



**Edina Active Routes to School
Comprehensive Plan**

Edina Active Routes to School Comprehensive Plan

October 2013

Prepared By:





Edina Active Routes to School Comprehensive Plan

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Executive Summary

The purpose of an Active Routes to School Plan (ARTS) is to identify opportunities and priorities to increase walking and biking to schools, and develop an implementation plan for making improvements in these areas. A comprehensive process involving Edina School District, City of Edina, parents, and residents was begun in 2012 to develop a plan for the nine public schools in Edina. Through site visits, principal interviews, data gathering, and stakeholder input, a set of recommendations has been developed to address the needs of students walking and biking to school. These improvements involve actions by multiple stakeholders and include both infrastructure and policy changes.

Introduction

Walking and biking to school in the United States has decreased dramatically, from over 60 percent in the 1960s to an average of less than 10 percent today. This reduction in active transportation, and corresponding increase in vehicular transportation, negatively affects students' health, vehicle congestion, traffic safety, and environmental quality around schools. To reverse this decades-long trend of decreased walking and biking, the nationwide Safe Routes to School (SRTS) initiative was created to increase walking and biking to school through the implementation of each of the five "E's":

- Education – Teaching children to walk and bike safely
- Encouragement – Developing programs that get children excited about walking or biking to school
- Enforcement – Having law enforcement support along the designated routes to school
- Engineering – Identifying infrastructure barriers to walking and biking
- Evaluation – Measuring the effectiveness of the various components of the SRTS project

This Active Routes to School Plan plays an important function of connecting the roles of the school district and the city in jointly seeking to increase walking and biking to school. It is intended to complement and support the work and planning already completed, while also capturing all the factors that influence choices about transportation. The plan builds on the infrastructure improvements previously identified, but also addresses the other four areas of ARTS including policy and programming.

Edina has already taken a number of significant steps to improve walking and bicycling in the community, including:

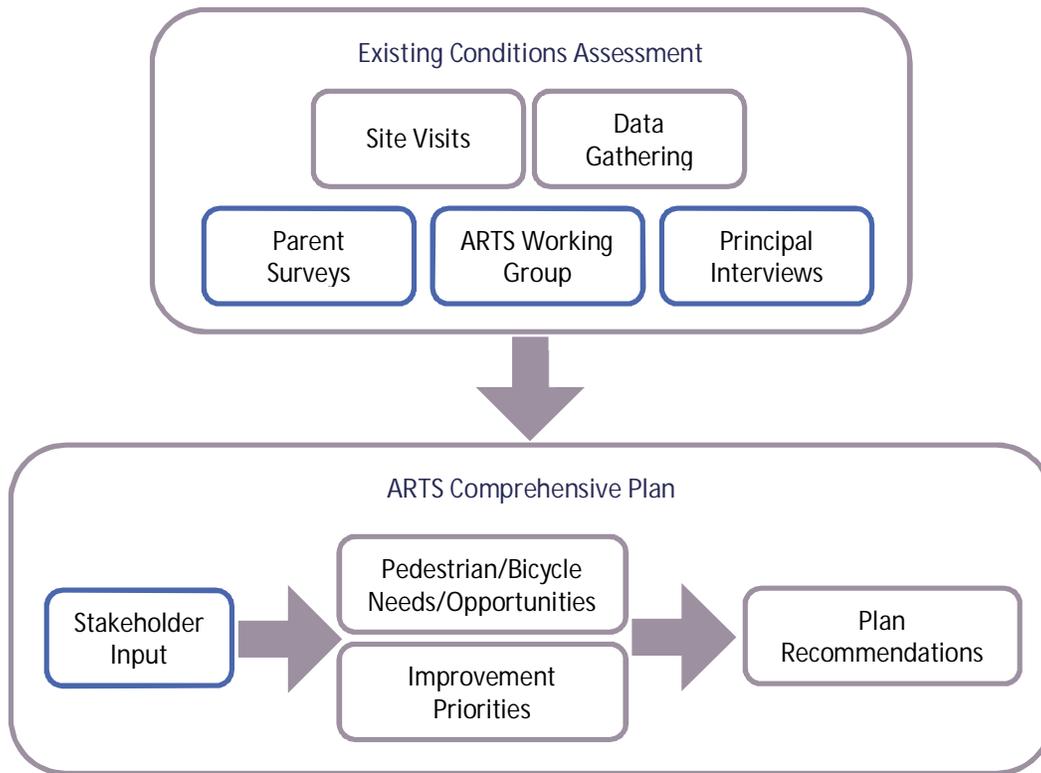
- Established a bicycle task force.
- Completed the Bicycle Transportation Plan (2007). Implementation of the plan is underway.
- Created a sidewalk map as part of the City's Comprehensive Plan (2008). Implementation of the plan is underway.
- Completed and implemented the Edina Schools Speed Zone Study (2009).
- Created the Pedestrian and Cyclist Safety (PACS) Fund (2012) through franchise fees on gas and electricity. The fees are estimated to generate more than \$1 million per year.
- Hired a Transportation Planner whose primary role is to administer the PACS Fund (2013).
- Adopted a Living Streets Policy and formed an on-going advisory committee to guide Living Streets Plan development (2013).



The benefits of a comprehensive ARTS plan are to provide an all-inclusive picture of the needs throughout the school district and community, allowing for programming and prioritization. In addition, it provides the opportunity to address district and city policies and programs related to walking and biking, and having a plan puts the agencies in a favorable position when applying for funding. At the school and neighborhood level, increased walking and biking to school has been shown to improve student health and academic performance, reduce traffic congestion around the school, and thereby also improve air quality and reduce traffic noise.

Project Process

This plan was developed with input from the key ARTS stakeholders in Edina, including school staff, parents, school district staff, city staff, and students. The initial phases included significant data collection and assembly, along with site observations at each school, discussions with stakeholders, and development of recommendations.



Recommendations

The following sections present the recommendations of the Comprehensive ARTS Plan to increase walking and biking to schools in Edina. Some recommendations could be feasibly implemented in the next year, while others may require longer timelines due to policy changes or funding. Each measure has been classified according to the agency that would lead its implementation.



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City of Edina Improvements

- Provide enforcement in school zones
- Establish city policy for crosswalk markings
- Modify ordinance language to allow bicycling on sidewalks
- Evaluate effectiveness of school speed zone signing and establish city policy for use of school speed zones
- Construct pedestrian ramps at W 72nd Street/ Oaklawn Avenue
- Construct sidewalk on 58th Street east of Wooddale Avenue
- Construct sidewalk or trail on Interlachen Boulevard
- Obtain easement and construct sidewalk connection from Oaklawn Avenue to Parklawn Avenue
- Construct sidewalk connection from Ayrshire Boulevard to Highlands Elementary
- Construct sidewalk on Valley View Road, Tracy Avenue, and Gleason Road
- Construct sidewalk on Sun Road, Arbour Avenue, and Olinger Boulevard
- Construct sidewalk on Benton Avenue
- Construct sidewalk on Claremore Drive, Kellogg Avenue, and Wooddale Avenue
- Construct sidewalk on Cornelia Drive from 70th Street to 66th Street

Edina Public Schools Improvements

- Improve bicycle parking at Edina High School and Valley View Middle School
- Improve bicycle parking at Highlands Elementary
- Continue or initiate site-level walking and biking activities
- Develop a walking and biking section of the school district website
- Create a program to improve bicycle parking at all schools
- Designate a district Active Routes to School coordinator
- Incorporate language regarding walking and biking to school into the district wellness policy
- Incorporate walking and biking safety education into the physical education curriculum
- Reconstruct and narrow the driveways at Cornelia Elementary School

Joint City-District Improvements

- Establish a permanent Active Routes to School working group or task force
- Create a pedestrian and bicycle safety public education campaign
- Continue student travel tallies on at least a yearly basis
- Address safety and traffic issues on Valley View Road at Edina High School/ Valley View Middle School

Based on its past planning and active efforts to improve its bicycle and pedestrian facilities, Edina is well-positioned to implement infrastructure improvements and effect the cultural and policy changes necessary to see long-term shifts in travel behavior.

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Introduction

Walking and biking to school in the United States has decreased dramatically, from over 60 percent in the 1960s to an average of less than 10 percent today. This reduction in active transportation, and corresponding increase in vehicular transportation, negatively affects students' health, vehicle congestion, traffic safety, and environmental quality around schools. In Hennepin County, only 24 percent of children age 6 to 17 years get the minimum amount of physical activity recommended by the Centers for Disease Control.^{1,2}

To reverse this decades-long trend of decreased walking and biking, the nationwide Safe Routes to School (SRTS) initiative was created to increase walking and biking to school through the implementation of each of the five "E's":

- Education – Teaching children to walk and bike safely
- Encouragement – Developing programs that get children excited about walking or biking to school
- Enforcement – Having law enforcement support along the designated routes to school
- Engineering – Identifying infrastructure barriers to walking and biking
- Evaluation – Measuring the effectiveness of the various components of the SRTS project

Locally, walking and biking projects have been initiated and funded through federal transportation funds, as well as the Statewide Health Improvement Program (SHIP). SHIP is dedicated to promoting active living in communities throughout Minnesota, with the goal of reducing obesity and preventing disease.

The purpose of this Comprehensive Active Routes to School Plan (ARTS) is to document the existing walking and biking environment in Edina, identify opportunities and priorities to increase walking and biking to schools, and develop an implementation plan for making the improvements. The comprehensive nature of the plan provides an overall view of the needs and priorities in the community.

Nationwide, the efforts to increase the number and safety of students walking and biking to school is generally referred to as "Safe Routes to School". However, this can be a misleading term as no route can truly be made to be "safe." In addition, the plan addresses many aspects of active transportation, of which safety is only one component. Therefore, Edina has chosen to identify the scope of activities related to walking and biking to schools as "Active Routes to School". This name more accurately describes the focus of the plan and its desired outcomes.

Background

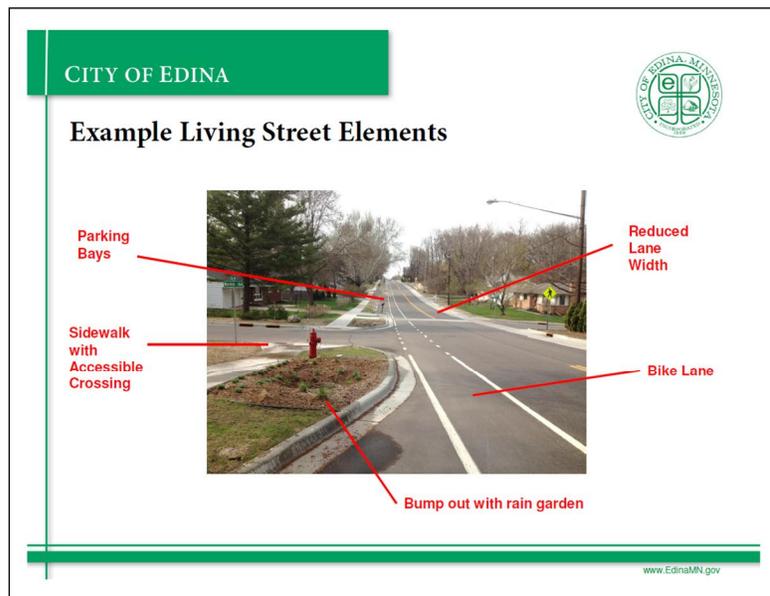
The City of Edina has taken a number of significant steps to improve walking and bicycling in the city, including:

- Established a bicycle task force.
- Completed the Bicycle Transportation Plan (2007). Implementation of the plan is underway.



- Created a sidewalk map as part of the City's Comprehensive Plan (2008). Implementation of the plan is underway.
- Completed and implemented the Edina Schools Speed Zone Study (2009).
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This Active Routes to School Plan plays an important function of connecting the roles of the school district and the city in jointly seeking to increase walking and biking to school. It is intended to complement and support the work and planning already completed, while also capturing all the factors that influence choices about transportation by building on the infrastructure improvements previously identified, but also addressing the other four areas of ARTS including policy and programming. The benefits of a comprehensive ARTS plan are to provide an all-inclusive picture of the needs throughout a school district or city, allowing for programming and prioritization. In addition, it provides the opportunity to address district and city policies and programs related to walking and biking, and having a plan puts the agencies in a favorable position when applying for funding. At the school and neighborhood level, increased walking and biking to school has been shown to improve student health and academic performance, reduce traffic congestion around the school, and thereby also improve air quality and reduce traffic noise.



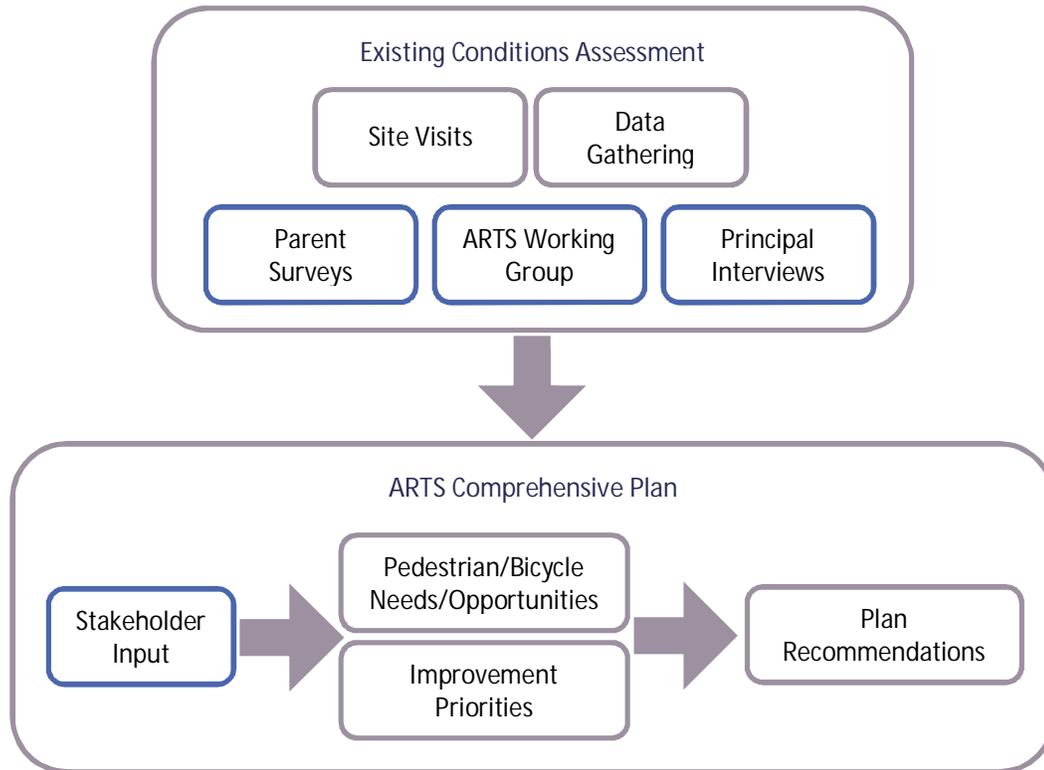
*Edina adopted a Living Streets Policy in 2013 to balance the needs of motorists, bicyclists, pedestrians and transit riders.
Source: City of Edina, 2013*

Project Process

This plan was developed with input from the key ARTS stakeholders in Edina, including school staff, parents, school district staff, city staff, and students. The initial phases included significant data collection and assembly, along with site observations at each school, followed by evaluations, and



development of recommendations. Stakeholder input was gathered at several key points in the process, as highlighted in the diagram below.



Existing Conditions Assessment

The City of Edina encompasses approximately 16 square miles and has a population of nearly 48,000 residents as of the 2010 census. Edina is a first-ring suburb of Minneapolis, and as such, is a fully developed city. However, some of the aspects that have made Edina an attractive city in which to live and work – access to regional transportation facilities (TH 62, TH 100 TH 169, I-494), natural amenities such as lakes and parks, and irregular street network in some areas – also can make it challenging for non-motorized transportation. The following sections document the evaluation of the existing conditions for walking and bicycling to schools in Edina.

Student Data

The Edina School District serves nearly 8,300 students in six elementary schools, two middle schools, and one high school. Walk boundaries for each school, which are established by the school district, set the distance within which students are not provided bus transportation. These boundaries for the Edina School District are generally 0.7 mile for elementary schools, and one mile for middle and high schools. However, within these radii students may be provided bus transportation based on hazardous

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transportation conditions on the route to school, such as crossings of high volume or high speed roadways. The identification of hazardous transportation conditions is established by the school district, per Minnesota State Statute. On a district-wide basis, approximately 16 percent of students live within the walk boundary of their school. A more detailed summary for each school is shown in Table 1. The students who live within the walk boundary represent the greatest opportunities for increasing walking and biking.

Table 1. Edina Students within Walk Zone Boundaries

School	Total Enrollment	Students		
		Within Walk Boundary	Open Enrolled	Provided Bus Transportation
Concord Elementary	730	22%	10%	68%
Cornelia Elementary	550	30%	13%	57%
Countryside Elementary	580	24%	29%	53%
Creek Valley Elementary	610	10%	9%	81%
Highlands Elementary	560	12%	8%	80%
Normandale Elementary	640	9%	7%	84%
South View Middle School	1,290	19%	17%	74%
Valley View Middle School	1,360	17%	14%	69%
Edina High School	1,970	10%	18%	72%
Total	8,290	16%	15%	69%

Student travel tallies were conducted for all kindergarten through eighth grade classrooms in the district in fall 2012 using the National Center for Safe Routes to School standard tally forms. The results of the tallies showed that an average of 10.5 percent of elementary students and 12 percent of middle school students walked or biked to school. The predominant mode at all sites was School Bus, followed by Family Vehicle. Nearly 30 percent of all students arrive to or from school by Family Vehicle, which accounts for significant volumes of traffic at each of the school sites. Table 2 shows the average mode results by school. A breakdown of mode for travel to and from school for each site is included in the Appendix. Counts of pedestrians and bicyclists were also conducted as part of the field observations at each site, which are described further in the next section.



