





City of Richfield August 2009

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#### **INTRODUCTION**

District 280 in the City of Richfield has eight public and private K-8 schools with a total enrollment of 3,585 students. In addition, Richfield High School currently has 1,426 students enrolled. This community of 35,000 residents is a first-ring suburb of Minneapolis. Many changes have taken place in the school system for District 280, including declining enrollment, school closures and shifting demographics. The City is culturally diverse in both their public and private schools.

Due to budget constraints in the last five years, the transportation policy for Richfield schools has changed from providing bussing for students more than six blocks away from school to requiring students in grades 1-5 to walk if they live less than one mile from school and students in grades 6-12 to walk if they are within two miles of school. Kindergarten students living more than one-quarter mile from school are provided transportation. These changes resulted in more children walking and biking to school, but without necessarily changing the conditions in which they are doing so. This change also resulted in a drastic increase in the number of student drop-offs/pick-ups in personal vehicles. This has led to increased traffic congestion, fuel consumption and air pollution near the schools.

In general, our population, and children in particular, are getting less physical activity, which is resulting in many health issues, such as: obesity, diabetes and heart disease. This is a result of many factors, including the decrease of physical education as part of school curriculums. Increasing the safety and convenience for walking and biking to school can help improve health for children and adults alike.

Currently, 18 percent (654) of Richfield K-8 students live within walking distance of their school. However, many of these students are walking and biking along and across major roadways, which creates safety concerns. Based on a survey that was sent to parents of Richfield students, high vehicle volumes and speeds, lack of crosswalks and school signing, and unsafe travel along or across roadways were cited as primary reasons why their children do not walk or bike to school. Many of these schools are located on major roadways within the community that present significant pedestrian safety issues for the students who walk/bike to school. These issues are also experienced by others in the community who utilize the trails for recreational purposes. This study provides a comprehensive assessment of pedestrian and bicycling deficiencies within the City, and their recommendations to improve those facilities.

#### STUDY OBJECTIVES

The City of Richfield initiated the Safe Routes to School (SRTS) study to complete a detailed and systematic examination of issues preventing K-8 students from walking and biking to school. In addition, due to the close proximity of the high school to other K-8 schools, observations from the high school are included as well. The study objective is to recommend non-infrastructure and infrastructure improvements to promote safe walking and bicycling for the schools in the City. In addition to the student benefits, safer pedestrian routes will improve facilities for recreational trail users. Trails are a highly desirable amenity for many residents within the community. A continuous trail system provides great benefit for community residents by providing greater access to a variety of recreational resources.

A SRTS program provides the opportunity for the City to improve conditions for walking and biking to school through education and incentives, construction of new trails/sidewalks to provide interconnected bicycle and pedestrian facilities, amenities such as bike racks, access/circulation modifications to improve safety, crosswalks and traffic control/school signing. Goals of the program include: encouraging children to walk and bike to school, increasing their physical activity; increasing safety and convenience for biking and walking to school, making it a more appealing choice; and reducing traffic, fuel consumption and air pollution near the schools. Based on the findings of this study, many improvements were identified utilizing infrastructure, education, encouragement, enforcement, and evaluation efforts.

#### **Engineering:**

Roadway infrastructure improvements for each school were developed, including recommendations to construct missing sidewalk/trail segments, install traffic-calming features, modify traffic controls and roadway signing and striping, install additional bike racks and reconfigure bus loading/unloading and parent pick-up/drop-off areas to increase safety for walkers and bikers.

#### **Education and Encouragement:**

Strategies for education and encouragement of the program are recommended to compliment the proposed infrastructure improvements. Effective education and encouragement strategies will help to increase the number of students walking and biking to school. These activities need to reach out to multiple audiences, including: students, parents, roadway users, and neighbors.

#### **Enforcement:**

Recommendations for increased enforcement of traffic laws near schools can make it safer for students to walk and bike. Involvement of local law enforcement to enforce traffic safety laws such as: pedestrians in crosswalks and traffic speeds in schools zones is key in effectively reaching out to and educating roadway users.

#### **Evaluation:**

Evaluation of the program is necessary to determine if the goal of increasing the number of walkers and bikers is being met. Evaluation can also identify the success of identified improvements, and allow refinements to the plan. The evaluation phase will increase the effectiveness of the program and determine future funding opportunities.

#### STUDY APPROACH

The first critical step in the process is to confirm problems (barriers) or issues preventing students from walking/biking to school. To develop improvements to increase walking and biking by K-8 students in the City of Richfield, an evaluation of existing conditions was undertaken to document current system deficiencies. The existing issues were identified by completing on-site assessments at each school, sending surveys to parents, and gathering information from the City and school officials.

A successful planning study also includes public input, to allow a collaboration of ideas. As a result, the participation of the community and schools began early in the process to allow sufficient time for discussion and resolution of issues. Meetings were held with a Richfield SRTS Task Force that was developed, consisting of representatives from the City of Richfield, school district representatives, school principals, and staff from SRF Consulting Group. The meetings provided information on the program and allowed the City and school officials to provide direct feedback for each school. This approach ensured that the full range of concerns, issues and ideas were identified and discussed while developing support for study findings and recommendations.

The approach used in the study is described below.

#### **Mapping of Walking Areas:**

Using information provided by the City and school district, a map for each school was created with school enrollment boundaries and designated walking areas to identify current travel routes for the school and determine if they are more widely dispersed or localized walking areas.

#### Walking and Bicycling Audits:

Key data for the study included the walking and bicycling audits and assessments at each school, which occurred September 30 - October 1, 2008. Staff from SRF met with the school principals and traveled the routes near the schools during the morning arrival period to gain an understanding of issues such as missing trails/sidewalks, lack of marked crosswalks, ineffective traffic control or improper signing. In addition, an assessment of school facilities was completed to identify the location of building entrances, current bike storage areas, school bus loading/unloading zones, parent drop-off/pick-up areas and current sidewalks, crosswalks and signing. This evaluation identified feasible modifications in and around school facilities that would create a safer environment for pedestrians and bicyclists.

