



MINNIE CLINE CROSSWALK PROJECT

December 12, 2018



SAFETY AND
INNOVATION
MOBILE LAB

INTRODUCTION

Through participation in National Walk to School day, as well as several conversations with the Principal of Minnie Cline and the City Administrator, the need for safer routes to school were highlighted. In particular, Price Avenue which runs along the front entrance of Minnie Cline experiences a higher volume of traffic than most neighboring residential roads because of the large number of students being dropped off and picked up. The principal of Minnie Cline approached the MPO in the Spring of 2018 and asked to participate in the Safety and Innovation Mobile Lab Project which focuses on low-cost, targeted safety improvements.

COMMUNITY PROFILE

Minnie Cline Elementary is located in the City of Savannah, in the Northwest Region of Missouri and has a total population of approximately 5,000 residents. Minnie Cline is one of three elementary schools in the Savannah R-III School District, and the only elementary in the City Limits of Savannah. Minnie Cline is surrounded by residential homes and local roads (lower volume, lower speed roads). Currently, Minnie Cline has 585 students enrolled,

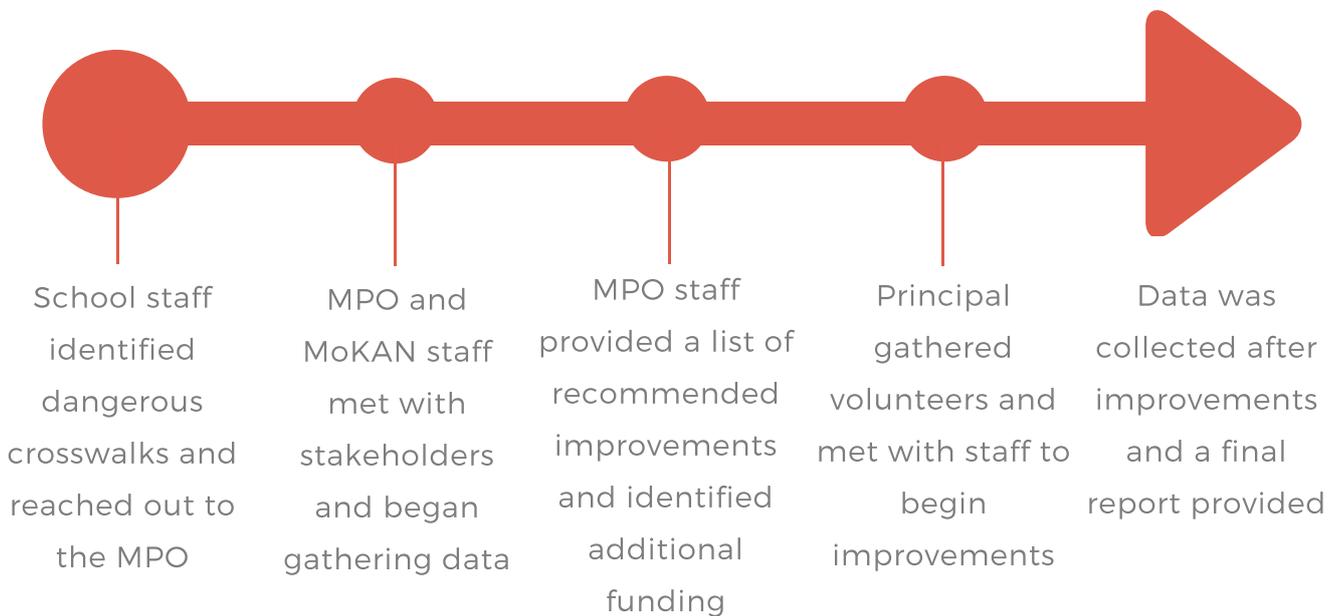


PROJECT SCOPE

MISSION

Empower community members to identify safety concerns in their community and begin addressing them through partnerships with the St. Joseph MPO, MoKAN Regional Council, agency staff, volunteers and City staff.

