

Dakota County
Safe Routes to School

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Safe Routes to School Comprehensive Plan

**Cedar Park Elementary Science, Technology, Engineering,
Mathematics (STEM) School**

**City of Apple Valley
Dakota County, MN**

May 2010

Prepared by:



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SHIP

Statewide Health Improvement Program

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Project Background

The Statewide Health Improvement Program (SHIP) aims to help Minnesotans live longer, healthier lives by reducing the burden of chronic disease. The Dakota County Public Health Department received SHIP funding to work with community partners to develop and implement programs to improve nutrition, increase physical activity, and reduce tobacco use in schools, workplaces, community settings, and healthcare sites. As part of this effort, comprehensive Safe Routes to School (SRTS) plans have been developed for 10 schools in Dakota County that seek to increase walking and biking to school through the following means:

- **Education** – Teaching children to walk and bike safely.
- **Encouragement** – Developing programs that get children excited about walking or biking to school, such as walk/bike incentive programs or Walk to School Day. May also include methods that help parents and guardians feel comfortable letting their child walk or bike, such as walking school buses or adult crossing guards.
- **Enforcement** – Having law enforcement support, such as speed zone enforcement or increased patrols, along the designated routes to school.
- **Engineering** – Identifying infrastructure barriers to walking and biking, such as sidewalk/trail gaps, hazardous crossings, or the need for secure bicycle parking.
- **Evaluation** – Measuring the effectiveness of the various components of the SRTS project.

The following sections describe the development of a Safe Routes to School Plan for Cedar Park Elementary STEM School in the City of Apple Valley, Dakota County, Minnesota.

Existing Conditions

Cedar Park Elementary is one of three elementary magnet schools in District 196 serving the Rosemount, Apple Valley, and Eagan communities in the Twin Cities suburbs. Cedar Park Elementary is located on Cedar Avenue at Whitney Drive, in the City of Apple Valley. Cedar Park Elementary opened in 1977 and was expanded and upgraded in 2007. The school is located adjacent to Newell Park, a city-owned park, and the surrounding area is residential and commercial.

Student Data

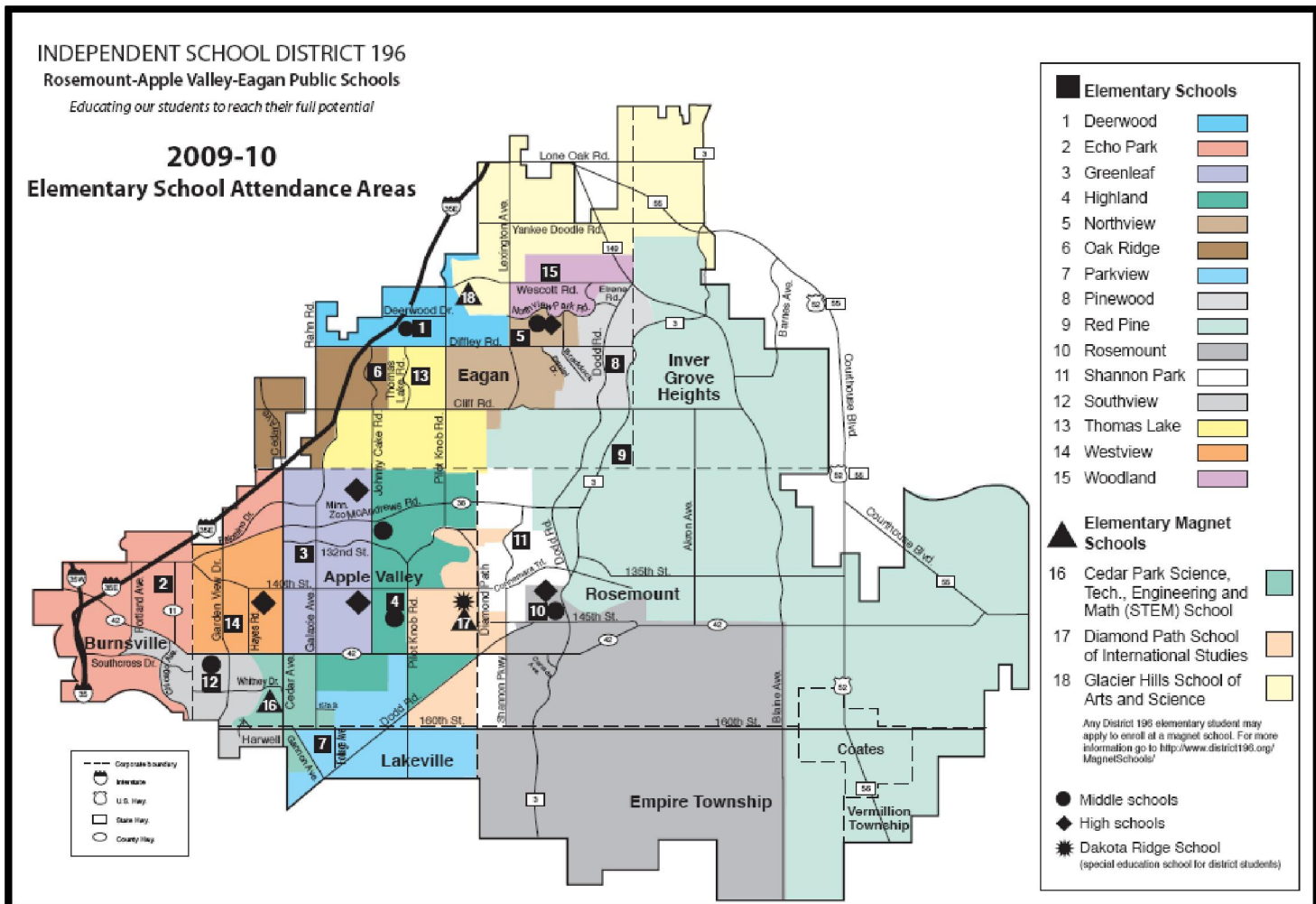
Currently, there are approximately 584 students in kindergarten through 5th grade at Cedar Park Elementary (2009-2010 school year) and the school day runs from 9:25 am to 3:45 pm. The elementary