#### **Analysis of Survey Data:**

Electronic and paper surveys in English and Spanish were sent to parents for all of the schools in early October to gain a better understanding of concerns about walking and bicycling to/from school. Direct feedback from parents further helped in identifying current perceived safety issues. The results of the survey are attached in the Appendix of this report. A follow-up survey could also be sent as an evaluation aspect of the program to measure changes in walking/biking trends over time

#### **Issues Identification:**

Based on the school assessments and walking/biking audits, surveys and input from the Task Force, issues maps were developed for each school. The issues included a variety of safety concerns, such as a lack of trails and/or sidewalks, lack of marked crosswalks and appropriate signing, insufficient bike storage to meet student demand, and insufficient snow removal resulting in walkers/bikers using the roadway to travel to/from school. Observations from the on-site school assessments showed a lack of separation between pedestrians and school bus/student pick-up/drop-off traffic, and parking congestion near schools resulting in challenging conditions for walkers and bikers. To increase the safety of walkers and bikers, it is important to separate the school bus loading/un-loading zones and parent drop-off/pick-up areas from the pedestrian/bicycle facilities that lead to the main school entrances.

#### **Safe Routes to School Plans:**

To increase the safety and convenience for students walking and biking to school, a SRTS plan was prepared for each school that addresses the issues that were identified for that individual school. The plan recommends infrastructure improvements for the school to help increase the number of students walking and biking to school.

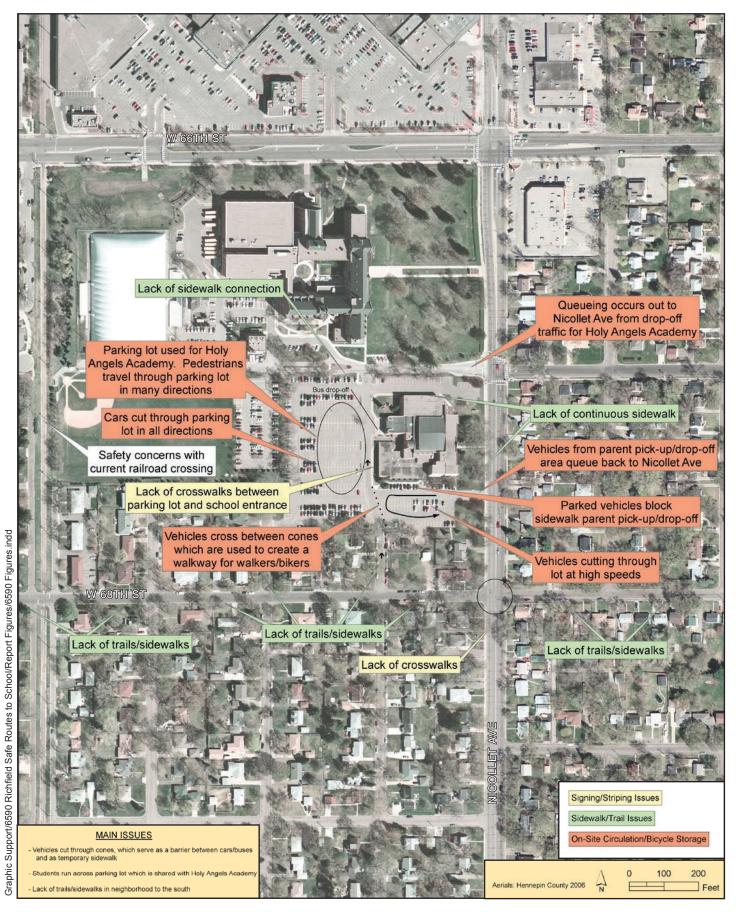
#### **Community Open House:**

The Issues Map, Safe Routes to Schools Plans, and survey results for each school was presented to the Richfield Transportation Commission in December 2008. The plans were revised based on feedback provided by the commission and presented to the parents and community at a Community Open House in January 2009. Comments obtained at the open house were incorporated into the final Safe Routes to School Plans for each school.

#### **IDENTIFICATION OF ISSUES**

The issues identified by the Task Force, results of the walking and biking audit, and parent surveys were used to develop an issues map for each of the eight Richfield K-8 schools. Based on the results of the school assessments, many safety issues were common between the various K-8 schools, and some issues were more specific to the particular school/neighborhood. For example, students attending Richfield High School, Richfield Middle School, and Blessed Trinity (St. Richard's) must cross I-35W, which has a few bridge crossing locations (i.e. 66th Street, 76th Street, and the pedestrian bridge located at 73rd Street). Full use of the pedestrian bridge is limited due to the lack of ramps, which does not make it ADA compliant or suitable for bicyclists. Also, there is no snow removal program for the bridge, which can lead to difficult crossings during winter months. Following is a summary of the main issues for each school:

