AMANDA ARNOLD ELEMENTARY

Safe Routes Grade Card

Section	Item	Grade
Proximity	Residential parcels within 1 mile of school	**63%**
	Student addresses within 1 mile of school	**51%**
	Parent perception: “Close” to school	**68%**
Built Environment	Safe Route sidewalk connectivity	**95%** *of Safe Routes have sidewalks*
	Safe Route sidewalk condition	**100%** *of sidewalks rated Good or Fair*
	Intersection issues & comments	**79%** *of comments*
Safety Perception	Child will be hit by a vehicle	**67%** *feel this is likely*
	Child will be taken by a stranger	**35%** *feel this is likely*
	School zones well enforced	**40%** *agree*
Transportation	Student walking & biking to school (counts)	**Low**
	Students driven to school in private cars (survey)	**High**

Figure A1.

The grade card in Figure A1 serves as a quick and simple snapshot of key categories and data measures for Amanda Arnold Elementary. Colors in the “Grade” column reflect the school’s score in relation to others across the USD. **Green represents satisfactory or better**, **yellow average,** and **red below average or underperforming.**

Despite having a very good sidewalk network in wonderful condition, a small percentage of students walk or bike to school, with personal vehicles being the primary mode of transportation. The remainder of the Amanda Arnold chapter will explore this data in depth and recommended solutions to address this vehicle-first mentality.

AMANDA ARNOLD ELEMENTARY | *Walkability*

Walkability Map

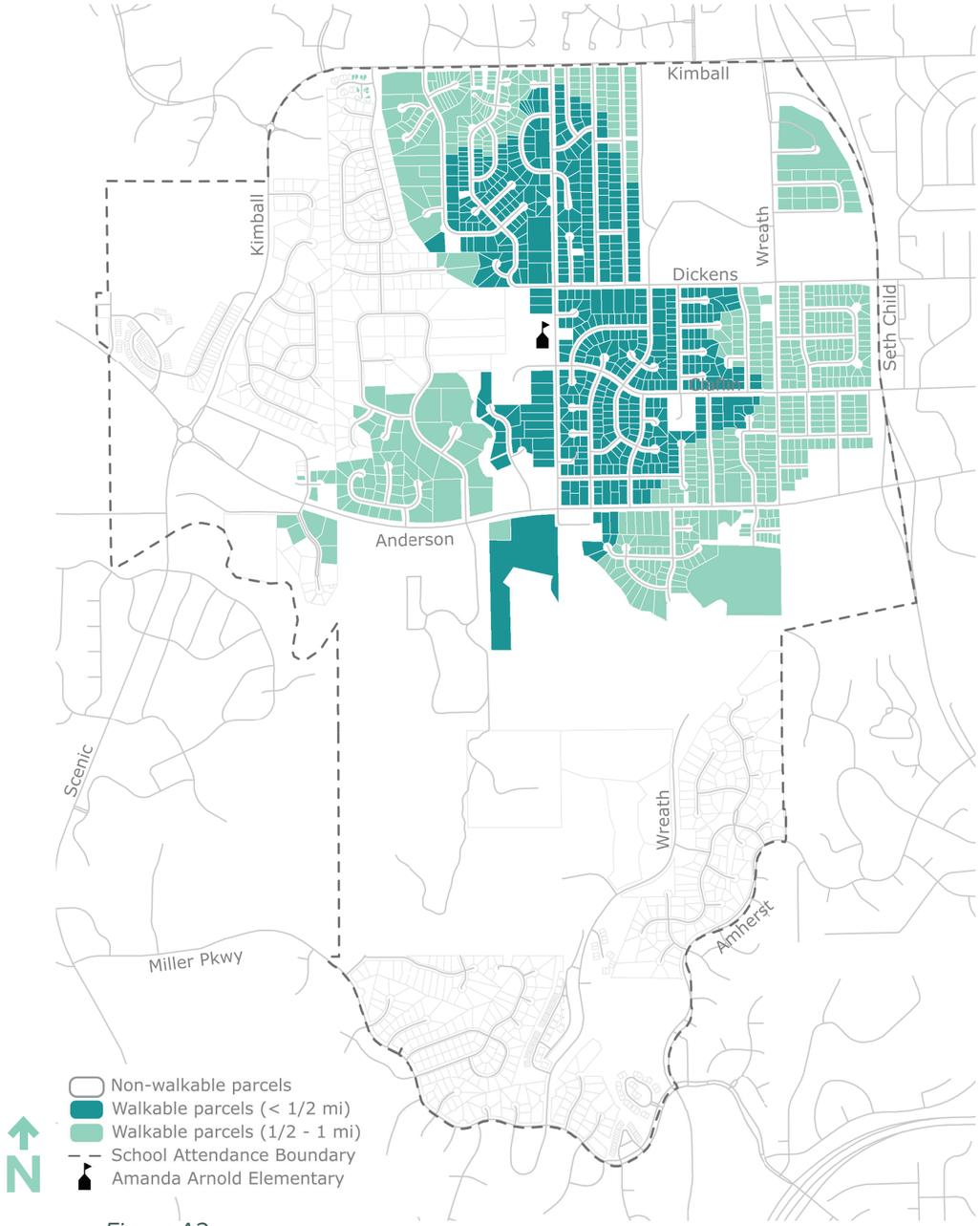


Figure A2.

Walkability Data

Despite over 50% of residential addresses and current students living within 1 mile of school, and strong belief (68%) amongst parents that they live "close" to school (see Figures A2-A5), only a small percentage of students actually do walk or bike to/from school.

Residential Addresses by Proximity

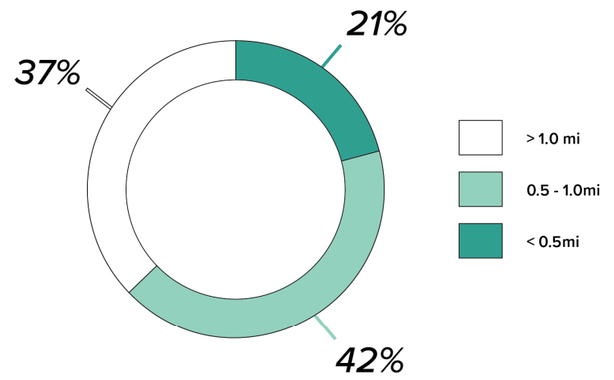


Figure A3.

Current Student Addresses by Proximity

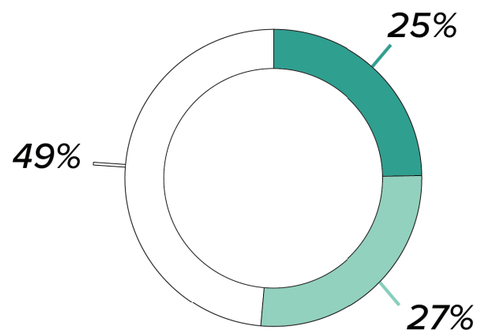


Figure A4.

Parent Perception

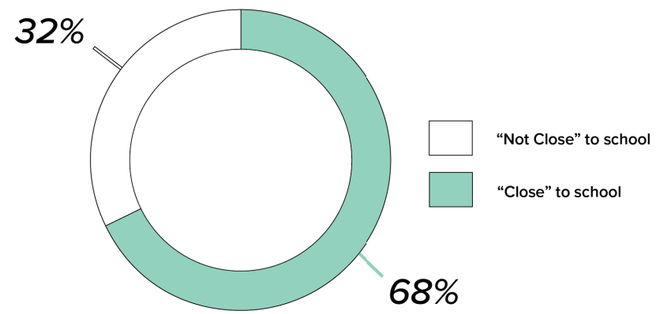


Figure A5.

AMANDA ARNOLD ELEMENTARY | *Safe Routes*

Safe Routes Map

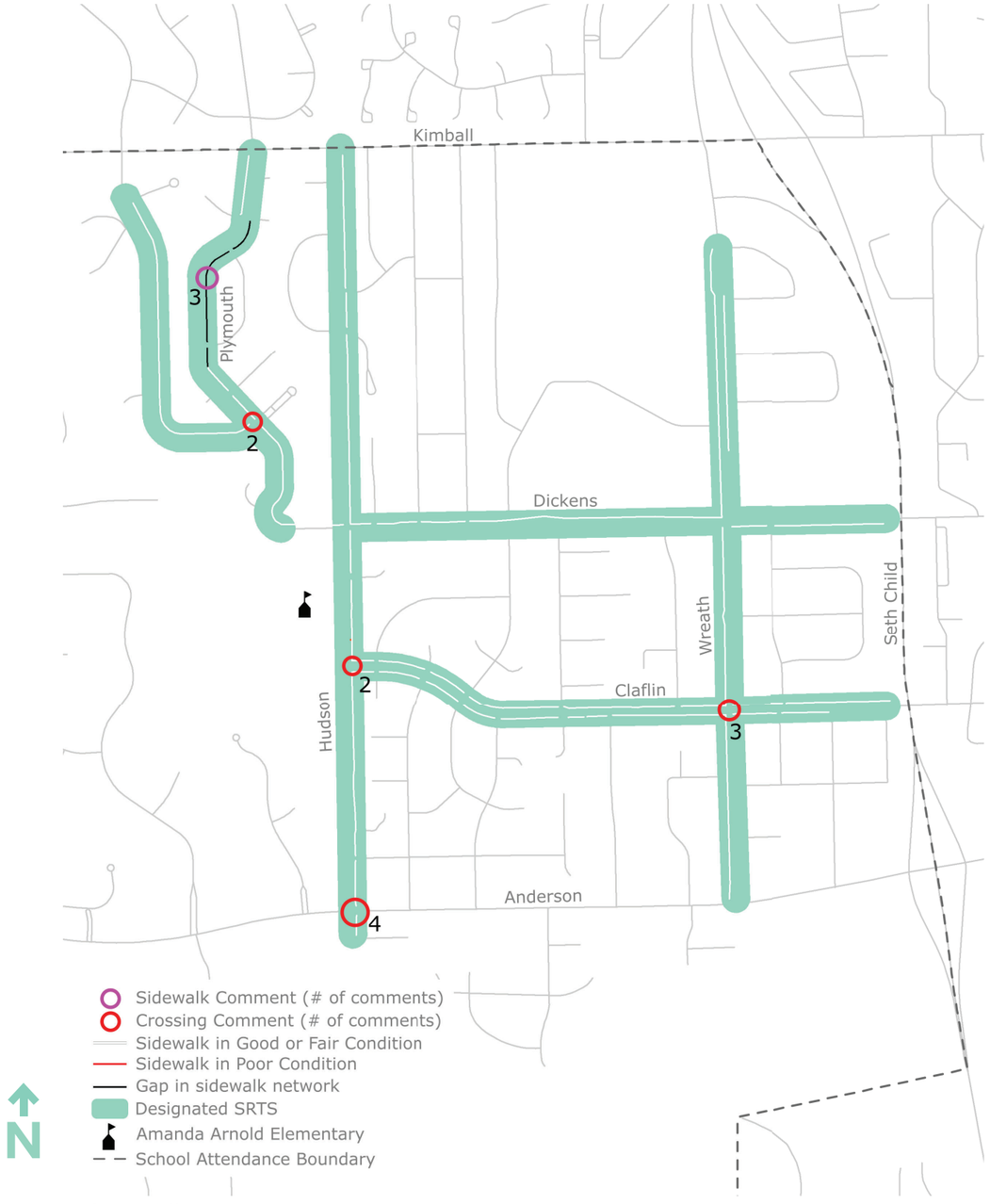


Figure A6.

Safe Routes

Figure A6 shows designated Safe Routes leading to Amanda Arnold. It also highlights locations identified in the parental survey. The recommended projects are intended to address these parental concerns.

Wreath Avenue: Anderson Avenue to Heritage Ridge Apartments.

Dickens Avenue: Seth Child Road to Hudson Avenue.

Claflin Road: Seth Child Road to Hudson Avenue.

Hudson Avenue: Anderson Avenue to Kimball Avenue.

Plymouth Road: Kimball Avenue to Amanda Arnold Elementary.

Little Kitten Road: Emerald Circle to Plymouth Road.

Sidewalk Condition

The neighborhoods around Amanda Arnold have a very complete sidewalk network, with nearly every segment having sidewalks on at least one side of roads along identified Safe Routes (see Figure A6). Figure A7 below shows the the overall condition of sidewalks leading to Amanda Arnold along Safe Routes. The one exception is the gap along Plymouth Road. Overall, the condition is overwhelmingly rated “Good”, with only a small portion rated “Fair”.

Safe Route Sidewalks by Condition

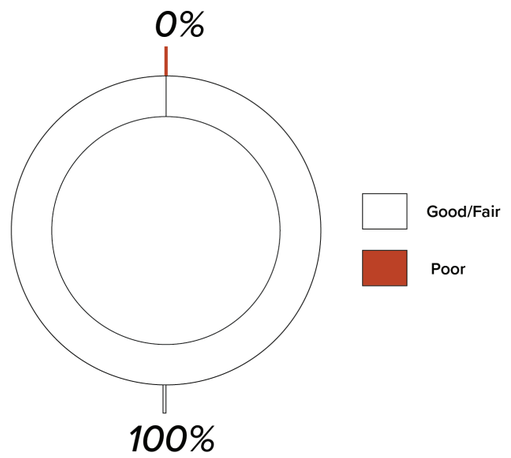


Figure A7.

Thank you to K-State Prof. Shakil Kashem and students in his Plan 836 course for their work collecting sidewalk condition data.

Parent Surveys

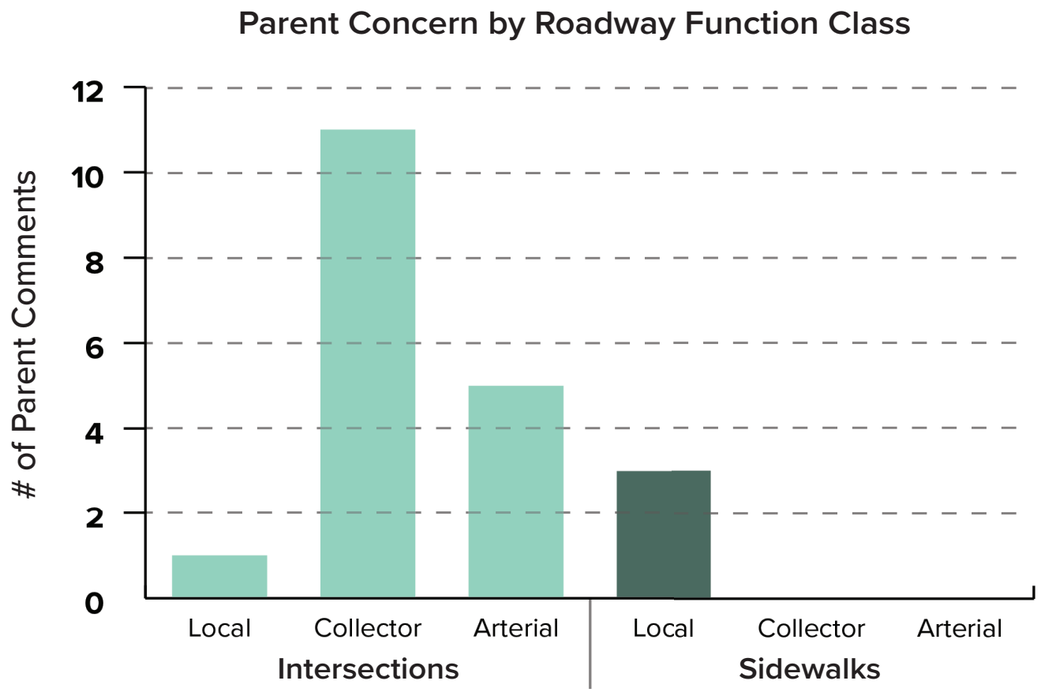


Figure A8.