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school boundary map for District 196 shows that the attendance area for Cedar Park Elementary is concentrated to the neighborhoods near the school, within the City of Apple Valley and Lakeville. However, only 254 students of the 584 total students live in the attendance area. The other 330 students are from throughout District 196.



Source: www.district196.org

Although the attendance area for the school extends on both sides of Cedar Avenue (County Road 23), to County Road 42 (150th Street) on the north, and south of County Road 46 (160th Street), the designated walk area for the school is approximately ½ mile. In addition, the school district designates hazardous roadways beyond which students are bussed even if they are within the ½-mile walk area. The only hazardous roadway within the walk area is Cedar Avenue, however with the school located just

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west of Cedar Avenue, even students that live across the street are provided bus transportation across Cedar Avenue. The walk area for Cedar Park Elementary is shown on the map on page 14.

Safe Routes to School Activities

Cedar Park Elementary has held a Walk to School Day the past two years, where students got off the buses and walked a half mile around the school before starting the school day. A Walk to School Day was most recently held on May 14, 2010. In the past, Cedar Park Elementary has held bike rodeos, bike safety day, and biking events to Lac Lavon Park. Cedar Park Elementary also holds bike safety assemblies about every two years.

As a magnet school, a relatively small percentage of students that attend Cedar Park actually live in the walk area. With very few students that walk or bike, the school does not currently have a school patrol, but does have a trained student bus patrol. There isn't a targeted Safe Routes to School program at Cedar Park, but a walking/running club was established about four years ago 3rd, 4th and 5th graders. Students get punch cards, can walk or run laps during recess and receive small prizes for filling up punch cards.

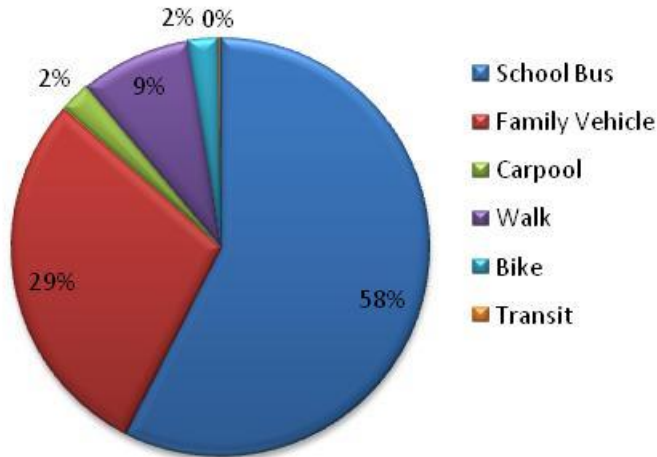
In-classroom tallies of students' arrival and departure modes were conducted at Cedar Park Elementary during April 2010. As shown in the chart on the following page, an average of 9 percent of students currently walk to school and an average of 2 percent of students currently bike to school. The most predominant mode is school bus, however about 29 percent of students are driven to/from school. The tallies also showed very little change between morning and afternoon modes, which was unusual compared to the tallies conducted at the other seven elementary schools in District 196. Most of the other schools had more students that walked and biked home from school in the afternoon.