- Blessed Trinity (St. Peter's) is located west of Nicollet Avenue and north of West 68th Street. A main issue for this school includes vehicles driving through the cones in the parking lot, which are placed as a barrier between the parent drop-off/pick-up area and the school bus loading/un-loading area. The cones also serve as a walkway for students entering the school property from the south on Blaisdell Avenue. Another issue for the school is a lack of trails/sidewalks to connect the school to the neighborhood to the south. With vehicles parked along Blaisdell Avenue south of the school, students walking/biking to school from the south either travel through the grass boulevard or travel in the roadway, resulting in challenging conditions. Other internal safety issues within the site involves the sharing of the St. Richard's parking lot with Holy Angels Academy. Students were observed running through the parking lot to access the Holy Angels parking. A map showing all of the issues for this school is shown in Figure 1.
- Blessed Trinity (St. Richard's) is located west of Penn Avenue and north of West 76th Street. Primary issues identified for St. Richard's include pedestrians crossing bus/vehicle traffic in the designated parent drop-off area, lack of connections to/from Penn Avenue and vehicles traveling in the wrong direction through the bus/vehicle loading/un-loading area are main issues that are creating safety concerns for the school. A map showing all issues identified are shown in Figure 2.
- *Centennial Elementary* is located east of Bloomington Avenue and south of 73rd Street. The lack of traffic control at intersections, lack of crosswalks and lack of trail/sidewalk connectivity were identified as the main issues for this school. The map showing all issues for Centennial Elementary is shown in Figure 3.
- *Mt. Calvary* is located north of East 66th Street and east of 16th Avenue. Based on the dispersed locations of students enrolled at this school, there is a very low number of students who walk/bike to this school. In addition, students are generally uncomfortable and unfamiliar with crossing the recently constructed roundabout at East 66th Street and 17th Avenue. There is currently a bike rack available behind the school, but it is currently inaccessible due to a safety fence that is in-place on the east side of the school. A map showing all of the issues is shown in Figure 4.