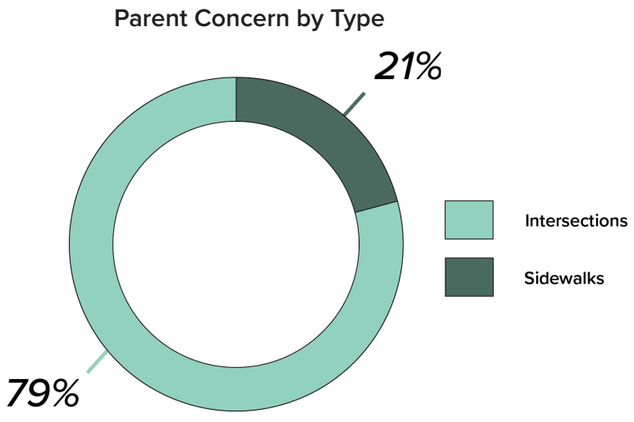


Figure A9.

Intersections are the major parental concern, specifically where children have to cross major intersections, near schools (see Figures A6 through A11). Despite existing traffic controls including stop signs, concerned parents regularly see vehicles running stop signs, failing to yield, and driving aggressively. The recommended recommended projects propose design changes beyond paint and signage.

Parent Responses

Figure A10.

AMANDA ARNOLD ELEMENTARY | *Survey Summary*

How does your child get to school?

72%

28%

K	2%
1	8%
2	2%
3	23%
4	31%
5	15%
never	20%

What grade would you let your child walk to school alone?

35%
of parents believe a stranger may take their children while walking to school.

91%
of parents support or are interested in Walking School Buses.

76%
of parents who drive their children to school believe it's easier or more convenient than walking or biking.

64%
of parents who let their children walk or bike to school are concerned their child may be hit by a vehicle.

Especially at intersections... but certain intersections more than others.

6% local roads

94% collectors and arterials

Figure A11.

Recommended Project Map

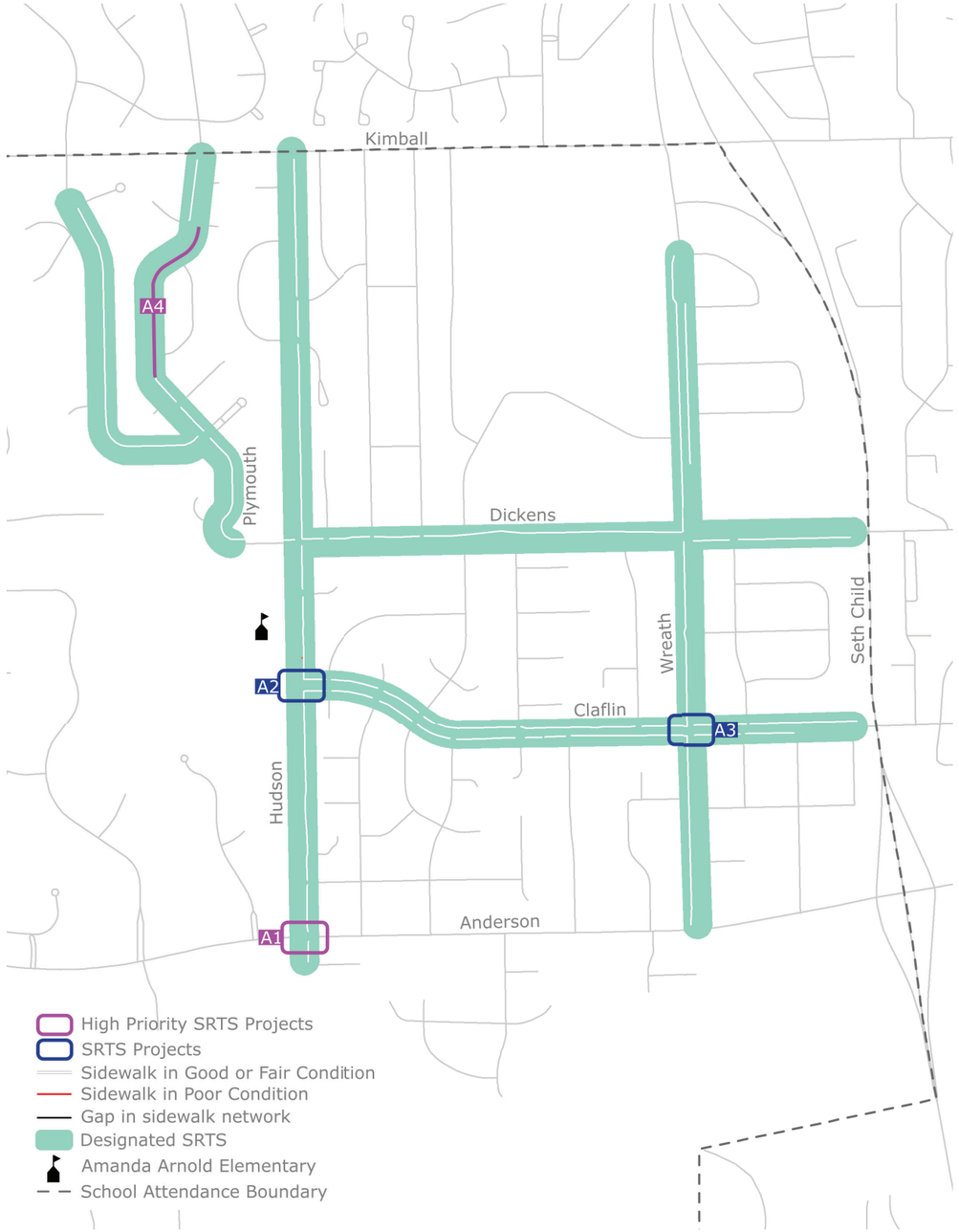


Figure A12.

Figure A12 maps the recommended projects for Amanda Arnold Elementary. These projects were based upon sidewalk condition data, parental comments, and school administration meetings. Valid projects remaining from the 2015 SRTS report have also been included.

Projects are focused around the designated Safe Routes to maximize impact and safety on key corridors and at critical intersections.

A full list of projects can be found in Figure A13, with detailed information on the following pages. High priority projects have additional information including diagrams and engineering cost estimates.

AMANDA ARNOLD ELEMENTARY | *Recommended Project Table*

ID	Location	Type	Improvement	Project Details	BPSP Project	2015 SRTS Project	ATA Partner Project	Demo/Semi-Perm. Eligible	FHWA STEP	High Priority
A1	Anderson Avenue at Hudson Avenue	Crossing	PHB	Install new curb ramps and PHB signal.	●				●	●
A2	Claflin Road at Hudson Avenue	Crossing	Curb Extensions	Install curb extensions on the north and south curb lines of Claflin Road on the east side of Hudson Avenue.				●	●	
A3	Wreath Avenue at Claflin Road	Crossing	RRFBs	Install RRFBs to cross Wreath Avenue at Claflin Road					●	
A4	Plymouth Road	Sidewalk	New Sidewalk	Install sidewalk on the west side of Plymouth Road from ped island to Little Kitten Avenue.		●				●

Figure A13.

A1 Anderson Avenue at Hudson Avenue

HIGH PRIORITY PROJECT

Estimated Project Cost:
243,098

Figure A14. Current crosswalk.

Improving the crossing of Anderson Avenue at Hudson Avenue is a High Priority project. The current crosswalk is not safe as students are required to cross a 4-lane minor arterial at an intersection with turn movements without signals or RRFBs (see Figures A14 & A15). Additionally, this intersection was highlighted in the Bicycle & Pedestrian System Plan (BPSP) as a Critical Connection.

The identified solution is to install a Pedestrian Hybrid Beacon (PHB, also known as a HAWK signal), shifting the crosswalk slightly to the east, and adjust applicable ADA ramps (see Figure A16).

As a High Priority project, a construction cost estimate was prepared and is available in Appendix D (under project A1). The total project estimate (2023) amounts to $243,098.78.

Figure A15. Current crosswalk looking east down Anderson Avenue.

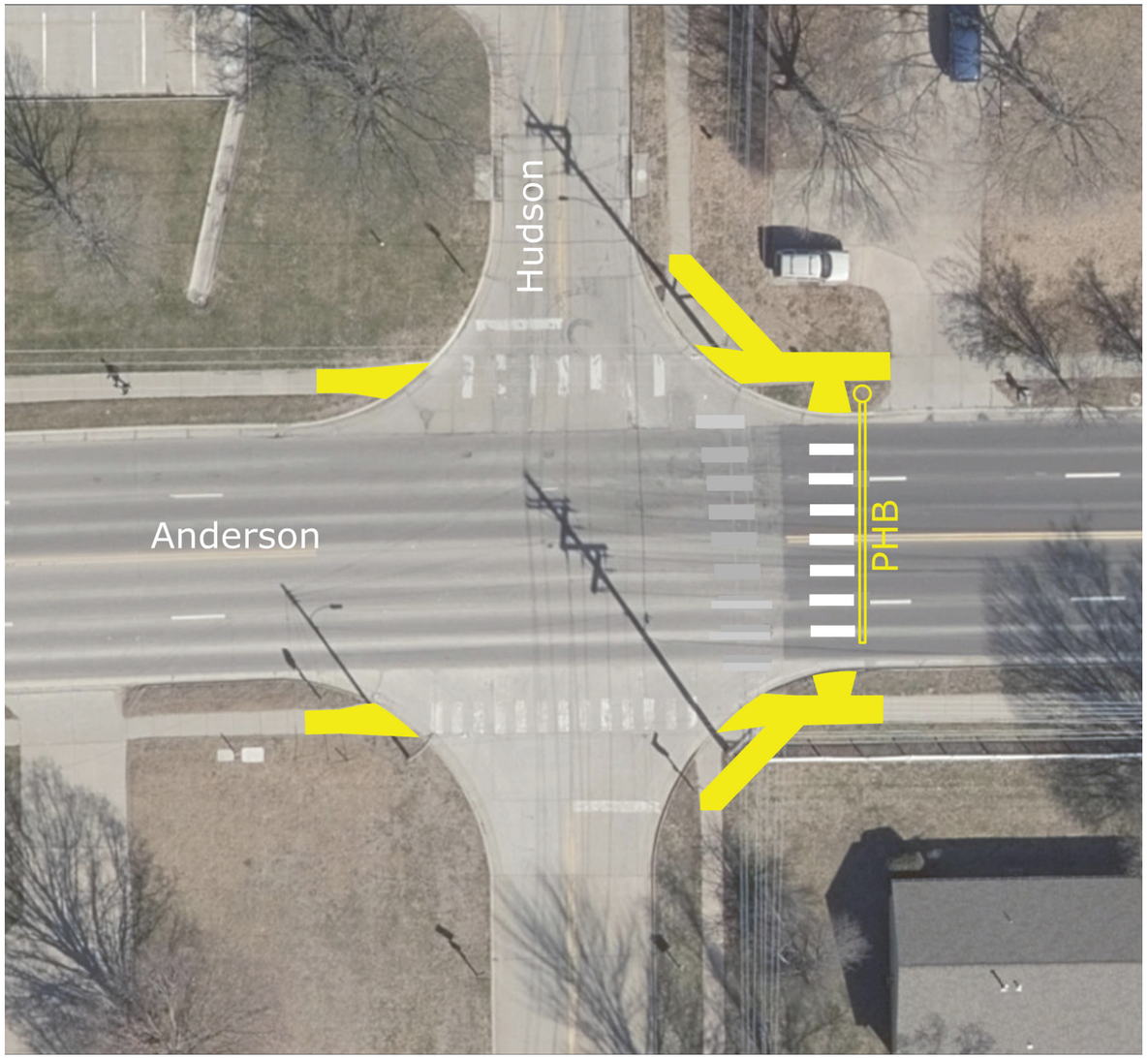


Figure A16. Proposed crosswalk with PHB.

A2 Claflin Road at Hudson Avenue

Figure A17.

Shortening the crossing of Claflin Road at Hudson Avenue is recommended at this busy intersection. Parental comments about this intersection echoed the concerns of school administration and staff.

The current crossing is nearly 50 feet in length. Vehicles park along both the north and south curb line of Claflin at drop-off and pick-up times, reducing the visibility of the intersection and impacting safety.

With the installation of curb extension on both curb lines of Claflin, the crossing distance would be reduced to between 30 to 36 feet. Space would be maintained for vehicles to park on Claflin. Existing stormwater inlets would need to be relocated to the east (see Figure A17).

Demo Project

This project can be implemented in the near-term as a **Demonstration Project** to test the layout. Upon success of the project, it could be installed as a **Semi-Permanent Project** for several years until final construction could be completed.

A3 Wreath Avenue at Claflin Road

Figure A18. RRFB.

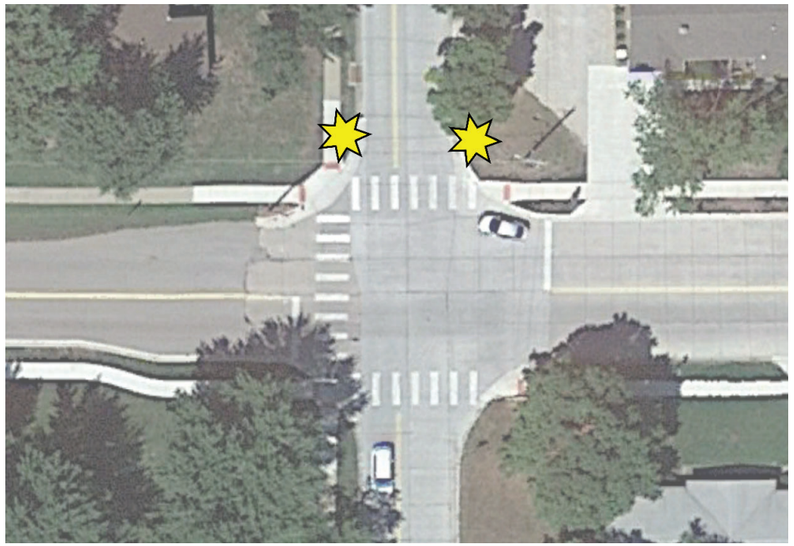


Figure A19.

A major concern of parents, the current crossing of Wreath Avenue at Claflin Road is perceived as dangerous due to high traffic volume, speeed, and turning vehicles.

The installation of RRFBs are recommended to improve driver awareness of children crossing by providing visible warnings (see Figure A18). It is recommended the RRFBs be installed on the northern crossing (as shown in Figure A19), which would make this the user preferred crossing for the following reasons:

1) Provides direct access to Amanda Arnold, by removing the need to cross over Claflin Road (potentially removes two Claflin crossings for students who live north of Claflin Road).

2) The northern sidewalk connects directly to the crosswalk of Seth Child Road, making the RRFBs more usable for the entire community to access the core of Manhattan.

A4 Plymouth Road

HIGH PRIORITY PROJECT

Estimated Project Cost:
379,083

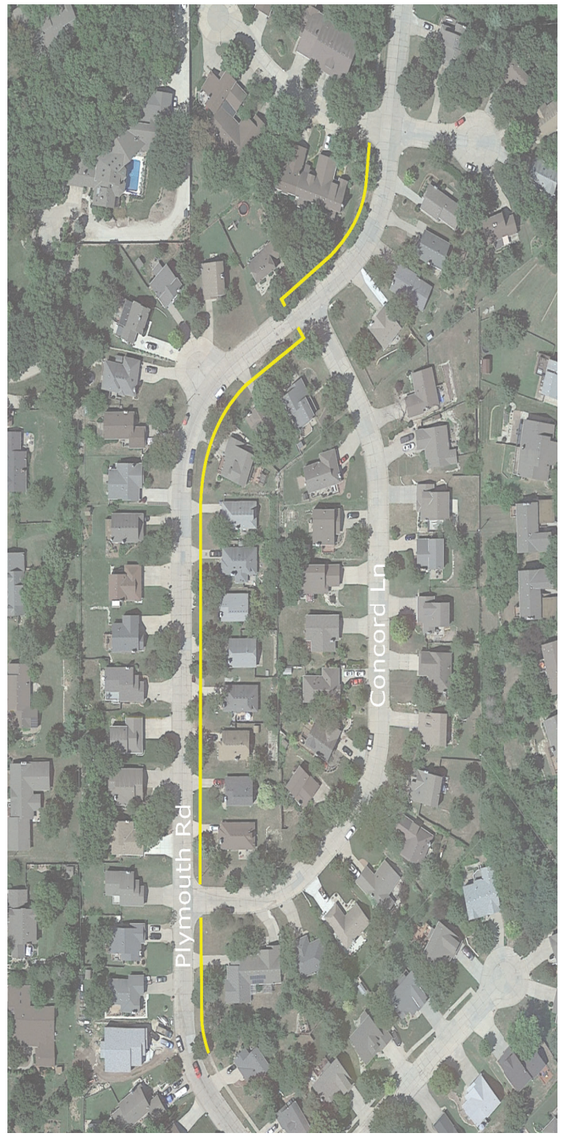


Figure A20.

