



BROOKLYN CENTER SAFE ROUTES TO SCHOOL PLANNING ASSISTANCE

SUMMARY MEMORANDUM

JUNE 2013

Prepared for the:

City of Brooklyn Center - Department of Public Works & Engineering



ABOUT THIS DOCUMENT

This document provides an overview of the recommendations and materials developed for the City of Brooklyn Center as part of the MnDOT Safe Routes to School (SRTS) Planning Assistance Project. This SRTS planning process in Brooklyn Center is led by the City Engineer/Public Works in an effort to establish a consistent and comprehensive approach for all schools in the community. The planning process was focused on identifying key infrastructure issues in the City right-of-way for the following Brooklyn Center schools:

- Brooklyn Center High School,
- Earle Brown Elementary,
- Evergreen Elementary,
- Fair Oaks Elementary,
- Garden City Elementary,
- Northport Elementary,
- Odyssey Academy,
- Palmer Lake Elementary, and
- St. Alphonsus Elementary School.

The first section of this memorandum provides a summary overview of the process used to develop site recommendations. Specific recommendations for each school are described and illustrated in the following attachments:

- Recommended Improvements Project List
- Recommended Improvement Map
- School Signing Plan

Attachments are organized by school site. During the process of working with school stakeholders the project team identified key actions that the city can take to build on infrastructure recommendations. The second section of the memorandum provides a summary of recommended programs and actions to support Safe Routes in Brooklyn Center.

INFRASTRUCTURE ASSESSMENT PROCESS

Engineering measures for SRTS include the design, construction and maintenance of physical infrastructure that can improve the safety and comfort of students that are walking and walking to school. This infrastructure includes signage, stenciling, traffic control devices such as stop signs, bulb-outs, sidewalks, paths, bike lanes, and trails. Effective traffic control can best be obtained through the uniform application of realistic policies, practices, and guidelines developed through properly conducted engineering studies. A final decision to use a particular device at a particular location should be made on the basis of an engineering and/or traffic survey. Of equal importance is the maintenance and monitoring of traffic control devices. Devices should be properly maintained to ensure legibility, visibility, and functionality. The assessment performed as part of this project focused on identifying key barriers to student travel as well as opportunities to alert motorists entering in the school zone.



Students crossing at a marked crosswalk on of school parent entrance on 59th at Earle Brown Elementary.



A crossing guard on 69th Ave N assists two student walkers during dismissal at Evergreen Elementary.

SITE INFRASTRUCTURE RECOMMENDATIONS

Infrastructure improvement recommendations were developed through a multi-step process. To begin the planning process, City Staff worked to build a SRTS team that included partners such as Hennepin County Human Services and Public Health Department, school site administrators and other stakeholders with an interest in student health and safety. The SRTS team provided the project consultants with information about existing conditions and context at each of the 9 school campuses.

The first formal step in the site assessment process was to conduct a field audit of each of the school sites and their surrounding areas. Audits were conducted in mid-late autumn of 2012, and involved the participation of school staff and other SRTS partners and stakeholders from the Brooklyn Center community. Field audits consisted of observing, documenting and evaluating the existing infrastructure conditions for walking and bicycling in and around school sites.

Observations were made by the consulting team, with the support of stakeholder knowledge regarding existing conditions in and around school sites. Additionally, dismissal and/or arrival times for each school were observed in order to identify areas of conflict or potential conflict. The Safe Routes to School partners also shared the results walking audits completed prior to this project and the written records of these audits were reviewed in combination with field work.

Data collected during field audits was processed into a series of narratives, photo maps, and site maps of existing conditions. These materials were made available to stakeholders via the MnDOT SRTS Basecamp web page and the project Google site.

Based on data collected during the field visits and discussions with City and school staff, draft recommendations to improve travel for students were developed, mapped and submitted to the City of Brooklyn Center. Recommendations were based on best practices for improving conditions for walking and bicycling for students.