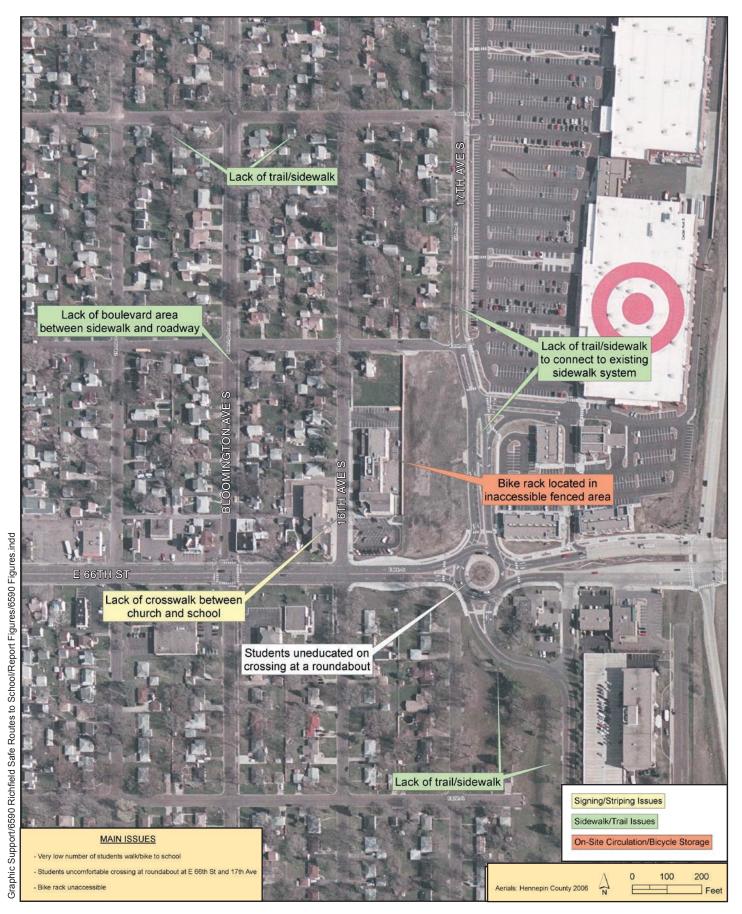






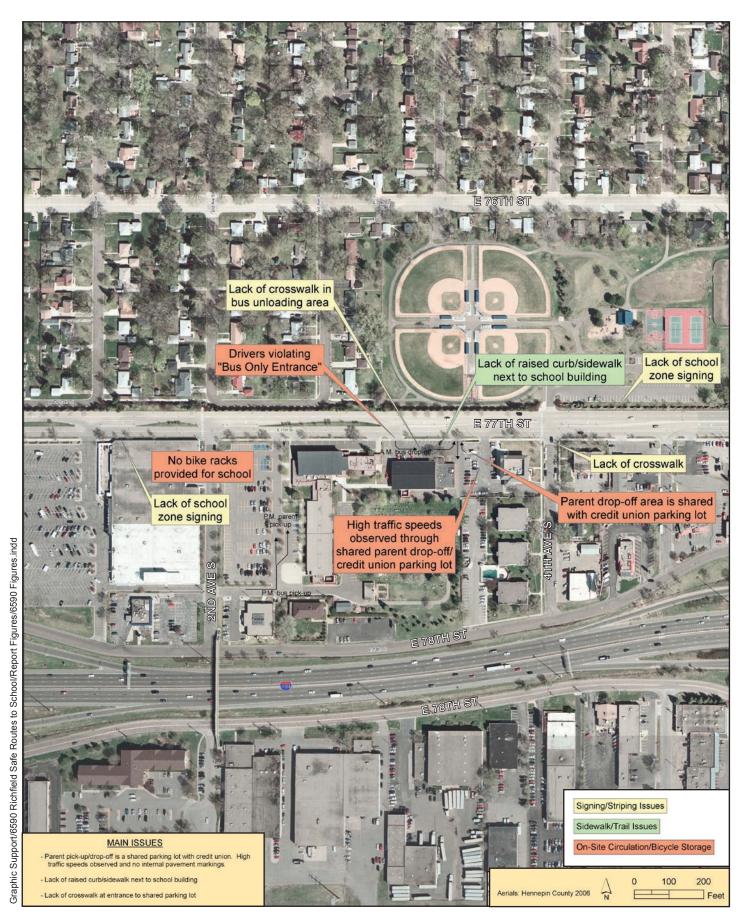


### **Centennial Elementary Issues Map**

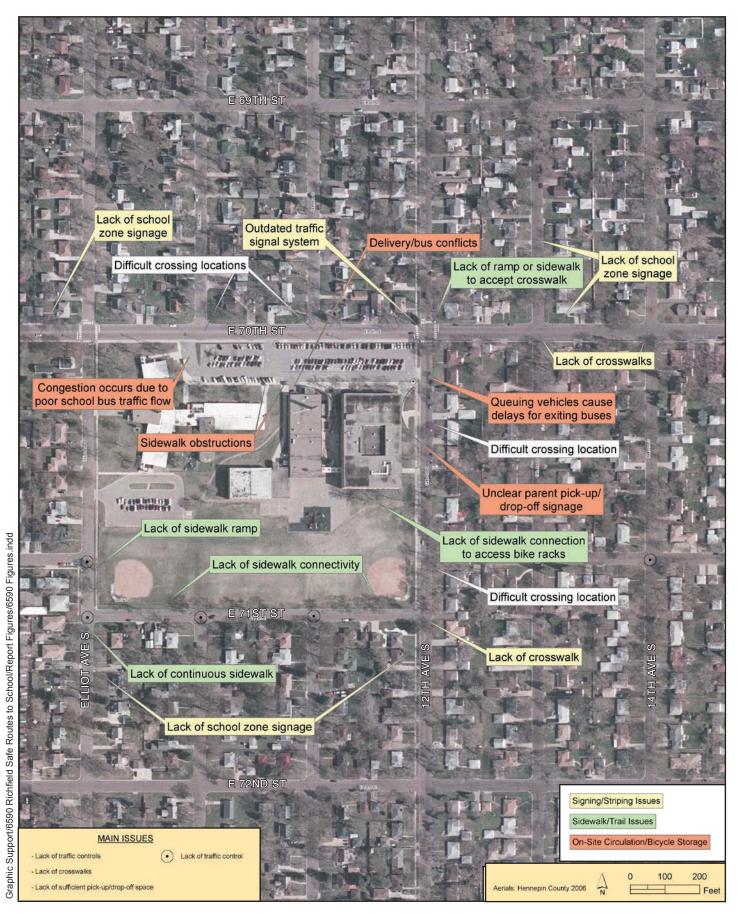




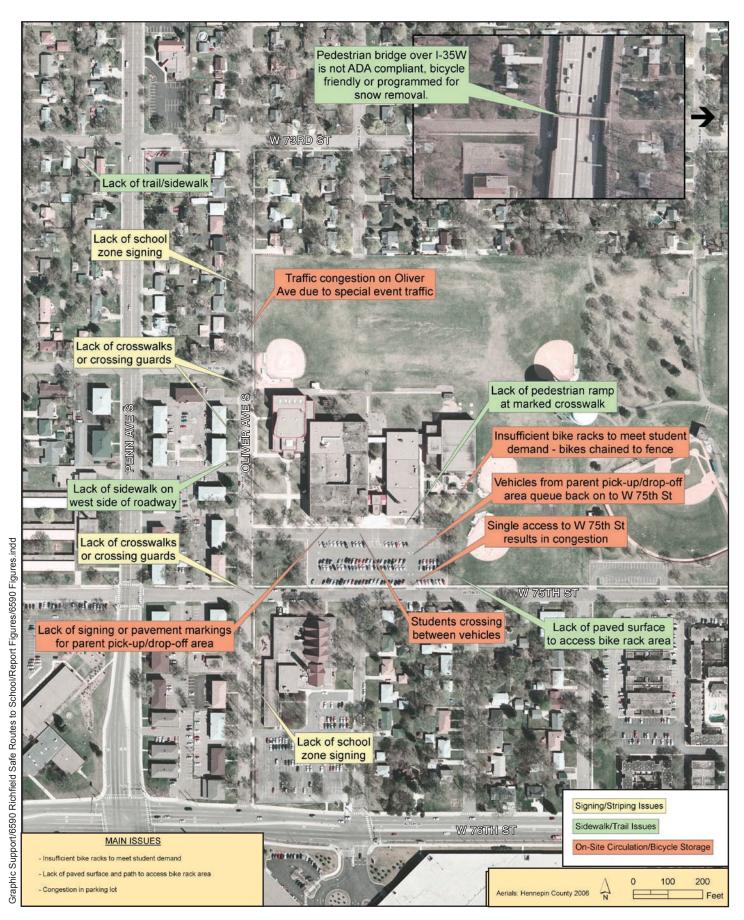
- *Partnership Academy* is located south of East 77th Street and west of 4th Avenue. The current parent pick-up/drop-off area for this school is a shared parking lot with an adjacent credit union. High traffic speeds were observed through the parking lot, with a lack of internal pavement markings and crosswalk at the entrance to the lot. In addition, there is no curb next to the building that would provide a physical barrier for students accessing the school. A map with all issues identified for Partnership Academy is shown in Figure 5.
- Richfield Intermediate School is located south of East 70th Street and west of 12th Avenue. Primary safety concerns for this school include lack of intersection traffic control, lack of crosswalks, and lack of sufficient space for pick-up/drop-off traffic. Construction of additional sidewalk connections would also improve safety and convenience for walkers and bikers traveling to/from the school. Other issues identified for Richfield Intermediate are shown in Figure 6.
- **Richfield Middle School** is located north of West 75th Street and east of Oliver Avenue. Insufficient bike racks to meet student demand, lack of paved surface and paths to access bike racks and congestion within the parking lot are some of the issues creating challenging conditions for walkers and bikers attending Richfield Middle School. A map showing all issues identified for this school is shown in Figure 7.
- Sheridan Hills Elementary is located south of West 64th Street between Thomas Avenue and Russell Avenue. There is currently a lack of continuous sidewalks to access the school property. Additional bike racks are needed to accommodate the student demand at this school. In addition, proper school crossing locations would increase the visibility of the school to motorists traveling on adjacent roadways. A map showing all issues identified for Sheridan Hills Elementary are shown in Figure 8.