This project calls for the construction of new sidewalk along Plymouth Road, closing an important gap (see Figure A20). Based on engineering standards, construction feasiblity, and cost, it is recommended the sidewalk be built on the east side of Plymount Road from the end of the current sidewalk north of Yorktown Circle north to the northern intersection of Concord Lane. From here, the sidewalk will continue north on the west side of Plymouth Road north to Plymouth Landing where it will align with existing sidewalk.

As a high priority project, a construction cost estimate was prepared. The total project estimate (2023) amounts to $379,083.18. A detailed cost estimate can be found in Appendix D (under project A4).

Walking School Bus Map

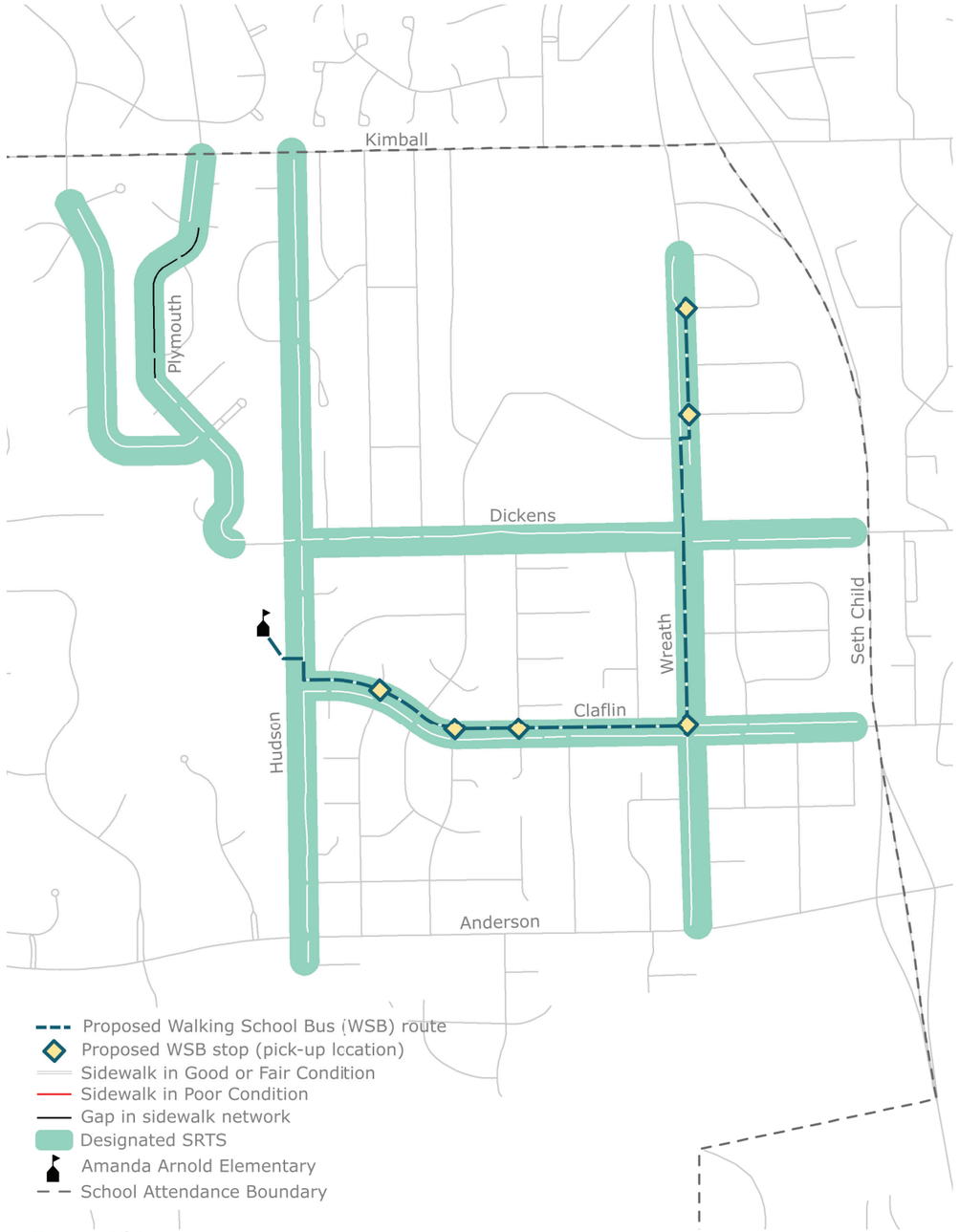


Figure A21.

The proposed Walking School Bus (WSB) in Figure A21 showcases a route that connects the apartments on Wreath Avenue to Amanda Arnold via a 1.1 mile path. This distance is acceptable as it is far enough for a student to easily walk, yet far enough and with enough street crossings, that many parents are hesitant to let their children walk alone. The route continues south on Wreath Avenue to Claflin, where a planned stop (where the WSB is joined by more students at a prescibed time), before heading west on Claflin towards Amanda Arnold. This route connects many residential neighborhoods along a complete sidewalk network.

WSB Directions

- Start at Wreath Avenue at Heritage Court
- South on Wreath Avenue
- Stop at Wreath Avenue and Lundin Drive
- South on Wreath Avenue
- Stop at Wreath Avenue and Claflin Road
- West on Claflin Road
- Stop at Claflin Road and Highland Drive
- West on Claflin Road
- Stop at Claflin Road and Frontier Lane
- West on Claflin Road
- Stop at Claflin Road and Outlook Drive
- West on Claflin Road
- North on Hudson Avenue
- End at Amanda Arnold Elementary

FRANK BERGMAN ELEMENTARY

Safe Routes Grade Card

Section	Item	Grade
Proximity	Residential parcels within 1 mile of school	**54%**
	Student addresses within 1 mile of school	**84%**
	Parent perception: "Close" to school	**74%**
Built Environment	Safe Route sidewalk connectivity	**100%** *of Safe Routes have sidewalks*
	Safe Route sidewalk condition	**100%** *of sidewalks rated Good or Fair*
	Intersection issues & comments	**89%** *of comments*
Safety Perception	Child will be hit by a vehicle	**76%** *feel this is likely*
	Child will be taken by a stranger	**50%** *feel this is likely*
	School zones well enforced	**38%** *agree*
Transportation	Student walking & biking to school (counts)	**Average**
	Students driven to school in private cars (survey)	**High**

Figure Bg1.

The grade card in Figure Bg1 serves as a snapshot of key categories and data measures for Frank Bergman Elementary. Colors in the "Grade" column reflect the school's score in relation to others across USD 383. **Green represents satisfactory or better**, **yellow average,** and **red below average or underperforming.**

Though Bergman Elementary has a comprehensive network of sidewalks in good condition (100% of sidewalks along proposed Safe Routes are rated Good or Fair), personal vehicles are still the primary mode of transportation. The remainder of the Bergman chapter will explore this data in depth and recommended solutions to address this vehicle-first mentality.

Walkability Map

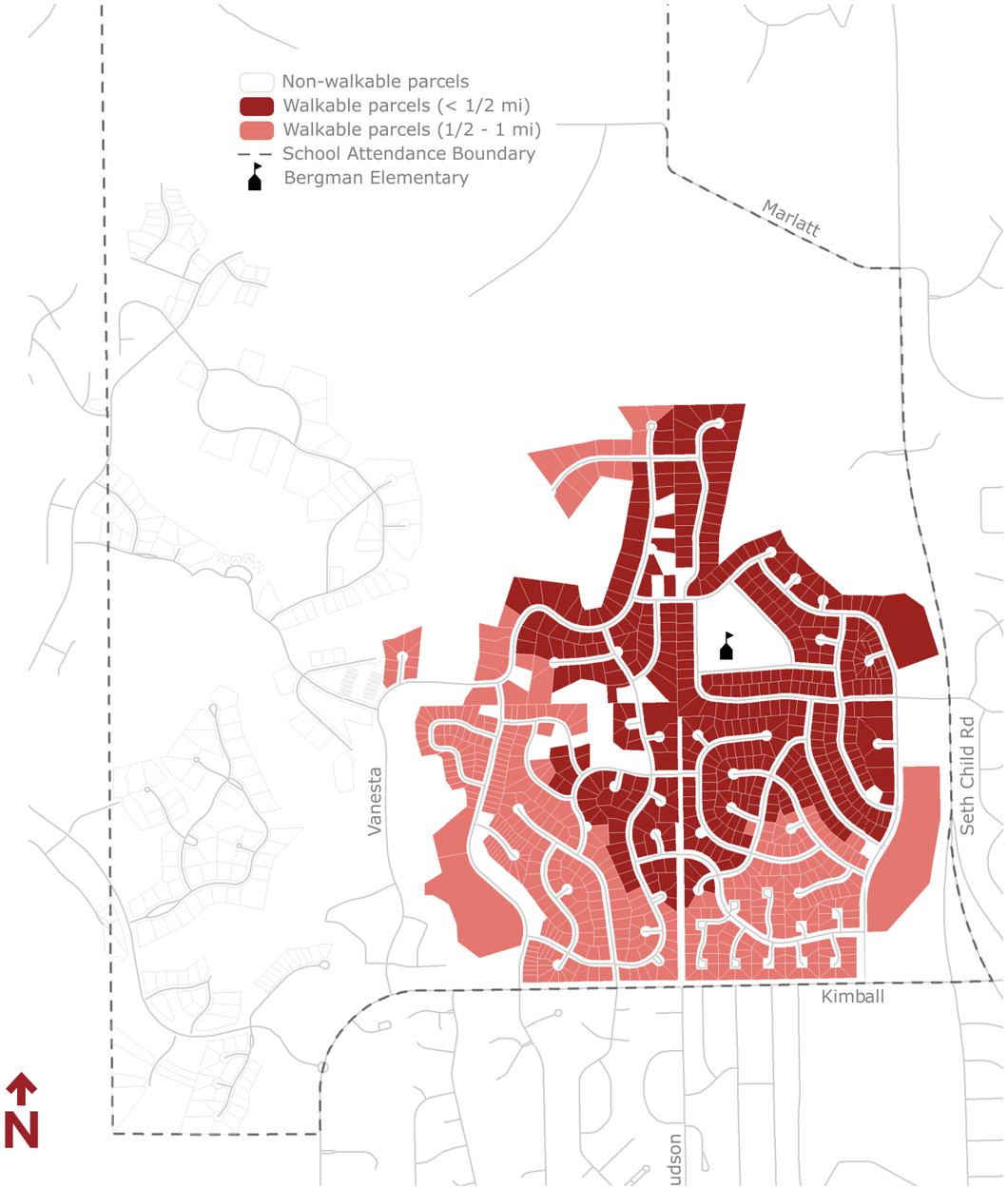


Figure Bg2.

Walkability Data

Despite over 50% of residential addresses and current students living within 1 mile of school, and strong belief (74%) amongst parents that they live “close” to school (see Figures Bg3 to Bg5), only a small percentage of students actually do walk or bike to/from school.

Residential Addresses by Proximity

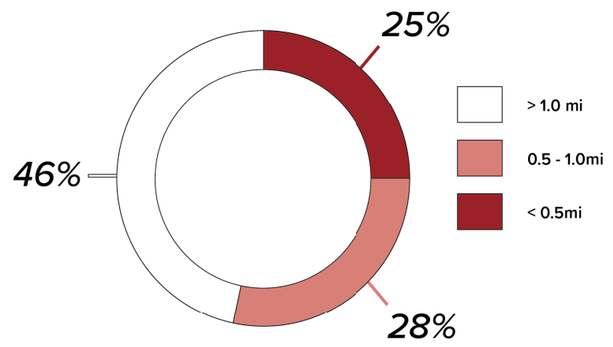


Figure Bg3.

Current Student Addresses by Proximity

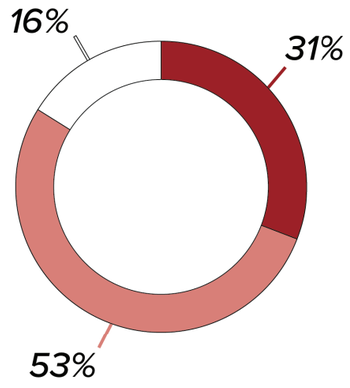


Figure Bg4.

Parent Perception

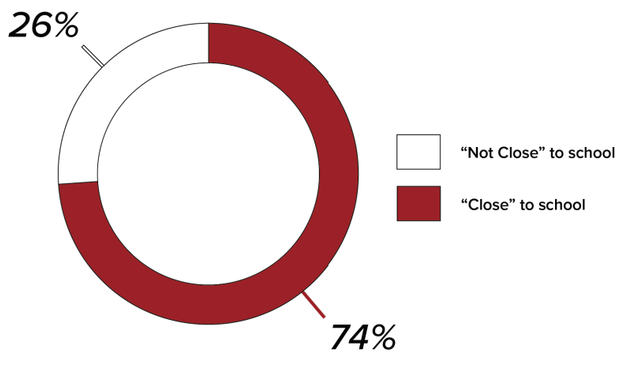


Figure Bg5.

Parent Surveys

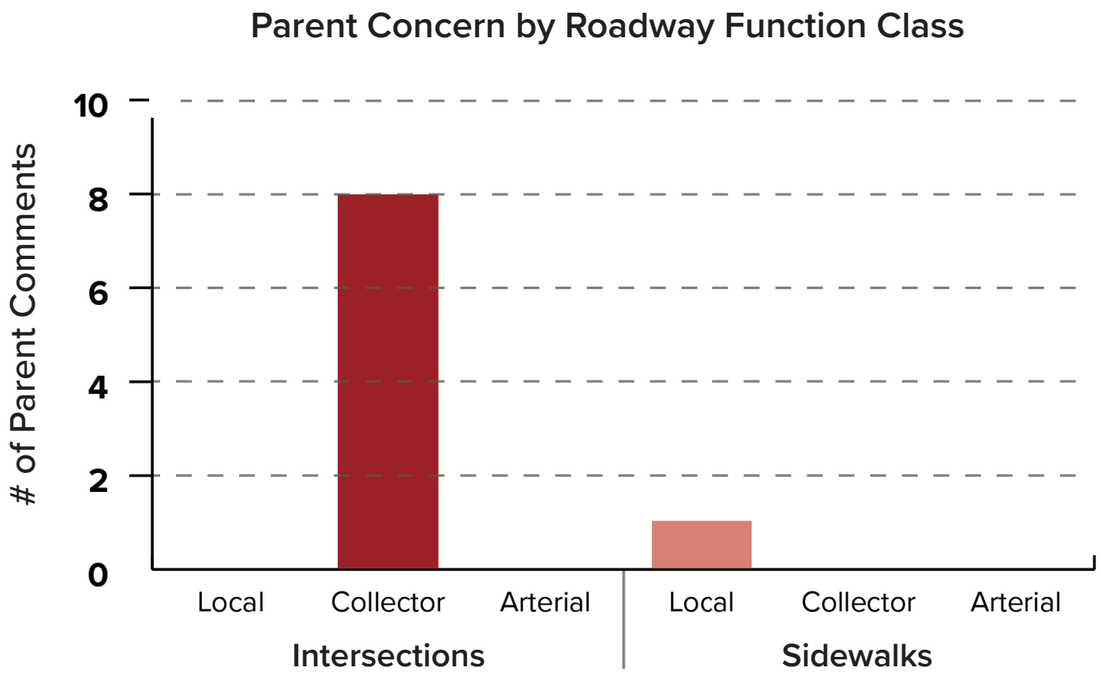


Figure Bg6.