Table 2. Edina Student Travel Tallies

School	Modes To/From School					
	Walk	Bike	School Bus	Family Vehicle	Carpool	Other
Concord Elementary	8%	6%	55%	28%	3%	0%
Cornelia Elementary	10%	5%	47%	27%	2%	9%
Countryside Elementary	11%	2%	47%	38%	2%	0%
Creek Valley Elementary	6%	6%	60%	27%	1%	0%
Highlands Elementary	4%	0%	61%	31%	3%	1%
Normandale Elementary	6%	1%	58%	32%	2%	1%
South View Middle School	9%	1%	57%	30%	1%	2%
Valley View Middle School	13%	1%	60%	24%	2%	0%

A parent survey, developed by the National Center for Safe Routes to School, was conducted in June 2013 with 369 responses. The survey questions are directed at concerns and attitudes related to walking and biking, and parents’ perceptions of barriers to walking and biking. As shown in Table 3, for both elementary and middle school students the most-cited reasons by parents for not regularly walking or biking to school were traffic or infrastructure related (amount of traffic, speed of traffic, intersection safety, and presence of sidewalks/pathways). However, starting at the middle school level and especially for the high school level, distance was a significantly more important factor. The age at which parents said they would allow their child to walk or bike to school without an adult was 4th to 6th grade.

In the comments section of the survey, the following topics were mentioned five or more times:

- Need for sidewalks or paths (34 comments)
- Safety concerns along or crossing Wooddale Avenue (13 comments)
 - Wooddale Avenue/ 50th Street intersection (6 comments)
- Heavy backpacks, band instruments, or sports bags make walking or biking not feasible (11 comments)
- Safety concerns along Valley View Road (8 comments)
- Need for increased enforcement (7 comments)
- Safety concerns along 58th Street, specifically need for sidewalk (6 comments)
- Safety concerns along Tracy Avenue (5 comments)

A full summary of the survey results is included in the Appendix.



Table 3. Issues that Affect Decision to Walk or Bike

	Percent of Respondents Identifying Issue											
	Distance	Convenience of Driving	Time	Before or After School Activities	Speed of Traffic Along Route	Amount of Traffic Along Route	Adults to Walk or Bike With	Sidewalks or Pathways	Safety of Intersections and	Crossing Guards	Violence or Crime	Weather or Climate
Elementary Schools	9%	1%	3%	4%	14%	16%	6%	14%	15%	3%	5%	7%
Middle Schools	10%	2%	7%	7%	12%	14%	1%	12%	16%	1%	5%	10%
High School	20%	5%	12%	9%	17%	17%	1%	15%	20%	5%	7%	14%

Input was also gathered from the Edina High School Student Council about the reasons students choose their mode of travel to and from school. While K-8 students are most often the focus of ARTS efforts, because they are the most vulnerable population, high school students also face challenges to walking and biking to school. Understanding these challenges will help the city and school district address the issues unique to high school students and the high school campus. The Student Council identified the following key concerns that impacted their ability or willingness to walk or bike to school:

- Having sidewalks to walk or bike on, particularly on higher volume roadways.
- The illegality of riding bicycles on sidewalks in Edina.
- The availability of secure bicycle parking at school.
- The need for walking and biking education, for parents, as well as students.
- School schedule, specifically “zero hour” that begins at 7:30 am. Students with zero hour do not have the option of riding the bus to school, and students walking or biking to school at this time would be doing so in the dark during some months of the year.



Current bicycle parking at Edina High School



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Safety

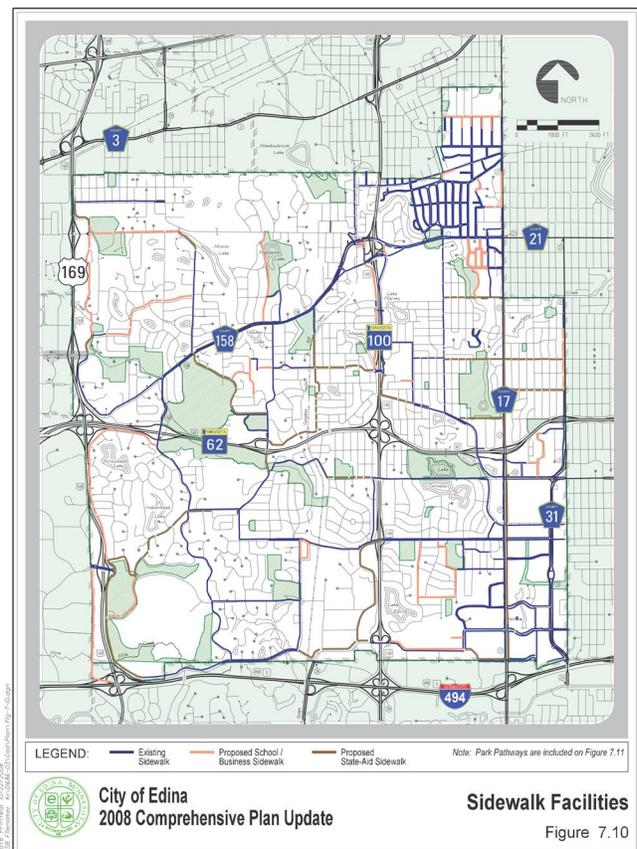
The pedestrian and bicycle crashes within the City of Edina in the past 10 years (2003-2012) were reviewed to identify the crashes involving school-age children.³ This analysis provides a picture of the overall safety of pedestrians and bicyclists in Edina, but also is used as a comparison to identify key locations or areas where crashes involving young pedestrians and cyclists are of greatest concern. Over the 10-year period, there were 60 bicycle crashes and 27 pedestrian crashes reported in the city, which represents approximately 3 percent of all crashes occurring on the local roadway network (i.e., excluding the freeway system) during that time period. More than 30 percent of the pedestrian and bicycle crashes in Edina involve a pedestrian or bicyclist under the age of 18, with the 14-15 year old age group being most over-represented (approximately 11 percent of all pedestrian and bicycle crashes in the city). This indicates a potential need for increased safety education at the elementary and middle school levels, to give children the skills to safely walk and bike in the community.

Note that in the following sections discussing infrastructure and safety at each school site, there may be references to the number of crashes within a specific school's walk zone and that these numbers may include some of the same crash incidents under multiple school sites if their walk boundaries overlap.

Infrastructure

Edina has an existing network of sidewalk and bicycle facilities that connect many of the key destinations in the city, as shown in Figure 1. However, because the city does not have a grid street system in some areas of the city, many of the facilities that provide bicycle and pedestrian connections also carry high volumes of traffic. The routes for bicycles and pedestrians can also be very circuitous due to the established street network. The City of Edina provides winter maintenance and snow clearing on all public sidewalks along designated State Aid roadways, within Public School Zones, along parks, and within major business districts. The clearing of all other sidewalks in the city are the responsibility of the adjacent property owner.

As noted in the Comprehensive Bicycle Transportation Plan, and further described in the site evaluations, the provision of bicycle parking at Edina Public Schools is generally



Sidewalk map from 2008 City of Edina Comprehensive Plan



deficient in terms of the number of spaces, their location, and the design of the racks that does not easily allow bicycles to be securely parked.

In addition to a citywide review of infrastructure and safety, observations were conducted during school arrival and dismissal to evaluate the condition of the infrastructure, gather data on existing walking and biking numbers, and also identify the primary walk/bike routes to each school. Existing conditions for each school site are provided in Figures 2-7.

Concord Elementary, Normandale Elementary, and South View Middle Schools

Three schools – Concord Elementary, Normandale Elementary, and South View Middle School – share a continuous site bounded by Normandale Road (Trunk Highway 100) to the west, South View Lane to the north, Concord Avenue to the east, and School Road to the south. Although each school operates independently within the district, they share much of the same infrastructure and therefore have some of the same challenges. Therefore, the site evaluations, observations, and recommendations were conducted and considered as a whole.

Concord Elementary School has approximately 730 students and Normandale Elementary has approximately 640 students in kindergarten through 5th grade. The school day is from 8:35 AM to 3:05 PM at both schools. South View Middle School has 1,290 students in grades 6-9, and the school day is from 7:45 AM to 2:40 PM. There are more than 2,600 students traveling to and from this site in approximately a one-hour period in the morning and afternoon.

In terms of infrastructure, Normandale Road, South View Lane, and Concord Road around the perimeter of the site have existing sidewalk. In 2013 a new sidewalk segment was constructed on School Road along the south side of Concord Elementary to fill in a gap in the sidewalk network around the school complex. The construction of this sidewalk segment eliminates the issue of pedestrians walking in the roadway from Concord Avenue to the school entrance.



New sidewalk on School Road next to Concord Elementary, constructed in 2013

School crossing signing and high visibility crosswalk markings are installed at several key intersections around the school sites, as shown in Figure 2. All-way stop control was also recently installed on Concord Avenue at W 58th Street, which is a major crossing for pedestrians and bicyclists due to the sidewalk on W 58th Street as well as its location near the middle school entrance. There are also push button-activated pedestrian flashers, along with the crosswalk, at the Concord Avenue crossing of Valley View Road due to the higher traffic volumes and speeds on that roadway. School speeds zones that lower the posted speed limit to 15 miles per hour (mph) are posted on

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Normandale Road, South View Lane, Concord Avenue, and School Road. These zones were installed in 2009 following a study of all the school sites in Edina. The posted zones are in effect when children are present.

In terms of bicycle infrastructure, Normandale Road, South View Lane, and Concord Avenue north of W 58th Street/Benton Avenue are identified in the city's Comprehensive Bicycle Plan as primary bicycle routes and south of W 58th Street/Benton Avenue as secondary bicycle routes. There are not currently on-street or off-street bicycle facilities on these roadways.

Bicycle parking is provided near all three school buildings, and is generally located conveniently next to sidewalks and paved areas. However, the racks at Concord and South View are located in unpaved areas that may become difficult to access in wet or snowy conditions and are not easily visible from the school office or classrooms. Best practices for bicycle parking at schools would locate the racks within 150 feet of an entrance, in a paved area, and easily visible from inside the school building. Many of the racks are also older styles that require the bicycle wheel to be locked to the rack, rather than the bicycle frame, which can result in a higher likelihood of vandalism or damage to the bicycle.



Existing bicycle parking at South View Middle School

In addition to the infrastructure, pedestrian and bicycle crashes were reviewed for a 10-year period (2003-2012) within 0.7 miles of the elementary schools and 1.0 mile of the middle school to identify any potential safety issues within the walk radius, but away from the main school campus. A total of 10 bicycle crashes and five pedestrian crashes were reported, with four involving a pedestrian or cyclist under 18 years old. This is a higher rate than seen citywide, which may be in part due to the amount of pedestrian and bicycle activity in this area.

Observations were conducted at the site in November 2012 and April-May 2013 during the arrival and dismissal periods to evaluate the safety and operations for pedestrians and bicyclist at each school, which are summarized in the following sections.

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Concord Elementary School

The primary walking and biking routes to school were observed to be to and from the north along Concord Avenue and to the east on W 59th Street. Student school patrols are posted at the intersections of Concord Avenue/W 59th Street and Concord Avenue/School Road to assist with crossings, since nearly all students walking or biking to school must cross the bus and family vehicle traffic traveling to and from the school. Approximately 20-30 students were observed walking and 30-40 students were observed bicycling to school on good weather days, accounting for nearly 10 percent of the school population. Concord has organized and participated in past National Walk and Bike to School events, with many families choosing to bike. During one observation, the bicycle racks at Concord were nearly parked to capacity.



Bicycle parking at Concord Elementary during Bike to School Week in May 2013

The school's west parking lot is used for bus loading and unloading, and the east parking lot is designated for family vehicles. The queue of vehicles waiting to pick-up/drop-off students often spills out of the parking lot and onto School Road, which creates challenges particularly for students walking or biking from the south that must cross the line of vehicles to get to the school. During the day, only the main entrance of the school is open, and the lack of sidewalk on School Road or on the school site between the parking lot and main entrance is an issue not only for students walking and biking, but also for visitors to the school.

School staff provided input to the reviews and highlighted several of their concerns with walking and biking at Concord:

- Distracted driving (e.g., due to cell phone use) in the school parking lot is a significant safety issue during arrival and dismissal
- Control of the School Road/Concord Avenue intersection is an issue, even with



Vehicle traffic queued from the parking lot onto School Road



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the school patrols, due to the amount of activity and the current intersection control with stop signs on School Road only

- Lack of sidewalk on many streets is a major barrier to walking or biking for many families.

Normandale Elementary School

Due to its location adjacent to TH 100 and its role as a French immersion school, Normandale has the lowest percentage of its students living within the walk boundary of any school in the district. As a result, fewer than 10 students were observed biking to school and approximately 10-15 students were observed walking to school. This represents less than five percent of the population of the school. The primary routes were to and from the north along Normandale Road, St. Andrews Avenue, and Concord Avenue. Two students were observed to utilize the pedestrian bridge to cross to the west side of TH 100. Normandale does not operate a school patrol and has not participated in National Walk and Bike to School Days in the past.

The available bicycle parking at Normandale consists of one rack located near door 8, which is on the east side of the building at the Community Center entrance, and one rack at the north entrance. These locations are not visible or convenient to the main entrances of the school.

The school principal and administrative staff indicated that students are not encouraged to walk or bike to Normandale. Most students are bussed, with 14 buses serving the school, but there is also a significant volume of family vehicles each day. Buses primarily use Normandale Road for loading and unloading, but some also use the driveway on South View Lane. Parent traffic is directed to use the parking lot and circular drive on the south side of the school, but due to the volume of traffic the queue during afternoon dismissal often spills out of the parking lot and onto Normandale Road, which can impact the bus traffic as well.

South View Middle School

A relatively large number of students currently walk and bike to South View Middle School. During the on-site observations, as many as 90 students were observed walking to and from school and as many as 40 students were observed bicycling. This represents approximately 10 percent of the student population, or about half the number of students that live within the walk zone. The primary routes for both walkers and bicyclists were south on Concord Avenue, east on W 58th Street, and north on Concord Avenue. South View sometimes operates a school patrol at the South View Lane/St. Andrews Avenue intersection, which is staffed by the



Traffic on South View Lane during arrival



assistant principal and students who have been assigned to crossing duty. The school has tried to recruit parents to serve as regular crossing guards on South View Lane, but had only one parent volunteer. The volume and speed of vehicles on South View Lane, as well as drivers' disregard for the school patrols, are a frequent source of concern and complaints by parents.

The bicycle racks at South View are located near the south parking lot, along Concord Avenue, but are in a grassy area. The visibility of the racks behind the building, along with the style of racks that do not allow for locking the frame of the bicycle to the rack, do not provide very secure bicycle parking. School staff reported that at times there is also insufficient capacity in the existing racks.

Buses load and unload students primarily in the south parking lot. Parents are directed to use the west parking lot, between South View and Normandale, for pick-up and drop-off, but a significant number instead use South View Lane and St. Andrews Avenue.

Input from school staff raised a number of additional concerns at the school, including enforcement of the school speed zones, the need for additional sidewalk and bicycle infrastructure, and the desire for traffic calming on South View Lane.

Cornelia Elementary School

Cornelia Elementary School has approximately 550 students in kindergarten through 5th grades. The school day runs from 9:20 am to 3:50 pm. The walking and biking infrastructure around the school includes sidewalk along W 70th Street, Cornelia Drive and portions of W 72nd Street. School crossing signing and high visibility crosswalk markings are installed at several key intersections around the school site, as shown in Figure 3. The designated school crossings all have pedestrian ramps, except for the W 72nd Street/Oaklawn Avenue intersection. The signalized intersection of W 70th Street/Cornelia Drive is signed No Turn On Red due to the vehicle/pedestrian conflicts, especially during school arrival and dismissal. School speed zones were posted in 2009 on Cornelia Avenue and W 70th Street as a result of the School Speed Zone Study.

The segment of W 70th Street from France Avenue to TH 100 was reconstructed in 2011 to include a three-lane roadway section with on-street bicycle lanes and sidewalk on both sides of the roadway. The posted speed limit was also reduced from 30 mph to 25 mph as part of the project. In addition to the school speed zone and school crossing on W 70th Street near Cornelia, there is also a signed pedestrian crossing with flashers at W 70th Street/Wooddale Avenue. Cornelia Drive north of W 70th Street is signed and has on-street markings as a bicycle boulevard and is



Reconstructed W 70th Street with improved pedestrian and bicycle facilities



identified a primary bicycle route in the Edina Comprehensive Bicycle Transportation Plan.

Bicycle parking at Cornelia is located on the west side of the school, near the playground. Although the bicycle racks are located on a concrete pad, which is beneficial for providing convenient parking during wet conditions, the racks are not visible from the school building and are not easily accessible from the main school entrances. The racks are also older styles that require the bicycle wheel to be locked to the rack, rather than the bicycle frame, which can result in a higher likelihood of vandalism or damage to the bicycle.

Pedestrian and bicycle crashes were reviewed for a 10-year period (2003-2012) within 0.7 miles of the school to identify any potential safety issues within the walk radius. A total of eight bicycle crashes and five pedestrian crashes were reported, with four involving a pedestrian or cyclist between 15 and 18 years old. Approximately half the crashes occurred during the summer months (June-August) and half during the rest of the year. The rate of crashes involving 15 to 18 year-old pedestrians and bicyclists in this area is higher than seen citywide.

During observations in November 2012, approximately 50 students were observed walking and 5 students were observed bicycling to and from school, representing about 10 percent of the student population. However, this is a relatively small portion of the 30 percent of students that live within the walk zone. The primary routes are to the north and south on Cornelia Drive, however the sidewalk on Cornelia Drive ends just north of W 70th Street. There is also a lack of sidewalk infrastructure to the west of the school.