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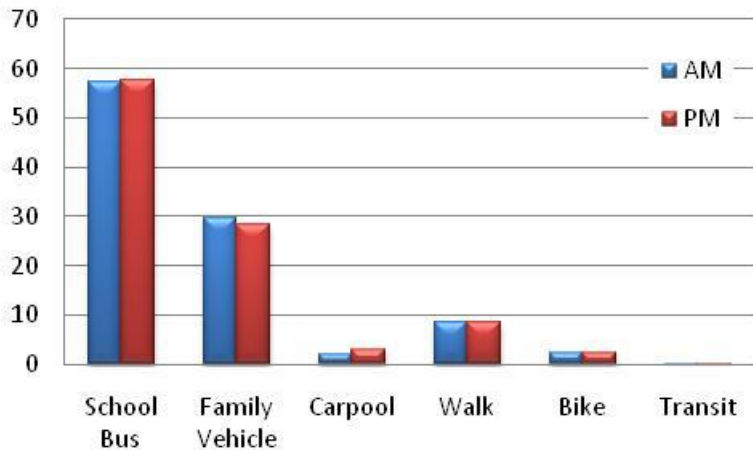
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Modes To/From School



Before/After School Modes

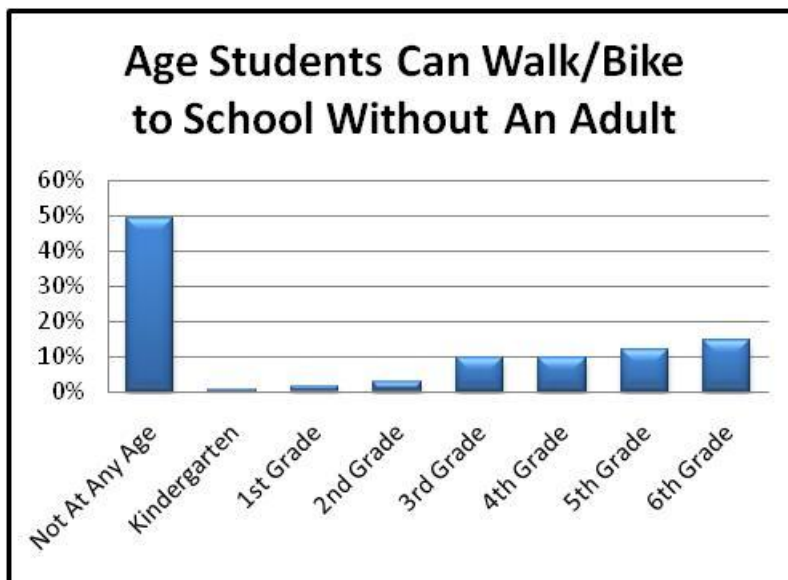
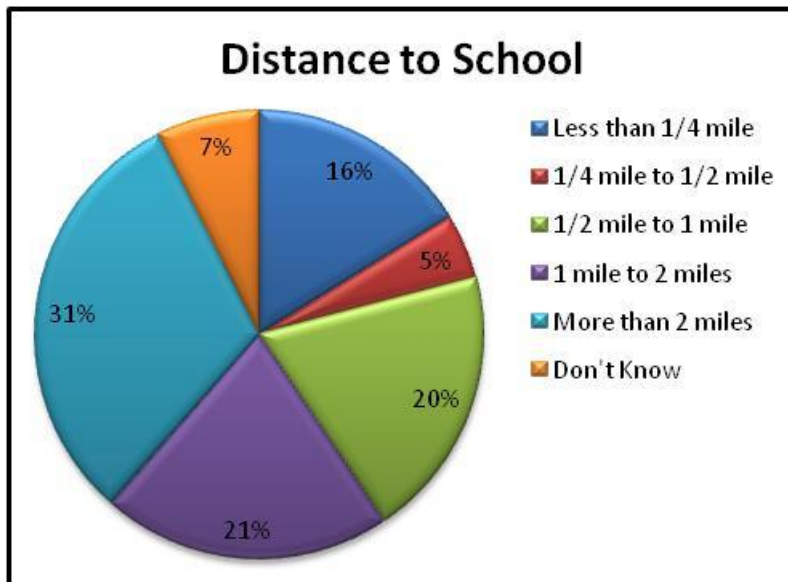