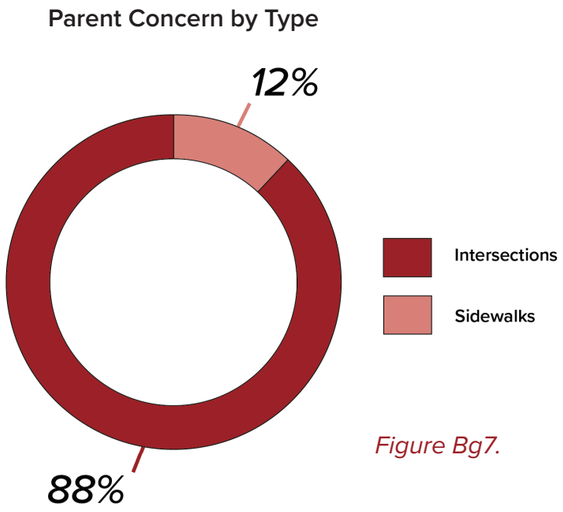


Figure Bg7.

Intersections and sidewalks near Bergman Elementary pose safety concerns for parents, as shown in Figures Bg6 to Bg9. The majority of comments address intersections. The following recommended projects propose design changes beyond paint and signage.

Parent Responses

Figure Bg8.

FRANK BERGMAN ELEMENTARY | *Survey Summary*

How does your child get to school?

68%

32%

What grade would you let your child walk to school alone?

K	0%
1	0%
2	12%
3	8%
4	48%
5	12%
never	20%

82%
of parents who drive their children to school believe it's easier or more convenient than walking or biking.

50%
of parents believe a stranger may take their children while walking to school.

92%
of parents support or are interested in Walking School Buses.

64%
of parents who let their children walk or bike to school are concerned their child may be hit by a vehicle.

Especially at intersections... but certain intersections more than others.

0% local roads

100% collectors and arterials

Figure Bg9.

FRANK BERGMAN ELEMENTARY | *Safe Routes*

Safe Routes Map

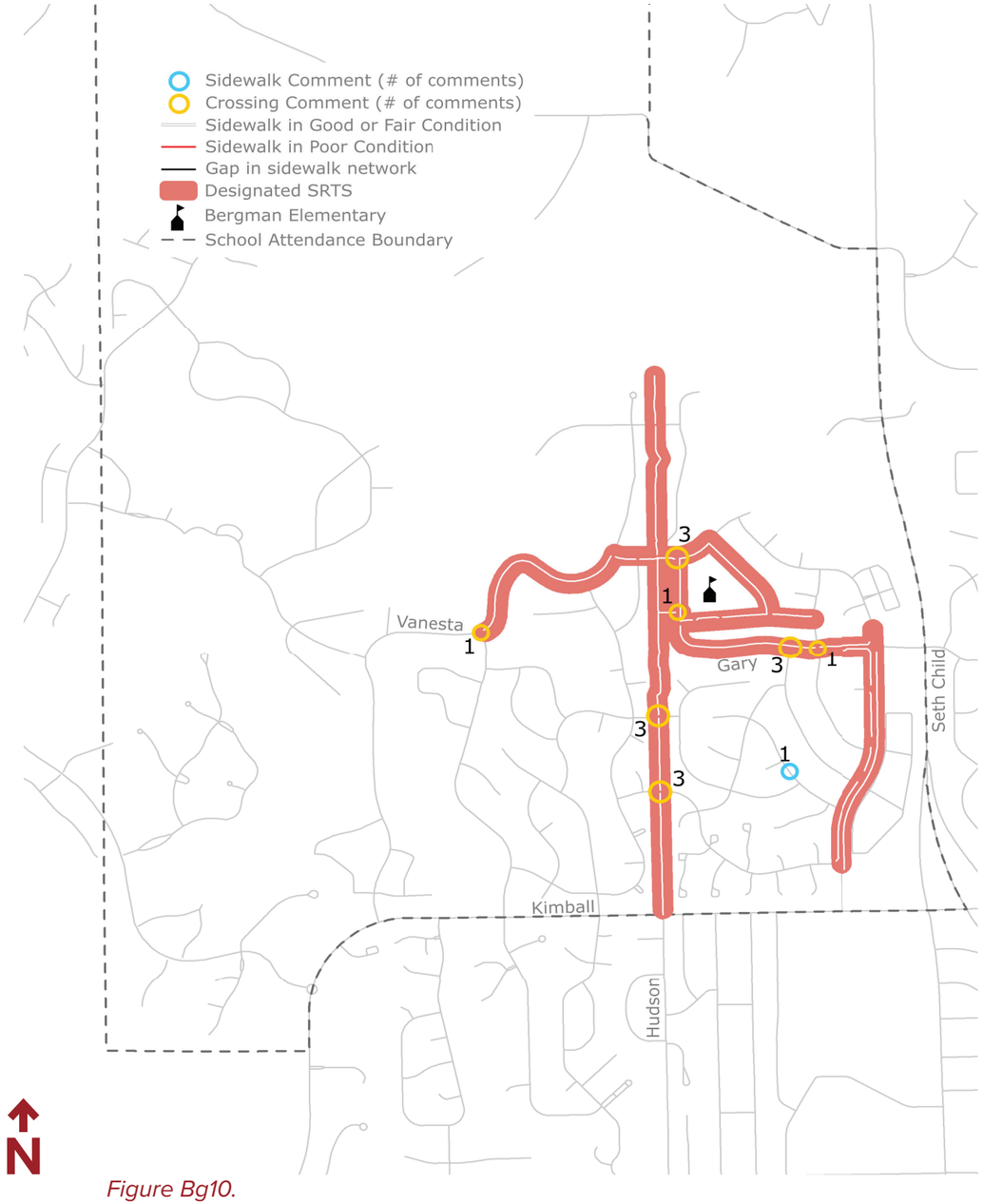


Figure Bg10.

Safe Routes

Designated Safe Routes, shown in Figure Bg9, are key walking and biking corridors leading to Bergman Elementary. Through publicizing and prioritizing of projects along these Safe Routes, the awareness and safety of these corridors will increase.

Hudson Trail: Kimball Avenue to Washington Marlatt Park.

Vanesta Drive: Little Kitten Avenue to Churchill Street.

Churchill Street: Vanesta Street to Westbank Street.

Westbank Street: Churchill Street to Lombard Drive.

Lombard Drive: Newbury Street to Gary Avenue.

Gary Avenue: Churchill Street to Candlewood Drive.

Candlewood Drive: Englewood Street to Susan B. Anthony Trail.

Sidewalk Condition

The complete sidewalk network in the neighborhoods surrounding Bergman is visible in Figure Bg10. All sidewalks around Bergman Elementary are in good or fair condition (see Figure Bg11).

Safe Route Sidewalks by Condition

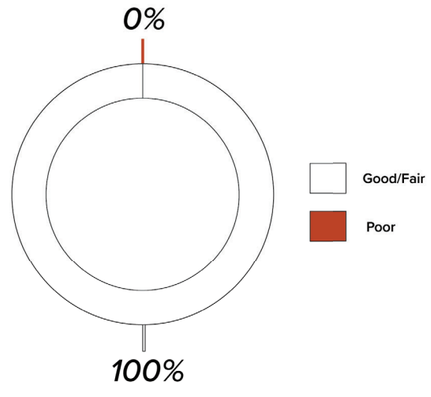


Figure Bg11.

Thank you to K-State Prof. Shakil Kashem and students in his Plan 836 course for their work collecting sidewalk condition data.

Recommended Project Map

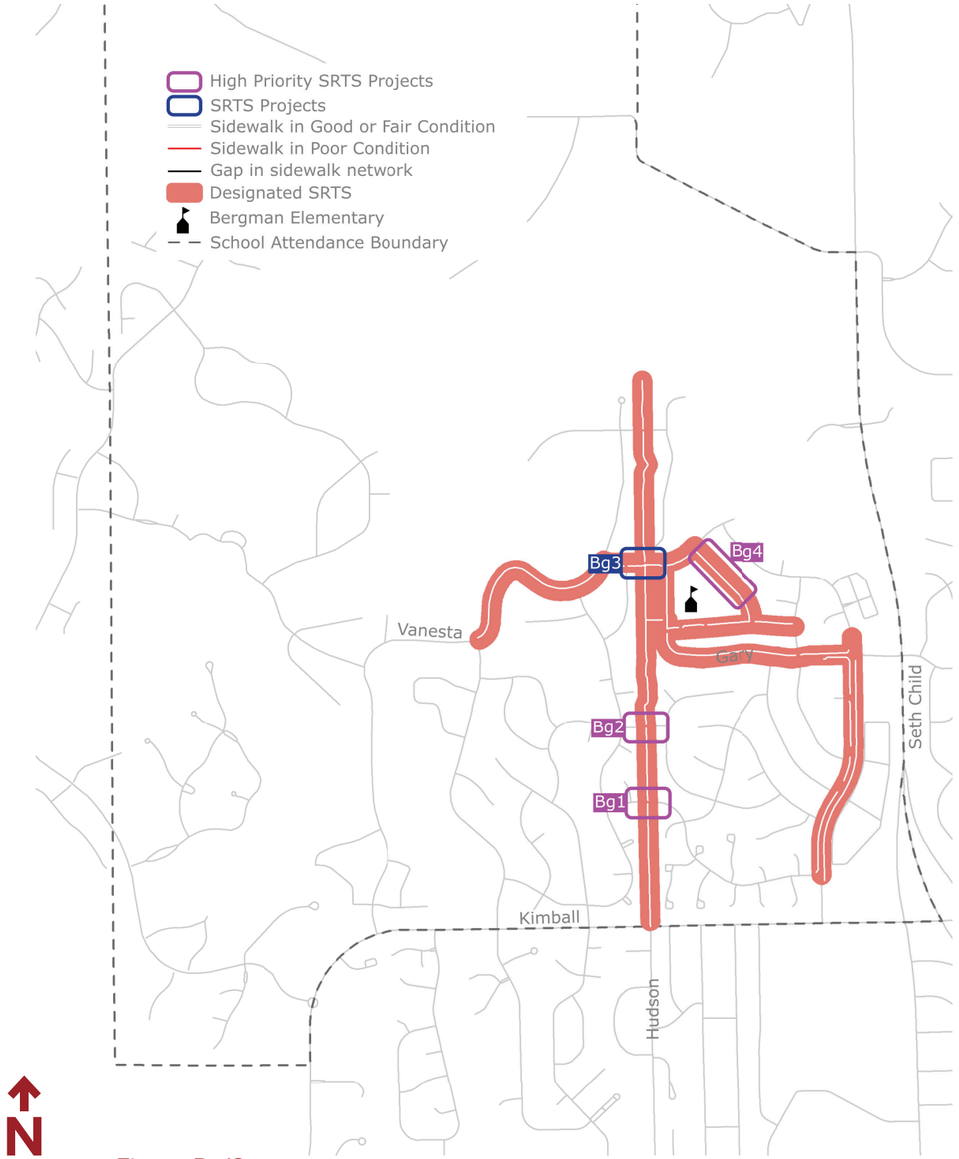


Figure Bg12.

Figure Bg12 maps the recommended projects for Bergman Elementary. These projects were based upon sidewalk condition data, parental comments, and school administration meetings. Valid projects remaining from the 2015 SRTS report have also been included.

Projects are focused around the designated Safe Routes to maximize impact and safety on key corridors and at critical intersections.

A full list of projects can be found in Figure Bg13, with detailed information on the following pages. High priority projects have additional information including diagrams and engineering cost estimates.

FRANK BERGMAN ELEMENTARY | *Recommended Project Table*

ID	Location	Type	Improvement	Project Details	BPSP Project	2015 SRTS Project	ATA Partner Project	Demo/Semi-Perm. Eligible	FHWA STEP	High Priority
Bg1	Hudson Trail at Englewood Street	Crossing	Ped. Island	Upgrade existing semi-permanent pedestrian island to permanent.				●	●	●
Bg2	Hudson Trail at Londondery Drive	Crossing	Ped. Island	Upgrade existing semi-permanent pedestrian island to permanent.				●	●	●
Bg3	Hudson Trail at Churchill Street	Crossing	RRFBs	Regrade Hudson Trail north of Churchill Street and install RRFBs.					●	
Bg4	Westbaker Street	Signage	School Zone	Install signage for a school zone as Westbaker Street is now a drop off/pick up zone.						●

Figure Bg13.

Bg1 Hudson Trail at Englewood Crossing

HIGH PRIORITY PROJECT

Estimated Project Cost:
42,542

Hudson Trail serves as a key connection for students to Bergman Elementary. The crossing at Englewood is located where Englewood transitions in width from 44ft to 31ft, creating an awkward and wider-than-needed crosswalk. Additionally, the slope and road curve add to the limited sight distance of the crossing. During the development of the Bike and Pedestrian Systems Plan (BPSP) in 2019, a demonstration project was conducted here that utilized curb extensions (Figure Bg14). In 2021, the current semi-permanent pedestrian island was installed utilizing an AARP grant (Figure Bg15). The proposed permanent project would install a concrete pedestrian island, designed to allow access to both residential driveways (Figure Bg16).

As a High Priroity project, a detailed construction cost estimate has been prepared for this project. See Appendix D for the estimate.

Figure Bg14.

Figure Bg15. Current Semi-Permanent Project 2021.

Demo Project

This project was quickly implemented as a **Demonstration Project** to test the layout in 2019. It was then installed as a **Semi-Permanent Project** in the autumn of 2021.

Figure Bg16. Proposed Permanent Project.

Bg2 Hudson Trail at Londondery Crossing

HIGH PRIORITY PROJECT

Estimated Project Cost:
42,542

The Hudson Trail crossing at Londondery is located on a steep slope. Tested first in 2019 during the Bike and Pedestrian Systems Plan (BPSP) as a demonstration project (Figure Bg17), and since 2021 as a semi-permanent project (Figure Bg18), the proposed permanent project (Figure Bg19) would install a concrete pedestrian island. Final design must take account for vehicle access to the trail. If turning radii are problematic, mountable curb could be used. Similar issues must be studied for project Bg1.

As a high priority project, a detailed construction cost estimate has been prepared for Bg2. See Appendix D for this detailed estimate.

Figure Bg17. Demonstration Project in 2019.

Figure Bg18. Current Semi-Permanent Project 2021.

Demo Project

This project was quickly implemented as a **Demonstration Project** to test the layout in 2019. It was then installed as a **Semi-Permanent Project** in the autumn of 2021.

Figure Bg19. Proposed Permanent Project.

Bg3 Hudson Trail at Churchill Crossing

Figure Bg20. Demonstration Project in 2019.

From the north, the Hudson Trail approaches Churchill Street on a very steep slope. This slope creates difficult braking for students and community members riding south on the trail, resulting in lowered confidence and safety, as anything but perfect braking can lead to unexpected entry on to Churchill Street. Additionally, people walking and riding north have difficulty heading up the slope. During the Bike and Pedestrian Systems Plan (BPSP) in 2019, a curb extension was placed on the south side of Churchill Street (Figure Bg20).

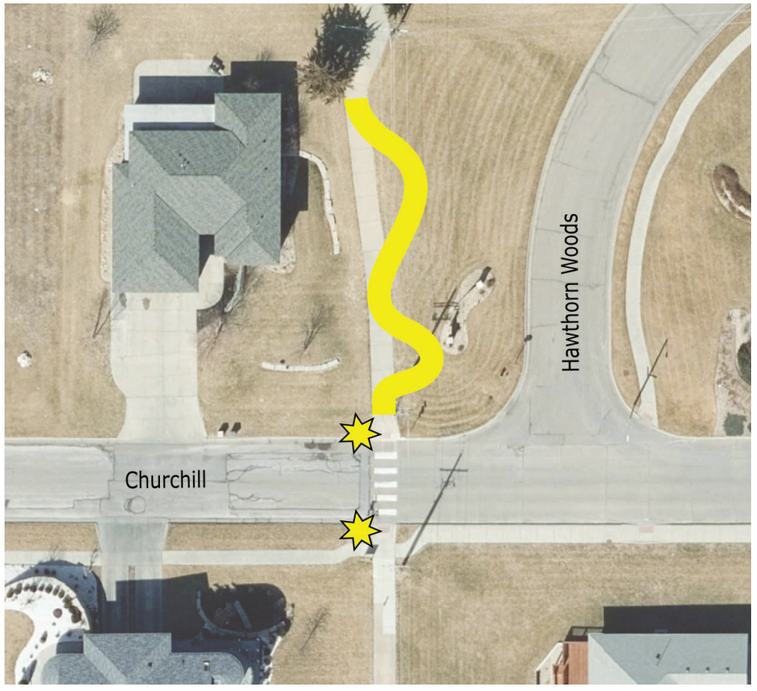


Figure Bg21. Conceptual alignment using ROW to lower sidewalk grade.