Buses load and unload in the main parking lot on the south side of the school. Family vehicles occupy the driveway on the east side of the school, both sides of Cornelia Drive near the school entrance, and also some parts of the south parking lot. The school driveway entrances are very wide and were observed to be the source of conflicts and right-of-way confusion between pedestrians and vehicles, even when the school patrol was present to assist with the crossings of the driveways. Vehicles leaving the school and turning left onto westbound W 70th Street also created conflicts with the school patrols and the pedestrians crossing W 70th Street.



Wide crossing of the school driveway creates potential vehicle/pedestrian conflicts

Cornelia has participated in past National Walk to School Day events, which was promoted through physical education classes, and has hosted the district bike rodeo for the past two years.



In addition to the issues observed during the on-site evaluations, school staff identified several other walking and biking concerns including the lack of sidewalk on Cornelia Drive north of W 70th Street and the need for a sidewalk or trail connection from the Parklawn neighborhood to the school.

Countryside Elementary School

Countryside Elementary School has approximately 580 students in kindergarten through 5th grades. The school day runs from 9:20 am to 3:50 pm. The walking and biking infrastructure around the school includes sidewalk along the east side of Tracy Avenue and north side of Benton Avenue. School crossing signing and high visibility crosswalk markings are installed at several key intersections around the school, as shown in Figure 4. A 15-mph school speed zone was posted in 2009 on Tracy Avenue as a result of the School Speed Zone Study.



Reconstructed Tracy Avenue with bicycle lanes and high visibility crosswalks

The segment of Tracy Avenue from Vernon Avenue to Benton Avenue was reconstructed in 2012 to include a two-lane roadway section and on-street bicycle lanes and sidewalk on the east side of the roadway. The posted speed limit was also reduced from 30 mph to 25 mph as part of the project. In addition to the school speed zone and school crossing on Tracy Avenue near Benton Avenue, there are also signed pedestrian crossings of Tracy Avenue at Grove Street, Warden Avenue, Hawkes Drive, and Hawkes Place and a dynamic driver feedback (YOUR SPEED) sign. Tracy Avenue and Benton Avenue east of Tracy Avenue are identified as primary bicycle routes in the Edina Comprehensive Bicycle Transportation Plan.

Bicycle racks at Countryside are located on the southeast corner of the school and near the front entrance. Both locations are placed on concrete pads adjacent to sidewalk and were specifically situated to eliminate potential conflicts with vehicles entering the site. However, both racks are older styles that require the bicycle wheel to be locked to the rack, rather than the bicycle frame, which can result in a higher likelihood of vandalism or damage to the bicycle.

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Pedestrian and bicycle crashes were reviewed for a 10-year period (2003-2012) within 0.7 miles of the school to identify any potential safety issues within the walk radius. A total of four bicycle crashes and zero pedestrian crashes were reported, with one involving a bicyclist between 15 and 18 years old and one crash involving an 11 year old bicyclist (i.e., elementary school age). All of the crashes occurred at intersections along or near Vernon Avenue.

During observations in April and May 2013, approximately 50 students were observed walking and 10 students were observed bicycling to and from school, representing about 10 percent of the student population. The primary routes are to the east and west on Benton Avenue, and north and south on Tracy Avenue. All pedestrians and bicyclists traveling on Tracy Avenue or east on Benton Avenue must cross at the Tracy Avenue/Benton Avenue intersection, which has significant traffic volumes, so there is an adult crossing guard with a stop paddle at the intersection to assist with the crossings before and after school.

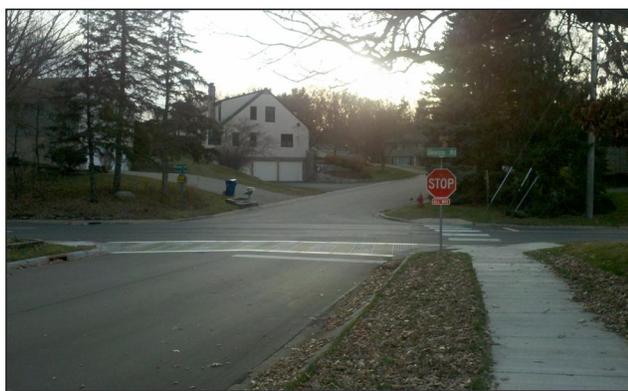
Bus load and unload in the main parking lot on the north side of the school. Family vehicles occupy the parking lot on the east side of the school and the west side of Tracy Avenue. Much of the vehicle traffic to and from the school site also travels through the Tracy Avenue/Benton Avenue intersection.

Countryside has participated in past National Walk to School Day events, which was promoted through the school newsletter and in classrooms. Input from school staff indicated that the school's Site Council and Kids Council are active and open to supporting or promoting future walking or biking events. There may also be opportunities to incorporate walking and biking activities or education into the Kids Club before/after school care. Of the six elementary schools in Edina, Countryside was observed to have the one of the strongest cultures and support structure for walking and biking to school.

Creek Valley Elementary School

Creek Valley Elementary School has approximately 610 students in kindergarten through 5th grades. The school day runs from 9:20 am to 3:50 pm. The walking and biking infrastructure around the school includes sidewalk along the east side of Gleason Road and north side of Creek Valley Road. School crossing signing and high visibility crosswalk markings are installed at the Gleason Road/Creek Valley Road intersection, as shown in Figure 5. A 20-mph school speed zone is posted on Gleason Road and a 15-mph school speed zone is posted on Creek Valley Road as a result of the School Speed Zone Study. Gleason Road is also identified as a primary bicycle route in the Edina Comprehensive Bicycle Transportation Plan.

The segment of Creek Valley Road east of Gleason Road was reconstructed in 2012, and sidewalk was added on the north side



New sidewalk and enhanced crosswalks on Creek Valley Road



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of the roadway. A segment of sidewalk was also recently added on the school site, on the south side of the family pick-up drive, to eliminate conflicts between pick-up/drop-off traffic and pedestrians walking from Gleason Road to the school building. This sidewalk segment was funded by the school's Parent Teacher Association.

Bicycle racks at Creek Valley are located on the south side of the school near the playground. The racks are appropriately placed on concrete pads near the back entrance to the school, and are a newer style that allow for locking the bicycle frame rather than the wheel. However, there are not any bicycle racks located near the front entrance of the school.

Pedestrian and bicycle crashes were reviewed for a 10-year period (2003-2012) within 0.7 miles of the school to identify any potential safety issues within the walk radius. A total of one bicycle crash and three pedestrian crashes were reported, with two involving pedestrians between 15 and 18 years old. This is likely due to the proximity of Creek Valley to Edina High School.

During observations in November 2012 and May 2013, approximately 30 students were observed walking and five students were observed bicycling to and from school, representing about six percent of the student population compared with the 10 percent that live within the walk zone. The primary walking and bicycling routes are to the south on Gleason Road and to the east and west on Creek Valley Road. No students were observed traveling to the north on Gleason Road. Student school patrols were stationed at the Gleason Road/Creek Valley Road intersection. A number of conflicts were observed at the intersection between pedestrians and the pick-up/drop-off queue that extends out of the school site and south on Gleason Road through the intersection. Vehicles also queue on Creek Valley Road east and west of the intersection after school.

Buses load and unload in the main driveway on the west side of the school. Family vehicles occupy the circular driveway on the southeast side of the school, but frequently spill onto the adjacent roadways during the school dismissal period.

Creek Valley has had the most active walking/biking program of any of the schools in the district. The school's Wellness Committee started and continues to support weekly "Walking Wednesdays" during good weather months and holds an annual fun walk/run event before school in May. The school also has participated in National Walk to School Day. Input from school staff indicated that the high school traffic and the lack of connection to students living in the neighborhoods near Tracy Avenue makes walking and biking less favorable to students.

Highlands Elementary School

Highlands Elementary School has approximately 560 students in kindergarten through 5th grades. The school day runs from 9:20 am to 3:50 pm. The walking and biking infrastructure around the school includes sidewalk along one side of Doncaster Way and a trail on the south side of Vernon Avenue. Most of the streets near the school do not have sidewalk and the lack of connectivity of the roadway network create barriers to finding safe and relatively direct routes from the neighborhoods to the school building. School crossing signing and high visibility crosswalk markings are installed on Doncaster Way at

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the crossing from the school site to the sidewalk on the west side of the roadway, as shown in Figure 7. A 15-mph school speed zone was posted in 2009 on Doncaster Way as a result of the School Speed Zone Study.

Bicycle racks at Highlands are located in the south corner of the school's parking lot. This is an undesirable location based on the distance and visibility from the building. In addition, the racks are older styles that require the bicycle wheel to be locked to the rack, rather than the bicycle frame, which can result in a higher likelihood of vandalism or damage to the bicycle.

Pedestrian and bicycle crashes were reviewed for a 10-year period (2003-2012) within 0.7 miles of the school to identify any potential safety issues within the walk radius. A total of five bicycle crashes and one pedestrian crash was reported, with one involving a bicyclist between 15 and 18 years old.

During observations in November 2012 and April 2013, approximately 10 students were observed walking and no students were observed bicycling to and from school, representing only two percent of the student population. The primary routes are to the north and south on Doncaster Way. All of the pedestrians and bicyclists must cross the queue of family vehicles to reach the sidewalk and many also cross the vehicle queue again at Doncaster Way. A student school patrol, with an adult supervisor, operates at the Doncaster Way crossing. However, an adult crossing guard is also needed at the crossing of the parking lot/playground entrance where pick-up/drop-off occurs. Some students also walk through the school site to the east, where there is no walkway, path, or public right-of-way, to reach the neighborhoods north of Ayrshire Boulevard.

Buses load and unload in the main parking lot on the west side of the school. Family



Bicycle racks are located in the corner of the parking lot and are in poor condition



During dismissal vehicles queue over pedestrian crossing



vehicles occupy the playground/parking lot on the south side of the school, which extends back to Doncaster Way. There is staff supervision with school patrol flags at the pick-up/drop-off area.

In the past, Highlands had a parent group that met for two years and worked to hold walking and biking activities. However, due to the very small population of students within the walk zone and number of infrastructure barriers, the group disbanded. The school does participate annually in National Walk to School Day. Input from school staff identified the need for a dedicated sidewalk or path on Interlachen Boulevard. A trail was previously proposed as part of an improvement project in 2006, but was not approved. Traffic speeds on Ayrshire Boulevard are also frequently expressed as a safety concern, compounded with the lack of designated pedestrian crossing of Ayrshire Boulevard.

Valley View Middle and Edina High Schools

Valley View Middle School and Edina High School share a site located along Valley View Road. Valley View Middle School has approximately 1,360 students in grades 6 through 9, and Edina High School has approximately 1,920 students in grades 10 through 12, resulting in more than 3,000 students on the site. Due to the topography and wetlands surrounding the site, the only site accesses are from Valley View Road. Valley View's hours are 7:45 AM to 2:30 PM and the high school's hours are 8:30 AM to 3:10 PM. Although each school operates independently within the district, they share much of the same infrastructure and therefore have some of the same challenges. Therefore, the site evaluations, observations, and recommendations were conducted and considered as a whole.

In terms of sidewalk infrastructure, Valley View Road, and Gleason Road north of Valley View Road all have existing sidewalks. However, there is a notable sidewalk gap on Valley View Road west of Gleason Road. This sidewalk segment is identified in the City's comprehensive plan as a future project, but has not yet been programmed for construction.

School crossing signing and high visibility crosswalk markings are installed at several key intersections around the school sites, as shown in Figure 8. The crosswalk parallel to Valley View Road across the schools' eastern driveway is very faded and in need of repainting. There are no marked crosswalks where the sidewalk crosses the other two school driveways. School speeds zones that lower the posted speed limit from to 20 mph are posted on Valley View Road and a short portion of Antrim Road. These zones were installed in 2009 following a study of all the school sites in Edina. The posted zones are in effect when children are present.

In terms of bicycle infrastructure, Gleason Road, Valley View Road, and Tracy Avenue are all identified in the city's Comprehensive Bicycle Plan as primary bicycle routes. Antrim Road and Valley View Road/Tracy Avenue south of TH 62 have on-street bicycle lanes. In addition, the Nine Mile Creek Regional Trail is proposed to be constructed through the area north of the schools and cross TH 62.

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Bicycle parking is generally inadequate considering there are over 3,000 students at the site. Two bicycle racks are located at the southeast corner of the middle school, one bicycle rack is located near door 12 on the east side of the middle school, one bicycle rack is located near the entrance to the Performing Arts Center, and one rack is located near the main entrance of the high school. Most of the racks are in unpaved areas, are not easily visible from the school office or classrooms, and several of the racks do not allow for the bicycle frame to be locked.



Bicycle parking conditions at Valley View Middle School and Edina High School

In addition to the infrastructure, pedestrian and bicycle crashes were reviewed for a 10-year period (2003-2012) within 1.0 mile of the school site to identify any potential safety issues within the walk radius, but away from the main school campus. A total of five bicycle crashes and two pedestrian crashes were reported, with two involving a pedestrian under 18 years old. One crash occurred at the Valley View Road/Chapel Lane intersection at school dismissal and involved a high school aged driver and pedestrian. This location has a number of pedestrian/vehicle conflicts during school dismissal and is an area of safety concern identified by the school, students, parents and residents in the neighborhood.

Observations were conducted at the site in April-May 2013 during the arrival and dismissal periods to evaluate the safety and operations for pedestrians and bicyclist at each school, which are summarized in the following sections.

Valley View Middle School

The primary walking and biking routes to and from school were observed to be to and from the east and west along Valley View Road, with the greatest number of students traveling to and from the east. A few also walked to the north, across the fields, towards Creek Valley Elementary School. Students who walked to the west were observed walking from the school building diagonally across the parking lot towards Valley View Road. This is the most direct walking route, but results in pedestrian/vehicle conflicts and safety concerns in the parking lot and at the parking lot exit onto Valley View Road. A trained traffic monitor (school staff) typically directs traffic and assists with pedestrian and bicycle crossings at the Valley View Road/Antrim Road intersection before and after school. Approximately 120



students were observed walking, but less than 10 students were observed bicycling to school. While this is a large number of pedestrians, this represents slightly less than 10 percent of the student population.

The school's east parking lot is used for bus loading and unloading, and the southwest parking lot (near the high school) is designated for family vehicles. Many parents also use the parking lane on the north side of Valley View Road. The queue of vehicles waiting to pick-up students in the parking lot after school often spills out of the parking lot and onto Valley View Road, even when there are parking spaces available in the lot. The large number of school buses exiting the parking lot after school, combined with large volumes of vehicle and pedestrian traffic on Valley View Road result in conflicts, congestion, and the perception of unsafe conditions. There have also been past concerns expressed by parents and students regarding vehicles and buses not stopping at the sidewalk as they exit onto Valley View Road.

Edina High School

The primary walking and biking routes to and from school were observed to be to and from the east and west along Valley View Road, similar to Valley View Middle School. The largest number of students traveled to and from the east. A few also walked to the north, across the fields, towards Creek Valley Elementary School. Approximately 100 to 110 students were observed walking, but less than 10 students were observed bicycling to school. This is a smaller number of pedestrians/bicyclists than the middle school, even though the high school has over 40 percent more students, which is most likely due to the large number of students who drive to school.

Students who walked to the west were observed walking from the school building diagonally across the parking lot towards Valley View Road, crossing through the double queue of vehicles waiting to exit the parking lot onto Valley View Road. There were many pedestrian/vehicle and vehicle/vehicle conflicts observed at the high school exit and at the Chapel Lane intersection. Trained traffic monitors (school staff) typically direct traffic and assist with pedestrian and bicycle crossings at the Valley View Road/Tracy Avenue intersection and at the high school driveway exit onto Valley View Road before and after school. During dismissal, the traffic monitors at the driveway exit stop traffic on Valley View Road to allow vehicles in the parking lot to exit. This causes vehicles to queue in both directions on Valley View and results in pedestrians crossing Valley View Road at Chapel Lane to cross between the queue of westbound vehicles that are queued through the intersection as well as attempting to see a gap in eastbound traffic when those drivers may not be able to see the



Vehicles queue over the school crossing, causing pedestrian conflicts and limited sight lines



pedestrian. In addition, there is right-of-way confusion between pedestrians approaching the driveway on the sidewalk and the line of vehicles exiting the parking lot (i.e., pedestrians do not know if the vehicles are going to stop behind the sidewalk). After school, the queue of vehicles waiting to exit the site extended to the north parking lot and took approximately 15 minutes to clear.

The school's east parking lot is used for bus loading and unloading, and the southwest parking lot (near the high school) is designated for family vehicles. Student parking is in the north parking lot and school administration reported that approximately 400 to 440 student parking permits are issued by the high school, representing more than 20 percent of the student population. The primary safety concerns and issues expressed by school staff were related to the dual lane traffic exiting the parking lot onto Valley View Road and also the conflicts between the driveway traffic and the pedestrian crossing of Valley View Road.

Policy and Programming

City of Edina

As part of the development of this plan, a Safe Routes Working Group was established that includes City of Edina Engineering staff, Edina Transportation Commission (ETC) representatives, Edina School District staff, Bloomington Public Health staff, and an Edina school principal representative. The role of this group is to share information, identify and discuss challenges and opportunities to walking and biking to schools in Edina, and discuss the implementation and prioritization of measures to increase walking and biking to school. The Bike Edina Task Force and the Edina Transportation Commission will continue to play key roles in providing input to the City Council on walking and biking related issues.

The City of Edina has a number of plans and policies in place with specific goals to improve walking and biking in the city. The 2008 City of Edina Comprehensive Plan⁴ contains 10 transportation goals that lay out the vision and objectives for transportation in the community, several of which can directly or indirectly be tied to the goals of Active Routes to School:

Goal 1. Maintain and enhance mobility for residents and businesses through creation and maintenance of a balanced system of transportation alternatives.