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A parent survey of concerns and attitudes related to walking and biking was also conducted in April 2010, with 151 responses. As a magnet school, more than 50 percent of students live more than 1 mile from school. Also, approximately 58 percent of the survey respondents live east of Cedar Avenue. Traffic volumes, traffic speeds, and intersection safety were the most common reasons for not walking or biking, and intersection safety was the improvements that would be most likely to influence parents to starting letting their students walk or bike. The charts on the following pages show some of the other key results from the survey.

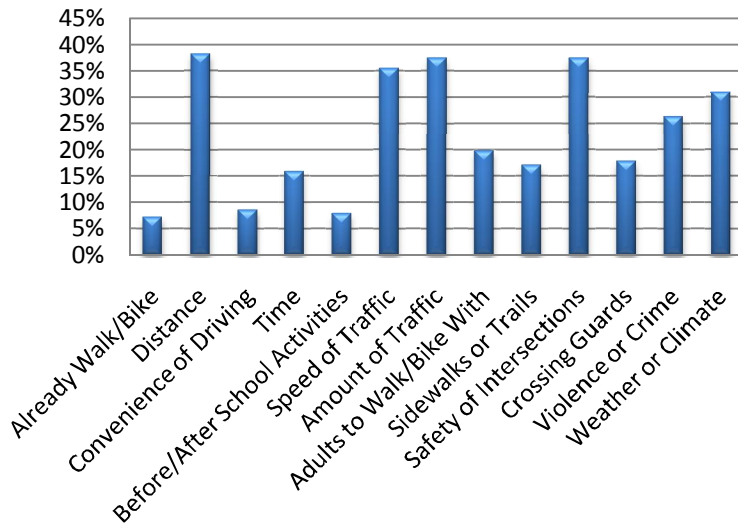


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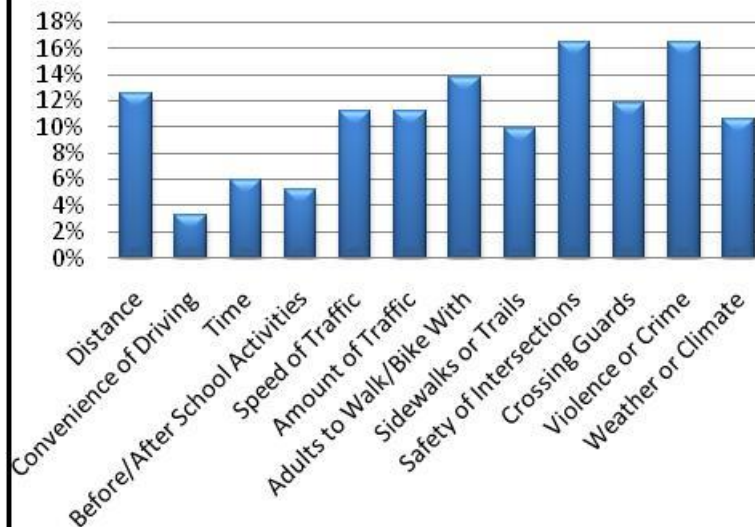
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Factors Affecting Decision to Walk/Bike



Improvements That Would Increase Walking/Biking



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Infrastructure

The roadways surrounding the school generally have a well-connected system of sidewalks and trails. There are currently multi-use trails on both sides of Cedar Avenue, County Road 42 (150th Street), and County Road 46 (160th Street). There are also sidewalks on both sides of Whitney Drive and 157th Street, and a trail that connects through Newell Park to Cedar Park Elementary. However, there is no direct connection from the trail on the west side of Cedar Avenue to the sidewalk on the school site. In addition, the trail through Newell Park extends only to the bike parking on the back (west) side of the school, but does not connect to the sidewalks at the front of the school.

Cedar Avenue has a speed limit of 45 miles per hour and currently carries approximately 36,000 vehicles per day. As such, it acts as a barrier to walking and biking to Cedar Park since approximately half of the ½ mile walk area is east of Cedar Avenue. In addition, most of the land uses along this segment of Cedar Avenue are commercial, which limits the number of students that can potentially live within the walk area.



