





2023 Traffic Calming Pop-up Case Study Report

Amery, Frederic, and Roberts, Wisconsin







Special Thanks

National Highway Traffic Safety
Administration alongside the Wisconsin
Department of Transportation's Bureau of
Transportation Safety who helped fund this
program and start a series of traffic calming
pop-ups in West Central Wisconsin.

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School District of Amery Staff
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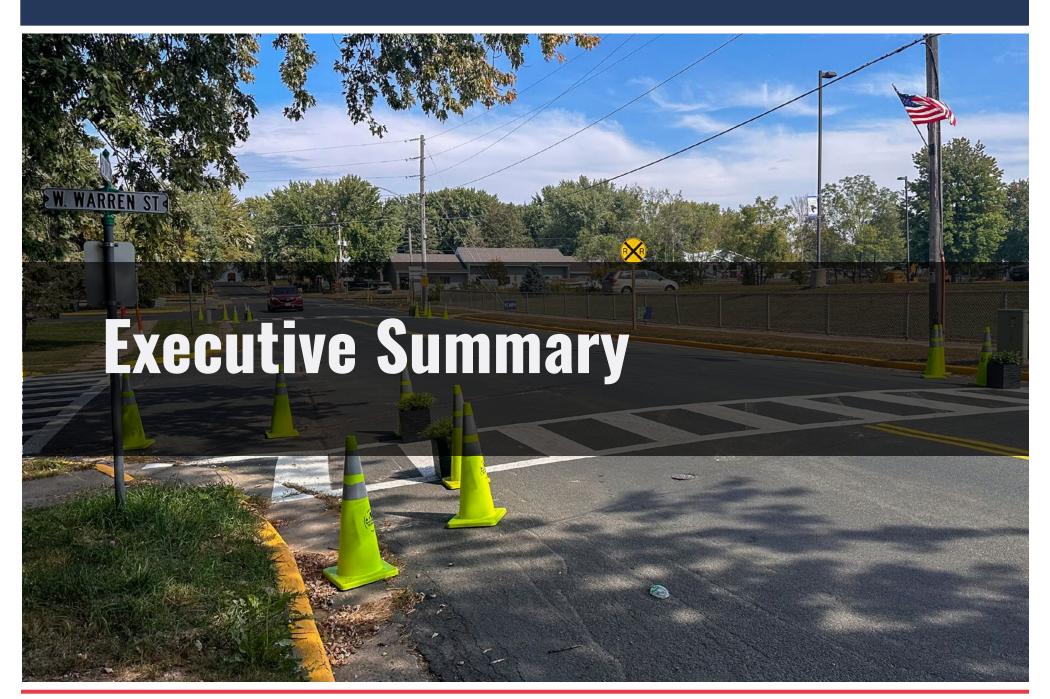
Josh Robinson - Superintendent

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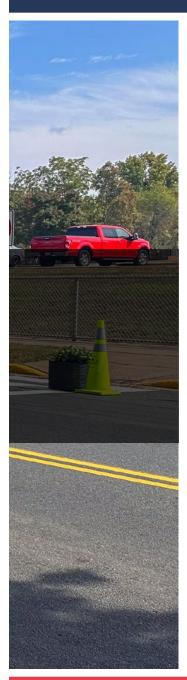
Principal

Carol Kline - 6-12 Principal

Village of Roberts Staff: **Megan Dull** - Village Clerk **Katy Kapaun** - Village President







Background

Beginning November of 2022, the West Central Wisconsin Regional Planning Commission (WCWRPC) was approached by staff from the Wisconsin Department of Transportation Bureau of Transportation Safety (BOTS) about a grant opportunity from the National Highway Traffic Safety Administration (NHTSA). This funding would be used to develop and implement community-based, youth active transportation safety (YATS) programs that encourage safe walking, biking and scooting in an underserved community, preferably a rural community.