These recommendations were then updated based on comments received from city staff after meetings with schools. The draft maps and project narratives were then further developed into final products. Draft and final recommendations were made based on current best practices and the professional judgment and experience of the consulting team.

It should be noted, that no formal engineering studies were conducted as part of the assessment. Thus additional design review and requisite engineering judgment should be exercised in determining final design solutions. The MNMUTCD (7C.2), encourages the use of crosswalks and signing on school routes in areas where there are likely to be conflicts and/or the need to delineate student travel paths. Specific SRTS projects should reviewed in coordination with schools to determine where it is appropriate to enhance traffic controls.



Student crossing patrols help pedestrians cross near Earle Brown Elementary during dismissal.



Members of the consulting team, school staff, and SRTS stakeholders from Northport Elementary discuss a pedestrian crossing on 53rd Ave N near the school.

SCHOOL SIGNING PLANS

In addition to recommendations for on street infrastructure improvements, a series of signage plans were developed for each of the schools participating in the project.

Prior to developing the signing plans, careful review of the Minnesota Manual on Uniform Traffic Control Devices (MnMUTCD) school signing policies was conducted. Field audits were then held to determine the existing placement of school zone signs, school crossing assemblies, and school speed zone signs at all nine of the participating schools. Data from the site audits was then the processed into a GIS map format.

Based on data collected during field audits and MnMUTCD standards, draft signage plans indicating all locations around the school sites that were eligible for school zone signs and crossing assemblies were developed. Following the initial drafts, the signing plans were refined based on technical expertise and planning judgment to include the signs which made the most sense based on existing traffic patterns and known student walk / bike routes.

In addition to the recommendation of school zone signs, school crossing assemblies, and school advance crossing assemblies, school speed zones were considered. However, a further, in-depth evaluation is necessary in order to recommend and successfully implement the creation of new school speed zones. Evaluation would need to consider the following issues for each instance where a school zone is desired:

- Current traffic patterns and projections
- Appropriate hours of speed zone operation
- Pedestrian volumes
- Enforceability

While no new speed zones were specifically recommended as part of this project, suggestions for locations where further studies for speed zone designations are included in the Recommended Project List and corresponding map. Instances where these studies were recommended were based on professional judgment and the review of existing speed zones in Brooklyn Center.



An existing advance school crossing assembly on Unity Ave near Fair Oaks Elementary.



A signage plan developed for Garden City Elementary.

BUILDING A 5 E'S PROGRAM IN BROOKLYN CENTER

A 5 E's program (Education, Encouragement, Engineering, Enforcement, and Evaluation) is an important component of any successful SRTS program. Infrastructure investments based on sound **engineering** are more likely to lead to notable changes when combined with programs for **education, encouragement, enforcement, and evaluation**.

A program that is based on and responds to all 5 E's leads to more successful outcomes by ensuring a comprehensive approach and by involving all potential stakeholders in the community. Investments in infrastructure improvements will lead to greater gains when combined with encouragement and education initiatives, and supported with effective enforcement of traffic laws. Evaluation helps to refine and improve programs based on success rates so that future implementations can be more successful.

The City of Brooklyn's Center's role in a 5 E's program will vary based on capacity and opportunities to establish partnerships for program implementation. SRTS programmatic work in Brooklyn Center has been ongoing for the past two years through the work of Hennepin County Human Services and Public Health Department funded through the Statewide Health Improvement Program (SHIP). The City can work to build on past and ongoing efforts. The following section describes key potential programs where the City of Brooklyn Center can lead the effort or partner with schools and public health to support SRTS.