Goal 3. Minimize the impacts of the transportation system on Edina's environment and neighborhood quality of life.

Goal 7. Provide multiple travel options for transit users, pedestrians, bicyclists, and rideshare users, as well as for drivers of private automobiles.

The Comprehensive Plan also contains policies relevant to the construction of new roadways:

Pedestrian Facilities

Financing of proposed sidewalks are separated into four categories:



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1. *State Aid. Costs cover any proposed sidewalk located adjacent to a State-Aid designated roadway and are paid 100 percent by State-Aid funds.*
2. *Public School Zone. Costs will be split using 25 percent City funds, 25 percent School funds, and 50 percent Special Property Assessments.*
3. *Destination Zone. Costs will be split between 25 percent City funds and 75 percent Special Property Assessments.*
4. *Local / Low Volume Street Zone. Costs will be financed 100 percent through Special Property Assessments.*

Roadway Design

Policy 4. Design/enhance residential street systems to discourage through traffic and to be compatible with lower speed bicycling and walking. This includes consideration of traffic calming measures on local streets and, in some cases, collector streets.

Policy 5. Design/enhance collector and arterial roadways to minimize through traffic on local streets in the functional classification system, and to be compatible with other transportation modes including transit, bicycle, and pedestrian.

Roadway Maintenance and Operation

Policy 8. Complete speed zone studies and establish speed zones for Safe Routes to School.

However, the funding of sidewalk and bicycle facilities in Edina has changed since the adoption of the Comprehensive Plan. The PACS fund was approved by the Edina City Council in December 2012 to provide dedicated funding to make the community more walkable and bikeable. Revenue for the PACS is generated by a franchise fee ordinance and will be used exclusively for improvements to the City's non-motorized transportation network, including sidewalks, trails, and other bicycle infrastructure. The PACS fund may also be used to maintain existing sidewalks, signing, pavement markings, lighting, and pedestrian crossing signals.

The Comprehensive Bicycle Transportation Plan also contains a number of recommendations that support and complement the Active Routes to School program such as creating a bicycle coordinator position within the city, adopting a Complete Streets policy for street design, improving bicycle parking facilities at Edina public schools, and providing recurring bicycle safety training, education, and encouragement programs in Edina schools. The City of Edina has made progress on these recommendations in the creation of a Transportation Planner position to focus on bicycle and pedestrian infrastructure and adopting a Living Streets policy.

The Comprehensive Plan identifies future sidewalk and bicycle facilities for improvements, which are summarized in Figure 8. However, one of the challenges to implementation of these policies and projects is public opposition. On several past projects in the city, construction of new sidewalks was opposed by residents and was ultimately removed from the proposed projects. In a 2013 survey⁵, a



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majority of residents indicated there are “about the right amount” of sidewalks (58 percent of respondents) and trails/bikeways (83 percent of respondents). Yet the most common issue and concern expressed by school administration and parents is the lack of sidewalk infrastructure to schools. This conflict in public perception is an issue that will continue to be a challenge to implementation of new infrastructure to support walking and biking in Edina.

Edina Public Schools

The Edina School District established a Wellness Policy in 2008 that addresses nutrition guidelines, nutrition education, physical activity, and parent education. Although it does not specifically address walking or biking to school, several of the policy statements align well with the goals of the ARTS program:

II. General Statements of Policy

- A. *The school board recognizes that nutrition education and physical education are essential components of the educational process and that good health fosters student attendance and education.*
- B. *The school environment should promote and protect students' health, wellbeing, and ability to learn by encouraging healthy eating and physical activity.*
- D. *Children need access to healthy foods and opportunities to be physically active in order to grow, learn, and thrive.*
- E. *All students will have opportunities, support, and encouragement to be physically active on a regular basis.*

In addition, the Guidelines within the Wellness Policy provide support for physical activity outside of the school day:

III. Guidelines

E. Communication with Parents

- 2. *The school district will support parents' efforts to provide a healthy diet and daily physical activity for their children.*
- 4. *The school district will provide information about physical education and other school-based physical activity opportunities and will support parents' efforts to provide their children with opportunities to be physically active outside of school.*

The School District also has a Wellness Committee that includes the director of business services, the manager of food services, the director of teaching and learning, the coordinator of health services, and at least three parent representatives. However, there is not a representative of the Transportation Services Department included on the committee.

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A number of localized ARTS activities have also been occurring at the individual school sites, such as participation in International Walk to School Day in the fall and National Bike to School Day in the spring, and hosting of a bike rodeo. Most of the schools have bicycle parking available and the elementary schools operate a school patrol to provide for safe crossings immediately next to the school but the school patrol consists of students which is not a best practice. However, there are not currently district-wide ARTS activities or walking/biking curriculum, and there are varying degrees of infrastructure, support, and encouragement for walking and biking among the various school sites within the district.

Recommendations

The following sections and Figures 9-14 present recommendations to increase walking and biking to schools in Edina. The implementation timeline for each recommendation has been identified (short-term, mid-term, long-term, or on-going) as well as identifying the agencies or organizations that would most appropriately take the lead in implementation. The recommendations identified as short-term are generally actions that could be implemented in the next two years, mid-term improvements are generally considered to require two to four years to implement, and long-term recommendations are expected to require more than four years. Recommendations considered to be long-term may also trigger other processes such as policy changes or identification of significant funding sources. In some cases, the recommendations in this plan support or reiterate projects or recommendations already contained within the Comprehensive Transportation Plan.

Funding of the recommendations is discussed further in the Funding and Implementation section of this report.

Short-Term Improvements

- Improve bicycle parking at Edina High School/Valley View Middle School and Highlands Elementary School. These two school sites were identified as having the most immediate needs for improvements in bicycle parking. The school sites currently have bicycle racks that are in poor condition and not well-located for convenience and security. Racks should be installed in paved areas that are visible and proximate to the main entrances of the schools. A fenced and monitored bicycle corral could also be considered at the same time for the high school and middle school, or this could be implemented as a later phase. *Implementation lead: Edina Public Schools.*



Example of a bicycle corral at Richfield Middle School



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- Address safety and traffic issues on Valley View Road at Edina High School/ Valley View Middle School. Site observations and stakeholder input identified this area as one of the most significant safety concerns in the city. There are multiple conflicting priorities at both sites including bus traffic, parent vehicle queuing, student vehicle parking and traffic, pedestrians, and bicyclists. These issues are complex and although there have been past efforts to improve the conditions, they have not resolved the safety concerns. The City and School District should convene a group of stakeholders to discuss and attempt to find solutions to improve safety for all users of the site. *Implementation lead: City of Edina and Edina School District.*
- Provide enforcement in school zones. Zones establishing lower speed limits around schools were installed in 2009 following a comprehensive study of the school sites in Edina. Some of these locations continue to have driver behavior issues such as failure to yield to pedestrians and speed violations. Regular enforcement and issuing of warnings or citations to drivers that exhibit unsafe behavior or travel even a few miles per hour above the posted school speed limit is one way to improve driver behavior and educate drivers. The city could also consider enacting an ordinance banning use of cell phones (talking or texting) within school zones. Other states and cities that have implemented this type of statute or ordinance include Texas, Arkansas, Illinois, and Kenosha, Wisconsin. Additional research would need to be done to determine whether such an ordinance is allowable under current Minnesota state law. *Implementation lead: City of Edina.*
- Create a pedestrian and bicycle safety public education campaign. Many drivers, pedestrians, and bicyclists do not know or need to be reminded of basic safety rules and practices. *Implementation lead: City of Edina and Bloomington Public Health.*
- Continue student travel tallies on at least a yearly basis to track changes in walking and biking to school. The travel tallies provide an easy way to measure the progress of the SRTS activities. In addition, having current data will support funding applications. *Implementation lead: Edina Public Schools and Bloomington Public Health.*
- Establish a permanent Edina Active Routes to School Working Group. The purpose of the Active Routes committee would be to provide on-going support and organization for walking and biking activities, as well as maintain communication and coordination among each of the agencies that have a role in walking and biking to school (City, School District, Public

Safe Routes to School Students Arrival and Departure Tally Sheet

+ CAPITAL LETTERS ONLY – BLUE OR BLACK INK ONLY +

School Name: _____ Teacher's First Name: _____ Teacher's Last Name: _____

Grade: (PK,1,2,3,...) _____ Monday's Date (Week count was conducted) _____ Number of Students Enrolled in Class: _____

* Please conduct these counts on two of the following three days Tuesday, Wednesday, or Thursday. (Three days would provide better data if counted).
 * Please do not conduct these counts on Mondays or Fridays.
 * Before asking your students to raise their hands, please read through all possible answer choices so they will know their choices. Each Student may only answer once.
 * Ask your students as a group the question "How did you arrive at school today?"
 * Then, read each answer choice and record the number of students that raised their hands for each. Place just one character or number in each box.
 * Follow the same procedure for the question "How do you plan to leave for home after school?"
 * You can conduct the counts once per day but during the count please ask students both the school arrival and departure questions.
 * Please conduct this count regardless of weather conditions (i.e., ask these questions on rainy days, too).

Step 1.		Step 2.							
Fill in the weather conditions and number of students in each class		AM – "How did you arrive at school today?" Record the number of hands for each answer. PM – "How do you plan to leave for home after school?" Record the number of hands for each answer.							
Weather	Student Tally	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other	
Key	S = sunny R = rainy O = overcast SN = snow	Number in class when count made				Only with Children from your family	Riding with children from other families	City bus, subway, etc.	Skate-board, scooter, etc.
Sample AM	S N	2 0	2	3	8	3		3	1
Sample PM	R	1 9	3	3	8	1	2	2	
Tues. AM									
Tues. PM									
Wed. AM									
Wed. PM									
Thurs. AM									
Thurs. PM									

Please list any disruptions to these counts or any unusual travel conditions to/from the school on the days of the tally.

+ _____ +

Travel Tally form created by the National Center for Safe Routes to School



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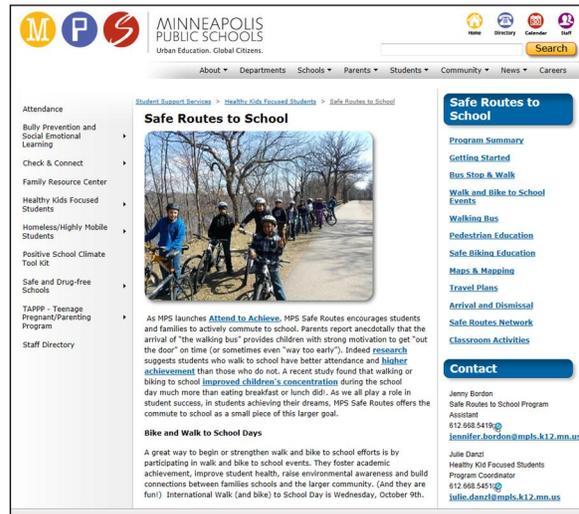
Health, etc.). Some potential activities that the working group may want to consider are planning of a Walk/Bike to School Day, organizing a family walking/biking even outside the school day, and preparation of funding applications. *Implementation lead: City of Edina and Edina Public Schools.*

- Continue or initiate site-level walking and biking activities. The most successful Active Routes programs have site-level champions and leaders that engage teachers, parents, and students in walking and biking activities on an on-going basis. The champion could be a principal, teacher, or parent and consideration should be given to involving these leaders in the Edina Active Routes to School Working Group. Site-level programs and activities could include holding designated weekly or monthly walk/bike to school days, training and scheduling of adult crossing guards, initiation of walking school buses or bicycle trains, organization of classroom competitions for number of miles walked/biked, or similar ideas to encourage increased walking and biking. Additional ideas and resources are available from the National Center for Safe Routes to School, which is included in the Resources section of this plan. *Implementation lead: City of Edina.*

- Develop a walking and biking section of the school district website. Walking and biking should be treated as equal transportation alternatives to riding the school bus. The webpage should list pedestrian and bicycle safety rules and tips and could also contain the school walk/bike maps. The school district's page should also be coordinated and linked to the city's webpage listing walking and bicycling resources.

Implementation lead: Edina Public Schools, with support from Bloomington Public Health Department.

- Establish a citywide policy for crosswalk markings. Minnesota state statute 169.21 states that drivers must stop for pedestrians in a marked or unmarked crosswalk. There are many unmarked crosswalks in Edina, as well as crosswalks marked in one of several styles, including parallel lines (also referred to as transverse markings), zebra (also known as continental markings), and patterned. The zebra crosswalks are considered to be high visibility markings, and have been shown in studies to be detected by drivers further in advance of parallel markings⁶ and may improve pedestrian safety at intersections⁷. However, the high visibility markings are also more costly to install and maintain. A policy establishing criteria for installation of marked crosswalks and for high visibility markings in the city should be created, with locations such as mid-block crossings and school patrolled crossings identified as prioritized locations for high visibility markings. Per the standards in the Minnesota Manual of Uniform Traffic Control Devices (MN MUTCD) and guidance from the Federal Highway Administration (FHWA), patterned pavements or



Example of walking/biking section of Minneapolis Public Schools website

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markings must have two white parallel lines to be considered a marked crosswalk. *Implementation lead: City of Edina.*



Examples of marked crosswalk types

- Incorporate specific language regarding walking and biking to school into the school district wellness policy. The language of the current policy could be strengthened to encourage walking and biking to school as having health benefits, as well as environmental benefits around the school. Having this type of policy can also mitigate potential liability concerns. Several example policies are provided below. The Minnesota Public Health Law Center also has resources and training available to help address this issue, including a summary of liability for schools. This document has been included in the Resources section of the Appendix. *Implementation lead: Edina Public Schools.*
 - National Alliance for Nutrition and Activity: *The school district will assess and, if necessary and to the extent possible, make needed improvements to make it safer and easier for students to walk and bike to school. When appropriate, the district will work together with local public works, public safety, and/or police departments in those efforts. The school district will explore the availability of federal "safe routes to school" funds, administered by the state department of transportation, to finance such improvements.*
 - Clinton Central School District, New York: *Clinton Central School District will work with school board members, parents, and local public works and police personnel to implement a "SAFE ROUTES TO SCHOOL" program in support of walking/biking to school.*
 - Marin County Office of Education, California: *While Marin County has a number of transportation concerns, there has been increasing funding in the County to improve routes for safe walking and biking. Districts should encourage parents and students to walk and bike to school where safe routes are available and assist parents in organizing adult supervised groups. Parent and student groups may also consider assessing walking and biking access to their school and apply for funding to improve this access*
- Modify city ordinance language to allow bicycling on sidewalks. Current city ordinance prohibits bicycle riding on sidewalks anywhere in the city. However, guidance by the National Highway Traffic Safety Administration (NHTSA) suggests that children aged 10 and under do not have the judgment and skills to ride on the roadway. Even many high school aged and adult bicyclists do not feel

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comfortable riding in an on-street facility, particularly on higher volume roadways or where there is not a dedicated bicycle facility. Most municipalities in Minnesota and nationwide do not prohibit riding bicycles on sidewalks, except in specific areas with high pedestrian volumes such as central business districts. To improve the ability for bicyclists of all abilities to comfortably travel through the city, the existing ordinance should be modified to allow for bicycling on sidewalks subject to several conditions, including yielding to pedestrians, riding at lower speeds, and not riding on sidewalks where posted. *Implementation lead: City of Edina.*

- Incorporate walking and bicycling safety education into the physical education curriculum. Walking and bicycling safely are life-long skills for a healthy lifestyle. Students should receive education and training about how to safely walk and bicycle to school, with or without sidewalks, as well as how to safely cross at intersections. Examples of physical education curricula are found in the Resources section of this plan. *Implementation lead: Edina Public Schools.*

Mid-Term Improvements

- Create a program to improve bicycle parking at all schools. Many of the existing bicycle racks on the school sites are poorly located and are older style racks that provide less secure parking. These should be systematically replaced over the next five years. Bicycle corrals should be considered for the middle school and high school sites, which have the greatest potential for high bicycle mode share. In addition, bicycle parking capacity should be increased to meet the criteria of one bicycle parking space per 10 students. *Implementation lead: Edina Public Schools.*



New bicycle parking at Creek Valley Elementary

- Designate a district ARTS coordinator. Individual school sites need support to plan and implement walking and biking education and activities. Coordination of resources and events across the district will maximize the effectiveness of these efforts, as well as providing a single point of contact for school administration and other agencies such as the City of Edina and Bloomington Public Health. The ARTS coordinator would be able to assist schools in implementing encouragement activities such as walking school buses, remote pick-up/drop-off, and walking/biking events. *Implementation lead: Edina Public Schools.*

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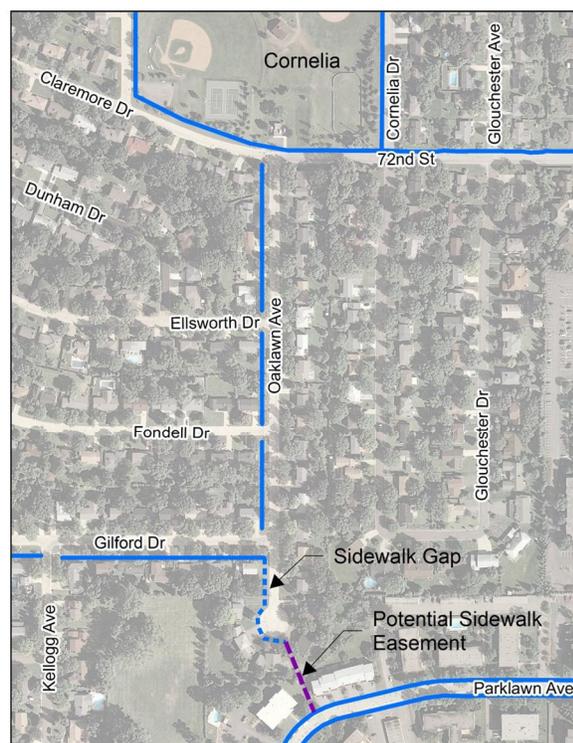
- Construct pedestrian ramps at the school crossing at W 72nd Street/Oaklawn Avenue. The intersection lacks pedestrian ramps, which are needed for accessibility for all pedestrians. *Implementation lead: City of Edina.*
- Evaluate effectiveness of school speed zone signing and establish city policy for use of school speed zones. The currently posted school speed zones are all signed to be in effect "When Children Are Present". Past studies have drawn differing conclusions on the driver response to this type of static signing, static signing stating the times the speed zone was in effect, and/or the inclusion of flashers. However, many of the other studies were conducted on high speed (greater than 45 mph) roadways. Evaluating the speed zone compliance and effect of signing and flashers within Edina should be used to determine the appropriate city-wide standard for existing and any new school speed zones. *Implementation lead: Edina Public Schools.*



The school crossing on W 72nd Street near Cornelia Elementary lacks pedestrian ramps

Long-Term Improvements

- Reconstruct and narrow the driveways at Cornelia Elementary. The existing driveways onto Cornelia Drive are both very wide and results in a vehicle/pedestrian conflicts and right-of-way confusion. The driveways should be reconstructed to shorten the crossing distances for pedestrians. *Implementation lead: Edina Public Schools.*
- Construct sidewalk connection from Oaklawn Avenue to Parklawn Avenue near Cornelia Elementary School. Cornelia Elementary students that live in the multi-family housing along Parklawn Avenue are



Potential sidewalk connection from Parklawn Avenue to Oaklawn Avenue



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within ½ mile of the school, but due to the lack of direct roadway or sidewalk route, must walk approximately one mile to school with part of the route along the heavily traveled France Avenue. An easement should be pursued in order to build a direct and more comfortable sidewalk connection from Parklawn Avenue to Oaklawn Avenue, which would benefit not only Cornelia Elementary students but also members of the community that use Cornelia School Park.
Implementation lead: City of Edina.