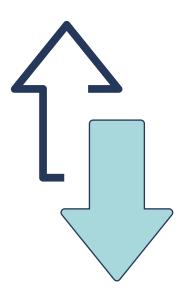
BOTS was looking for project ideas that dealt with the following parameters:

- » Reduce injuries and deaths resulting from driving in excess speeds.
- » Encourage the proper use of occupant protection devices
- » Prevent accidents and reduce injuries and deaths resulting from accidents involving motor vehicles and motorcycles
- » Reduce injuries and deaths from school bus accidents
- » Reduce accidents from unsafe driving behavior
- » Improve driver performance
- » Improve pedestrian and bicycle safety.

After internal discussions, WCWRPC staff thought this was the perfect opportunity to launch a traffic calming pop-up (a.k.a. tactical urbanism) program with a focus on rural communities. The City of Amery, the Village of Roberts, and the Village of Frederic were chosen for this project.

The NHTSA grant was mainly used to purchase pop-up materials, educational materials, and transportation/mileage. Items such as traffic cones, delineators, planters, signs, and stencils were purchased.

Short-Term Action



Long-Term Change



Executive Summary

What is traffic calming?

Traffic calming is a combination of physical design measures that reduce negative vehicle use, change driver behavior, and improve conditions for active transportation users. These measures are put in place on existing roads to reduce vehicle speeds, and improve safety for pedestrians and bicyclists. There are three ways to calm traffic: vertical deflections, horizontal shifts and roadway narrowing.

Examples of vertical deflections:

- » Speed Humps;
- » Speed Tables;
- » Raised Intersections.

Examples of horizontal shifts:

- » Chicanes;
- » Round-a-bouts.

Examples of roadway narrowing:

- » Curb Extensions;
- » Median Island:
- » On-Street Parking.

Benefits of traffic calming:

- » Reduction in travel lanes for pedestrians to cross;
- » When added, improving safety for bicyclists with bike lanes,
- » Increase in pedestrian and bicycling activity;
- » Decreasing crash severity;
- » Improving speed limit compliance.

Tactical Urbanism

AKA Pop-up Traffic Calming

Tactical urbanism is an way to use low-cost, short-term interventions and policies to catapult long-term change typically led by a city, organization or citizen. These come in all shapes and sizes, with the same goals related to street safety, public space, and more.

Using tactical urbanism prior to full capital commitment can be a tool to accomplish many of the following outcomes:

- » Inspire action and expedite project implementation
- » Draw attention to perceived shortcomings in policy and physical design, and allow people to physically experience alternative options
- » Widen public engagement. These types of projects allow for feedback to be expressed through the use and demonstrated preferences rather than stated preferences, like in a survey.
- » Deepen understanding of local user's needs at the neighborhood scale.
- » Gather real world data or streets and public spaces.
- » Encourage people to work together and strengthen relationships between residents, local government agencies, and businesses.
- » Test aspects of a large political or financial investments before final decisions.

Executive Summary

Project Delivery

Project Type (Time interval // Relative Cost)	Demonstration (1 day - 1 month // \$)	Pilot (1 month - 1 year // \$\$)	Interim (1 year - 5 years // \$\$\$)	Capital (5 years - 50 years // \$\$\$)
Project Leaders	Anyone (city, citizen group or both).	Government/organizational leadership and involvement is required.	Government/organizational leadership and involvement is required	Government/organizational leadership and involvement is required.
Permission Status	Sanctioned or unsanctioned.	Always sanctioned.	Always sanctioned.	Always sanctioned.
Materials	Low-cost, typically low-durability, sometimes can be easily made, or borrowed.	Relatively low-cost, but semi- durable materials	Low-moderate cost materials designed to be flexible and balance maintenance needs.	Permanent materials.
Public Involvement	Public input Public action	Public input Champion engagement Governmental stewardship	Public input Governmental stewardship	Public input Governmental stewardship
Flexibility of Design	High Project is expected to be adjusted and removed.	High Project is expected to be adjusted; it may be removed if it does not meet goals.	Moderate Expect project to be adjusted, but it is intended to remain until capital improvements are possible.	Low Project is considered a permanent capital upgrade and is unlikely to be adjusted once installed.
Collect data to refine approach for current or future projects?	Recommended	Always	Always	Always

This chart illustrates the progression of project delivery. Not all projects need to follow this model, although it can be helpful to see how each project phase builds on from the previous. As you can see, using incremental steps to deliver lasting change.