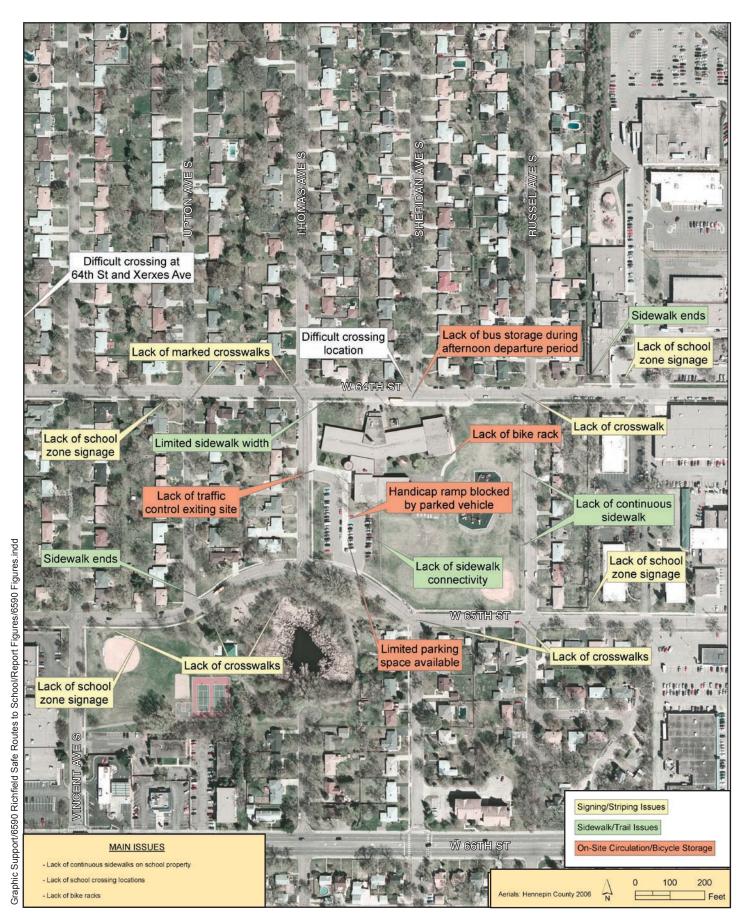














#### RECOMMENDED INFRASTRUCTURE IMPROVEMENTS

Infrastructure (engineered) improvements were recommended for each school to create safer conditions for students, including those with disabilities, to walk and bike to school. The installation of these improvements can help to encourage more students to utilize the facilities, help increase the comfort level of parents allowing their children to walk/bike to school and can influence the way pedestrians use the facilities. The improvements recommended in this plan will not only serve the students of these eight schools, but will also serve the community to utilize the trail system for recreational purposes. A map of the Safe Routes to School Plan for each school is shown in Figures 9-16. These improvements help connect neighborhoods to the schools, provide routes where they do not currently exist, and make the routes and crossing locations safer.

In addition to the infrastructure improvements recommended for these schools, a combination of the other four "E's" including: education, enforcement, encouragement, and evaluation, is key to developing an effective plan. Education strategies should be considered for:

- Students (assemblies, new student SRTS orientation, structured skills practices)
- Parents (website, e-mail, newsletters, training)
- Roadway Users (media, enforcement)
- Neighbors (signs, flyers, open houses)

The following non-infrastructure improvements are recommended for the schools to encourage more students to walk and bike to school and to educate students on ways to travel to/from school more safely.

#### **Education/Encouragement:**

- Law enforcement officers work with students in the classrooms, teaching pedestrian and bicycle safety (i.e. helmets, bicycle and pedestrian laws etc.) to encourage safe practices when walking or biking to school. Officers could hold a bike rodeo at the schools and demonstrate a mock crash scene to show the importance of pedestrian and bicycle safety.
- Use programs such as the Presidential Fitness and participation in the Juvenile Diabetes
  Walk to educate and promote awareness of the program and the benefits of increased
  physical activity.
- Consider hosting a National Walk to School Day to encourage more students to walk and bike to school.
- Encourage students to walk/bike to school through classroom recognition and incentives for students that are walking and/or biking to school. The use of pedometers or punch cards can help track the progress of students.
- Enter students in weekly classroom drawings to recognize and reward students that are walking/biking to school. On a monthly or quarterly basis, enter those students into a school-wide drawing for a larger prize to create excitement in the program.

- Promote individual recognition of students' efforts that are walking/biking to school to create further interest in the program.
- Communicate information to students, parents and the community through websites, email, newsletters and other school publications to educate and promote awareness of the Safe Routes to School program and pedestrian/bicycle safety.

#### **Enforcement/Evaluation:**

- Target areas near the schools to increase enforcement of motorists who fail to yield to pedestrians in crosswalks or who exceed speed limits in school zones to ensure motorists are respecting traffic laws.
- Evaluate the success of the program by soliciting feedback via parents and students on the success of the program.
- Purchase portable centerline pedestrian crossing signs that can be rotated between the schools to increase driver awareness of the crosswalk and the crosswalk law.

Following is a list of websites that are resources for the Safe Routes to School Program that focus on education for pedestrian and bicycle safety:

#### http://safety.fhwa.dot.gov/ped\_bike/

- Federal Highway Administration (FHWA) Web Site
- Comprehensive resource including: safety statistics; solutions; education and outreach, including Hispanic Pedestrian and Bicyclist Safety.