EDUCATION AND ENCOURAGEMENT RECOMMENDATIONS

School Safety Campaign

Primary Outcomes	Improved driving safety behavior; improved walking and biking safety behavior; youth empowerment
Recommended Timeframe	Annual or semi-annual; when habits, traffic patterns, or seasons change: upon returning to school in the fall, when the weather gets warmer, when daylight saving time ends
Sample Program	San Jose (CA) Street Smarts Program: http://www.getstreetsmarts.org/ MnDOT Share the Road (broad community focus) http://www.dot.state.mn.us/sharetheroad/

A safety campaign is an effective way to build awareness around students walking and biking to school and to encourage safe driving behavior among older students, parents, neighbors, and passersby. The City can launch this type of campaign to address specific behaviors or hazards in school zones in Brooklyn Center, such as speeding, children crossing streets unexpectedly, and parent drop-off and pick-up behavior.



A school traffic safety campaign can use media to remind drivers to slow down and use caution in school zones.

The campaign should use media—such as street banners, yard signs, billboards, and business window stickers—to remind drivers to slow down and use caution in school zones. Community advertising can be purchased to reach a larger audience, and printed materials can also be distributed at school or community events. Student behavior can also be addressed through on-campus posters, educational assemblies, and other collateral or activities.

Likely partners include the Police Department, local businesses (such as printers or advertising firms), and PTAs, who may be able to contribute funding to such an effort. Students at Brooklyn Center High School have expressed interest in creating a safer environment for cycling and walking. The City could partner with students to develop messages that will resonate with their peers. The most significant costs for a school safety campaign are those needed for printed materials, collateral, and any advertising, though these items can be covered through many grants. Engaging students in the production of materials can reduce costs and empower students, giving them a sense of ownership over the program, but will require supervision and coordination within the individual schools.

Safe Routes to School Maps

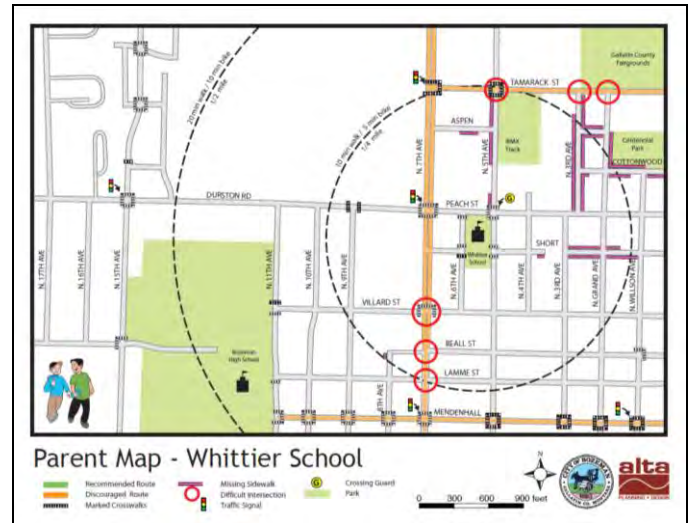
Primary Outcomes	Improved walking and biking safety behavior; increase walking and biking
Recommended Timeframe	Annual; when families are adjusting to new habits: back-to-school time in the fall, following long breaks, as the weather gets warmer; revise and redistribute annually, if possible
Sample Maps	Bozeman (MT) Safe Routes to School Maps: http://www.bozeman.k12.mt.us/schools/safe_routes/

City staff has already worked with a consultant to begin the process of the understanding school routing challenges and opportunities regarding existing infrastructure. These engineering based maps can be the starting point for developing family friendly maps for walking and bicycling to school.

Walk and Bike to School Maps or Suggested Route to School maps help families choose the best route for walking or biking to school. The City can produce maps that show stop signs, signals, crosswalks, sidewalks, bikeways, paths/trails, school entrances, bike parking, and/or crossing guard locations around each school. The City may also choose to show transit routes and stops, school enrollment areas, pick-up/drop-off zones, and important destinations, such as community centers and parks.

The less objective elements to consider include recommended routes to reach school, good walking/biking routes in general, and hazardous locations. During the planning process, City staff offered to work with schools to use their knowledge along with the engineering based school routing maps to determine how to include these elements and determine appropriate routes. During the process of determining routes, it is also a good idea to engage parents in the map making and review, as they will know their school and neighborhood better than anyone.