*This diagram is based on PeopleForBikes's "Quick Builds for Better Streets."



Steps for conducting a pop-up project 1. Identify Partners

There are several essential partners that should be involved in any pop-up project, even more so when it is for Safe Routes to School.

- » School District Administrators Involve administrators early in the process, before site selection.
- » School Leadership Including the principal from the school where the project will be located, is important in helping education and encourage students about the demonstration and notifying families through various channels.
- » Elected Officials council members should be notified especially if this project takes place in their district.
- » City Agencies These partners help secure permission for the project and help safely develop a plan for the project. Agencies include public works, traffic safety, and public safety.
- » Parent/Teacher Organizations PTOs can help in a number of ways including selection of location, and volunteering with implementation and evaluation. They also can be great advocates when it comes to planning for a more permanent solution.
- » Bicycle/Pedestrian Groups Like PTOs, these groups can help provide volunteers, raise awareness about the project, and assist with the advocacy.
- » Students Students may play an important role in identifying the challenges to walking and biking to school. With advance planning, this can be a way to teach engineering to students or an art project.
- » Other community groups Potential organizations include businesses, faith-bases organizations, and neighborhood associations.

Executive Summary

2. Present Concept to Decision-Makers

If the end goal is a permanent solution, permission and approval are of utmost importance when planning for a project. Seek permission from the school district and the city, as they may ask that you consult with other departments, such as streets, public works, and/or transportation. Permits may necessary or an approved site plan.

3. Select Location

In most communities, parents, students, and school administrators know where traffic safety concerns are and the urgency in which they would like a permanent solution. Site selection can be a strategy to engage the community and deepen relationships with school administrators and city staff. Conducting a walk audit around a school, soliciting feedback from school staff, community members, working with city agencies, and hosting a community meeting can all be used to determine site selection.

4. Identify your approach

Will this project make it safer and more attractive for kids to walk and bike to school? When deciding which type of pop-up to use, it is important to consider what type of traffic safety improvement will make more roads safer and more appealing. No matter the project, coordinating with a traffic engineer, city planner and other relative departments is important before the final selection.

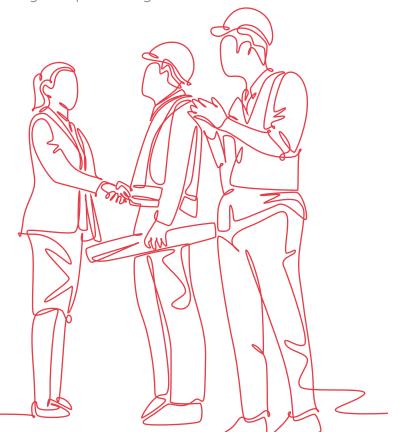
5. Implementation

Implementation of the project will depend on the scope and type of tactical urbanism. One should always consider:

» Obtaining necessary permissions, and working with city agencies to obtain permits, and closing down streets if necessary.

Executive Summary

- » Getting volunteers to help with setup, counting students walking and biking, and spreading the word about the project.
- » Selecting materials. Make sure that your materials will be durable enough to withstand potential weather and traffic conditions, and also are relative to your project.
- Execute the project. Pop-up projects can be demonstrated for various lengths of time ranging from a few hours to many months. The length of time can depend on the community and permitting.

