 | 16 | 8 | EDEN PRAIRIE | East of City West Parkway | 2.91 | 0.86 | 0.00 | 0.01 | 0.14 | 0.00 | 0.50 | **4.42** |
| 182 | 17 | 5 | EDEN PRAIRIE | Singletree Lane | 2.81 | 1.01 | 0.00 | 0.02 | 0.05 | 0.00 | 0.50 | **4.39** |
| 183 | 43 | 36 | ST. LOUIS PARK | Toledo Avenue S | 2.02 | 2.18 | 0.00 | 0.11 | 0.01 | 0.00 | 0.00 | **4.33** |
| 184 | 44 | 38 | ST. LOUIS PARK | 26th Street S | 2.03 | 2.19 | 0.00 | 0.08 | 0.01 | 0.00 | 0.00 | **4.30** |
| 185 | 65 | 200 | MINNEAPOLIS | Marquette Avenue | 1.77 | 1.94 | 0.00 | 0.38 | 0.12 | 0.00 | 0.00 | **4.20** |
| 186 | 66 | 76 | MINNEAPOLIS | 4th Avenue S | 1.63 | 1.78 | 0.00 | 0.25 | 0.51 | 0.00 | 0.00 | **4.18** |
| 187 | 18 | 1 | EDEN PRAIRIE | Anderson Lakes Parkway | 1.69 | 1.81 | 0.00 | 0.10 | 0.02 | 0.00 | 0.50 | **4.11** |
| 188 | 19 | 169 | EDEN PRAIRIE | Golden Triangle Station Area | 2.92 | 0.65 | 0.00 | 0.01 | 0.00 | 0.00 | 0.50 | **4.08** |
| 189 | 7 | 89 | EDINA | Hilary Lane | 2.06 | 0.00 | 1.50 | 0.01 | 0.00 | 0.00 | 0.50 | **4.07** |
| 190 | 45 | 20 | ST. LOUIS PARK | 33rd Street W | 1.58 | 2.25 | 0.00 | 0.14 | 0.00 | 0.00 | 0.00 | **3.97** |
| 191 | 67 | 75 | MINNEAPOLIS | 14th Street E | 1.31 | 1.62 | 0.00 | 1.00 | 0.04 | 0.00 | 0.00 | **3.97** |
| 192 | 46 | 39 | ST. LOUIS PARK | Near Westridge Lane | 1.55 | 2.33 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | **3.90** |
| 193 | 68 | 59 | MINNEAPOLIS | 8th Avenue N | 1.73 | 1.83 | 0.00 | 0.13 | 0.00 | 0.00 | 0.00 | **3.69** |
| 194 | 69 | 30 | MINNEAPOLIS | 38th Street W | 1.70 | 1.86 | 0.00 | 0.09 | 0.00 | 0.00 | 0.00 | **3.64** |
| 195 | 20 | 205 | EDEN PRAIRIE | Flying Cloud Drive | 2.16 | 0.81 | 0.00 | 0.05 | 0.03 | 0.00 | 0.50 | **3.55** |
| 196 | 70 | 195 | MINNEAPOLIS | North-South Route | 0.33 | 1.00 | 1.50 | 0.17 | 0.01 | 0.00 | 0.50 | **3.50** |
| 197 | 71 | 65 | MINNEAPOLIS | Pleasant Avenue | 1.42 | 1.68 | 0.00 | 0.38 | 0.01 | 0.00 | 0.00 | **3.48** |
| 198 | 21 | 168 | EDEN PRAIRIE | Golden Triangle Station Area | 2.56 | 0.39 | 0.00 | 0.01 | 0.00 | 0.00 | 0.50 | **3.46** |
| 199 | 72 | 51 | MINNEAPOLIS | Oak Park Avenue N | 1.58 | 1.74 | 0.00 | 0.13 | 0.00 | 0.00 | 0.00 | **3.45** |
| 200 | 73 | 67 | MINNEAPOLIS | Xerxes Avenue S | 1.58 | 1.77 | 0.00 | 0.09 | 0.00 | 0.00 | 0.00 | **3.45** |
| 201 | 2 | 50 | GOLDEN VALLEY | Glenwood Avenue | 1.46 | 1.80 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | **3.27** |
| 202 | 74 | 61 | MINNEAPOLIS | 16th Avenue N | 1.43 | 1.65 | 0.00 | 0.12 | 0.00 | 0.00 | 0.00 | **3.21** |
| 203 | 22 | 7 | EDEN PRAIRIE | Parallel to Washington Avenue S | 2.59 | 0.51 | 0.00 | 0.00 | 0.09 | 0.00 | 0.00 | **3.19** |
| 204 | 23 | 6 | EDEN PRAIRIE | Near Prairie Center Drive | 1.88 | 0.51 | 0.00 | 0.01 | 0.29 | 0.00 | 0.50 | **3.19** |
| 205 | 75 | 160 | MINNEAPOLIS | Dupont Avenue S | 0.41 | 1.14 | 1.50 | 0.10 | 0.00 | 0.00 | 0.00 | **3.15** |
| 206 | 76 | 159 | MINNEAPOLIS | 44th Street W | 0.30 | 1.11 | 1.50 | 0.21 | 0.02 | 0.00 | 0.00 | **3.13** |
| 207 | 77 | 66 | MINNEAPOLIS | Richfield Road | 1.14 | 1.51 | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | **2.74** |
| 208 | 78 | 60 | MINNEAPOLIS | Thomas Avenue N | 1.02 | 1.38 | 0.00 | 0.18 | 0.00 | 0.00 | 0.00 | **2.58** |