Trail connection through Newell Park to the back of Cedar Park Elementary.

There are currently four signed school crossings on the roadways surrounding the school:

- Whitney Drive bend, just west of Cedar Avenue
- Whitney Drive bend, one block north of Cedar Park Elementary
- Whitney Drive/Pennock Lane
- 157th Street/Hallmark Way

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Existing school crossing on Whitney Drive at the Cedar Park driveway to the parent parking lot. No students currently cross at this location.

The bike racks at Cedar Park are located in the back of the school in an unpaved area, near the sidewalk and trail connections through Newell Park.



Bike parking behind Cedar Park Elementary.

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A review of the crash history for the past five years (2004-2008) showed that while there have been many vehicle crashes on Cedar Avenue, there have been no pedestrian crashes at any of the designated school crossing intersections and no crashes at the intersections that occurred during school arrival or dismissal.

In the summer of 2009, Minnesota Valley Transit Authority (MVTA) constructed a new parking ramp on the east side of Cedar Avenue, just north of the 155th Street/Whitney Drive intersection. The parking ramp will serve as a transit station for the bus rapid transit (BRT) line proposed to begin operations on Cedar Avenue in 2012. As part of the BRT station, a pedestrian overpass was constructed over Cedar Avenue, just north of the 155th Street/Whitney Drive intersection and the existing traffic signal will be removed in 2011 or 2012 as part of the Cedar Avenue project. At that time, the Cedar Avenue/155th Street/Whitney Drive intersection will be modified to a 3/4 access intersection that allows right turns to and from the side street and left turns from Cedar Avenue onto the side streets, but does not allow left turns from 155th Street or Whitney Drive onto Cedar Avenue. This change will result in some changes to the bus routing in and out of the Cedar Park site.



View of Cedar Avenue and the new pedestrian overpass north of 155th Street/Whitney Drive.

Site Evaluation

A site evaluation was completed at Cedar Park Elementary School on the morning of March 31, 2010 and a follow-up visit was done in the afternoon on April 15, 2010. The site visits included walking around the site and observing the arrival and dismissal process on a typical day. Currently, parents and visitors use the inner parking lot, which accesses Whitney Drive near the bend in the roadway. Buses and staff

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use the outer parking lot, with a driveway on Whitney Drive that is very close to Cedar Avenue. As a result, buses often queue in the driveway while waiting for the traffic signal at Cedar Avenue to turn green so that they can turn onto Whitney Drive.



Signing at entrances to Cedar Park parking lots.

The buses can generally be accommodated in the larger parking lot, but some buses were observed unloading along the sidewalk in the driveway area. Even though students can walk on the sidewalk up to the school building, this is a safety concern with the number of vehicles in both parking lots and the number of students getting off the bus.

The volume of parent traffic in the smaller parking lot results in significant congestion, especially in the afternoon. With the volume of parent traffic in the small parking lot, vehicles are sometimes two or three deep when students enter and exit the vehicle. This results in numerous pedestrian/vehicle conflicts, which even at the very low speeds of a parking lot are a serious safety concern. In addition, the parking lot is not large enough to accommodate the number of vehicles. Counts of the average number of parent vehicles per day in the Cedar Park parking lot in March 2010 showed 67 vehicles on one day and 81 vehicles on the second day.

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Queued vehicles waiting for afternoon dismissal.



Queue of vehicles in the Cedar Park driveway waiting to turn onto Whitney Drive after dismissal.

Whitney Drive becomes congested during both the morning arrival and afternoon dismissal, primarily due to turning traffic entering and exiting the site and waiting to turn onto Cedar Avenue. With the reconstruction of Cedar Avenue and the removal of signal at the Cedar Avenue/Whitney Drive intersection, queuing from cars waiting to turn onto Cedar Avenue would be expected to be reduced since vehicles will only be able to turn right from Whitney Drive to Cedar Avenue. However, an increase

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in traffic on Whitney Drive and Pennock Avenue would also be expected by vehicles that want to travel north on Cedar Avenue or west on County Road 42.



Buses queue in driveway due to traffic on Cedar Avenue.

The possibility of making the bus/staff parking lot one-way, with the entrance on Whitney Drive and a new driveway onto Cedar Avenue was discussed with Dakota County. However, based on the traffic volumes and speeds on Cedar Avenue, the second driveway location would not meet the access management standards for the corridor.