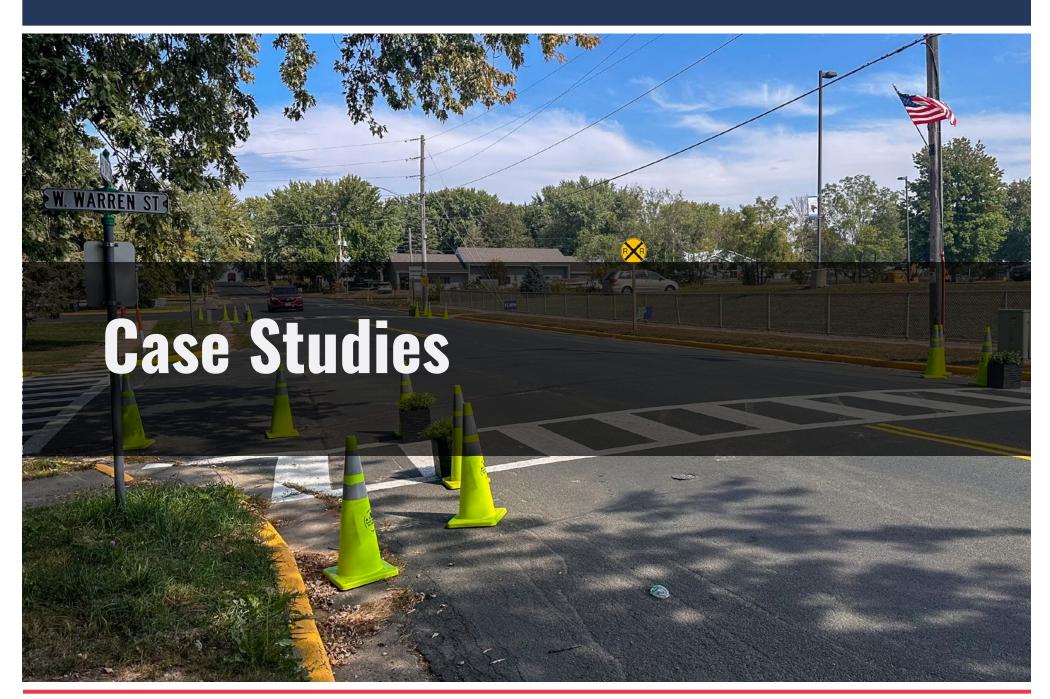


6. Evaluate

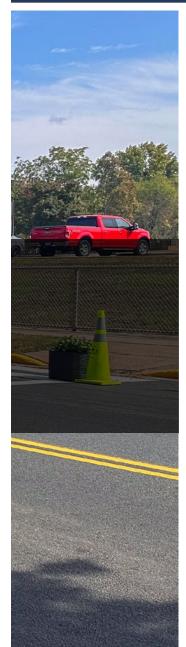
In any project, evaluation is crucial. Gather both qualitative and quantitative data during the project. Surveys, asking participants what they liked or disliked, and gathering feedback are examples of qualitative data. Quantitative data can be gathered through walk and bike counts, or tallying the number of people who say they would like to see a permanent change. Collecting speed data, is especially important when your project's purpose relates to reducing traffic speed.

7. Advocate for permanent change

Using tactical urbanism principles to Safe Routes to School shows promise for many reasons, including the ability to catapult lasting change. Draw upon the data collected to help make a case for permanent change. Obtaining support from community members, school administrators, and city agencies will also help catalyze these efforts.







Introduction

Through the NHTSA grant, WCWRPC was required to choose three rural communities to conduct traffic calming pop-ups. Due to their commitment to safe walking and biking, and the current working relationships between the entities, the City of Amery, the Village of Frederic, and the Village of Roberts were selected.

Each of these communities have Safe Routes to School plans that identify issues associated with walking and biking to school and provide a set of tools to make it safer and easier. They are all committed to implementing the strategies laid out in their respective plans. The recommendations in those plans come in three categories: ongoing, short-term, and long-term. Short-term recommendations are strategies that require minimal effort to implement, and are low in complexity, while long-term recommendations are complex and may require more than one agency to carry out. Many of the complex strategies require engineering, which usually takes time to plan, money, and coordination with many entities, like the city/village, or school district.