Unfortunately, the Demonstration Project did not alter driver behavior or aid those riding on the slope north of Churchill. The project proposed in Figure Bg21 would provide increased safety and comfort by utilizing ROW to reconstruct the Hudson Trail on a regraded slope to create lower gradient and a proper ADA ramp and stopping zone. Additionally, the installment of RRFBs would provide visual warning to people driving, especially those cresting the hill on Churchill Street to the west of the Hudson Trail.

Bg4 Westbaker School Zone

HIGH PRIORITY PROJECT

COVID 19 dramatically changed drop-off and pick-up procedures at Bergman Elementary, including the introduction of using Westbaker Street as a separate student access point. Westbaker Street continues to be utilized in this manner, however school administration expressed concern with traffic speeds and improperly parked vehicles. Therefore, this project (as shown in Figure Bg22) would install a School Speed Zone on Westbaker Street from just south of Churchill Street to the extisting School Speed Zone on Lombard Street.

Despite being a High Priority project, no cost estimate has been carried out.

Figure Bg22.

Walking School Bus Map

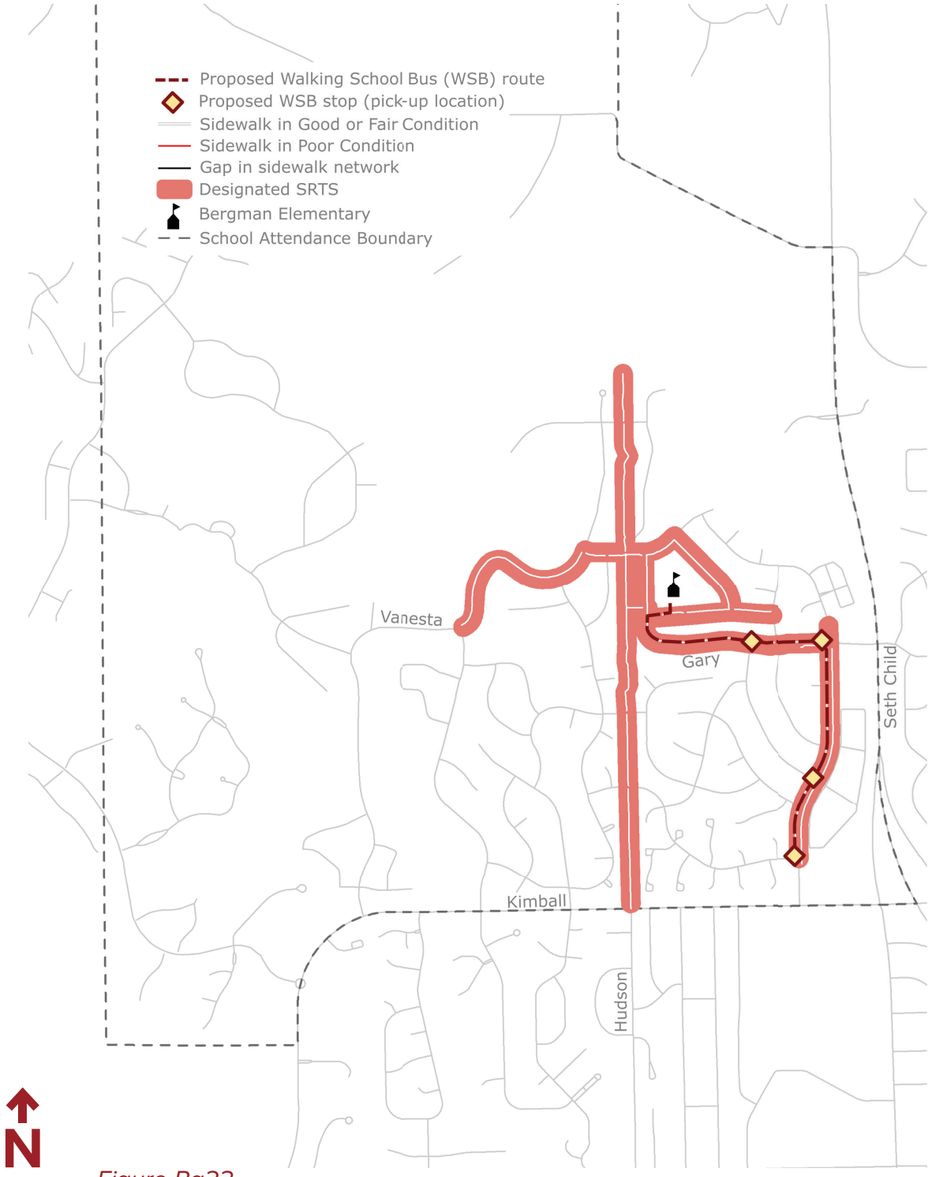


Figure Bg23.

The proposed Walking School Bus (WSB) route in Figure Bg23 showcases a route that connects the apartments and single family homes on Candlewood Drive to Bergman Elementary. This route is acceptable as it is short enough for a student to easily walk, yet far enough and with numerous street crossings, that many parents are hesitant to let their children walk alone.

WSB Directions

- Start at Candlewood Drive and Englewood Drive
- North on Candlewood Drive
- Stop at Candlewood Drive and Effingham Street
- North on Candlewood Drive
- Stop at Candlewood Drive and Gary Avenue
- West on Gary Avenue
- Stop at Gary Avenue and Effingham Street
- West on Gary Avenue
- End at Bergman Elementary

BLUEMONT ELEMENTARY

Safe Routes Grade Card

Section	Item	Grade
Proximity	Residential parcels within 1 mile of school	**75%**
	Student addresses within 1 mile of school	**20%**
	Parent perception: "Close" to school	**35%**
Built Environment	Safe Route sidewalk connectivity	**83%** *of Safe Routes have sidewalks*
	Safe Route sidewalk condition	**80%** *of sidewalks rated Good or Fair*
	Intersection issues & comments	**83%** *of comments*
Safety Perception	Child will be hit by a vehicle	**75%** *feel this is likely*
	Child will be taken by a stranger	**67%** *feel this is likely*
	School zones well enforced	**25%** *agree*
Transportation	Student walking & biking to school (counts)	**Low**
	Students driven to school in private cars (survey)	**Average**

Figure B1.

The grade card in Figure B1 serves as a snapshot of key categories and data measures for Bluemont Elementary. Colors in the "Grade" column reflect the school's score in relation to others across USD 383. **Green represents satisfactory or better**, **yellow average,** and **red below average or underperforming.**

With an incomplete sidewalk network and a very low percentage of students living within walking distance, the rate of students walking and biking to Bluemont Elementary is low. Despite these challenges, there are numerous projects that would improve the conditions for those who can walk to school.

Walkability Map

Figure B2.

Walkability Data

Despite a high percentage (75%) of residential parcels within 1 mile of school, Bluemont Elementary lies in an area consisting mostly of college student housing. Therefore the school's attendance boundary is large, encompassing most of SE Riley County. This housing distribution results in 80% of current students living more than 1 mile from school (see Figure B3 and B4).

Residential Addresses by Proximity

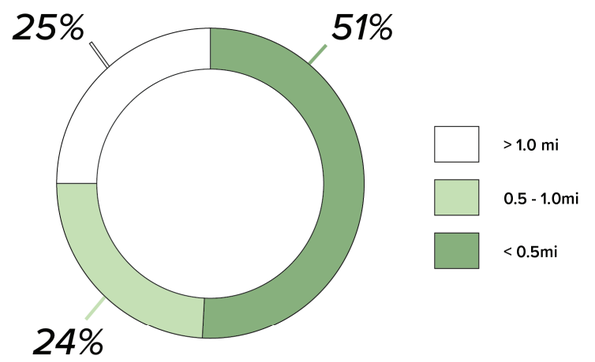


Figure B3.

Current Student Addresses by Proximity

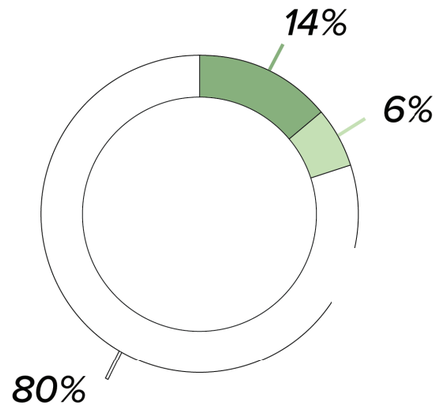


Figure B4.

Parent Perception

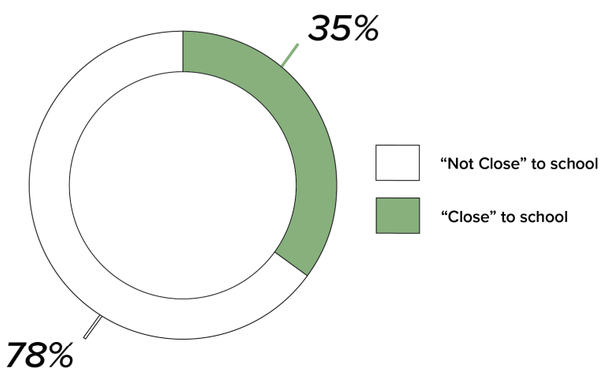


Figure B5.

Parent Surveys

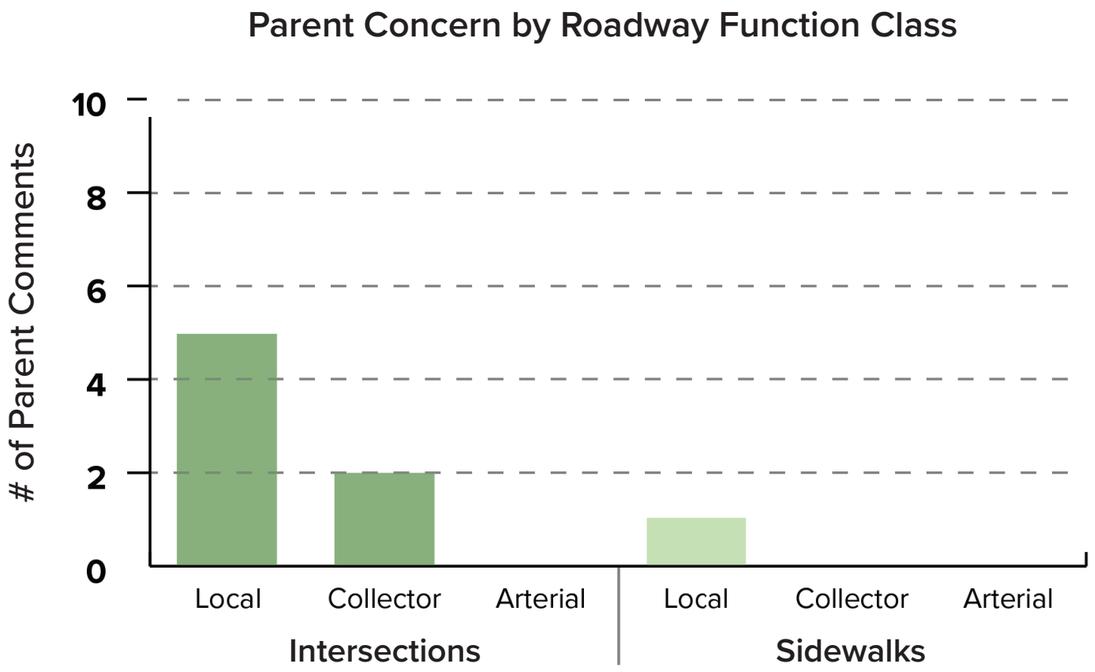


Figure B6.

Parent Concern: Sidewalks vs. Intersections

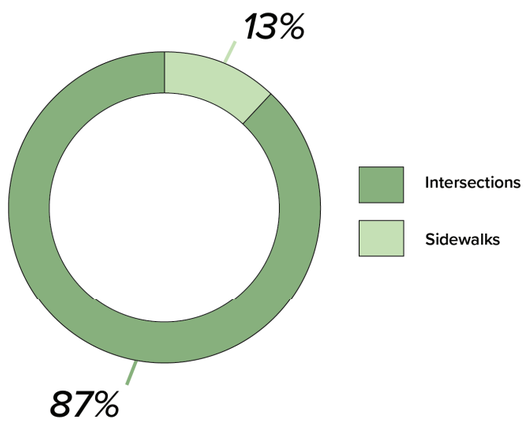


Figure B7.

In spite of the fewest parental survey responses in the district, the concerns of parents are Bluemont Elementary expressed concerns mainly around intersections. Further discussions with school administration mirrored parental concerns

Figures B6 through B9 highlight respondents' concerns.

Parent Responses

Figure B8.

BLUEMONT ELEMENTARY | *Survey Summary*

How does your child get to school?

43%

57%

K 0%
1 0%
2 14%
3 14%
4 14%
5 14%
never 43%

What grade would you let your child walk to school alone?

50%
of parents believe a stranger may take their children while walking to school.

86%
of parents support or are interested in Walking School Buses.

100%
of parents who drive their children to school believe it's easier or more convenient than walking or biking.

75%
of parents who let their children walk or bike to school are concerned their child may be hit by a vehicle.

Especially at intersections... but certain intersections more than others.

71% local roads

29% collectors and arterials

Figure B9.

Safe Routes Map

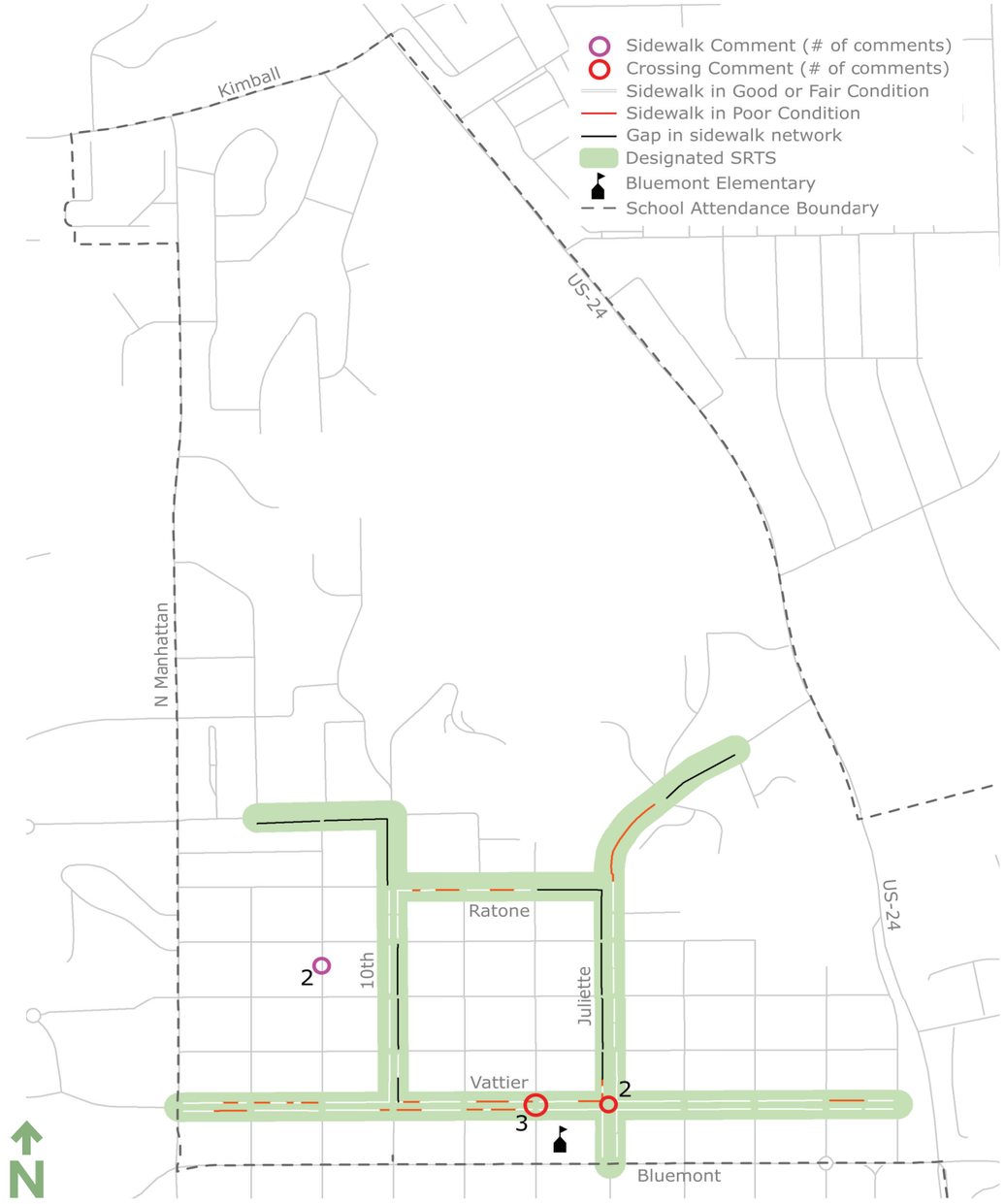


Figure B10.