#### http://www.saferoutesinfo.org/

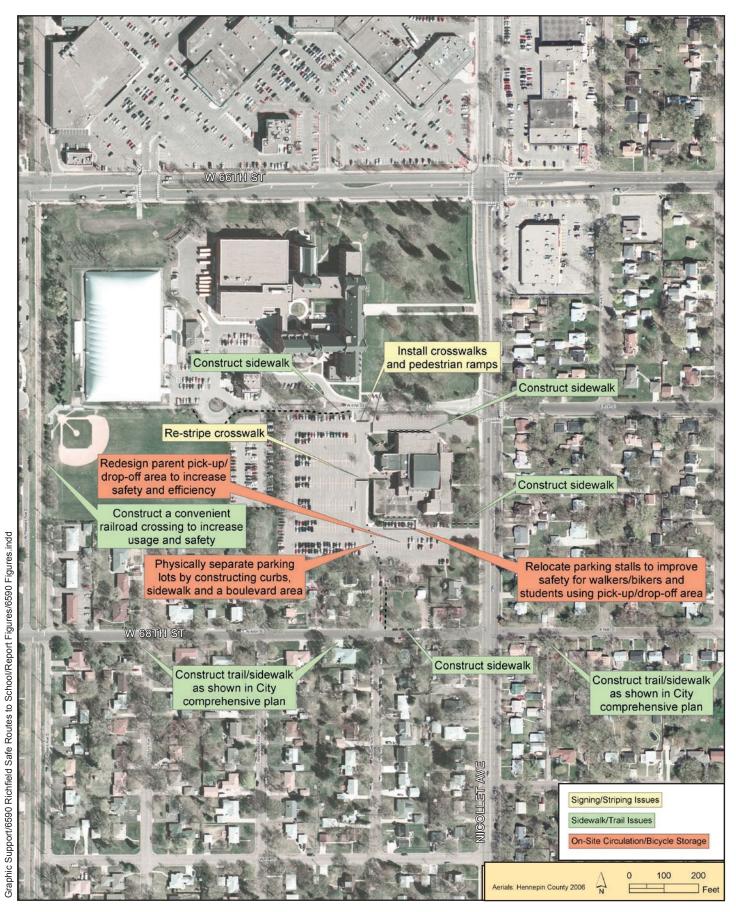
- The National Center for Safe Routes to School Resource Center
- Provides a centralized location of resources developed by the Center and the U.S. Department of Transportation which assists communities in developing successful Safe Routes to School Strategies.

#### http://www.pedbikeinfo.org/

- Website funded by the U.S. Department of Transportation Federal Highway Administration and maintained by the Pedestrian and Bicycle Information Center.
- Offers information and training to diverse audiences regarding the benefits of safe walking and biking.

#### http://www.mnsafetycouncil.org/crosswalk/

- Website from the Minnesota Safety Council
- Provides a thorough explanation of the crosswalk law, and focuses on teaching children how to get to school safely.