For the three communities, they all had different engineering recommendations in which they wanted to temporarily test out using our traffic calming pop-up materials. Each project used a combination of traffic cones, delineators, and planters to set up barrier elements, such as curb extensions, and medians. Each pop-up lasted one week.



Amery

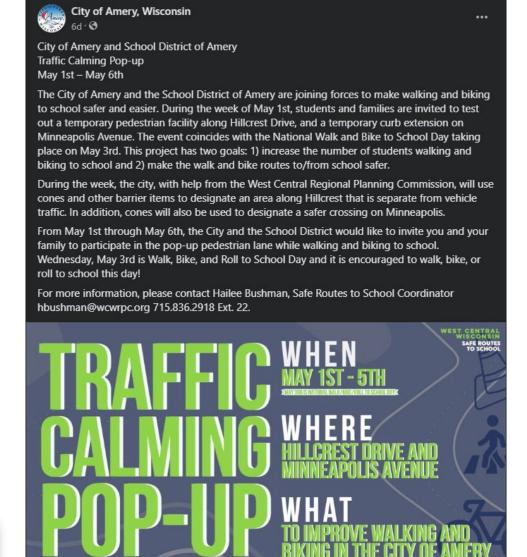
Amery

The City of Amery and the School District of Amery began working together with help from the WCWRPC, to develop a Safe Routes to School plan. This plan was finished and adopted in April 2022. Similar to other plans, there were three highest priority issues identified through the development process. 1) Broadway and Minneapolis Intersection: Install traffic calming measures and appropriate crosswalk treatments. 2) Minneapolis and Hillcrest: Install traffic calming measures and crosswalk treatments. 3) Incorporate sidewalks with appropriate signage along SRTS corridors. 4) Address the issues associated with parent drop-off at Lien Elementary.

In March of 2023, discussions about performing a traffic calming pop-up began between the City of Amery, the School District of Amery and WCWRPC. It was decided that priority #2 and #3 would be the best to test out. The intersection of Hillcrest and Minneapolis is the most congested intersection near the school, and is used by vehicles, pedestrians and bicyclists.

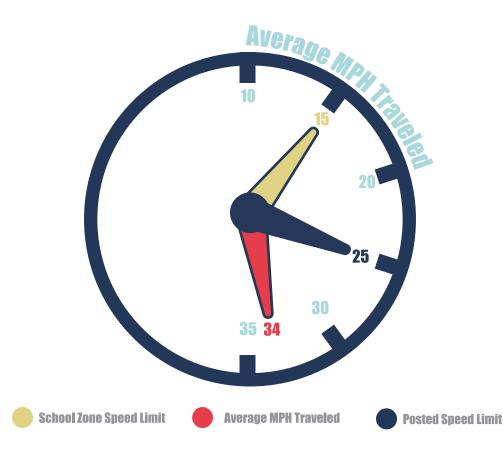
A curb extension at Hillcrest/Minneapolis and a pedestrian/bicycle facility along Hillcrest were chosen for the traffic calming pop-up.

This project coincided with National Walk/Bike/Roll to School Day.



5 shares

The purpose of the curb extension was to shorten the distance in which pedestrians need to be in the street while crossing and increase visibility of pedestrians trying to cross. By setting up a protected pedestrian/bicycle facility on Hillcrest, the hope was to reduce traffic speed by narrowing the driving lanes, and create a safe space for pedestrians and bicyclists.



Data

Prior to the set up of the traffic calming pop-up, preliminary data had to be collected. Speed data was collected to see if traffic really was calmed during this pop-up.

Data was collected in the morning during drop off time through the use of radar devices. Along Hillcrest, the average speed collected was **34 mph**. The posted speed limit in this area is 25 mph, however there is a school zone near the most eastern end of Hillcrest meaning 15 mph should be traveled when students are present. Vehicles were traveling almost 10 mph over the posted limit, and nearly 20 mph over the school zone limit. It is clear that something permanent needs to be done to change driver behavior and slow traffic speeds. It was also noted that many rolling stops were made by drivers at the Minneapolis/Hillcrest intersection, which means that there was no awareness for people crossing the street.