The City should decide in advance whether the maps will be distributed electronically or in paper form, as this can inform how the map is produced. Consider the graphic quality of the maps to make sure that they are easy to use and engaging for students and parents. Be sure to check with the district regarding any liability concerns or disclaimer language required, and resolve any issues before printing or publishing.



Walk and Bike to School Maps show the safest streets and crossings for getting to school.



Safe Routes to School Maps can support other programs such as a walking school bus or other event. Image courtesy of The Geraldine R. Dodge Foundation

Pedestrian Safety Education in the Classroom

Primary Outcomes	Improved walking safety behavior; youth empowerment
Recommended Timeframe	Annually as a curriculum unit for a particular grade, with review in higher grades
Sample Program	NHTSA Curriculum: http://www.saferoutesinfo.org/program-tools/NHTSA-pedestrian-curriculum

Pedestrian safety education aims to ensure that every child understands basic traffic laws and safety rules. It teaches students basic traffic safety, sign identification, and decision-making tools.

We recommended that the City work with the school district and elementary schools to begin pedestrian safety education in first or second grade, with review for older students. Middle or high school students can also be recruited to assist with in-classroom instruction for first- and second-graders. Likely instructors include law enforcement officers, teachers, or parent volunteers.

The most comprehensive curricula include three parts: in-class lessons, mock street scenarios, and on-street practice. Various existing curricula are available online from a number of sources at no cost, or the City may choose to develop their own curriculum. Many of the curricula available include scripts that are helpful for new instructors who may be unfamiliar with how to present the material.

Also consider making pedestrian safety part of any transportation safety week activities. Add basic pedestrian skills to the curriculum when teaching regular bus safety at the beginning of the year.

MnDOT will include in-classroom pedestrian safety curriculum in the upcoming SRTS curriculum to be released in fall 2013. The curriculum will be free and available via the MnDOT SRTS website <http://www.dot.state.mn.us/saferoutes/>



Pedestrian safety training teaches students basic traffic safety, sign identification, and decision-making tools.



On-street practice of pedestrian safety skills with second grade students.

Bike Rodeos

Primary Outcomes	Improved biking safety behavior; youth empowerment
Recommended Timeframe	Annually as a curriculum unit for a particular grade, with review in higher grades
Sample Program	NHTSA Cycling Skills Clinic: http://www.nhtsa.gov/Driving+Safety/Bicycles/CyclingSkillsClinic

Bicycle Rodeos are events that offer bicycle skills and safety stations for children—and sometimes parents—to visit (e.g., bicycle safety check; helmet fitting; handling skills such as starting, stopping, and turning; hazard avoidance obstacle course; riding in traffic). Participants rotate through stations to practice and master all skills covered. The bike rodeo may include other educational and fun programmatic elements, such as a group bike ride, safety trivia games, helmet decorating stations, etc.

The City may work with Brooklyn Center schools to host bicycles rodeos as standalone events or as part of a larger school or community event, and either during the school day or outside of school. Likely instructors and adult volunteers include law enforcement officers, teachers, parents, or local League Cycling Instructors. High school students may also help with bicycle rodeos by leading participating students through the stations.

Materials likely to be needed include colored tape/chalk, cones/props, signs, and the station curriculum. Organizers will also need to decide whether to provide bicycles and helmets or have students bring their own. Contingencies will need to be set for those unable to operate a bicycle, such as having them walk through the stations or participate in a separate activity during the rodeo.

We understand that the City is already using some curriculum developed for teaching cycling safety at the summer camps. This curriculum could be modified or new curriculum specific to a shorter event could be developed. Many existing curricula exist for free, or the City may choose to develop their own in order to address skills identified as most important for Brooklyn Center students and/or to address the local traffic safety context. The National Highway Traffic Safety Administration’s Cycling Skills Clinic is designed for bicyclists ages 10 and up, but generally speaking, bike skills education is most appropriate for students in third grade and above.