- Construct sidewalk on W 58th Street east of Wooddale Avenue. The city's Comprehensive Plan identified sidewalk to be constructed on W 58th Street all the way to France Avenue. W 58th Street is already a primary route for South View Middle School students, and extending the existing sidewalk east of Wooddale Avenue will continue to improve connectivity and routes to the school.
Implementation lead: City of Edina.
- Construct sidewalk connection from Ayrshire Boulevard to Highlands Elementary School. Highlands Elementary students that live in the neighborhood east and north of the school along Ayrshire Boulevard within ¼ mile of the school, but due to the lack of direct roadway or sidewalk route, either walk between residential homes and through the wooded area next to the school, or walk more than ½ mile to school with part of the route along the heavily traveled Vernon Avenue. An easement should be pursued in order to build a direct and more comfortable sidewalk connection from Highlands Elementary to the neighborhoods surrounding the school.
Implementation lead: Edina Public Schools and City of Edina.
- Construct sidewalk on Valley View Road, Tracy Avenue, and Gleason Road. These roadways are planned for repaving in the city's capital improvement program and are also identified for future sidewalk in the Comprehensive Plan. The sidewalk should be implemented along with the roadway projects, improving the connectivity between the school and the neighborhoods south and west of the school.
Implementation lead: City of Edina.
- Construct sidewalk on Sun Road, Arbour Avenue, and Olinger Boulevard near Countryside Elementary School. These roadways are planned for repaving in the city's capital improvement program and are also identified for future sidewalk in the Comprehensive Plan. The sidewalk should be implemented along with the roadway projects, improving the connectivity between the school and the neighborhoods south and west of the school.
Implementation lead: City of Edina.
- Construct sidewalk on Benton Avenue adjacent to Countryside Elementary School. There is currently no sidewalk along Benton Avenue in front of the school, although it is shown in the city's Comprehensive Plan as future sidewalk. The existing walking/bicycling route to the east the school includes a set of stairs to reach Tracy Avenue, which is a challenge for bicyclists or mobility-impaired pedestrians. The sidewalk on Benton Avenue in front of the school would provide an alternate route for these users.
Implementation lead: City of Edina.
- Construct sidewalk on Claremore Drive, Kellogg Avenue, and Wooddale Avenue near Cornelia Elementary. These sidewalk segments are identified in the city's Comprehensive Plan and would improve accessibility and connectivity to the neighborhoods west of Cornelia Elementary.
Implementation lead: City of Edina.
- Construct sidewalk on Cornelia Drive from W 70th Street to W 66th Street. Sidewalk on Cornelia Drive currently ends just north of W 70th Street, and does not connect to Lake Cornelia Park or the



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existing sidewalk on W 66th Street. This segment of sidewalk was previously removed from the sidewalk plan in the city's Comprehensive Plan, but is an important north-south sidewalk link between France Avenue and TH 100. *Implementation lead: City of Edina.*

- Construct sidewalk or trail on Interlachen Boulevard. A trail was previously proposed along Interlachen Boulevard in 2006, but was not approved, and this sidewalk segment was removed from the city's Comprehensive plan. Interlachen Boulevard, although not serving as a direct route to a school site, is one of the few opportunities for a direct east-west route in the northern part of the city. This sidewalk or trail segment could also then be connected to Highland Elementary School via Mirror Lakes Drive and Highlands Park. *Implementation lead: City of Edina.*

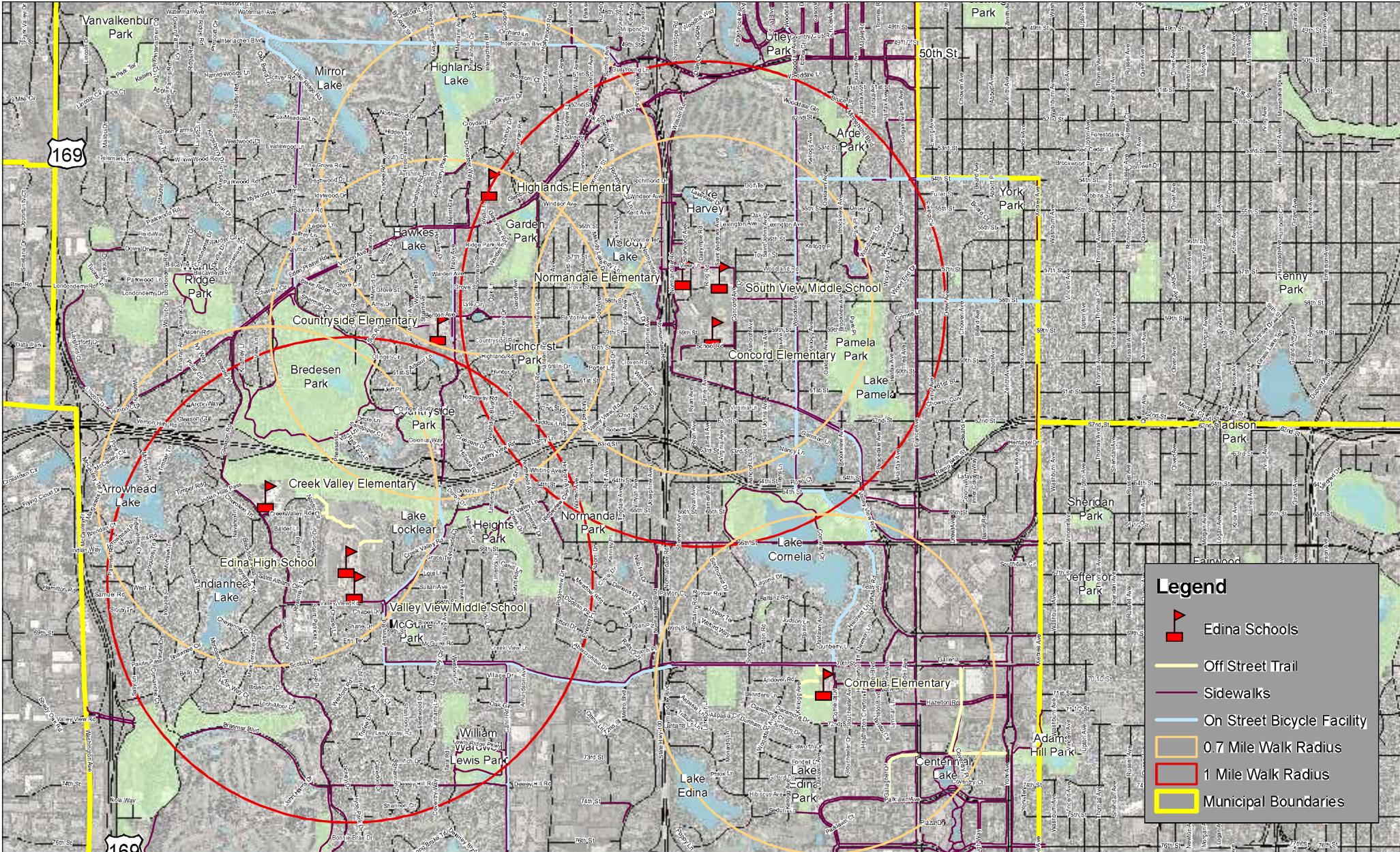
Funding and Implementation

Funding for the various recommended projects may come from a variety of sources depending on the type of project and who is implementing it. Some potential funding opportunities that currently exist and may be used to fund these recommendations include, but are not limited to:

- Blue Cross Blue Shield of Minnesota
- Mini-grants through the National Center for Safe Routes to School
- Federal Transportation Enhancement (TE) funds administered through the Metropolitan Council
- Safe Routes to School funds administered through the Minnesota Department of Transportation
- Pedestrian and Cyclist Safety Fund

Over the past four years, Minnesota Statewide Health Improvement Program (SHIP) funds have been administered by the Minnesota Department of Health through cities and counties around the state in the form of Safe Routes to School grants, Active Living grants, and assistance with preparing grant applications for other programs. These funds may be available in some form in the future, and continued communications between school districts, cities, and counties will help identify opportunities and needs for funding in the future.

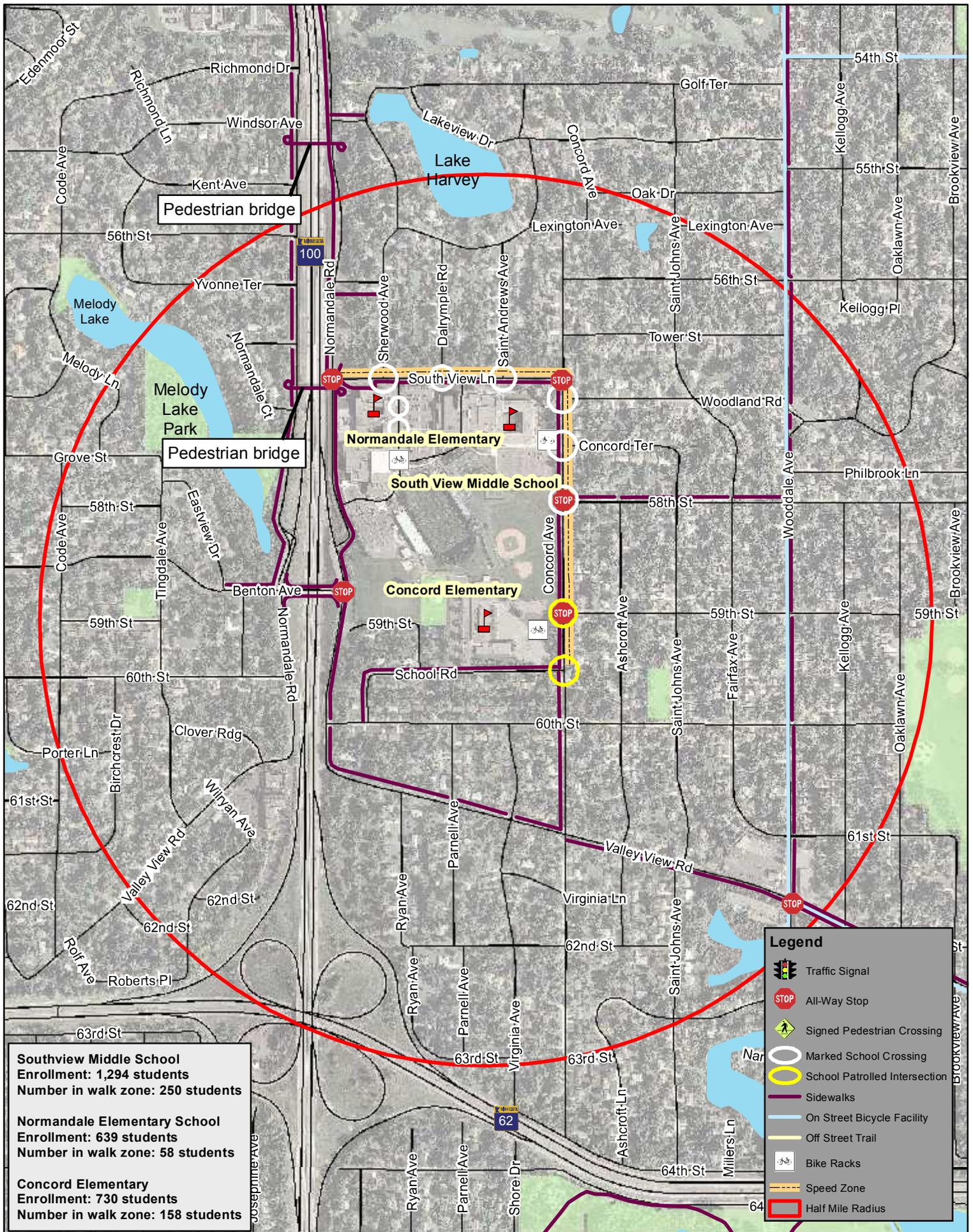
No one of the E's of Safe Routes to School will by itself increase walking and biking, which emphasizes the need for cooperation among school, city, county and other agencies in the implementation of the recommendations identified in this plan. The process used to develop this plan is only the start of ongoing efforts that will be needed to result in cultural changes and significant increases in walking and biking.