Education and Promotion

In order to promote and educate students and community members about the pop-up, the City put out a press release in the local paper, and posted on social media. The school district also posted on Facebook, and put it on their electronic announcement sign near the school entrances.



Amery

Short Term Action

During the week of May 1st, WCWRPC staff set up the traffic calming pop-up. A combination of cones and delineators were used to define a curb extension and pedestrian/bicycle lane. For a week long, students and community members had to opportunity to use the temporary facilities.

While the pop-up was in place, speed data needed to be recorded again. The average speed traveled along Hillcrest was **28 mph**. While this is still over the posted speed limit, it reduced the average speed traveled by 6 mph. Also, at the intersection of Hillcrest and Minneapolis, all vehicles came to complete stops especially when students needed to cross.



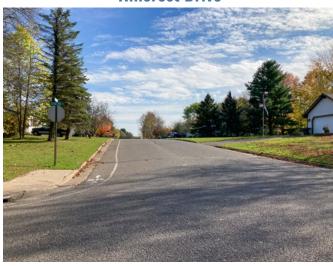




Hillcrest/Minneapolis Crossing



Hillcrest Drive







*These visualizations are made with Photoshop to help show what these improvements might look like. They should only be used as reference.

Long Term Change Recently, the City of Amery with help from WCWRPC and support from the School District of Amery applied for funding to make these temporary facilities a reality. In summer of 2023, Amery was awarded the grant. Construction of this project is expected to be done by 2026. This funding will install a sidewalk along the north side of Hillcrest, and install a curb extension at the intersection of Hillcrest and Minneapolis. In addition, street lighting and signage will also be improved.

Roberts

Roberts

The Village of Roberts and St. Croix Central School District adopted their Safe Routes to School Plan in 2011. This plan designates many corridors as SRTS corridors meaning that these are locations in which engineering improvements should be made first.

The St. Croix Central School District includes the Village of Roberts and the Village of Hammond. While the elementary school is located in Roberts, both the middle school and the high school are located about 5 miles east in Hammond. Students that live in the Village of Roberts, but attend school in the Village of Hammond can walk or get dropped off at the elementary school and get bused to the middle or high school. Therefore, strategies that happen in either village benefit a wide range of students and community members

Division Street, which is the main street bisecting the Village of Roberts, brought forth many barriers to walking and biking to school. Many parents have concerns about their children either walking/biking along or trying to cross Division as it is a wide street, with no traffic controls. In addition, there is an east/west railroad that cuts the Village in half, acting as another barrier to students who live on the north side of the tracks.

The Village of Roberts approved participating in this tactical urbanism pop-up in summer of 2023. The project that was decided on were to construct two temporary curb extensions at existing crosswalks in front of the elementary school on Division Street. At these locations, safety patrol already helps students to cross the street. The hope was that the bumpouts narrowed the street enough to make vehicles slow down in the school zone and draw more attention to people crossing the street.

"I think it's a great idea and helps bring more attention to kids or even teachers crossing early in the morning. Where the current curb ends it can be hard to see people crossing with the tree line, it can be blocking especially when it's darker out."

Data

The Village wanted to collect both qualitative and quantitative data to support the need for permanent change. The qualitative data was collected through an online survey and conversations with pop-up users. The survey was sent out through a Facebook post, and there was a QR code available on the fliers that was sent home with students.

83% of respondents were in favor of permanent concrete bumpouts being installed on Division Street to improve walking and biking safety in the Village of Roberts.