Existing Issues and Challenges

In addition to the data collection and site evaluation completed as part of this project, a Safe Routes Working Group was established for Cedar Park Elementary that included teachers, District 196 Transportation, the City of Apple Valley, Dakota County and a parent representative. The role of this group was to identify and discuss barriers to walking and biking to school as well as potential ways to overcome the barriers.

The existing challenges to walking and biking to Cedar Park Elementary are summarized in the following bullets, as well as the map on the following page:

- As a magnet school, less than half the students live in the school attendance area.
- The walk area is very small due to the designation of Cedar Avenue as a hazardous crossing.

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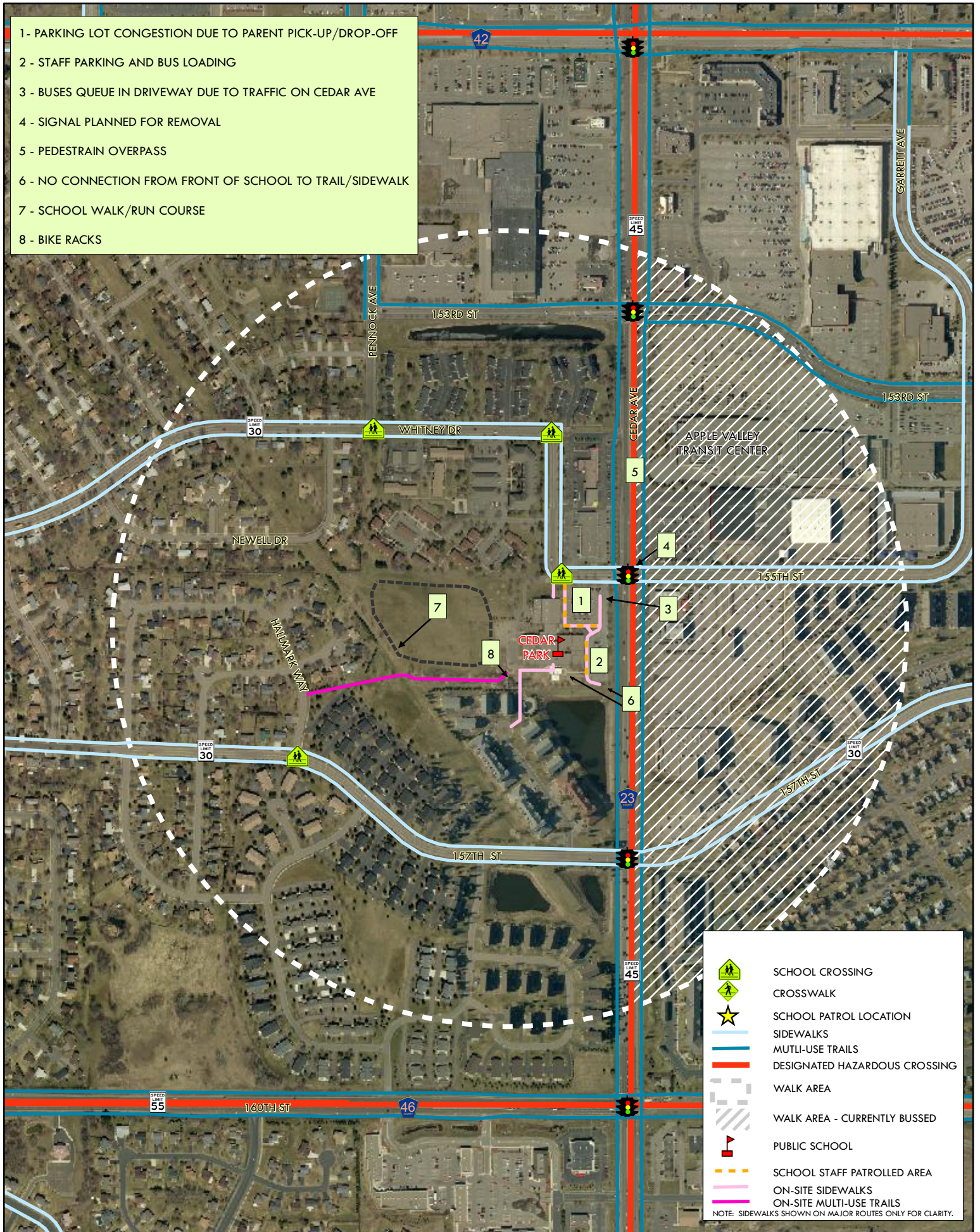
- Parking lot congestion due to the volume of parent pick-up and drop-off traffic.
- The volume of traffic on the school site and the resulting congestion contributes to the perception that it is not safe to walk or bike.
- All traffic enters and exits onto Whitney Drive, which is impacted by congestion on Cedar Avenue.
- Buses queue in the school driveway waiting to turn onto Whitney Drive due to the queue of vehicles at Cedar Avenue.
- Traffic signal at Cedar Avenue/155th Street/Whitney Drive is planned for removal in 2011, as part of the Cedar Avenue construction.
- New pedestrian overpass has been constructed over Cedar Avenue, just north of 155th Street/Whitney Drive.
- There are no sidewalk or trail connections from the main (front) entrance of the school to the trails around the school.