PROCESS

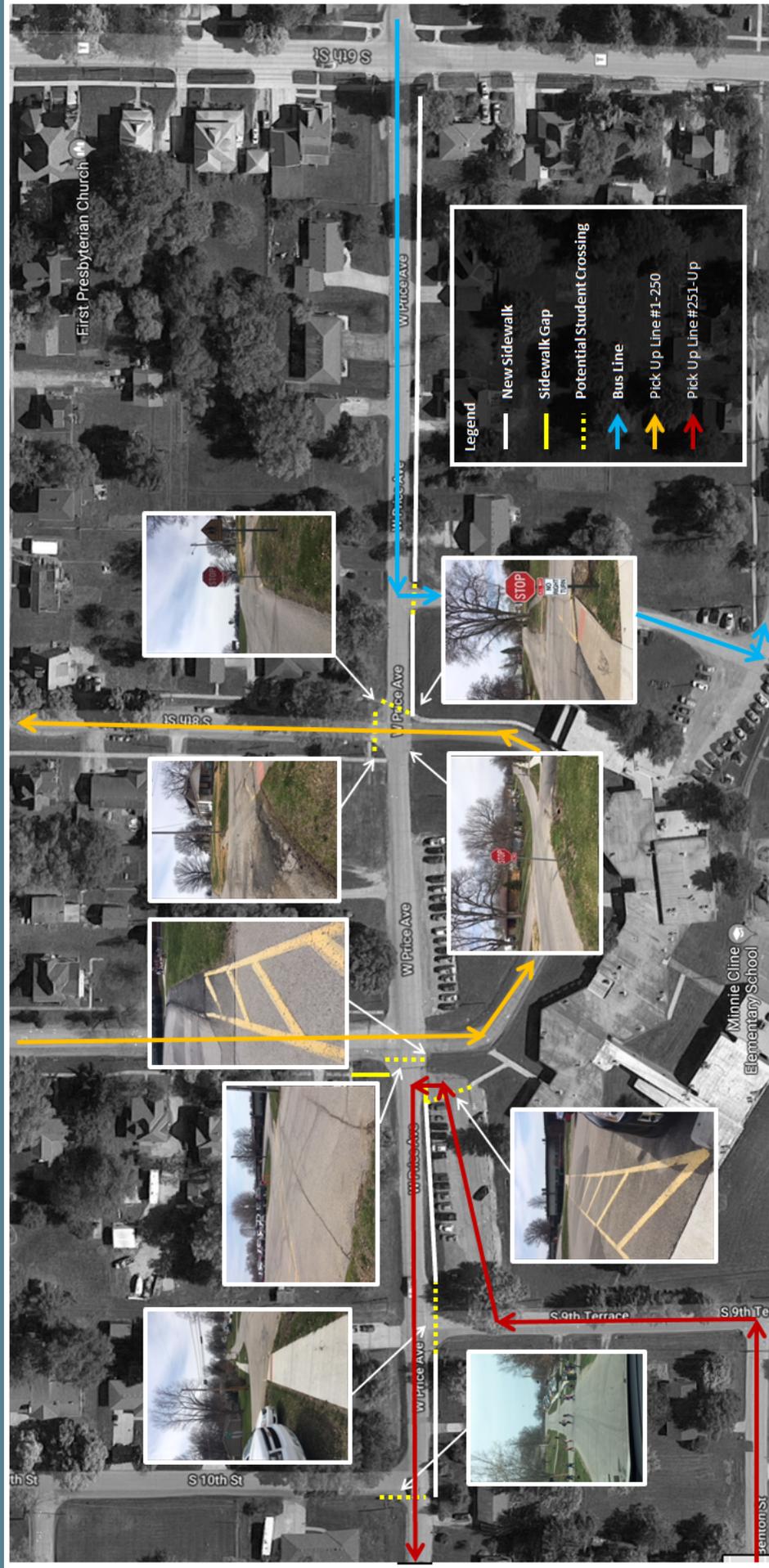


PROJECT TEAM

- MPO Staff
- MoKAN Staff
- Minnie Cline Principal
- Minnie Cline Staff
- 4th Graders (2 each)
- 5th Graders (2 each)
- City of Savannah Staff



EXISTING CONDITIONS



GATHERING DATA

The transportation industry has identified a variety of countermeasures that can be put into place to improve safety; however finding the right fit can sometimes be difficult. For any one problem there may be a dozen solutions. This is where the Safety and Innovation Mobile Lab focuses on collecting data both before and after a countermeasure is put in place to assess whether or not it is effective.

In this project, staff from the MPO and MoKAN gathered quantitative data on the volume of traffic, vehicle speeds, and stop sign compliance using manual collection methods and an automated speed trailer. As well, qualitative data was collected through the distribution of a survey focused on public perception of safety and the proposed improvements.

MEASURES

STOP SIGN COMPLIANCE

MPO staff conducted a stop sign compliance audit, which assessed if a car slowed and/or stopped at a stop sign over 1.5 hours during drop off/pick up, capturing 227 cars through the intersections at Price/8th and Price/9th.

SPEEDING AND TRAFFIC COUNT

MoKAN used their speed trailer to collect data on the volume and speed of vehicles moving through the intersections at Price/8th and Price/9th.

SAFETY SURVEY

School staff helped in gathering responses on surveys distributed after improvements to better gauge the perception of safety.

250

NUMBER OF VEHICLES

in 48 hours 250 cars came through the intersections of Price/8th and Price/9th, peak times were during AM drop off and PM pick up

12.8MPH

VEHICLE SPEED (85TH PERCENTILE)

Of the 250 cars, the average speed was 12.8 mph (speed limit 25 mph), much lower than expected



2 IN 10 CHILDREN WALK OR BIKE TO SCHOOL

22% of children walk or bike to Minnie Cline, 57% of parents surveyed said they do not feel their children have a safe route to school and 95% of parents stated they support safety improvements

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BEFORE IMPROVEMENTS
WERE MADE...