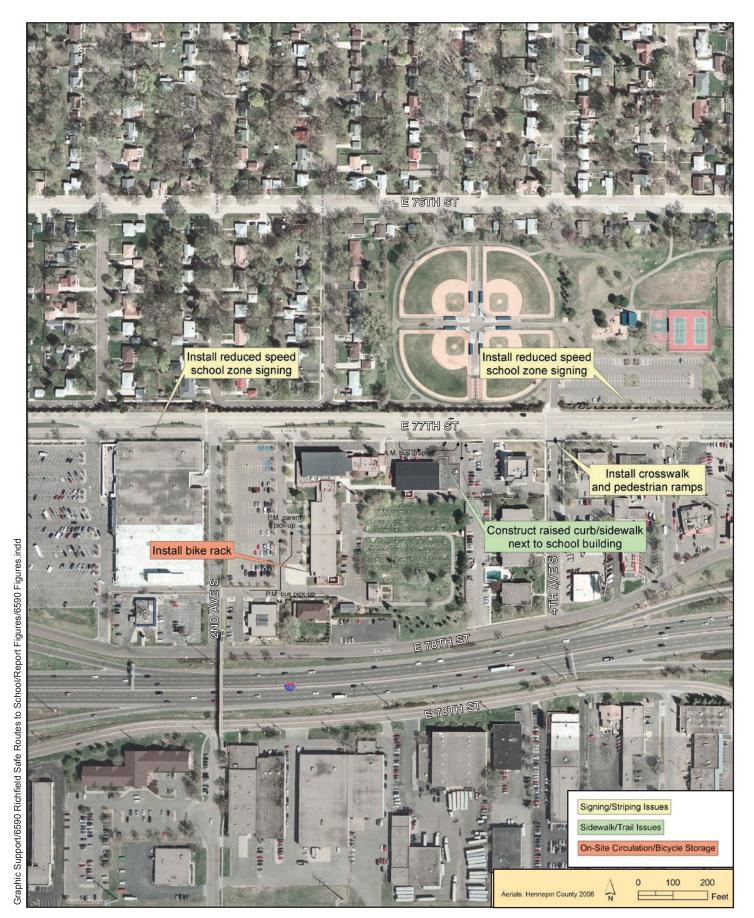








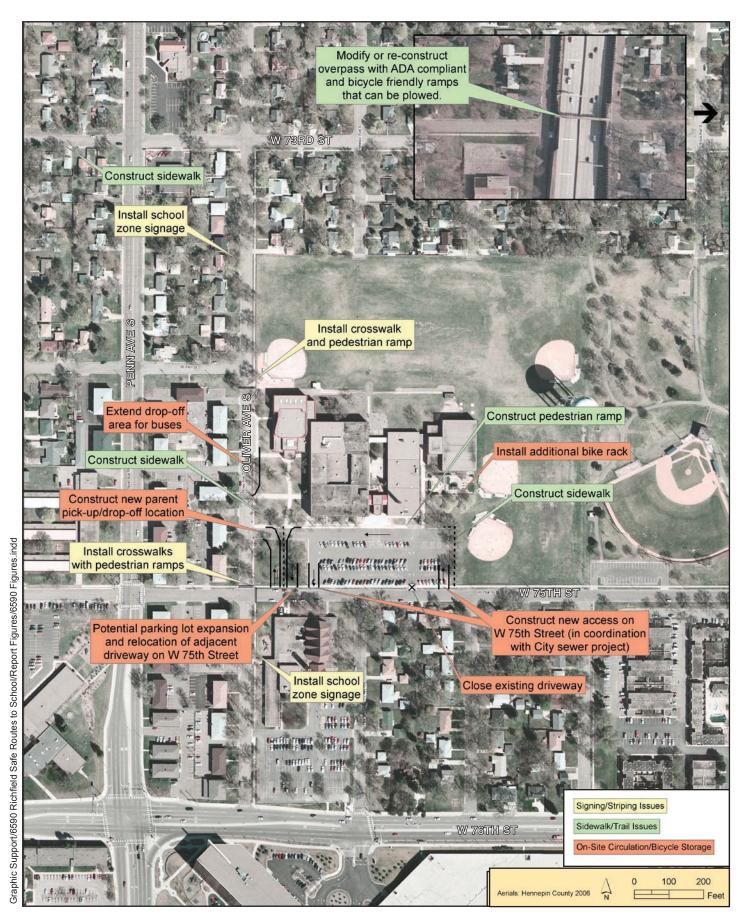




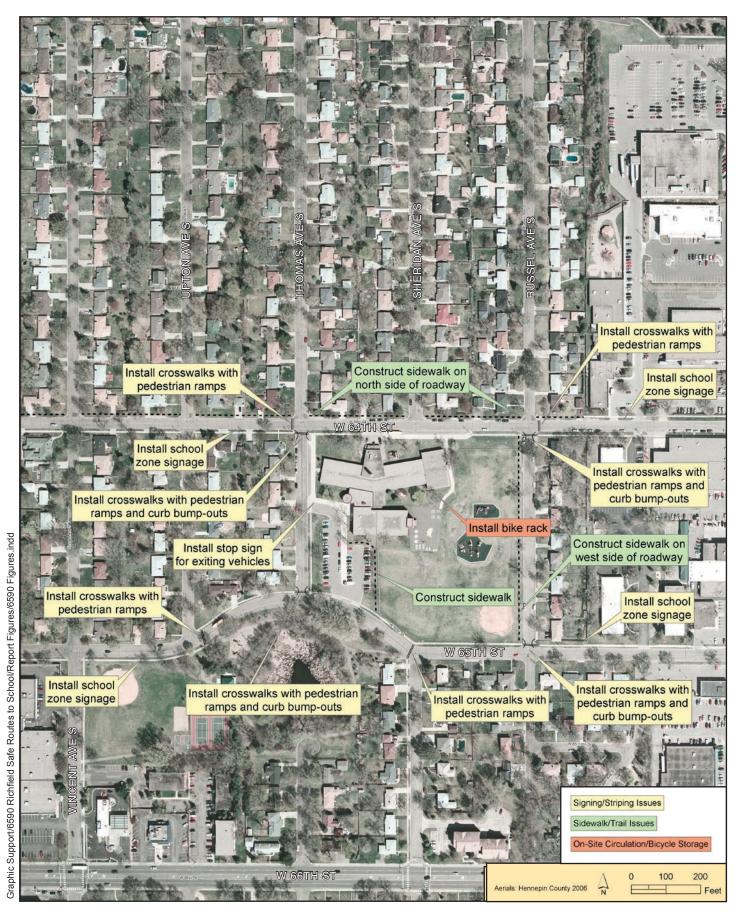












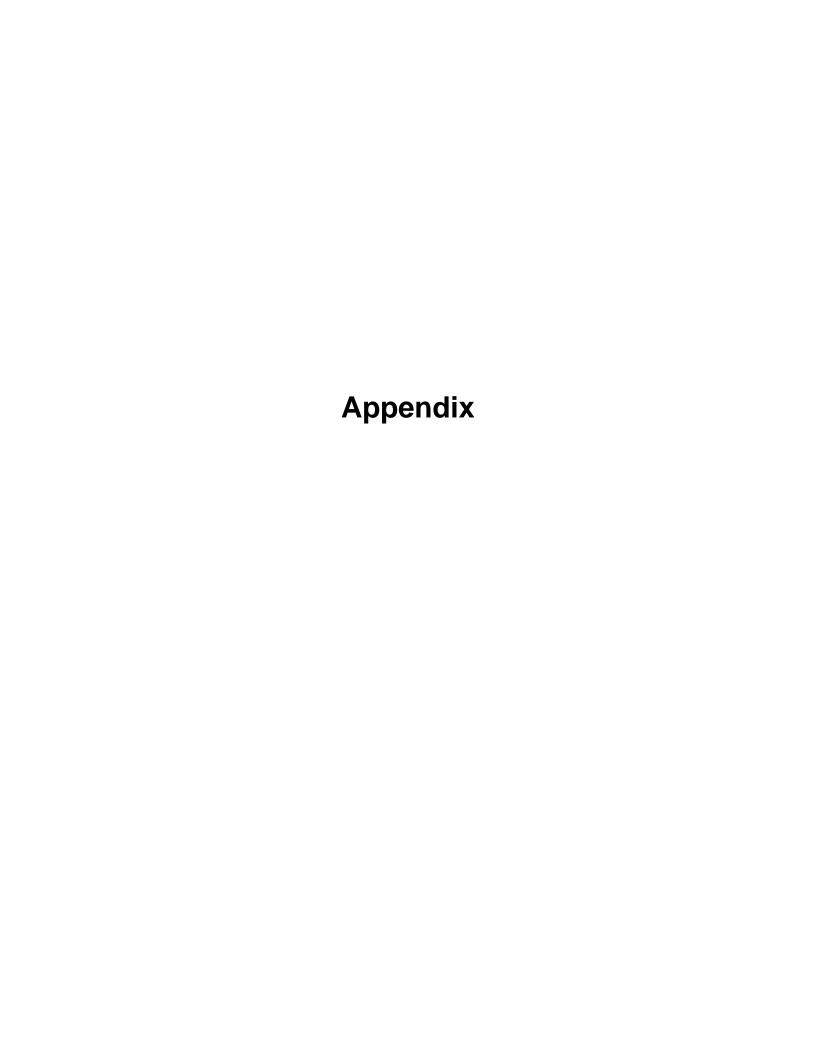


#### CONCLUSIONS AND RECOMMENDATIONS

This Safe Routes to School Plan incorporates all five of the E's, including Education, Encouragement, Enforcement, Engineering, and Evaluation, which are all critical elements of the program to increase the number of students walking and biking to school. The solutions recommended for each school will increase safety for students as they walk and bike to school and encourage others in the community to use the facilities. A plan that includes students, parents, school officials, law enforcement representatives and others in the community will work towards achieving the goals of the program encouraging children to walk and bike to school, increasing their physical activity; increasing safety and convenience for biking and walking to school, making it a more appealing choice; and reducing traffic, fuel consumption and air pollution near the schools.