Gap between on-site sidewalk and the multi-use trail on Cedar Avenue.

- Bike racks are located behind the school in a location that is convenient to trails, but is currently unpaved.
- Parents would be more willing to let students walk or bike if they knew they would be supervised.
- District budgets may increase walk radius in the future – opportunity for more walking and biking, but could also mean even more parents driving.

- 1 - PARKING LOT CONGESTION DUE TO PARENT PICK-UP/DROP-OFF
- 2 - STAFF PARKING AND BUS LOADING
- 3 - BUSES QUEUE IN DRIVEWAY DUE TO TRAFFIC ON CEDAR AVE
- 4 - SIGNAL PLANNED FOR REMOVAL
- 5 - PEDESTRAIN OVERPASS
- 6 - NO CONNECTION FROM FRONT OF SCHOOL TO TRAIL/SIDEWALK
- 7 - SCHOOL WALK/RUN COURSE
- 8 - BIKE RACKS



	SCHOOL CROSSING
	CROSSWALK
	SCHOOL PATROL LOCATION
	SIDEWALKS
	MULTI-USE TRAILS
	DESIGNATED HAZARDOUS CROSSING
	WALK AREA
	WALK AREA - CURRENTLY BUSSED
	PUBLIC SCHOOL
	SCHOOL STAFF PATROLLED AREA
	ON-SITE SIDEWALKS
	ON-SITE MULTI-USE TRAILS

NOTE: SIDEWALKS SHOWN ON MAJOR ROUTES ONLY FOR CLARITY.

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Recommendations

Despite some of the current challenges to walking and biking to Cedar Park Elementary, there are still opportunities to increase the numbers of students regularly walking and biking to school as well as increasing the physical activity of students that don't have the opportunity to walk or bike as transportation. The following recommendations have been developed specifically for Cedar Park Elementary to address the identified challenges to walking and biking. The short-term recommendations are actions that could be implemented prior to or during the 2010-2011 school year, while the long-term recommendations may require policy changes, additional discussion and coordination, or significant funding sources. In addition to the recommendations, the group that should take the lead in implementing the recommendation has also been identified.

Short-Term Recommendations

The short-term recommendations included in this section primarily consist of low-cost improvements that can be implemented in the six months, although some are dependent on funding availability. The recommendations are generally prioritized in terms of actions that are easiest or most necessary to complete first. The infrastructure recommendations are also summarized on the map included at the end of this report.

1. Start a walke/bike to school incentive program that builds on the existing Walking/Running Club where students get punch cards to track their laps. For example, students that reach 20, 50, or 100 laps throughout the year receive small prizes or are entered into a raffle for a larger prize. Implementation lead – Cedar Park.
2. Purchase or create mobile or permanent signs that can be used in the parent pick-up/drop-off area to better direct parent vehicles to pull forward and reduce the queue in the driveway. Implementation lead – Cedar Park/District 196.

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Examples of signs that could be used in the parent pick-up/drop-off zone.

3. Create information for parents that communicates the benefits of walking or biking to school, as well as the safety and operations procedures for pick-up/drop-off. Implementation lead – Cedar Park, with assistance from Dakota County Public Health.
4. Establish a permanent Safe Routes committee at Cedar Park to provide on-going support and organization for Safe Routes activities, including regular Walk to School days, bike safety training, or special events. Implementation lead – Cedar Park.
5. Investigate the feasibility of a remote pick-up/drop-off site on Whitney Drive north of the school to reduce the vehicle conflicts and congestion on the school site. This would require increased adult supervision between the remote sites and the school site, but would result in more physical activity for students and would reduce the pedestrian/vehicle conflicts on the school site. Implementation lead – Cedar Park.
6. Work with neighborhood associations, senior citizen groups, or others to solicit volunteers to supervise students walking from the remote drop-off sites to the school building. Implementation lead – Cedar Park, with assistance from City of Apple Valley and Dakota County Public Health.
7. Start a weekly or monthly “Walk to School Day” with increased staff or parent volunteers supervising students on the designated walk and/or bike days. Implementation lead – Cedar Park.