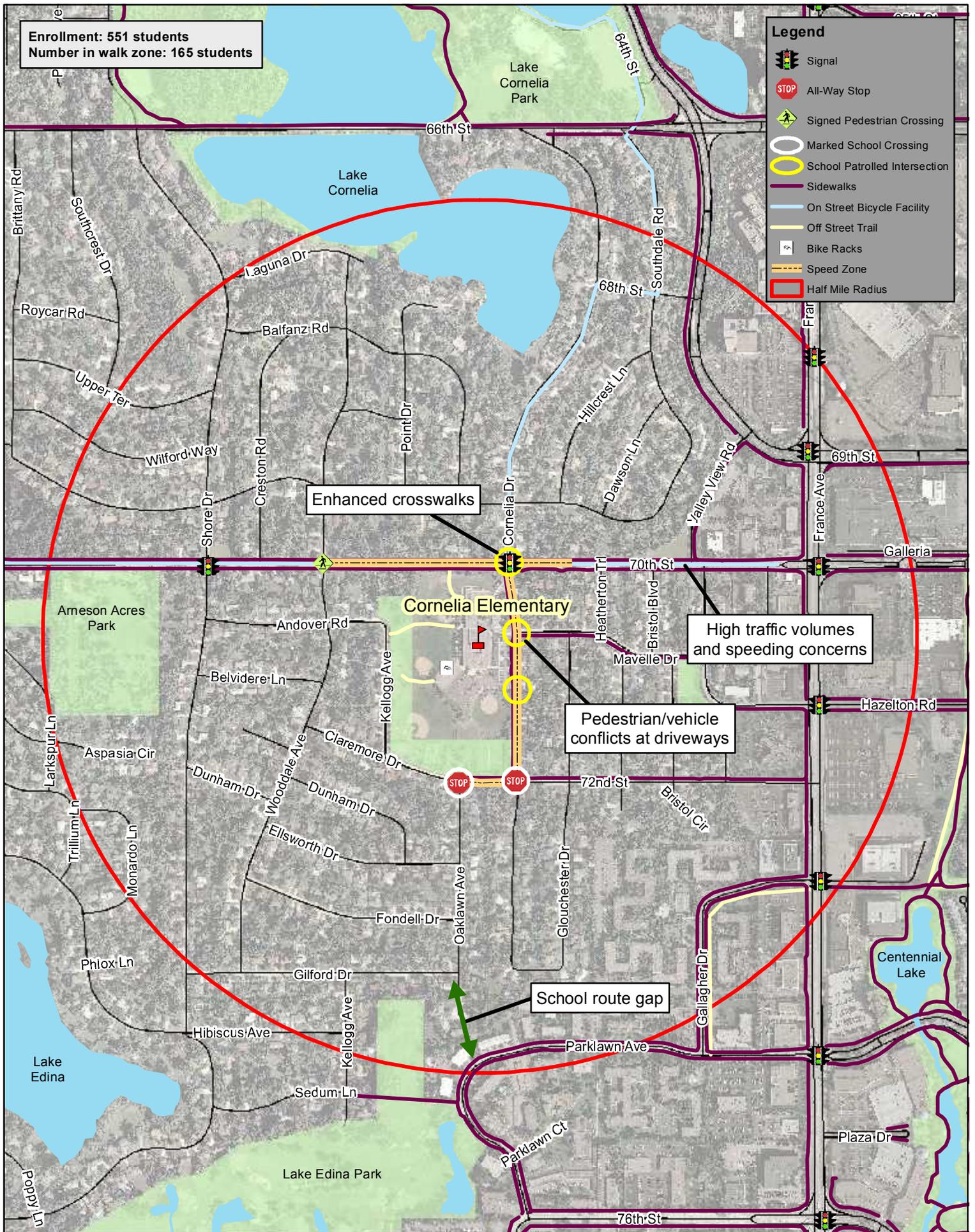


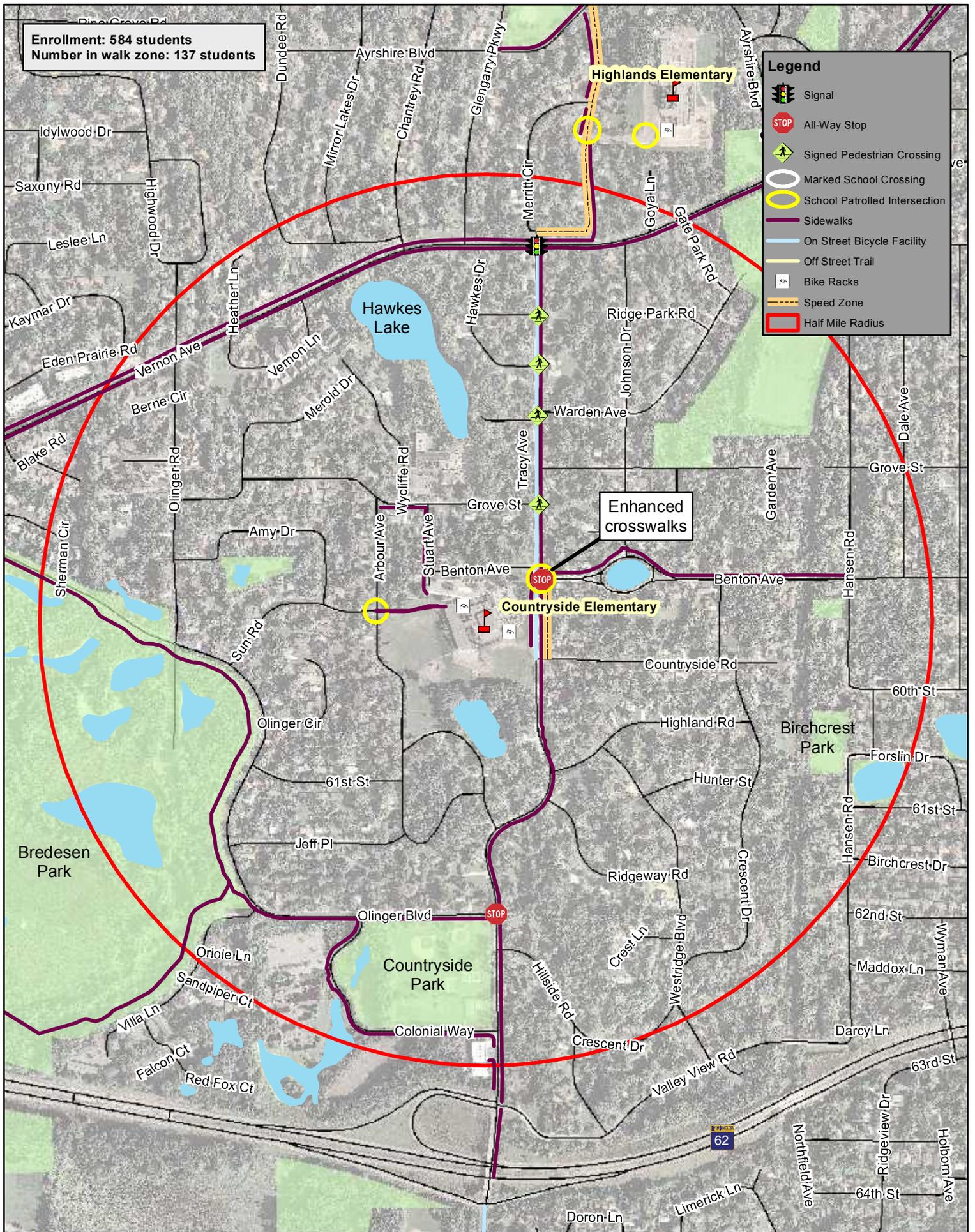
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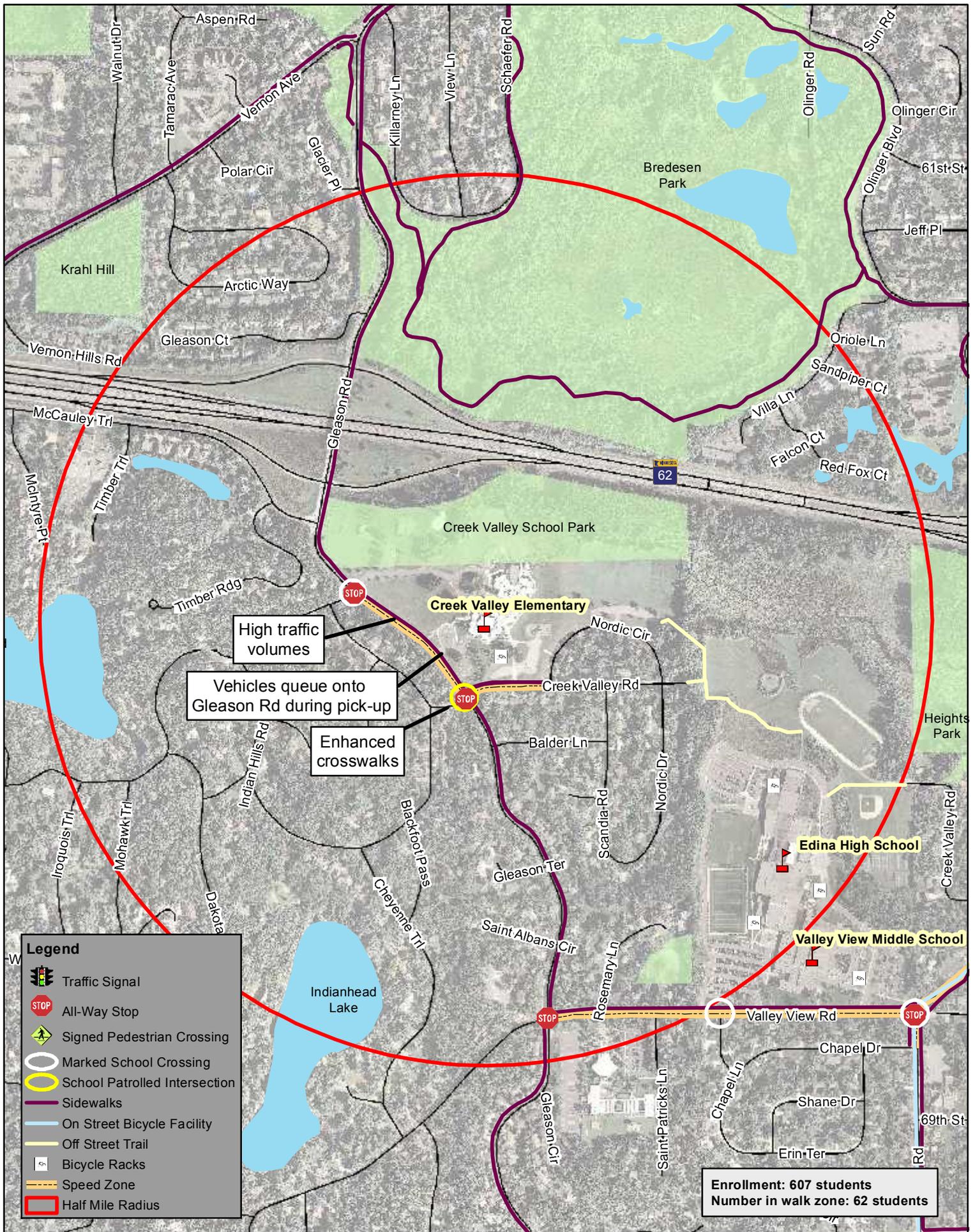
-  Edina Schools
-  Off Street Trail
-  Sidewalks
-  On Street Bicycle Facility
-  0.7 Mile Walk Radius
-  1 Mile Walk Radius
-  Municipal Boundaries

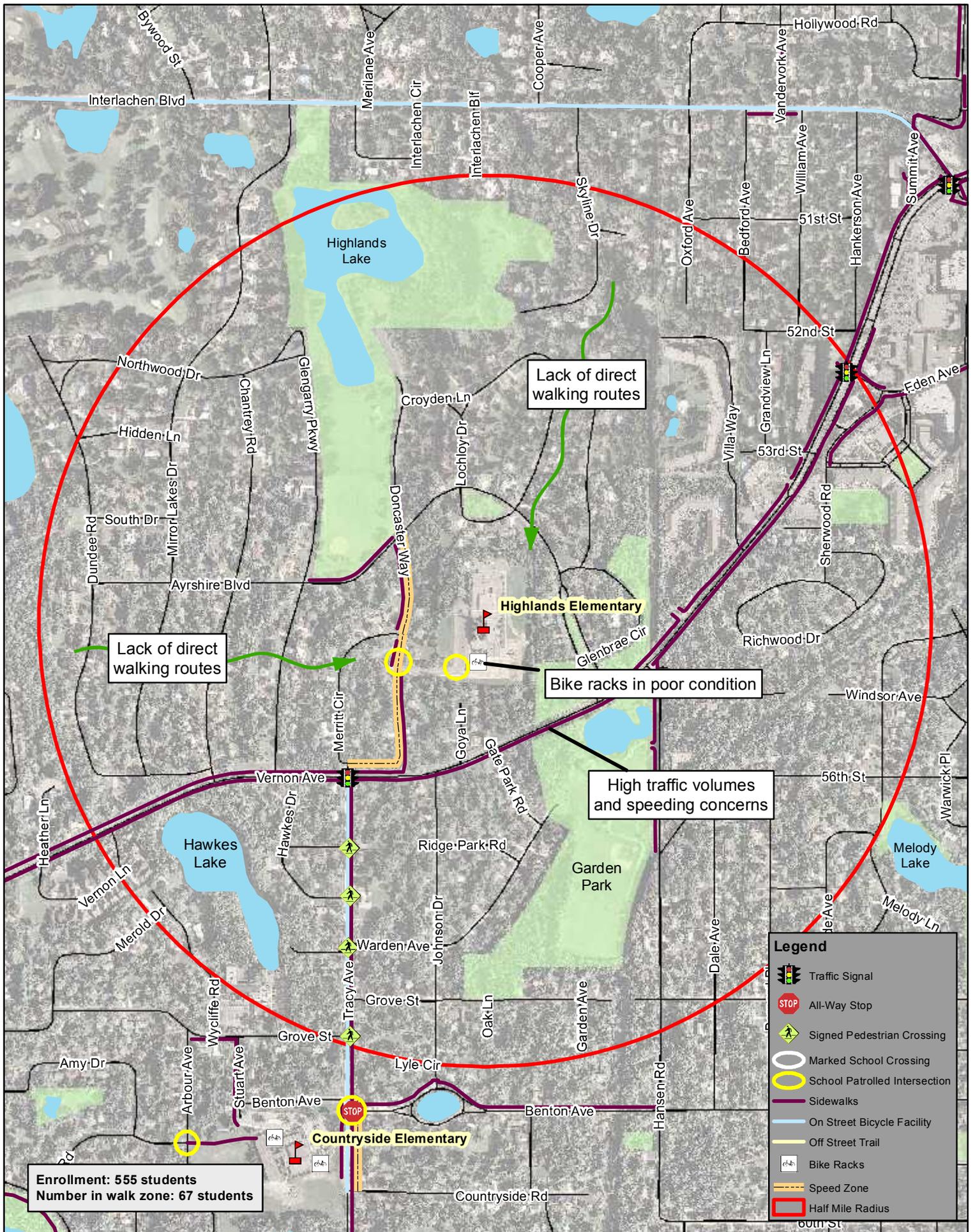
Figure 1. Edina City-Wide Existing Bicycle and Pedestrian Conditions