The customized plan for each school gives a broad scope of improvements that should be considered as funding opportunities arise. Developing a prioritized list of improvements will allow improvements with the highest urgency to be effectively implemented as future funding sources become available. In addition, as roadway improvement projects occur or other opportunities arise, Safe Routes to School improvements should be considered. Future monitoring of pedestrian and bicycle patterns will identify if the strategies which are implemented are successful at increasing the number of children that walk and bike to school.

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### City of Richfield Safe Routes to School Study Survey Results

### 1. Please indicate the grade level of your child(ren)? (Check all that apply)

Kindergarten	12	11.3%
Grade 1	21	19.8%
Grade 2	11	10.4%
Grade 3	19	17.9%
Grade 4	11	10.4%
Grade 5	7	6.6%
Grade 6	9	8.5%
Grade 7	9	8.5%
Grade 8	7	6.6%

### 2. On an average day, how do your child(ren) travel to school (morning)? (Check one per section)

School bus	48	59.3%
Car (drop off)	23	28.4%
Carpool	1	1.2%
Walk	4	4.9%
Bike	2	2.5%
City bus	0	0%
Other	3	3.7%

### 3. On an average day, how do your child(ren) travel home from school (afternoon)? (Check one per section)

School bus	47	65.3%
Car (drop off)	15	20.8%
Carpool	2	2.8%
Walk	3	4.2%
Bike	2	2.8%
City bus	0	0%
Other	3	4.2%

**4.** If you drive your children to school, why do you make that choice? (Check all that apply)

Too far to walk	25	25.5%
Driving is safer than the alternative	15	16.3%
Driving is convenient or on the way to work	9	9.2%
Vehicles traveling too fast	11	11.2%
Child is too young	13	13.3%
Bad weather	17	17.3%
Child would not obey safety rules	2	2.0%
Backpack too heavy	6	6.1%
Carrying project or musical instrument	4	6.3%
Child would be late for school	9	14.1%
Lack of safe way to cross the street	14	21.9%
Lack of safe place to store bike	2	3.1%
No walking/biking route maps	12	18.8%
Concerns about crime	12	18.8%
Bus safety concerns	5	7.8%
Other	6	9.4%

# 5. How do you feel about the following statements pertaining to the walking and biking conditions in your neighborhood? (Check one box for each question)

Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	Strongly Agree	Mildly Agree	No Opinion	Mildly Disagree	Strongly Disagree
There are too many high speed vehicles.	38	25	6	7	1
	49.4%	32.5%	7.8%	9.1%	1.3%
There are high amounts of vehicle traffic.	38	19	6	11	1
	50.7%	25.3%	8%	14.7%	1.3%
There are broken sidewalks.	9	18	24	12	9
	12.5%	25%	33.3%	16.7%	12.5%
There are gaps in the sidewalk network.	16	15	23	11	10
	21.3%	20%	30.7%	14.7%	13.3%
There is poor lighting.	13	25	21	11	6
	17.1%	32.9%	27.6%	14.5%	7.9%
There is a crime problem.	10	11	27	15	10
	13.7%	15.1%	37%	20.5%	13.7%
There are not enough cross walks and / or	31	22	12	8	4
school signage.	40.3%	28.6%	15.6%	10.4%	5.2%
It is dangerous to walk or bike to our	34	20	13	6	2
school via sidewalks and roads.	45.3%	26.7%	17.3%	8%	2.7%
Even with marked crosswalks, some	35	19	7	10	2
roads are too dangerous to cross.	47.9%	26%	9.6%	13.7%	2.7%
I feel comfortable allowing my children	8	11	12	11	35
to walk or bike to school.	10.4%	14.3%	15.6%	14.3%	45.5%

## 6. Which of the following statements would influence your decision to consider letting your child walk or bike to school?

(Check one box for each question)

Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	Yes	No	Maybe
If they were accompanied by an adult	49	4	16
	71%	5.8%	23.2%
If they were accompanied by other children the same age	19	28	22
	27.5%	40.6%	31.9%
If they were accompanied by an older child	21	26	19
	31.8%	39.4%	28.8%
If new sidewalks and crossings were installed	35	10	26
	49.3%	14.1%	36.6%
If they received walking and bicycle safety education from the school	28	19	19
	42.4%	28.8%	28.8%
If we lived closer to the school	41	10	18
	59.4%	14.5%	26.1%

# 7. How important are the following factors in influencing your decision to allow your children to walk or bicycle to school? (Check one box for each question)

Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	Very Important	Somewhat Important	Not Important
Being accompanied by an adult or other	50	14	6
children	71.4%	20%	8.6%
Continuous sidewalks from home to school	41	23	1
	63.1%	35.4%	1.5%
Clearly marked walking and bike routes - with	48	17	3
signs	70.6%	25%	4.4%
Separated trails connecting your neighborhood to the school	36	25	9
	51.4%	35.7%	12.9%
Traffic not exceeding the speed limits in neighborhoods	63	6	1
	90%	8.6%	1.4%
Adequate lighting	53	15	2
	75.7%	21.4%	2.9%
Presence of McGruff Safe Houses	38	19	11
	55.9%	27.9%	16.2%
Secure place to park bicycles	41	22	6
	59.4%	31.9%	8.7%
School education programs on walking and	45	14	9
biking safety	66.2%	20.6%	13.2%