| Overall Rank | Local Rank | Project # | Municipality | Location | Station Distance | Trail Distance | Gap Filled | Pop Served | Jobs Served | Top 25 Gap | Multiple Plans | Total Score |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **209** | 8 | 27 | EDINA | 44th Street W | 1.08 | 1.43 | 0.00 | 0.04 | 0.01 | 0.00 | 0.00 | **2.56** |
| **210** | 79 | 68 | MINNEAPOLIS | 42nd Street W | 0.89 | 1.43 | 0.00 | 0.12 | 0.01 | 0.00 | 0.00 | **2.45** |
| **211** | 80 | 69 | MINNEAPOLIS | Oakland Avenue | 0.66 | 1.32 | 0.00 | 0.38 | 0.02 | 0.00 | 0.00 | **2.38** |
| **212** | 47 | 22 | ST. LOUIS PARK | Franklin Avenue W | 0.00 | 2.09 | 0.00 | 0.11 | 0.01 | 0.00 | 0.00 | **2.21** |
| **213** | 81 | 78 | MINNEAPOLIS | Bloomington Avenue | 0.10 | 0.92 | 0.00 | 0.35 | 0.07 | 0.00 | 0.00 | **1.44** |

# Southwest LRT Bike Facility Assessment

## Addendum 2

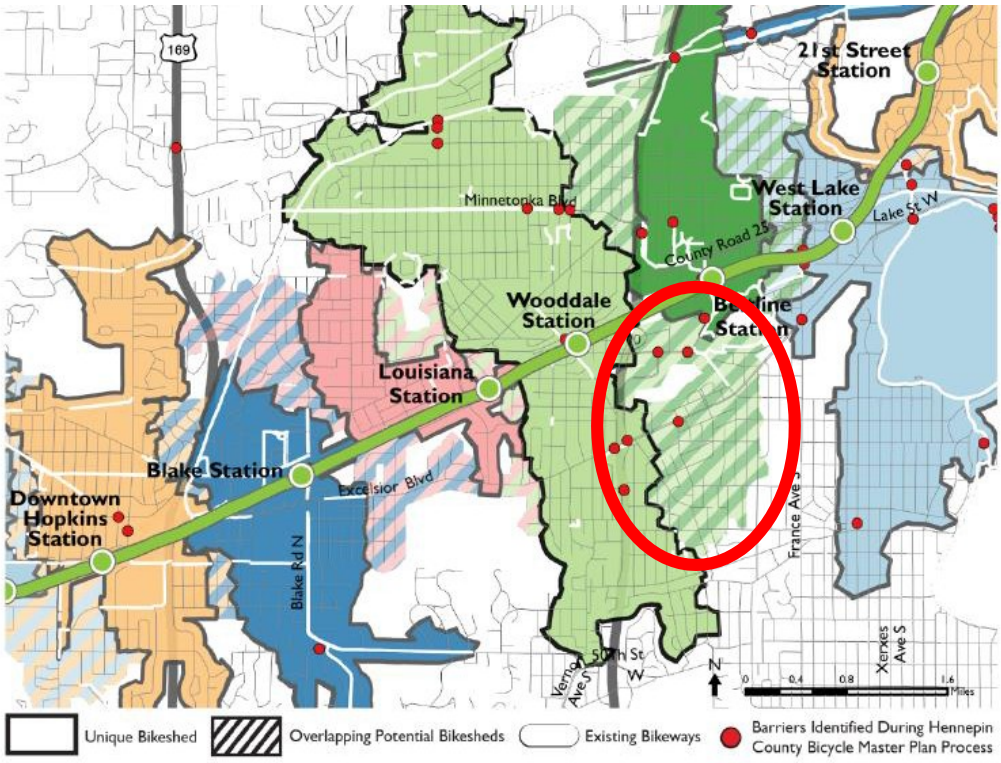
This addendum summarizes additional analysis to address some inconsistencies in the bikesheds and bike parking estimates at the Beltline and Wooddale stations in St. Louis Park. Specifically, the accessibility of the area to the south of Beltline Station and east of Highway 100 may not have been accurately portrayed in Technical Memorandum #1 – Existing Conditions. The accessibility and bikesheds for this area ultimately determine how the bike parking estimates were established in Technical Memorandum #2 – Recommendations.

The methodology for determining the bikesheds and bike parking estimates were adjusted in a couple of different ways in an attempt to create results that better match local understanding of the area.