Again MnDOT will likely include information to support bicycle safety and bike rodeos in the new curriculum to be released in fall 2013. The curriculum will be free and available via the MnDOT SRTS website <http://www.dot.state.mn.us/saferoutes/>

In addition, if City Staff/Law Enforcement do not want to run the rodeo, the Bicycle Alliance of Minnesota can run a custom rodeo or provide information about League of American Bicyclist Certified Instructors (LCI’s) in the area that can teach both kids and adults how to ride safely. Basic information about courses can be found on their website: https://www.bikemn.org/education/courses/kids_classes/



Bicycle Rodeos are events that offer bicycle skills and safety stations for children - and sometimes parents.



Walking and Bicycling Promotion in the Community

Primary Outcomes	Increased family and community walking and bicycling
Recommended Timeframe	Ongoing
Sample Program	Portland (OR) Active Transportation Division: http://www.portlandoregon.gov/transportation/59969

In order to make walking and bicycling a safe and normal daily activity at Brooklyn Center schools, the City may want to promote walking and bicycling community wide. A suite of education and encouragement activities can be offered to encourage community residents to walk and bike more and to normalize walking and biking as everyday activities. By increasing the number of people walking and biking—directly through supportive community events and less directly by building active transportation levels in the community over time—the City can increase safety in numbers and help parents of schoolchildren make the decision to walk or bike to school.

Events and activities may include the following:

- Themed neighborhood walks, like garden tours or senior strolls
- Guided bicycle rides, like holiday-themed rides or summer after-work rides for people who work during the day
- Family-friendly bicycling activities, such as Kidical Mass or a family bike festival
- Bicycling or health-related workshops, with topics like “bicycling in winter” or “starting your own walking fitness program”
- An open streets or ciclovía event
- Bike to Work Week or Month
- A media campaign to raise awareness around walking and biking for health and for transportation
- Community blog posts and newspaper articles



Community events and promotion help demonstrate walking and biking as safe, normal daily activities.

The City can work with the Bicycle Alliance of Minnesota, Fire Up Your Feet Minnesota, health organizations or providers, schools, bike shops, and other local groups to plan and promote such events over time.

Another mechanism for engaging partners and building broad community support is the League of American Bicyclists well-respected Bicycle-Friendly Communities (BFC) award program. Communities fill out a detailed application that covers bike-related facilities, plans, education efforts, promotion initiatives, and evaluation work that has been completed by the jurisdiction. The award is designed to recognize progress that has been made, as well as assist communities in identifying priority projects to improve bicycling conditions. The process of developing the application can serve to build support of cycling in Brooklyn Center.

Walk Friendly Communities (WFC) is a newer program that encourages towns and cities across the U.S. to establish or recommit to a high priority for supporting safer walking environments. The WFC program recognizes communities that are working to improve a wide range of conditions related to walking, including safety, mobility, access, and comfort.

Receiving these awards is a media-worthy event, and may give elected officials the opportunity to receive media coverage for the positive work they are doing. Again, while these programs are not specifically related to SRTS, elevating the profile of bicycling and walking in the community will support efforts to encourage families to walk or bike to school.

ENFORCEMENT

Targeted Enforcement in School Zones

The City and participating schools can work with the Police Department to determine the most needed and potentially effective enforcement strategies for each school. Enforcement activities in school zones can address common motorist behaviors, including speeding, failure to yield to pedestrians, parking illegally, and other traffic violations. Depending on resources, enforcement may be staffed (crosswalk stings, speed enforcement) or automated (photo detection, radar trailers, speed feedback signs).