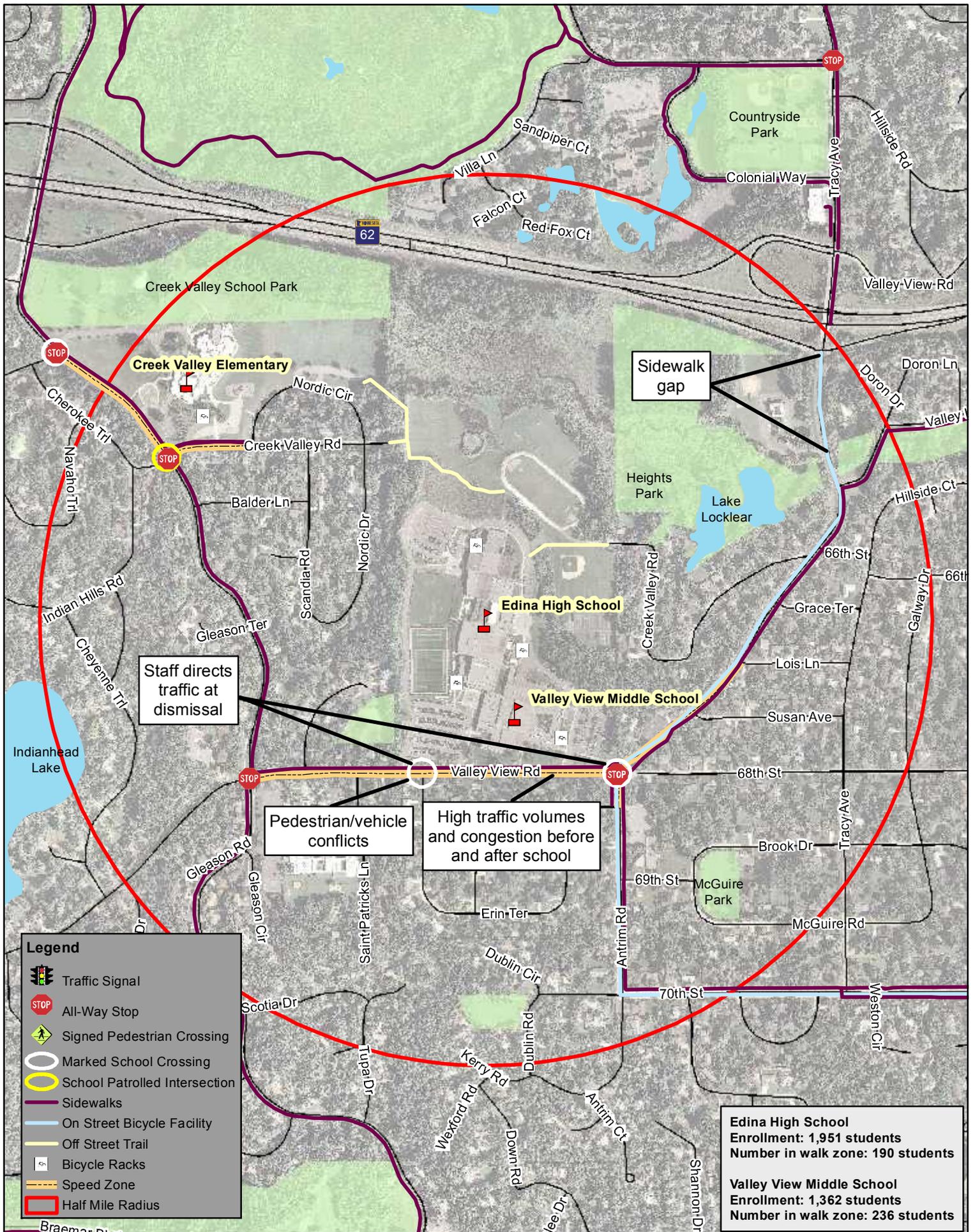


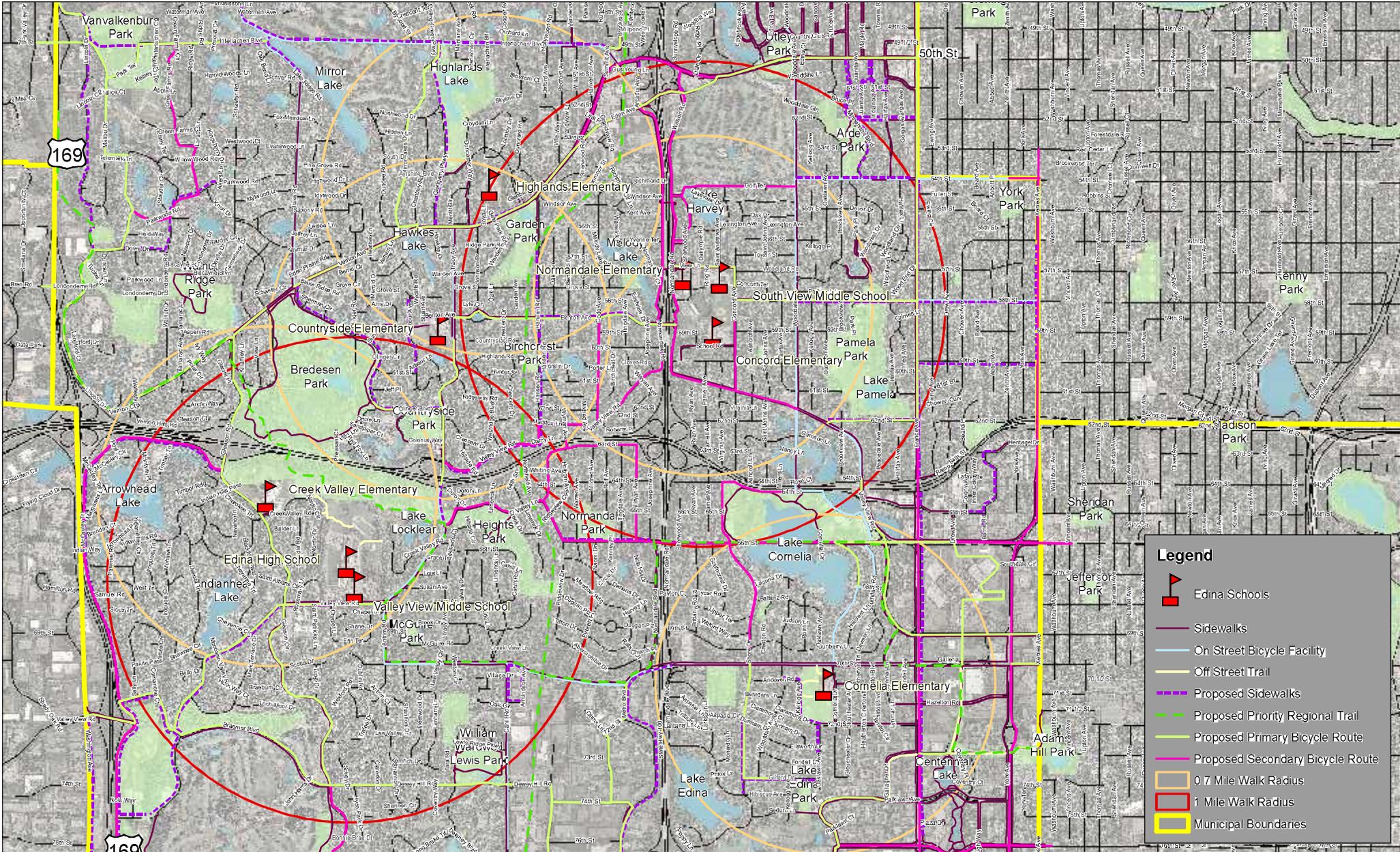








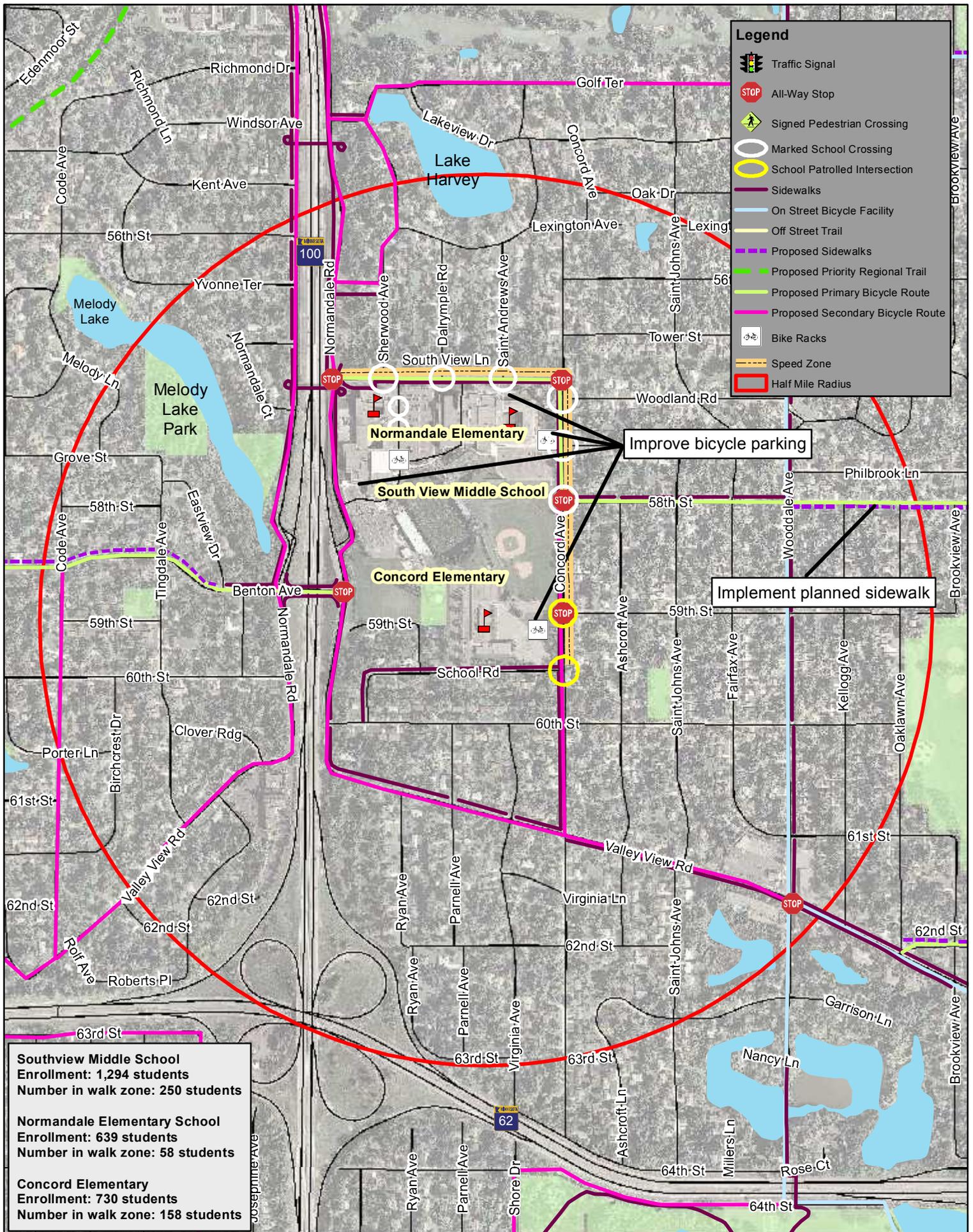




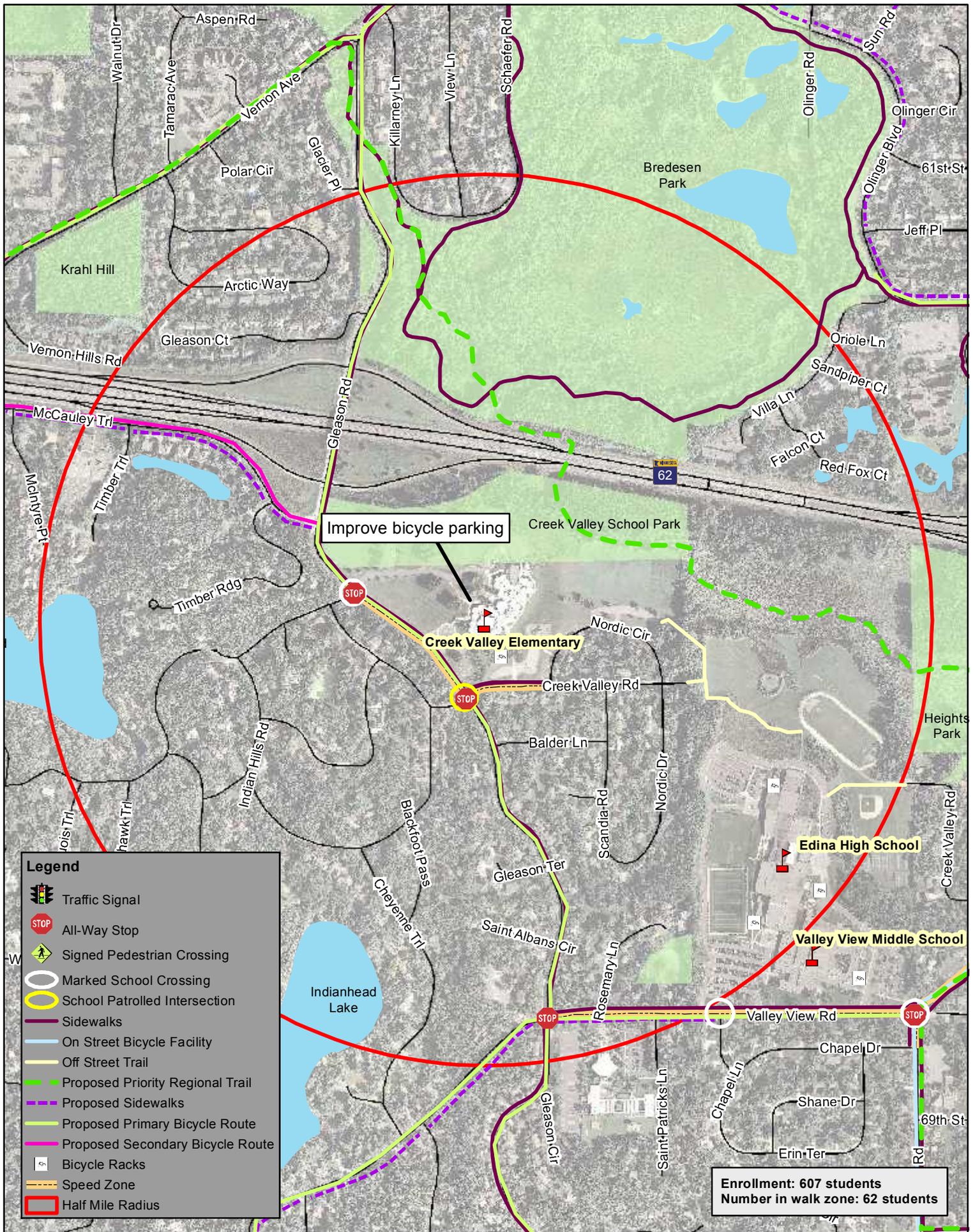
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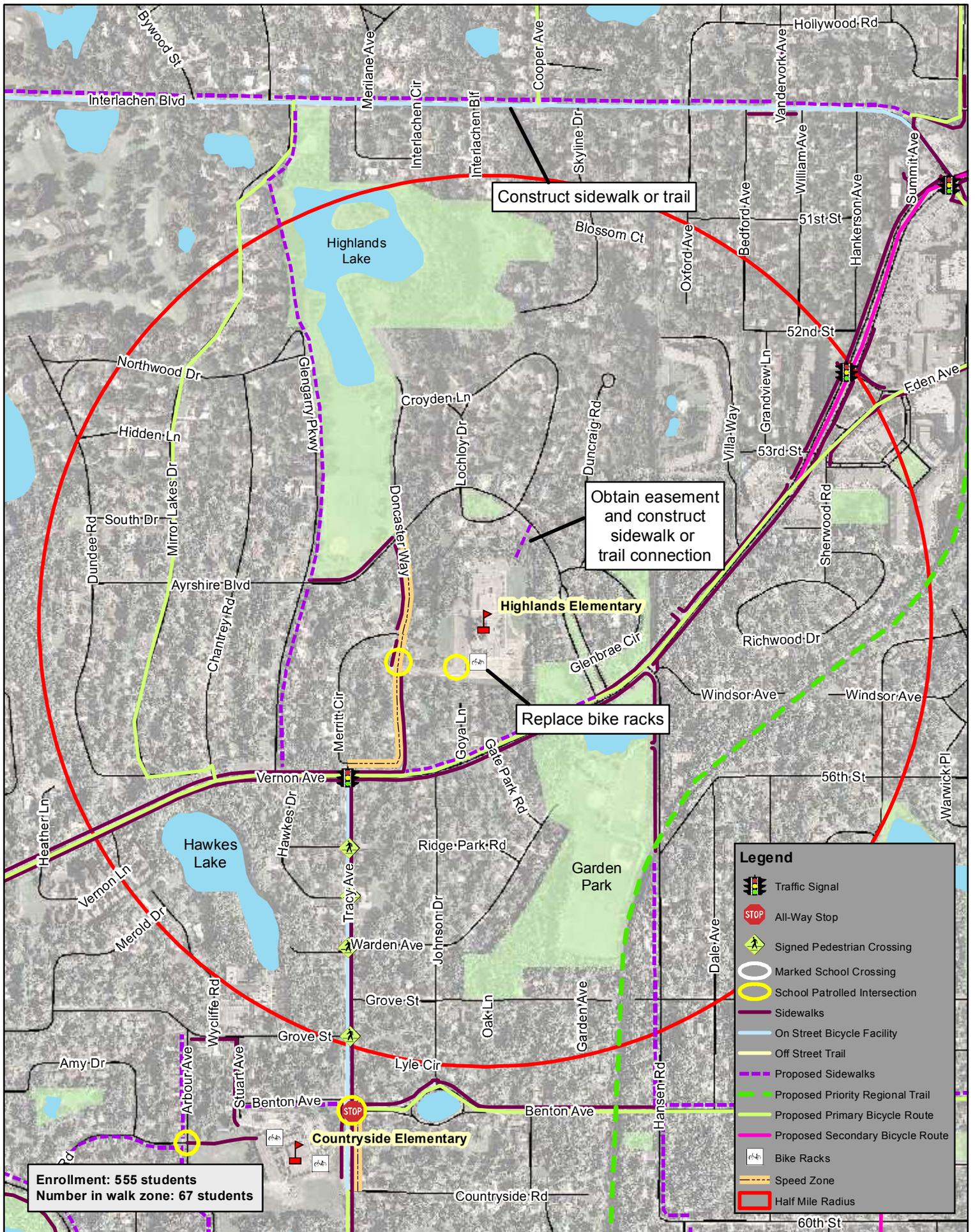
-  Edina Schools
-  Sidewalks
-  On Street Bicycle Facility
-  Off Street Trail
-  Proposed Sidewalks
-  Proposed Priority Regional Trail
-  Proposed Primary Bicycle Route
-  Proposed Secondary Bicycle Route
-  0.7 Mile Walk Radius
-  1 Mile Walk Radius
-  Municipal Boundaries

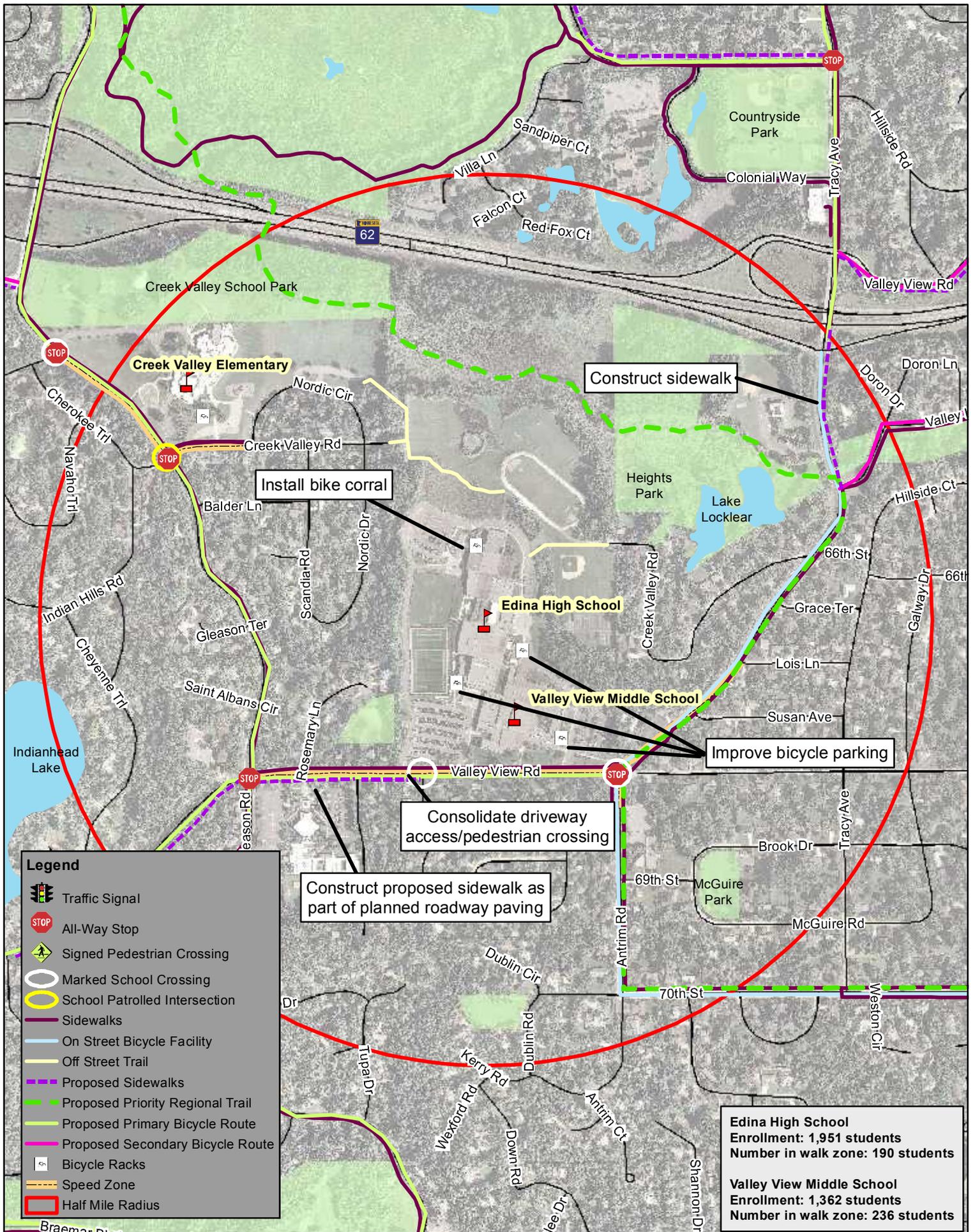
Figure 8. Edina City-Wide Planned Bicycle and Pedestrian Improvements













Appendix

Edina Active Routes to School Comprehensive Plan



Student Travel Tally Results

School	Modes To/From School (Fall 2012)											
	Walk		Bike		School Bus		Family Vehicle		Carpool		Other	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Concord Elementary	5%	10%	6%	6%	55%	56%	30%	25%	4%	3%	0%	0%
Cornelia Elementary	8%	11%	5%	5%	48%	47%	28%	25%	2%	3%	9%	9%
Countryside Elementary	10%	11%	2%	2%	46%	49%	41%	35%	1%	3%	0%	0%
Creek Valley Elementary	5%	6%	6%	6%	60%	60%	28%	26%	1%	2%	0%	0%
Highlands Elementary	3%	5%	0%	0%	59%	63%	35%	27%	3%	4%	0%	1%
Normandale Elementary	4%	7%	1%	2%	66%	50%	28%	35%	1%	3%	0%	3%
South View Middle School	6%	12%	1%	0%	57%	57%	32%	28%	2%	0%	2%	3%
Valley View Middle School	9%	16%	1%	2%	59%	60%	29%	20%	2%	2%	0%	0%

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Parent Survey Results

School	Number of Survey Responses
Concord Elementary	66
Cornelia Elementary	27
Countryside Elementary	38
Creek Valley Elementary	27
Highlands Elementary	22
Normandale Elementary	41
South View Middle School	48
Valley View Middle School	57
Edina High School	38
Total	364

Question 1. What is the grade of the child who brought home this survey?