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8. Investigate the feasibility of using the MVTA pedestrian overpass for students walking and biking from east of Cedar Avenue. Implementation should be in conjunction with short-term recommendation #8. Implementation lead – Cedar Park/District 196, in coordination with MVTA.
9. Eliminate the school crossing at the Whitney Drive bend next to Cedar Park. The crossing isn't needed since there is sidewalk on both sides of Whitney Drive, and there are no residences on the east side of Whitney Drive between the two bends. Instead, students should be encouraged to cross at the northern Whitney Drive bend, which has all-way stop control and is also signed as a school crossing. Implementation lead – City of Apple Valley.



School crossing at the all-way stop control intersection on Whitney Drive.

10. Organize a walking school bus¹ or bike train for student to walk and bike together as a group to and from school. The best potential for this would be for students that live in the multi-family buildings south of the school. Implementation lead – Cedar Park.

¹ A walking school bus is a group of children walking to school with one or more adults. It can be as informal as two families taking turns walking their children to school to as structured as a route with meeting points, a timetable and a regularly rotated schedule of trained volunteers.

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Long-Term Recommendations

The long-term recommendations included in this section primarily consist of higher cost improvements or actions that would require a significant policy change, either of which would be expected to take longer than six months to occur. These recommendations are generally prioritized in order of importance, however funding availability may mean that the highest priority recommendations are not the first to be implemented. The infrastructure recommendations are also summarized on the map included at the end of this report.

1. Install bike racks on a concrete pad to make them more accessible in all weather conditions. The concrete pad should be large enough to accommodate 4 to 5 bike racks, and additional racks should be installed when the capacity of the existing bike parking is reached. Implementation lead – Cedar Park.
2. Construct sidewalk/trail connections from Newell Park, Newell Drive, and the Cedar Avenue multi-use trail to the front of the school. Implementation lead – Cedar Park/District 196 and City of Apple Valley.



Proposed area for sidewalk/trail connection from Newell Park to the front of Cedar Park Elementary.

3. Develop a Safe Routes website for Cedar Park Elementary that provides walking/biking route information as well as other information, such as a list of students with the

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highest number of laps completed or most days walked/biked to school.
Implementation lead – Cedar Park.

4. Designate a Safe Routes coordinator at the district level and each of the individual elementary schools in the district, similar to the way bus transportation is currently coordinated. The district-level coordinator would share information and coordinate Safe Routes activities and best practices among all the District 196 schools. Implementation lead – District 196.

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:

- Statewide Health Improvement Program funds, which are available through several programs administered by Dakota County Public Health:
 - Safe Routes to School mini-grants
 - Active Living grants, which are available to cities in Dakota County, but may be used to fund improvements on school sites
 - Assistance with preparation of infrastructure grant applications. Cities in Dakota County can submit infrastructure projects and the County's consultant will assist in identifying potential funding sources and preparing applications.
- Blue Cross Blue Shield of Minnesota
- Federal Transportation Enhancement (TE) funds through the Metropolitan Council
- Federal Safe Routes to School funds through the Minnesota Department of Transportation ²

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 to implement change.

² The federal Safe Routes to School program was funded through fiscal year 2009. Future funding will be dependent on passage of the Federal Surface Transportation Reauthorization Bill, which is currently being discussed in the United States Congress.

- 1 - USE MOBILE SIGNS TO DIRECT PARENTS DURING PICK-UP/DROP-OFF
- 2 - POTENTIAL REMOTE PICK-UP/DROP-OFF LOCATION
- 3 - USE PEDESTRIAN OVERPASS WHEN SIGNAL AT 155TH ST/WHITNEY DR IS REMOVED
- 4 - REMOVE SCHOOL CROSSING
- 5 - TARGET AREA FOR WALKING SCHOOL BUS
- 6 - BUILD CONCRETE PAD FOR BIKE RACKS
- 7 - CONSTRUCT TRAIL CONNECTION