The most important times to conduct targeted school zone enforcement are when habits, traffic patterns, or seasons change and, therefore, motorists are less likely to expect or see student pedestrian and bicycle traffic:

- The first several weeks of school
- When daylight saving time ends, and it gets dark earlier
- Following long breaks from school, such as winter or spring break
- When weather gets warmer, and more students and their families are walking and biking
- When new infrastructure is installed or when existing traffic patterns change due to construction or other changes

EVALUATION

Evaluation is an important component of any Safe Routes to School effort. Not only does evaluation measure a program's reach and impact on a school community, it can also ensure continued funding and provide a path forward for ongoing and future efforts. Evaluation can measure participation and accomplishments, shifts in travel behavior, changes in attitudes toward biking and walking, awareness of the Safe Routes to School program, and/or the effectiveness of processes or programs.

Safe Routes to School evaluation is beneficial in the following ways:

- Lets you know if your efforts are paying off. Evaluation can tell you what's working well, what's not, and how you can improve your program in the future.
- Allows you to share your program's impact with others. Evaluation can demonstrate the value of continuing your program, with school faculty and administration, the district, parents, and elected officials.
- Provides a record of your efforts to serve as institutional memory. The nature of Safe Routes to School teams is that they change over time, as parents and their children move on to other schools and as staff turns over. Recording and evaluating your efforts provides vital information to future teams.
- Tells you if you are reaching your goals. Evaluation can confirm that you are accomplishing or working towards what you set out to do. On the other hand, evaluation efforts can reveal that there is a mismatch in your efforts and your goals or that you need to correct course.
- Encourages continued funding for Safe Routes to School programs. Data collected and shared by local programs can influence decisions at the local, state and national level. In part, today's funding and grant programs exist because of the evaluations of past programs.

At a minimum, encourage schools to participate annually in the standard classroom hand tallies and parent surveys expected in order to be consistent with the national Safe Routes to School program. Additional evaluation of City base programs and efforts can be as simple as recording what you did and when you did it, and counting or estimating the number of students who participated or were reached. Recording your planning efforts and taking photos is also helpful for the legacy of your program. Consider collecting two kinds of information: quantitative data (numbers, such as counts, logs, and survey results) and qualitative data (words/images, such as observations, interviews, and records). Regardless of how elaborate you make your evaluation, it is important to plan ahead for measuring and tracking results.

When you are designing your program, consider how you are going to evaluate it from the beginning, so that you can build in mechanisms for collecting the necessary data. For example, if showing changes in travel behavior over time is important to your effort, you will need to start by collecting baseline data so you know how students are getting to school currently in order to be able to demonstrate any change later.

Below is a series of basic steps to take in designing and executing your program evaluation:

1. Establish your goals and plan the program.
2. Decide what, how, and when to measure.
3. Collect baseline information, if necessary.
4. Conduct the program and monitor progress.
5. Conduct any post-program data collection, if necessary.
6. Interpret your data.
7. Use and share your results.

More resources for evaluation can be found on the National Center for Safe Routes to School's website here: <http://guide.saferoutesinfo.org/evaluation/index.cfm>.

NEXT STEPS

Integrate Safe Routes with other planning efforts:

The City is currently working on a city wide pedestrian and bicycle master plan. The recommendations compiled as part of the Safe Routes to School assessment can inform that planning effort. Improved walking and cycling access to school will support students and families as well as the broader community.

Build Partnerships:

The City can build on the relationships with schools, district and public health staff by working to partner on programmatic efforts as a complement to any infrastructure improvements. The specific programs recommended in the memorandum are well suited for a City staff to lead the effort with schools as a partner.

Support Campus Improvements:

This analysis emphasized project in the City right-of-way. City staff should participate in any school site assessment conducted by the districts or individual schools.

Collaborate with other jurisdictions:

A number of the Brooklyn Center Schools have walk zones that span several communities. The City should work with adjacent communities to work towards common approaches for improving traffic safety around schools. Partnerships with adjacent jurisdictions could also be beneficial for programmatic efforts. Communities can share resources, lessons learned and provide a consistent message about safety and active living that will support SRTS.