## 1. Re-Allocating Population in Overlapped Area

The first change in methodology involved re-allocating some of the population in the areas that were overlapping between the Wooddale and Beltline stations. In the original analysis, the population in the overlapped area was split evenly between the two stations. If the population in the overlapping area was all allocated to Beltline station, the bike parking estimates change slightly. This would assume that anyone located in the overlapped area would travel to Beltline Station rather than Wooddale Station.

The overlapped area is circled in red in the following image:



After re-allocating the population in this overlapped area, the bike parking numbers change as follows:

**Overlapped Bikeshed Population Split Between Stations**

| Station | 2010 Bikeshed Population | Overlap Added Population | 2030 Bikeshed Population | Qualitative Multiplier | Effective Population | Bikeshed Population Ratio | Low Parking Estimate | Medium Parking Estimate | High Parking Estimate |
|---|---|---|---|---|---|---|---|---|---|
| **Beltline** | 4210 | 3,923.0 | 9,473 | 0.8 | 7,578 | 0.12 | 10 | 48 | 85 |
| **Wooddale** | 17134 | 3,550.0 | 24,091 | 1 | 24,091 | 0.39 | 30 | 150 | 270 |

**Overlapped Bikeshed Population All to Beltline**

| Station | 2010 Bikeshed Population | Overlap Added Population | 2030 Bikeshed Population | Qualitative Multiplier | Effective Population | Bikeshed Population Ratio | Low Parking Estimate | Medium Parking Estimate | High Parking Estimate |
|---|---|---|---|---|---|---|---|---|---|
| **Beltline** | 4210 | 6,998.0 | 13,054 | 0.8 | 10,443 | 0.17 | 14 | 66 | 119 |
| **Wooddale** | 17134 | 476 | 20,510 | 1 | 20,510 | 0.33 | 26 | 129 | 232 |