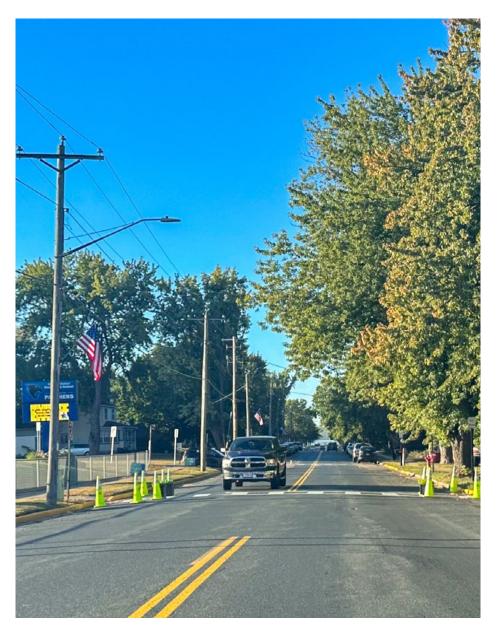
Speed data was also collected for this project, because the goal was to force vehicles to slow down near the school. A week before

the pop-up was deployed, WCWRPC staff collected speeds at a location in which vehicles were entering the school zone. The average speed that was traveled was 28 mph.

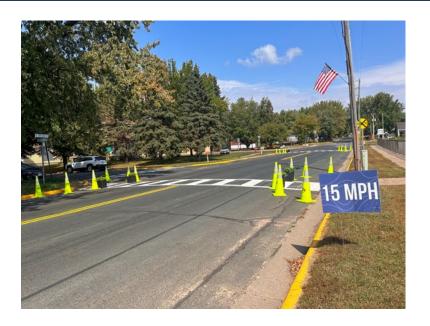
Education and Promotion

In order to promote and educate students and community members about the pop-up, the Village and elementary school posted on social media and distributed promotional flyers to students to bring home.





Roberts





Short Term Action

During the second week of September 2023, the Village of Roberts with assistance from WCWRPC, used cones to set up two temporary bumpout locations on Division Street in front of the elementary school. These bumpouts were located at the intersections of Division/Main and Division/Warren. These are also intersections that have student safety patrol officers during drop off and pick up times.

With the bumpouts near the elementary school, the average speed traveled was 17 mph. The narrowing of the driving lanes, significantly reduced traffic speeds near the school, and thus made walking and biking safer for all students and active commuters crossing in those areas.



Long Term Change
In March of 2023, the Village of Roberts applied for funding to enhance the Division Street corridor. This funding was to extend sidewalks along the entire street, construct three bumpouts near the school, and create a safer crossing over the railroad just north of the school. Although they were unsuccessful during that cycle, they have reapplied with an even stronger application and more defined objectives. Notification of this application will be in April of 2024.

Division Street Before



Division Street After



Potential Future Current

Frederic

Frederic

The School District of Frederic wrote their original Safe Routes to School Plan in 2015. The district consists of two schools, the elementary school and the 6-12 school. These schools are about half mile apart with no pedestrian or bicycle facilities between them. Frederic has completed many of their strategies and recommendations from their SRTS plan. A high priority recommendation in their plan was to connect the two schools via a multi-use path or sidewalk. In 2020, the Village of Frederic, with the Town of West Sweden was awarded funding through the Transportation Alternatives Program to construct a multi-use path between the elementary school and the 6-12 school.



The School District took a different approach to their traffic calming pop-up. This pop-up was performed at the 6-12 school. The goals of the pop-up in Frederic were:

- » Provide clear pedestrian access from the student parking lot to the school entrance.
- » Separate parent drop-off/pick-up area from bus drop-off/ pick-up area.
- » Make it harder for vehicles to make shallow turns through the parking lot when looking to exit, which are often taken at higher speeds.