School	PK	K	1	2	3	4	5	6	7	8	9	10	11	12
Concord Elementary	0%	27%	21%	36%	27%	37%	33%	0%	0%	0%	0%	0%	0%	0%
Cornelia Elementary	50%	4%	12%	22%	12%	9%	6%	0%	0%	0%	0%	0%	0%	0%
Countryside Elementary	33%	23%	24%	3%	20%	24%	3%	0%	0%	0%	6%	0%	0%	0%
Creek Valley Elementary	0%	8%	6%	14%	17%	15%	12%	0%	0%	0%	0%	0%	0%	0%
Highlands Elementary	17%	15%	18%	8%	10%	2%	9%	0%	0%	0%	0%	0%	0%	0%
Normandale Elementary	0%	23%	18%	17%	12%	13%	30%	0%	4%	0%	0%	0%	11%	0%
South View Middle School	0%	0%	0%	0%	2%	0%	6%	45%	50%	30%	50%	0%	0%	0%
Valley View Middle School	0%	0%	0%	0%	0%	0%	0%	55%	46%	67%	44%	0%	0%	0%
Edina High School	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%	100%	89%	100%
Total	6	26	33	36	41	46	33	31	28	30	16	13	9	16

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Question 2. Is the child who brought home this survey male or female?

School	Male	Female
Concord Elementary	22%	13%
Cornelia Elementary	6%	9%
Countryside Elementary	8%	13%
Creek Valley Elementary	8%	6%
Highlands Elementary	7%	5%
Normandale Elementary	10%	13%
South View Middle School	13%	13%
Valley View Middle School	17%	14%
Edina High School	9%	12%
Total	193	171

Question 3. How many children do you have in Kindergarten through 8th grade?

School	0	1	2	3	4	5+
Concord Elementary	0%	14%	20%	37%	33%	0%
Cornelia Elementary	4%	10%	9%	2%	0%	0%
Countryside Elementary	4%	13%	10%	8%	11%	50%
Creek Valley Elementary	0%	3%	11%	12%	11%	0%
Highlands Elementary	2%	11%	3%	8%	0%	0%
Normandale Elementary	0%	11%	14%	10%	22%	0%
South View Middle School	9%	15%	13%	14%	0%	0%
Valley View Middle School	9%	18%	18%	6%	22%	0%
Edina High School	64%	5%	1%	0%	0%	50%
Total	45	122	141	49	9	2



Question 6. On most days, how does your child arrive and leave for school?

Arrive to School

School	Walk	Bike	School Bus	Family Vehicle (only children in your family)	Carpool (children from other families)	Transit (city bus)	Other (skateboard, scooter, inline skates, etc.)
Concord Elementary	15%	27%	21%	14%	13%	0%	0%
Cornelia Elementary	15%	0%	7%	5%	0%	0%	100%
Countryside Elementary	26%	9%	7%	13%	0%	0%	0%
Creek Valley Elementary	6%	9%	9%	7%	0%	0%	0%
Highlands Elementary	0%	0%	8%	7%	0%	0%	0%
Normandale Elementary	0%	0%	14%	12%	7%	0%	0%
South View Middle School	9%	36%	13%	14%	0%	0%	0%
Valley View Middle School	21%	18%	16%	15%	7%	0%	0%
Edina High School	9%	0%	6%	12%	73%	0%	0%
Total	34	11	209	91	15	0	1



Question 6 (continued). On most days, how does your child arrive and leave for school?

Leave from School

School	Walk	Bike	School Bus	Family Vehicle (only children in your family)	Carpool (children from other families)	Transit (city bus)	Other (skateboard, scooter, inline skates, etc.)
Concord Elementary	18%	18%	21%	16%	0%	0%	0%
Cornelia Elementary	16%	0%	7%	4%	0%	0%	50%
Countryside Elementary	22%	0%	8%	15%	0%	0%	0%
Creek Valley Elementary	4%	9%	7%	12%	0%	0%	0%
Highlands Elementary	0%	0%	8%	8%	0%	0%	0%
Normandale Elementary	0%	0%	13%	16%	11%	0%	0%
South View Middle School	13%	36%	16%	7%	0%	0%	0%
Valley View Middle School	24%	18%	17%	10%	5%	0%	0%
Edina High School	2%	18%	4%	11%	84%	0%	50%
Total	45	11	211	73	19	0	2

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Question 7. How long does it normally take your child to get to/from school?

Travel Time to School

School	< 5 minutes	5-10 minutes	11-20 minutes	More than 20 minutes	Don't know
Concord Elementary	25%	21%	16%	0%	0%
Cornelia Elementary	14%	5%	5%	0%	20%
Countryside Elementary	14%	11%	5%	11%	20%
Creek Valley Elementary	9%	9%	7%	4%	0%
Highlands Elementary	3%	4%	12%	0%	20%
Normandale Elementary	10%	6%	8%	54%	0%
South View Middle School	14%	16%	14%	4%	0%
Valley View Middle School	10%	16%	19%	14%	40%
Edina High School	3%	12%	14%	14%	0%
Total	80	128	116	28	5

Travel Time From School

School	< 5 minutes	5-10 minutes	11-20 minutes	More than 20 minutes	Don't know
Concord Elementary	28%	21%	15%	8%	0%
Cornelia Elementary	10%	5%	6%	8%	25%
Countryside Elementary	16%	11%	7%	5%	0%
Creek Valley Elementary	10%	6%	7%	8%	0%
Highlands Elementary	4%	4%	10%	3%	25%
Normandale Elementary	12%	7%	7%	39%	0%
South View Middle School	7%	19%	14%	5%	0%
Valley View Middle School	6%	16%	22%	11%	50%
Edina High School	4%	11%	12%	13%	0%
Total	67	114	134	38	4



Question 8. Has your child asked you for permission to walk or bike to/from school in the last year?

School	Yes	No
Concord Elementary	24%	10%
Cornelia Elementary	7%	7%
Countryside Elementary	9%	10%
Creek Valley Elementary	9%	5%
Highlands Elementary	4%	10%
Normandale Elementary	7%	18%
South View Middle School	18%	7%
Valley View Middle School	15%	17%
Edina High School	7%	16%
Total	212	145

Question 9. At what grade would you allow your child to walk or bike to/from school without an adult?

School	PK	K	1	2	3	4	5	6	7	8	9+
Concord Elementary	0%	14%	20%	0%	12%	32%	25%	14%	16%	20%	5%
Cornelia Elementary	0%	0%	0%	9%	15%	6%	10%	3%	6%	7%	7%
Countryside Elementary	0%	57%	40%	9%	18%	4%	10%	8%	6%	7%	9%
Creek Valley Elementary	0%	0%	20%	27%	15%	10%	7%	5%	3%	0%	5%
Highlands Elementary	0%	0%	0%	0%	6%	4%	3%	5%	13%	7%	16%
Normandale Elementary	0%	0%	0%	18%	9%	11%	13%	9%	13%	0%	18%
South View Middle School	0%	14%	0%	9%	9%	11%	14%	15%	26%	40%	2%
Valley View Middle School	0%	0%	20%	9%	6%	18%	11%	27%	3%	13%	25%
Edina High School	100%	14%	0%	18%	12%	4%	7%	15%	13%	7%	14%
Total	1	7	5	11	34	72	71	66	31	15	44

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Question 10. What of the following issues affected your decision to allow, or not allow, your child to walk or bike to/from school?

School	Distance	Convenience of Driving	Time	Before or after-school activities	Speed of traffic along route	Amount of traffic along route	Adults to walk or bike with	Sidewalks or pathways	Safety of intersections and crossings	Crossing guards	Violence or crime	Weather or climate
Concord Elementary	15%	10%	10%	15%	23%	24%	32%	19%	18%	29%	17%	15%
Cornelia Elementary	7%	10%	1%	4%	5%	5%	10%	6%	4%	6%	9%	5%
Countryside Elementary	7%	5%	4%	6%	8%	10%	14%	11%	7%	10%	11%	8%
Creek Valley Elementary	5%	5%	6%	8%	6%	5%	14%	8%	8%	13%	5%	9%
Highlands Elementary	6%	0%	1%	4%	9%	9%	5%	8%	8%	3%	3%	3%
Normandale Elementary	15%	14%	16%	11%	11%	10%	17%	12%	13%	13%	15%	11%
South View Middle School	13%	24%	22%	17%	10%	13%	3%	12%	15%	0%	14%	18%
Valley View Middle School	19%	10%	22%	22%	18%	16%	3%	17%	17%	10%	17%	18%
Edina High School	15%	24%	17%	13%	9%	8%	2%	8%	9%	16%	11%	12%
Total	136	21	69	72	184	210	59	180	212	31	66	117

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Question 11. Would you probably let your child walk or bike to/from school if this problem were changed or improved?

School	Distance	Convenience of Driving	Time	Before or after-school activities	Speed of traffic along route	Amount of traffic along route	Adults to walk or bike with	Sidewalks or pathways	Safety of intersections and crossings	Crossing guards	Violence or crime	Weather or climate
Concord Elementary	15%	10%	10%	15%	23%	24%	32%	19%	18%	29%	17%	15%
Cornelia Elementary	7%	10%	1%	4%	5%	5%	10%	6%	4%	6%	9%	5%
Countryside Elementary	7%	5%	4%	6%	8%	10%	14%	11%	7%	10%	11%	8%
Creek Valley Elementary	5%	5%	6%	8%	6%	5%	14%	8%	8%	13%	5%	9%
Highlands Elementary	6%	0%	1%	4%	9%	9%	5%	8%	8%	3%	3%	3%
Normandale Elementary	15%	14%	16%	11%	11%	10%	17%	12%	13%	13%	15%	11%
South View Middle School	13%	24%	22%	17%	10%	13%	3%	12%	15%	0%	14%	18%
Valley View Middle School	19%	10%	22%	22%	18%	16%	3%	17%	17%	10%	17%	18%
Edina High School	15%	24%	17%	13%	9%	8%	2%	8%	9%	16%	11%	12%
Total	136	21	69	72	184	210	59	180	212	31	66	117

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Question 11 (*continued*). Would you probably let your child walk or bike to/from school if this problem were changed or improved?

	Distance			Convenience of Driving			Time			Before or after-school activities			Speed of traffic along route			Amount of traffic along route			
	Yes	No	Maybe	Yes	No	Maybe	Yes	No	Maybe	Yes	No	Maybe	Yes	No	Maybe	Yes	No	Maybe	
School																			
Concord Elementary	11%	16%	19%	11%	17%	21%	12%	16%	19%	12%	21%	19%	22%	11%	20%	22%	14%	24%	
Cornelia Elementary	4%	5%	13%	6%	4%	7%	0%	5%	15%	0%	3%	12%	2%	4%	3%	4%	14%		
Countryside Elementary	8%	16%	6%	9%	11%	7%	8%	12%	7%	11%	12%	0%	10%	7%	4%	10%	7%	5%	
Creek Valley Elementary	9%	9%	10%	11%	6%	11%	9%	4%	15%	12%	3%	15%	7%	7%	12%	7%	4%	14%	
Highlands Elementary	10%	2%	6%	9%	7%	7%	6%	7%	7%	5%	5%	15%	8%	4%	4%	9%	7%	5%	
Normandale Elementary	18%	14%	16%	14%	14%	21%	12%	18%	15%	16%	14%	19%	14%	15%	12%	14%	14%	10%	
South View Middle School	14%	5%	6%	14%	11%	4%	23%	5%	7%	12%	10%	4%	11%	7%	4%	10%	11%	5%	
Valley View Middle School	13%	20%	13%	9%	17%	11%	14%	23%	4%	14%	21%	12%	17%	26%	4%	16%	18%	10%	
Edina High School	13%	14%	10%	17%	11%	11%	15%	11%	11%	18%	10%	4%	9%	19%	20%	8%	21%	14%	
Total	91	44	31	35	70	28	65	57	27	57	58	26	165	27	25	174	28	21	



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Question 12. In your opinion, how much does your child's school encourage or discourage walking and biking to/from school?

School	Strongly Encourages	Encourages	Neither	Discourages	Strongly Discourages
Concord Elementary	21%	33%	15%	15%	0%
Cornelia Elementary	0%	5%	7%	8%	0%
Countryside Elementary	11%	7%	9%	0%	17%
Creek Valley Elementary	37%	21%	1%	0%	0%
Highlands Elementary	21%	5%	6%	0%	0%
Normandale Elementary	0%	4%	15%	8%	0%
South View Middle School	11%	20%	12%	8%	33%
Valley View Middle School	0%	4%	22%	31%	0%
Edina High School	0%	1%	12%	31%	50%
Total	19	76	216	13	6

Question 13. How much fun is walking or biking to/from school for your child?

School	Very Fun	Fun	Neutral	Boring	Very Boring
Concord Elementary	33%	19%	13%	20%	9%
Cornelia Elementary	8%	6%	3%	0%	0%
Countryside Elementary	13%	8%	3%	20%	18%
Creek Valley Elementary	14%	10%	6%	0%	0%
Highlands Elementary	5%	6%	1%	0%	0%
Normandale Elementary	12%	9%	4%	0%	18%
South View Middle School	8%	20%	21%	0%	0%
Valley View Middle School	5%	16%	30%	40%	27%
Edina High School	1%	6%	18%	20%	27%
Total	76	100	67	10	11

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Question 14. How healthy is walking or biking to/from school for your child?

School	Very Healthy	Healthy	Neutral	Unhealthy	Very Unhealthy
Concord Elementary	23%	17%	11%	0%	0%
Cornelia Elementary	7%	5%	3%	0%	0%
Countryside Elementary	10%	5%	8%	0%	0%
Creek Valley Elementary	10%	6%	5%	0%	0%
Highlands Elementary	7%	6%	3%	0%	50%
Normandale Elementary	9%	16%	13%	0%	0%
South View Middle School	13%	18%	5%	0%	50%
Valley View Middle School	15%	18%	24%	0%	0%
Edina High School	7%	10%	29%	0%	0%
Total	184	101	38	0	2

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Question 15. What is the highest grade or year of school you completed?

School	Grades 1 through 8 (Elementary)	Grades 9 through 11 (Some High School)	Grade 12 or GED (High school graduate)	College 1 to 3 years (Some college or technical school)	College 4 years or more (College graduate)	Graduate School (Masters degree or doctorate)	Prefer not to answer
Concord Elementary	0%	0%	100%	22%	18%	21%	17%
Cornelia Elementary	0%	0%	0%	11%	9%	4%	0%
Countryside Elementary	0%	0%	0%	11%	9%	8%	0%
Creek Valley Elementary	20%	0%	0%	0%	11%	5%	0%
Highlands Elementary	0%	0%	0%	0%	8%	6%	0%
Normandale Elementary	0%	0%	0%	0%	12%	12%	0%
South View Middle School	20%	0%	0%	22%	12%	15%	0%
Valley View Middle School	40%	0%	0%	33%	14%	16%	50%
Edina High School	20%	0%	0%	0%	8%	13%	33%
Total	5	0	1	9	159	149	6



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Resources

1. National Center for Safe Routes to School, Ongoing Activities
guide.saferoutesinfo.org/encouragement/ongoing_activities.cfm
2. Two Day Travel Tally, National Center for Safe Routes to School
www.saferoutesinfo.org/program-tools/evaluation-student-class-travel-tally
3. Parent Survey, National Center for Safe Routes to School
www.saferoutesinfo.org/program-tools/evaluation-parent-survey
4. Minnesota Department of Transportation Safe Routes to School resources and funding opportunities
www.dot.state.mn.us/saferoutes/
5. Minnesota Public Health Law Center legal and liability resources
<http://publichealthlawcenter.org/topics/active-living/physical-activity-schools/resources>
6. Examples of walking and biking curriculums for elementary and middle school students
<http://www.dot.state.mn.us/saferoutes/toolkit.html/elementary-srts-curriculum.pdf>
<http://www.dot.state.mn.us/saferoutes/toolkit.html/middle-school-bicycle-education.pdf>
7. Information and examples of pedestrian and bicycle safety campaigns
http://safety.fhwa.dot.gov/local_rural/pedcampaign/
<http://www.bikesbelong.org/resources/stats-and-research/research/bicycle-safety-campaign-review/>



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References

- ¹ Hennepin County Human Services and Public Health Department. SHAPE 2010 Adult Data Book, Survey of the Health of All the Population and the Environment, Minneapolis, Minnesota, March 2011.
- ² Hennepin County Human Services and Public Health Department. SHAPE 2010 – Child Survey Data Book, Minneapolis, Minnesota, April 2011.
- ³ Minnesota Crash Mapping Analysis Tool (MnCMAT), Minnesota Department of Transportation.
- ⁴ Edina Comprehensive Plan Update 2008. http://edinamn.gov/index.php?section=comprehensive_plan
- ⁵ Edina Residential Survey, Decision Resources Ltd., 2013.
- ⁶ Crosswalk Marking Field Visibility Study, FHWA, 2010.
<http://www.fhwa.dot.gov/publications/research/safety/pedbike/10067/>
- ⁷ An Empirical Bayesian Evaluation of the Safety Effects of High-Visibility School (Yellow) Crosswalks in San Francisco, Fehr & Peers Transportation Consultants, 2009.
www.westernite.org/annualmeetings/sanfran10/Papers/Session%207_Papers/ITE%20Paper_7C-Feldman_Manzi.pdf