Safe Routes

Designated Safe Routes, shown in Figure B10, are key walking and biking corridors leading to Bluemont Elementary. Projects located along Safe Routes are prioritized to provide a high level of impact.

Vattier Street: 3rd Street to N. Manhattan Avenue.

Juliette Avenue: Anderson Avenue to Bluemont Drive.

10th Street: Vattier Street to Claflin Road.

Claflin Road: 10th Street to McCain Lane.

Ratone Street: Juliette Avenue to 10th Street.

Sidewalk Condition

The neighborhoods around Bluemont Elementary have a sporadic sidewalk network. While most main roads along identified Safe Routes have sidewalk on at least one side, numerous gaps require crossing roads or walking in the street. Of the sidewalks that are present, 21% are in “Poor” condition and need repair. Figure B11 shows the overall condition of sidewalks leading to Bluemont Elementary along Safe Routes.

Safe Route Sidewalks by Condition

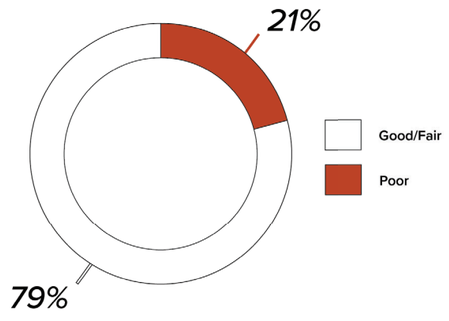


Figure B11.

Thank you to K-State Prof. Shakil Kashem and students in his Plan 836 course for their work collecting sidewalk condition data.

Recommended Project Map

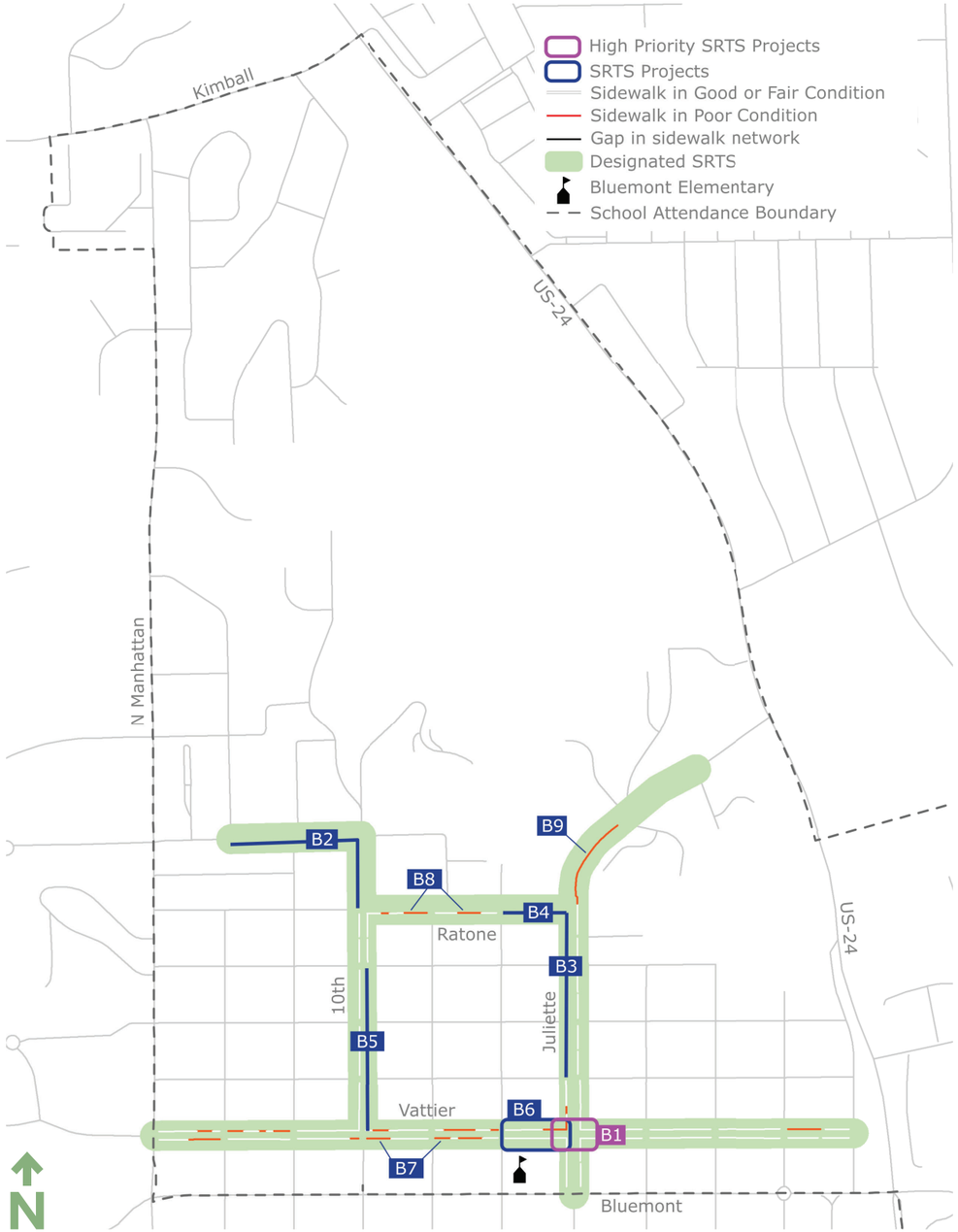


Figure B12.

Figure B12 maps the recommended projects for Bluemont Elementary. These projects were based upon sidewalk condition data, parental comments, and school administration meetings. Valid projects remaining from the 2015 SRTS report have also been included. Projects are focused around the designated Safe Routes to maximize impact and safety on key corridors and at critical intersections.

A full list of projects can be found in Figure B13, with detailed information on the following pages. High Priority projects have additional information, including diagrams and engineering cost estimates.

BLUEMONT ELEMENTARY | *Recommended Project Table*

ID	Location	Type	Improvement	Project Details	BPSP Project	2015 SRTS Project	ATA Partner Project	Demo/Semi-Perm. Eligible	FHWA STEP	High Priority
B1	Juliette Avenue at Vattier Street	Crossing	RRFBs	Install RRFBs at the crossing of Juliette Avenue at Vattier Street					●	●
B2	Claflin Road	Sidewalk	New Sidewalk	Install sidewalk on the south side of Claflin Road from McCain Road to 10th Street, then along the east side of 10th Street to Ratone Street						
B3	Juliette Avenue	Sidewalk	New Sidewalk	Install sidewalk on the west side of Juliette Avenue from Ratone Street to Kearney Street						
B4	Ratone Street	Sidewalk	New Sidewalk	Install sidewalk on the south side of Ratone Street from Juliette to 9th Streets						
B5	10th Street	Sidewalk	New Sidewalk	Install sidewalk on the east side of 10th Street from Thurston to Vattier Streets						
B6	Vattier Street	Signage	No Parking	Replace *No Parking - 30 Minute Load Zone* signs on the south side of Vattier Street from Juliette Avenue to 8th Street with *No Parking Any Time*.						
B7	Vattier Street	Sidewalk	Replace Sidewalk	Replace “Poor” condition sidewalks on Vattier Street from 3rd Street to N Manhattan Avenue						
B8	Ratone Street	Sidewalk	Replace Sidewalk	Replace “Poor” condition sidewalks on the south side of Ratone Street from 8th to 10th Streets						
B9	Ehlers Road	Sidewalk	Replace Sidewalk	Replace “Poor” condition sidewalk on the east side of Ehlers Road from Bertrand Street to Bluemont Scenic Drive						

Figure B13.

B1 Juliette Avenue at Vattier Street

HIGH PRIORITY PROJECT

Estimated Project Cost:
72,181

The crossing of Juliette Avenue at Vattier Street connects Bluemont Elementary to a neighborhood with numerous families and students. However, due to Juliette Avenue's high traffic volume and speeds, together with the width of the road (36ft for two lanes), there is a need for improved safety. Currently, the situation is deemed unsafe enough that the school's principal will not allow students to cross Juliette Avenue without adults present.

This project would install RRFBs (Figure B15) to provide advanced warning to people driving, increasing the safety for those walking.

As a High Priority project, a cost estimate has been completed for Project B1. The anticipated cost of this project is $72,181. See Appendix D for a detailed engineering cost estimate.

Figure B14. Proposed permanent project.

Figure B15. RRFB.

B2 Claflin Sidewalk

Figure B16. Proposed sidewalk alignment.

This project would extend sidewalk from the existing segment on the south side of Claflin Road at McCain Lane east to 10th Street. The sidewalk extension would then continue south on the east side of the road, ending at Ratone Street.

B3 Juliette Sidewalk

Figure B17. Proposed sidewalk alignment.

This project would install sidewalk on the west side of Juliette Avenue, from Kearney Street north to Ratone Street. As a collector road, Juliette Avenue should have sidewalk on both sides, especially through residential areas.

B4 Ratone Sidewalk

Figure B18. Proposed sidewalk alignment.

This project would install sidewalk on the south side of Ratone Street from Juliette Avenue west to 8th Street. Upon completion of this project and project B3 (Juliette Sidewalk), a safe and continous sidewalk connection would be present along the Designated Safe Route to Bluemont Elementary.

B5 10th Street Sidewalk

Figure B19. Proposed sidewalk alignment.

This project would install sidewalk east side of 10th Street from Bertrand Street south to Vattier Street. Together with project B2 (Claflin Sidewalk) this project would create a continous and safe connection from the residential areas to the north of Bertrand Street to Bluemont Elementary.

B6 Vattier Signage

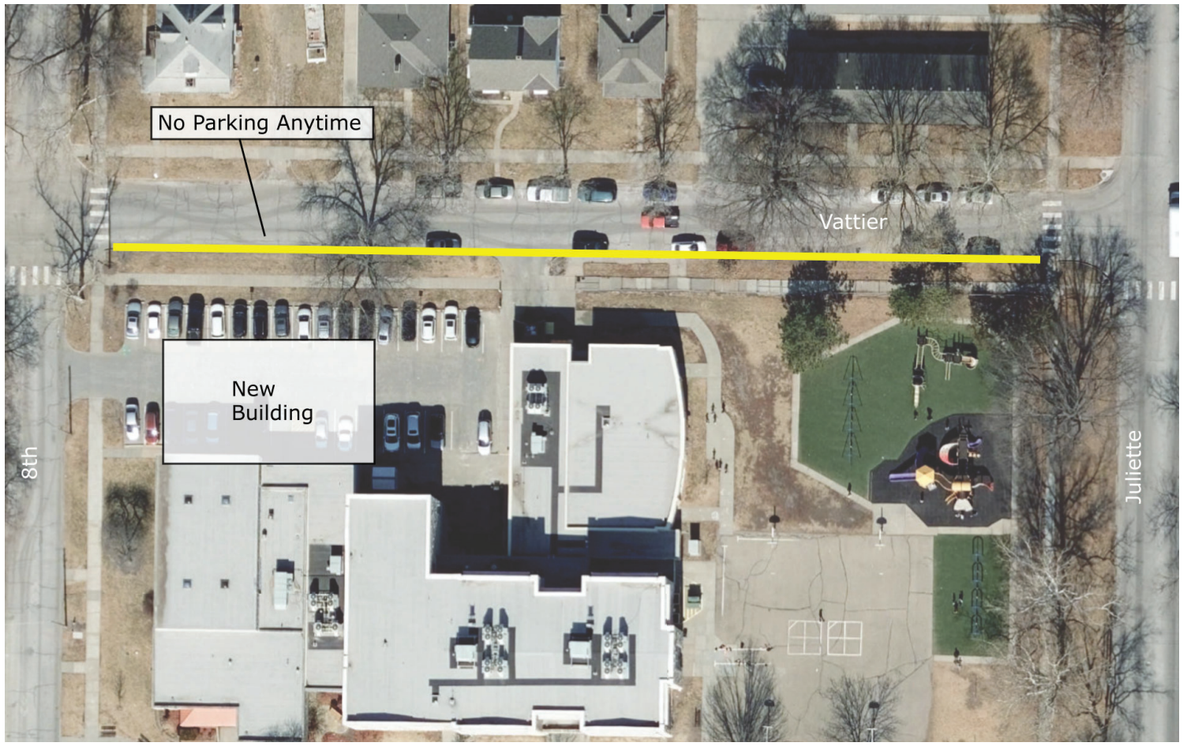


Figure B20. Resigned curb of Vattier Street.

With the construction of the new building extension, the new parking lot facing Bluemont Avenue, the reconfigured parking lot and entrance on Vattier Street, and the change in pick-up and drop-off procedures since the Covid 19 pandemic, school administration has requested the resigning of the south curb of Vattier Street. The project would replace the existing "No Parking 30 Min Load Zone" signs with "No Parking Anytime" signs for the entire length of the 700 block of Vattier.

B7 Vattier Sidewalk Replacement

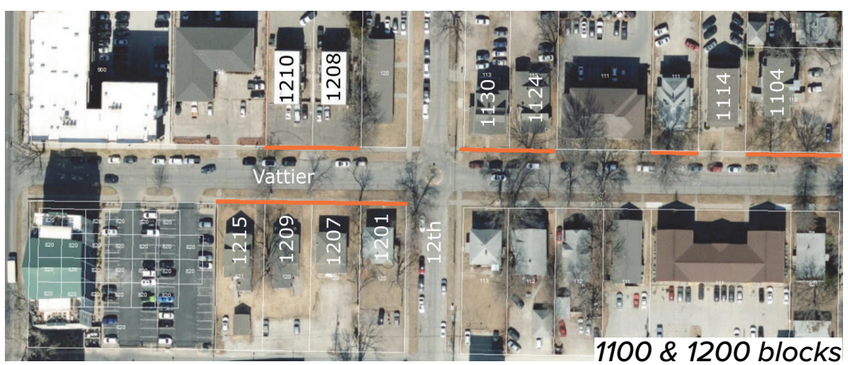


Figure B21. Poor-quality sidewalks along Vattier Street.

As outlined in the report's introduction chapter, a Sidewalk Cost Share policy could be leveraged for property owners along Vattier Street where the sidewalk quality has a "poor" rating. Splitting the cost would provide an incentive and help homeowners in the LMI area invest in the sidewalks used by USD students and the community as a whole.

B8 Ratone Sidewalk

Figure B22. Poor-quality sidewalks along Ratone Street.

Ratone Street is a major pedestrian connection for both Bluemont Elementary and K-State students. Replacing “poor” condition sidewalks along these blocks would greatly improve the walking environment for many. Additionally, these properties would be eligible for a potential City-run Sidewalk Cost Share program.

B9 Ehlers Sidewalk

Figure B23. Poor-quality sidewalks along Ehlers Street.

Ehlers is a major street for vehicle traffic connecting between Tuttle Creek Boulevard and Juliette Avenue. This route also serves as the connection to Bluemont Scenic Overlook park and trails. The existing sidewalk is extremely narrow (3ft or less), often overgrown, and in poor condition. Replacing this sidewalk would greatly improve this connection and serve the students and families who live on Bluemont Hill.