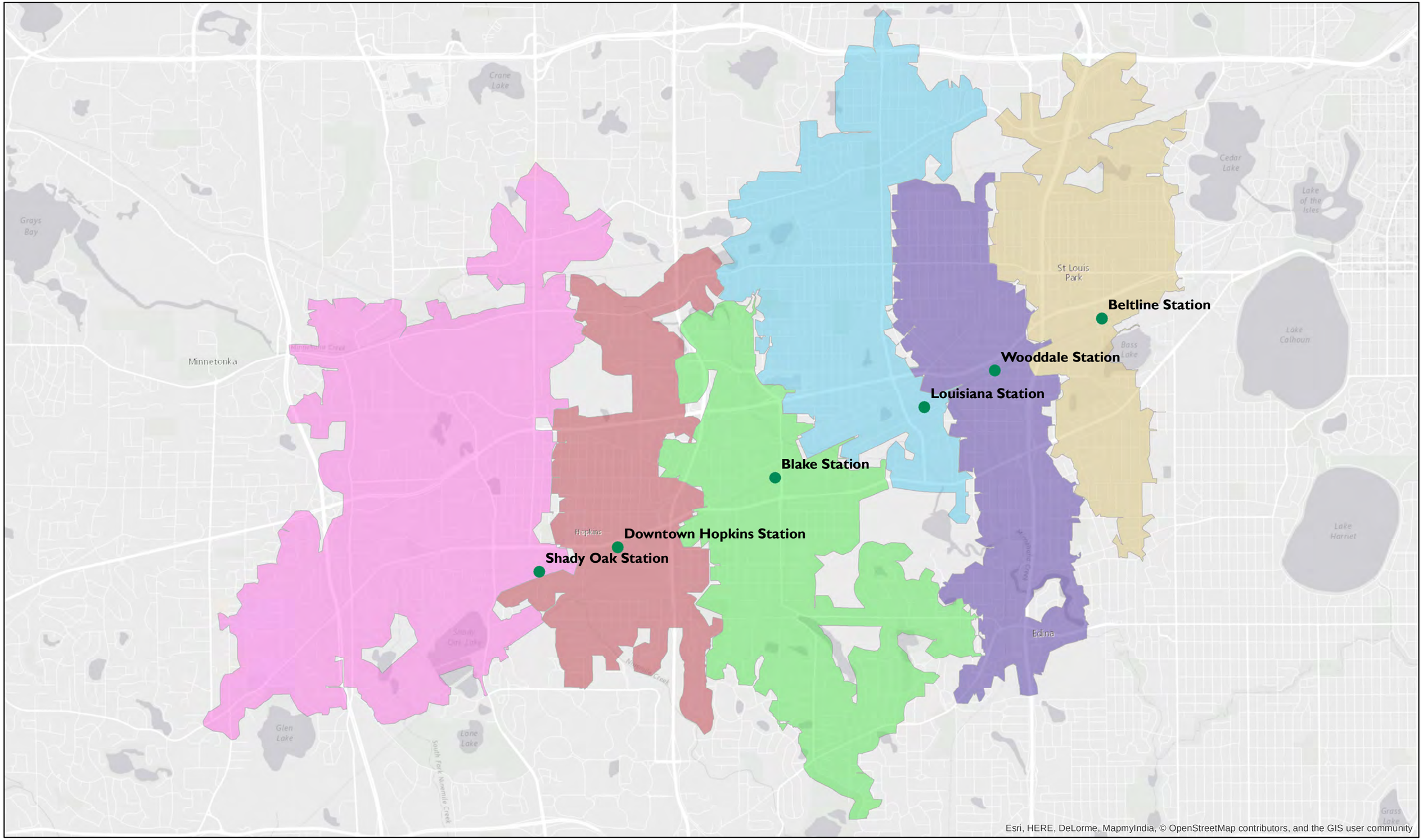
This change in methodology results in a reduction in bike parking at Wooddale, and an increase in bike parking at Beltline. Again, this assumes that anyone in the overlapped area between Beltline and Wooddale would travel to Beltline Station to access SWLRT.