DID NOT SLOW

A sample of over 200 vehicles was taken at the intersections of Price/8th and Price/9th. Nearly 17% **maintained** speed through the intersection without slowing



DID NOT STOP

In 1.5 hours, 52% of vehicles sampled **rolled through** stop signs and 15% **did not stop** for a full 3 seconds



Only **14%** of cars made a full stop

IMPLEMENTATION

The Safety and Innovation Mobile Lab Project was inspired by the concept of tactical urbanism which relies on community members to identify and address a need in their own community, many times fast tracking through bureaucratic processes. This gives citizens the opportunity to invest in their community and take ownership in the solutions implemented. Through the Northwest Coalition for Roadway Safety the St. Joseph MPO and MoKAN Regional Council were able to purchase a trailer and supplies for temporary roadway projects, providing the materials and technical guidance citizens need to safely implement projects. This combined with an individual grant through the Coalition for sign upgrades and personal safety equipment, the Minnie Cline Crosswalk Project was created.

IMPROVEMENTS

PERMANENT PAINT

Roadway paint was added using the Manual on Uniform Traffic Control Devices (MUTCD) standards for white bar crosswalks with retro-reflective beads as well as stop bars.

SIGNAGE

Two stop signs (for East/West traffic) at the intersections of Price/8th and Price/9th were upgraded to solar powered LED blinking stop signs. As well, movable 'yield to pedestrians' signs made available for intersections not already covered by a crossing guard during drop off and pick up times.

ADDITIONAL ENFORCEMENT

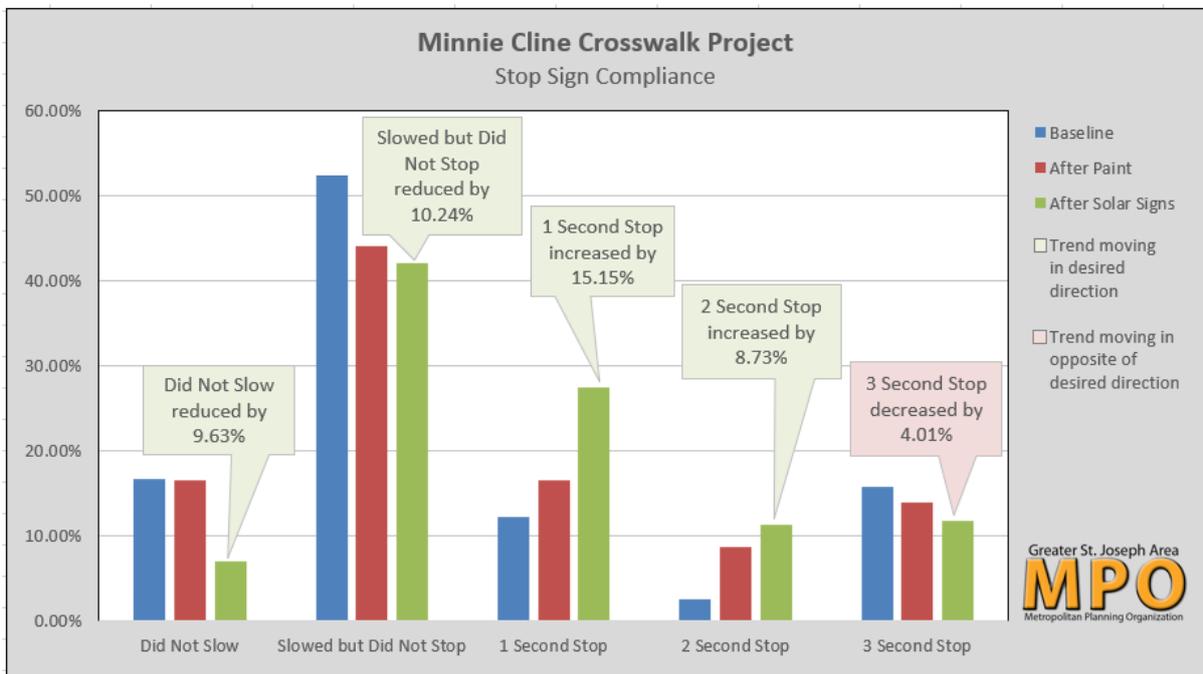
Personal safety equipment such as hand held stop signs and reflective safety vests were distributed to school staff, allowing up to four staff members to safely act as a crossing guard at any given time.

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RESULTS

Since speeding was not indicated as a problem in the initial data collected, staff focused on stop sign compliance measuring whether vehicles slowed at an intersection, rolled through or stopped for 1, 2, or 3 seconds. The baseline measurement was taken before any improvements were made, after crosswalks and stop bars were painted and finally after the solar-powered stop signs were installed. The solar-powered stop signs showed the greatest impact on driver behavior. While there were other factors effecting the data, these counts give some indication that the intersection improvements improved driver compliance with stop signs; directly impacts student safety. Overall, before any improvements were made roughly 70% of cars did not stop for any length of time (1-3 seconds). After improvements, that number was reduced to approximately 50%, meaning 20% more cars stopped.



CONTACT US

Contact the St. Joseph Metropolitan Planning Organization (czibers@stjoemo.org) or MoKAN Regional Council (rebecca@mo-kan.org) for information on how you can get a project started.