Walking School Bus Map

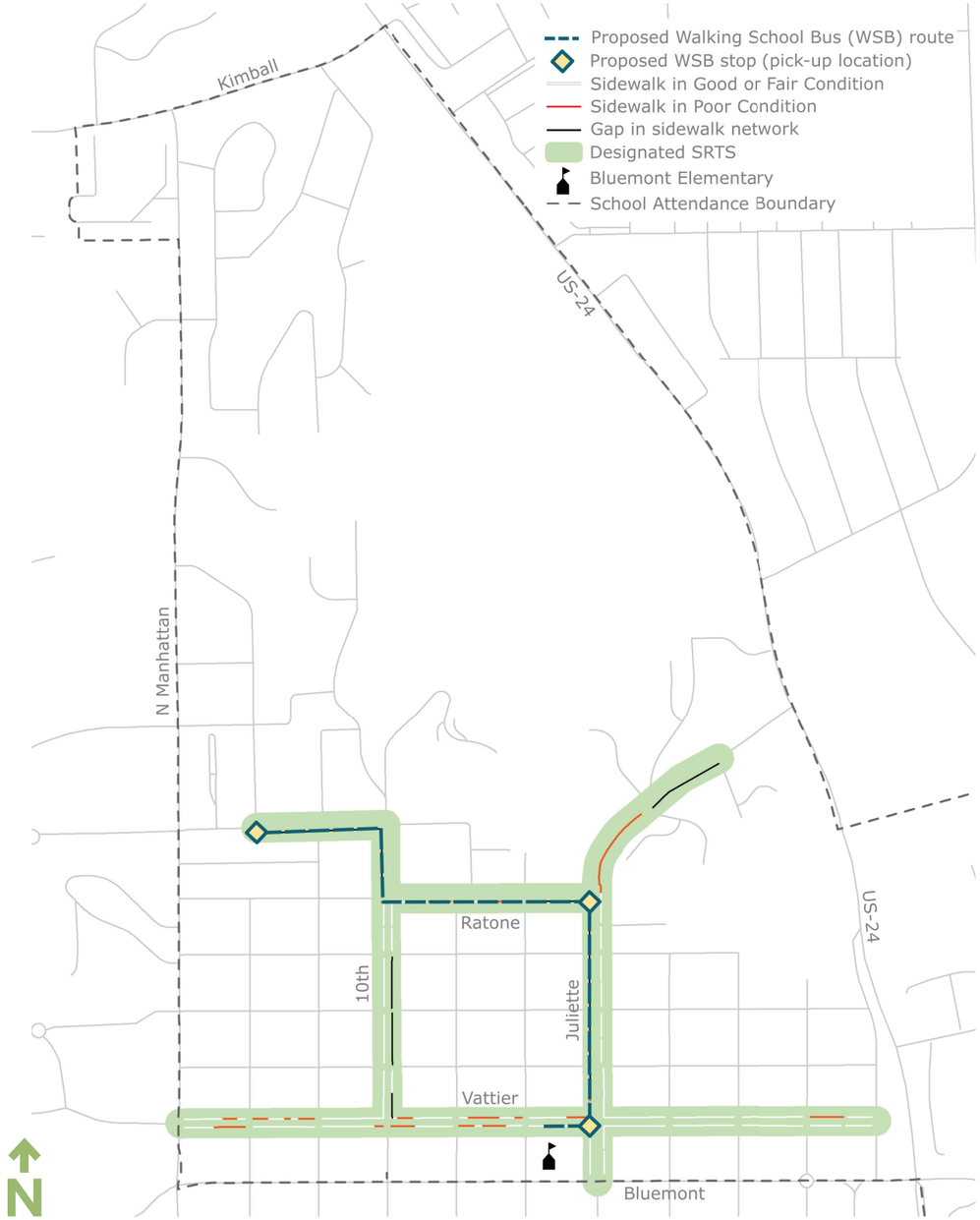


Figure B24.

The proposed Walking School Bus (WSB) route in Figure B24 showcases a route that connects the apartments along McCain Lane and single family homes along Ratone to Bluemont Elementary. Additionally, stops along Juliette Avenue could collect students living east of Juliette, who could cross under the guidance of the WSB leader. This route is acceptable as it is short enough for a student to easily walk, yet far enough and with numerous street crossings, that many parents are hesitant to let their children walk alone.

WSB Directions

- Start at Claflin Road and McCain Lane
- East on Claflin Road
- South on 10th Street
- East on Ratone Street
- Stop at Ratone Street and Juliette Avenue
- South on Juliette Avenue
- Stop at Juliette Avenue and Vattier Street
- West on Vattier Street
- End at Bluemont Elementary

LEE ELEMENTARY

Safe Routes Grade Card

Section	Item	Grade
Proximity	Residential parcels within 1 mile of school	**55%**
	Student addresses within 1 mile of school	**64%**
	Parent perception: “Close” to school	**65%**
Built Environment	Safe Route sidewalk connectivity	**80%** *of Safe Routes have sidewalks*
	Safe Route sidewalk condition	**87%** *of sidewalks rated Good or Fair*
	Intersection issues & comments	**70%** *of comments*
Safety Perception	Child will be hit by a vehicle	**67%** *feel this is likely*
	Child will be taken by a stranger	**67%** *feel this is likely*
	School zones well enforced	**50%** *agree*
Transportation	Student walking & biking to school (counts)	**Low**
	Students driven to school in private cars (survey)	**Average**

Figure L1.

The grade card in Figure L1 serves as a snapshot of key categories and data measures for Lee Elementary. Colors in the “Grade” column reflect the school’s score in relation to others across USD 383. **Green represents satisfactory or better**, **yellow average,** and **red below average or underperforming.**

Though Lee Elementary is centrally located in its attendance zone and the existing sidewalks are in relatively good condition, parents have reservations letting their children walk to school amidst high-volume, multi-lane streets and sidewalk gaps. The projects described in this chapter address these parental concerns.

LEE ELEMENTARY | *Walkability*

Walkability Map

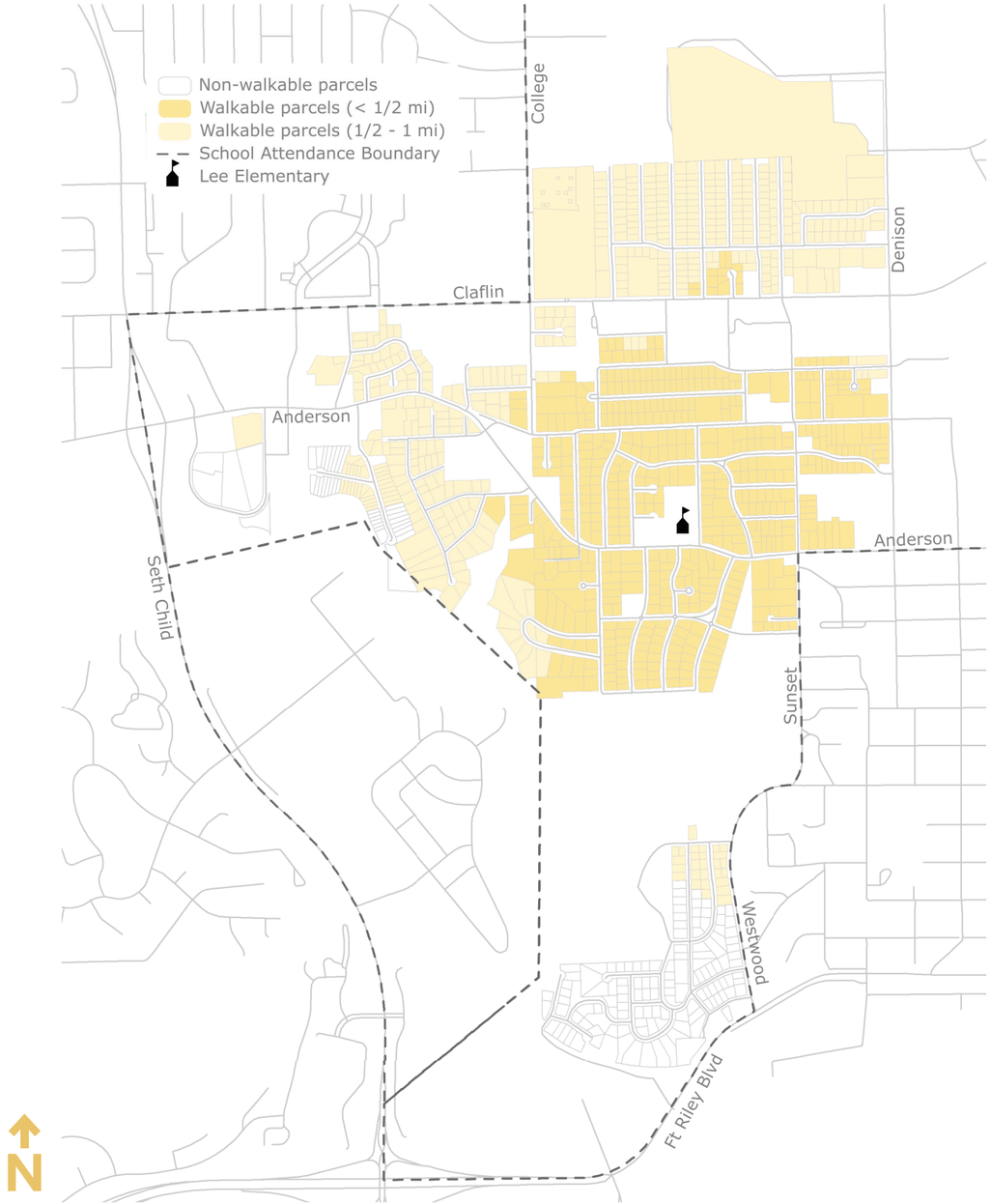


Figure L2.

Walkability Data

As can be seen in Figures L2 through L5, the portion of addresses and students living within 1 mile of school, closely matches the percentage of parents who feel they live “close” to school. The map in Figure L2 shows that that Lee Elementary is centrally located in its attendance zone and should be very walkable. However, as will be discussed later in the chapter, multi-lane high volume streets and intersections result in parent concern and lower than expected numbers of students walking and biking to school.

Residential Addresses by Proximity

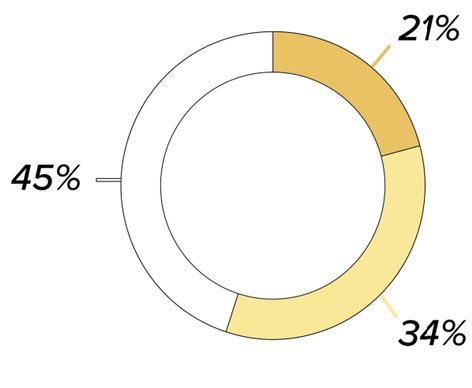


Figure L3.

Current Student Addresses by Proximity

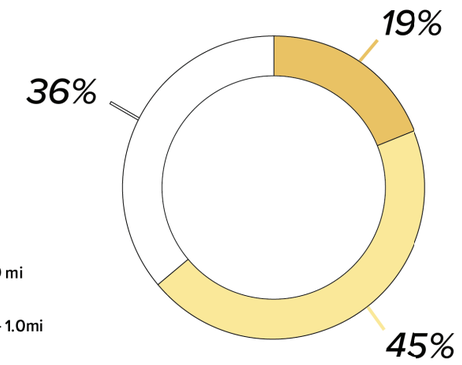


Figure L4.

Parent Perception

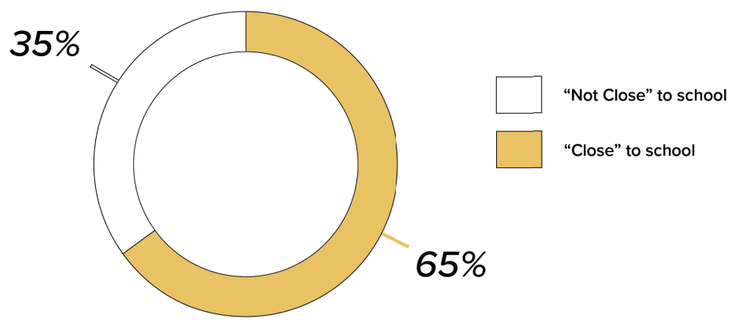


Figure L5.

LEE ELEMENTARY | *Parental Concerns*

Parent Surveys

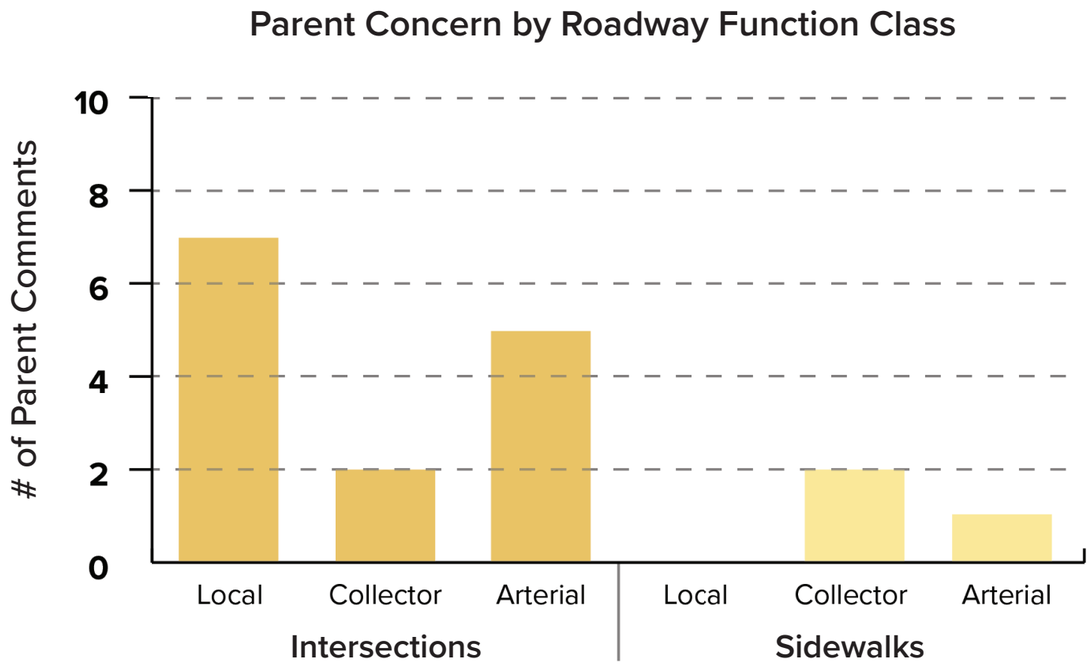


Figure L6.

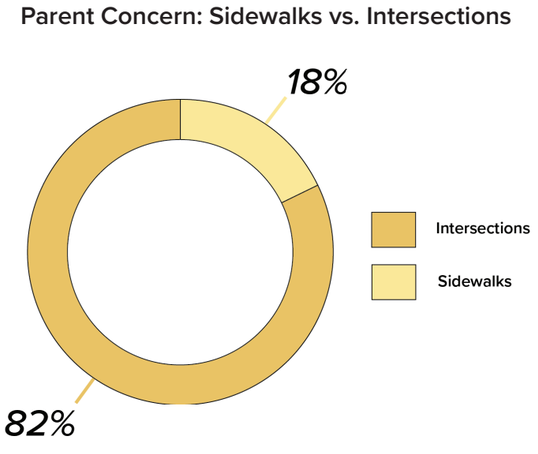


Figure L7.

Comments from parents of Lee Elementary students mainly focused on intersections, as shown in Figures L6 through L9. In addition to intersections on smaller local streets, Anderson Avenue was highlighted by many commenters as an area of concern. Several parents were also uneasy about narrow or incomplete sidewalks.