## 2. Determining Bikesheds by Time

Another change in methodology that was considered was to change the assumptions for determining the bikesheds around the LRT stations, and using travel time as the limiting factor instead of expenditure of energy. This analysis was based on the same GIS network, which included all streets and trails.

Travel time was used in this analysis as the limiting factor in determining each station's bikeshed. This required the development of a few additional assumptions. An assumption for travel speed was required, and an industry standard of 4 meters per second was selected. The total time that a cyclist might travel was set at 20 minutes, which is double what was used in the walkshed analysis, to account for the fact that people might be willing to travel slightly longer to commute to an LRT station by bicycle. Traveling at a speed of 4 meter per second for 20 minutes allows a bicyclist to reach 3 miles, which is the distance that the FTA uses in defining bicycle access from LRT stations.

The bikesheds that were produced using time as the limiting factor, and incorporate the assumptions described above, are shown below:




# Unique Bikesheds by Time

N

0 0.4 0.8 1.6 Miles

Using the population in the bikesheds limited by time, the bike parking numbers change as follows:

### If Bike Parking for the Segment was based on Time, Rather than Energy:

| Station | 2010 Bikeshed Pop. | Overlap Added Pop. | 2030 Bikeshed Population | Qualitative Multiplier | Effective Population | Bikeshed Population Ratio | Low Parking Estimate | Medium Parking Estimate | High Parking Estimate |
|---|---|---|---|---|---|---|---|---|---|
| **Beltline** | 12141 | 1,544.0 | 15,939 | 0.8 | 12,751 | 0.15 | 12 | 60 | 107 |
| **Wooddale** | 11530 | 997.0 | 14,590 | 1 | 14,590 | 0.18 | 14 | 68 | 123 |
| **Louisiana** | 14304 | 154.0 | 16,839 | 0.8 | 13,471 | 0.16 | 13 | 63 | 113 |
| **Blake** | 11458 | 54.0 | 13,613 | 0.8 | 10,890 | 0.13 | 11 | 51 | 92 |
| **Hopkins** | 9627 | 0.0 | 11,384 | 1.25 | 14,230 | 0.17 | 14 | 67 | 120 |
| **Shady Oak** | 11602 | 96.0 | 13,833 | 1.25 | 17,291 | 0.21 | 17 | 81 | 145 |

### Original Analysis in Technical Memorandum#2 - Recommendations:

| Station | 2010 Bikeshed Pop. | Overlap Added Pop. | 2030 Bikeshed Population | Qualitative Multiplier | Effective Population | Bikeshed Population Ratio | Low Parking Estimate | Medium Parking Estimate | High Parking Estimate |
|---|---|---|---|---|---|---|---|---|---|
| **Beltline** | 4210 | 3,923.0 | 9,473 | 0.8 | 7,578 | 0.12 | 10 | 48 | 85 |
| **Wooddale** | 17134 | 3,550.0 | 24,091 | 1 | 24,091 | 0.39 | 30 | 150 | 270 |
| **Louisiana** | 2637 | 1,864.5 | 5,243 | 0.8 | 4,194 | 0.07 | 8 | 27 | 47 |
| **Blake** | 5603 | 1,664.0 | 8,593 | 0.8 | 6,875 | 0.11 | 9 | 43 | 77 |
| **Hopkins** | 6856 | 1,484.0 | 9,862 | 1.25 | 12,328 | 0.20 | 16 | 77 | 138 |
| **Shady Oak** | 3771 | 1,209.0 | 5,889 | 1.25 | 7,361 | 0.12 | 10 | 46 | 83 |

The GIS model required to run the bikeshed analysis for the entire segment from Beltline Station to Shady Oak Station, which resulted in changes in the bike parking estimates at each station within the segment.