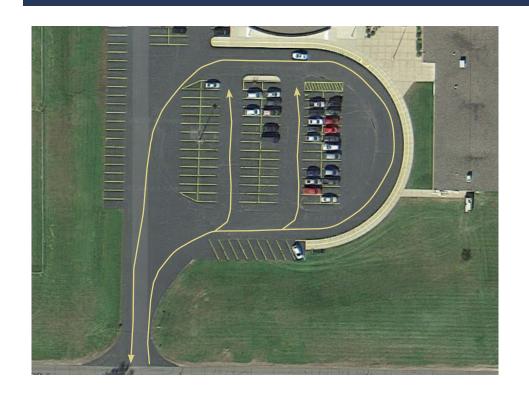
In order to test out solutions for these goals, cones and delineators were used to create three traffic calming devices: 1) A median near the bus drop-off/pick-up area to separate vehicle traffic; 2) a clearer crosswalk between student parking and the sidewalk to school; 3) Sharpen the corner where vehicles turn to exit the parking lot.

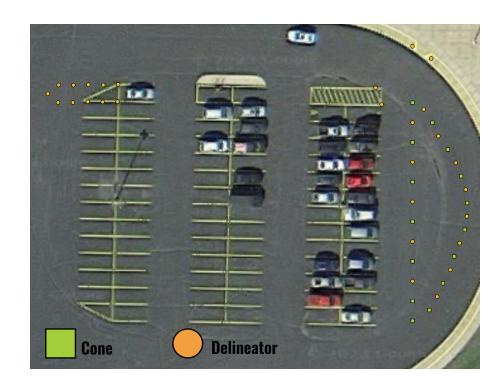
Data

Because speeding traffic is not the issue that is trying to be resolved, speed data was not collected. However, many observations and conversations with school staff happened over the course of this project. The biggest concern was students not having a designated area to cross the parking lot, and that they were weaving between buses and vehicles once dropped off.

Education and Promotion

In order to promote and educate students and community members about the pop-up, the School District posted on social media and distributed promotional fliers to students to bring home.





6-12 Parking Lot

In the picture on the left, one can see that there are no structural measures to ensure safety for students in the parking lot. The yellow arrow shows the normal flow of traffic through the parking lot. The parking lot has no medians or dividers that direct vehicle traffic, and no markings to show where pedestrians should be.

The picture on the right shows the various pop-ups that were deployed during this demonstration. A combination of delineators and cones were used for each temporary device.

Frederic





Left to right:

- » Median to separate bus and parent drop-off/pickup.
- » Designated crosswalk area
- » Median to make turns exiting the parking lot tighter and slower.



Short Term Action

During the third week of September 2023, WCWRPC staff set up the three various traffic calming devices. Through conversations with school district staff, it was agreed that the median that made vehicles make a sharper turn, made the most difference. Students used the designated walking area and funneled themselves through the delineators. The median that separated the drop-off/pick-up areas came with additional considerations if/when these become permanent solutions. Many parents did not pull up to the sidewalk when dropping of their child. Instead they dropped them off next to the cones, meaning their child still had to cross through buses and other vehicles to get to the school's entrance.

Long Term Change

The School District of Frederic is currently exploring funding sources to make these solutions permanent. When planning and designing these solutions, there are some additional recommendations the district may want to consider. First, make sure that there is adequate signage to direct traffic to the desired drop-off/pick-up locations. Also, consider narrowing the entrance to the parking lot, and eliminating the parking spaces on the south side of the parking lot to install a sidewalk all the way to the entrance and adding concrete end caps to the parking lot rows. In addition, painting legitimate crosswalks will improve visibility and provide a clear space for students to cross.





Current Potential Future







Conclusion

In all three of these traffic calming pop-ups, changes to vehicle and driver behavior changed, and safer pedestrian and bicycle facilities were deemed successful and useful. Communities who do not want to fully commit funding to permanent traffic calming measures should explore a tactical urbanism pop-up to test out and then be able to justify the need for change. Tactical urbanism is especially useful in Safe Routes to School, and can help implement safe walking and biking measures for students.

WCWRPC will continue doing pop-ups in their sevencounty region in partnership with over 45 school districts. There are hundreds of opportunities to catapult long-term change after short-term action. WCWRPC will also continue to expand the program to complete bigger and longer projects.



