Parent Responses

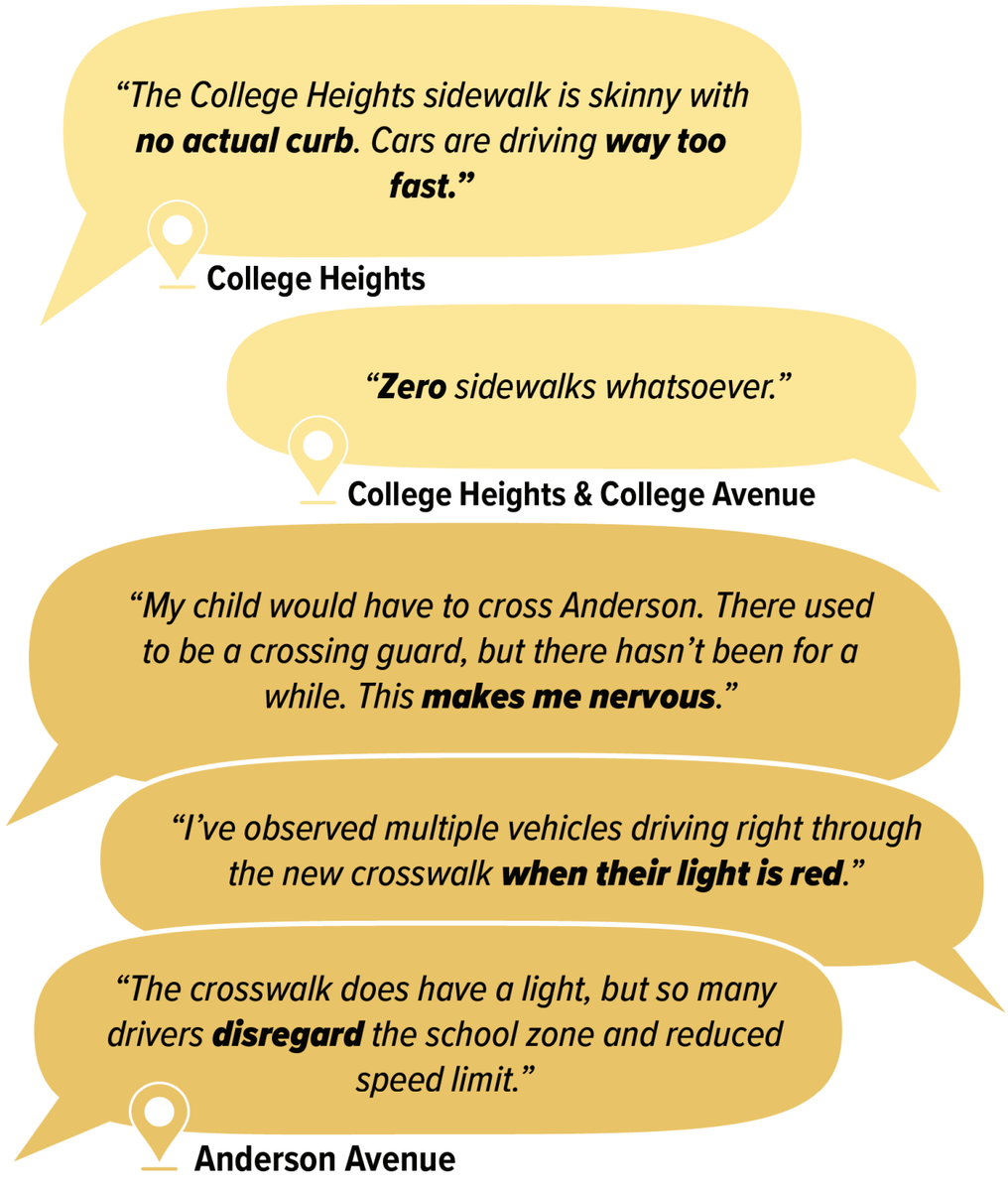


Figure L8.

LEE ELEMENTARY | *Survey Summary*

How does your child get to school?

43%

57%

K 0%
1 0%
2 0%
3 21%
4 7%
5 36%
never 36%

What grade would you let your child walk to school alone?

38%
of parents believe a stranger may take their children while walking to school.

93%
of parents support or are interested in Walking School Buses.

67%
of parents who drive their children to school believe it's easier or more convenient than walking or biking.

38%
of parents who let their children walk or bike to school are concerned their child may be hit by a vehicle.

Especially at intersections... but certain intersections more than others.

50% local roads
50% collectors and arterials

Figure L9.

LEE ELEMENTARY | *Safe Routes*

Safe Routes Map

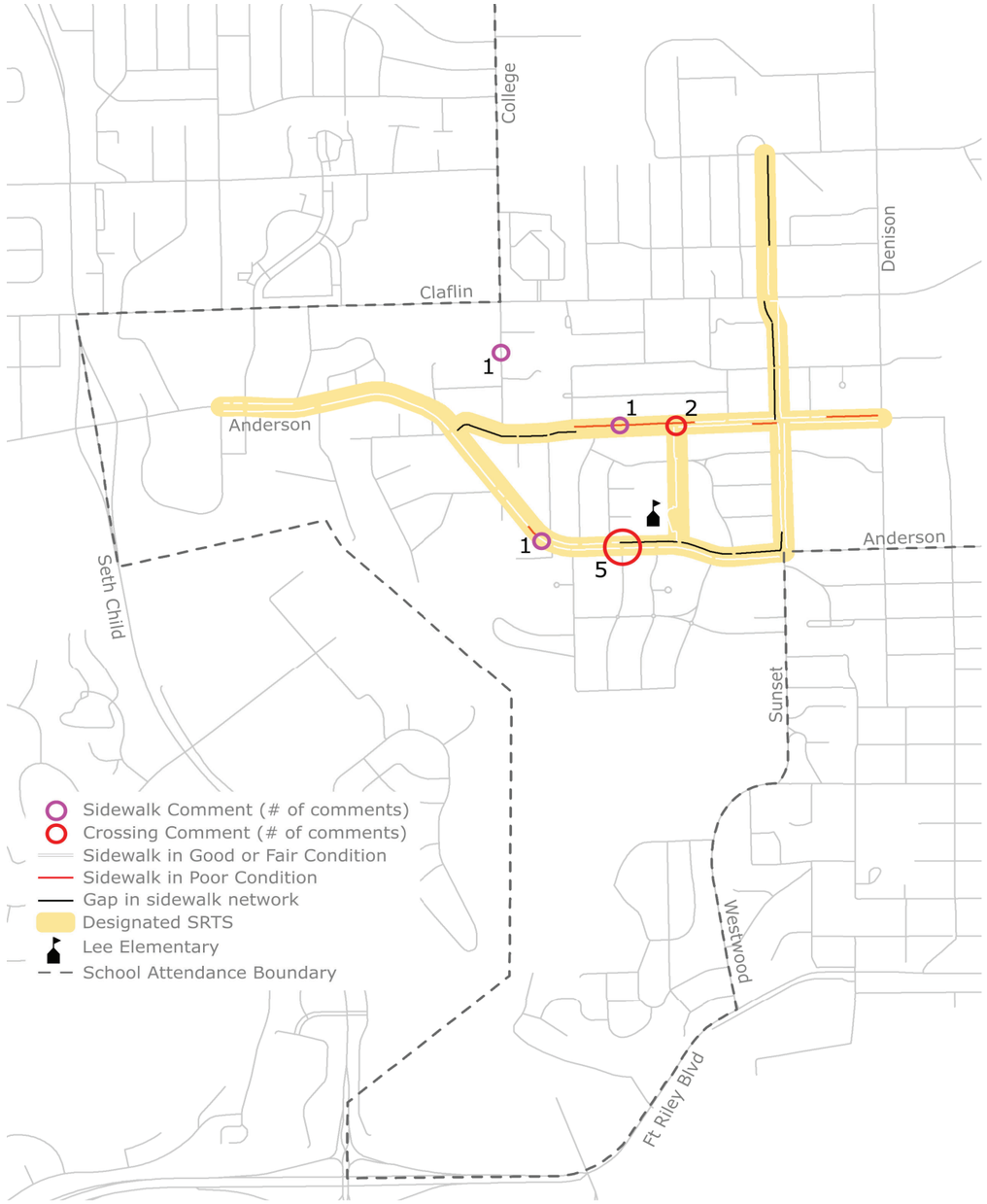


Figure L10.

Safe Routes

Designated Safe Routes are corridors leading to Lee Elementary, as shown in Figure L10. Projects located along Safe Routes are prioritized to provide a high level of impact.

Anderson Avenue: Garden Way to Sunset Avenue.

Sunset Avenue: Jardine Drive to Anderson Avenue.

College Heights Road: Denison Avenue to Anderson Avenue.

Lee Street: College Heights Road to Anderson Avenue.

Sidewalk Condition

The neighborhoods around Lee Elementary were developed in the 1950s through 1970s, and remain largely without sidewalks. While this is not always an issue, where these local roads meet larger streets, this creates safey issues. Additionally, Anderson Avenue is an arterial road with sidewalk on only one side for much of its corridor near Lee. The sidewalk that is present is narrow (often only 3 to 4 feet wide). Sunset Ave, another major street, has missing sidewalk on major segments. Jarvis Drive, north of Todd Road is a major gap for students living K-State's Jardine residential complex. College Heights Road also has major sidewalk gaps, and what sidewalk is there is narrow (3 feet), without proper curb separation, and in poor condition for much of it.

Safe Route Sidewalks by Condition

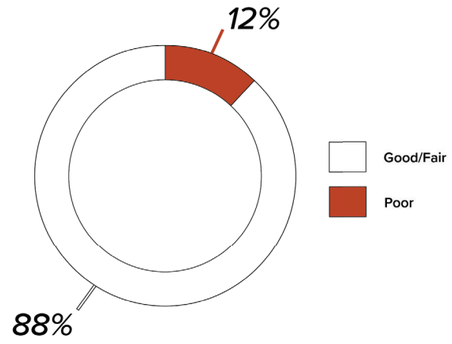


Figure L11.

Thank you to K-State Prof. Shakil Kashem and students in his Plan 836 course for their work collecting sidewalk condition data.

LEE ELEMENTARY | *Project Overview*

Recommended Project Map

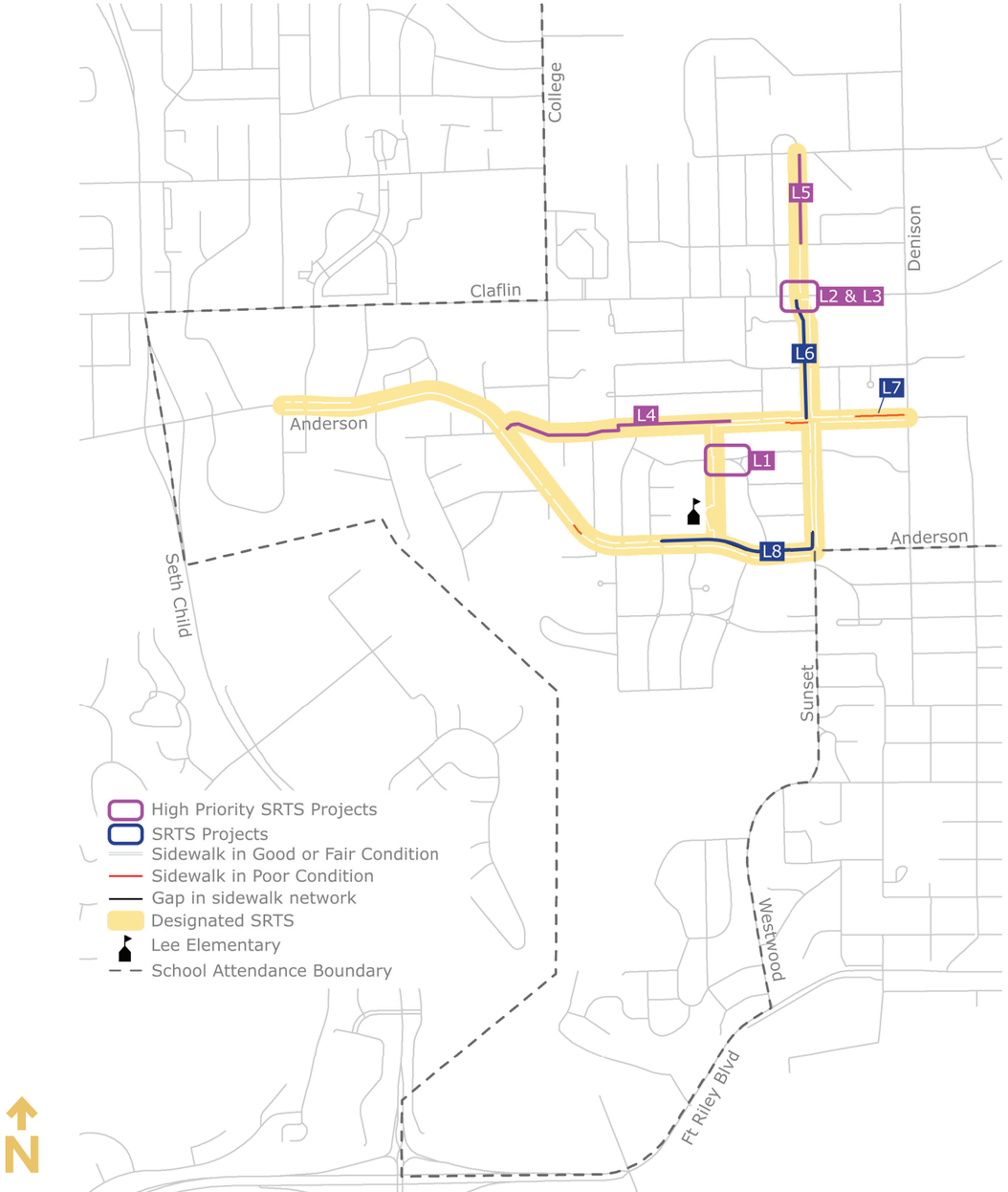


Figure L12.

Figure L12 maps the recommended projects for Lee Elementary. These projects were based upon sidewalk condition data, parental comments, and school administration meetings. Valid projects from the 2015 SRTS report have also been included.

Projects are focused around the designated Safe Routes to maximize impact and safety on key corridors and at critical intersections.

A full list of projects can be found in Figure L13, with detailed information on the following pages. High Priority projects have additional information including diagrams and engineering cost estimates.

LEE ELEMENTARY | *Project Table*

ID	Location	Type	Improvement	Project Details	BPSP Project	2015 SRTS Project	ATA Partner Project	Demo/Semi-Perm. Eligible	FHWA STEP	High Priority
L1	Hunting Avenue at Harris and Lee Streets	Sidewalk & Crossing	Reconstruct Intersection	Replace the existing “Y” intersection with a standard “T” intersection and extend the sidewalk on the southside of Hunting west to the crosswalk at Lee.		●				●
L2	Claflin Road at Sunset Avenue/ Jarvis Drive	Crossing	Crosswalk and Signal	Remove the existing crosswalk and ped signals. Move the crosswalk to the eastern side of Sunset Avenue/Jarvis Drive and install new ramps.	●		●		●	●
L3	Claflin Road at Sunset Avenue/ Jarvis Drive	Crossing	LPI	Upgrade the signals (existing or new) with Lead Pedestrian Intervals (LPIs). Can be done in conjuction with L2.			●		●	●
L4	College Heights Road	Sidewalk	New and Replace Sidewalk	Install new segments and replace “Poor” condition sidewalk along the northside of College Heights Road from Lee Street to College Avenue.		●				●
L5	Jarvis Drive	Sidewalk	New Sidewalk	Install sidewalk on the eastside of Jarvis Road from Todd Street to Jardine Drive.			●			●
L6	Sunset Avenue	Sidewalk	New Sidewalk	Install new sidewalk on the west side of Sunset Avenue from Claflin Road to College Heights Road.			●			
L7	College Heights Road	Sidewalk	Replace Sidewalk	Replace “Poor” condition sidewalk along College Heights Road from Denison Avenue to Goodnow Avenue.						
L8	Anderson Avenue	Sidewalk	Replace Sidewalk	Install sidewalk on the north side of Anderson from Sunset Avenue to the existing sidewalk at Westview Drive. Add crosswalk and pedestrian signals at Sunset Avenue.		●				

Figure L13.

L1 Hunting Avenue at Harris and Lee Streets

HIGH PRIORITY PROJECT

Estimated Project Cost:
274,023

Figure L14. Existing conditions.

This project would alter the existing “Y” intersection into a standard “T” intersection, providing increased safety for all road users. In addition, the south sidewalk would be extended west to Lee Street, where a crosswalk would be installed.

With this new alignment, the driveway to the east of Harris Street on Hunting Avenue would be closed, and a new one added off of Harris Street.

As a high priority project, the estimated cost of this project has been calculated. Detailed cost estimates can be found in Appendix D.

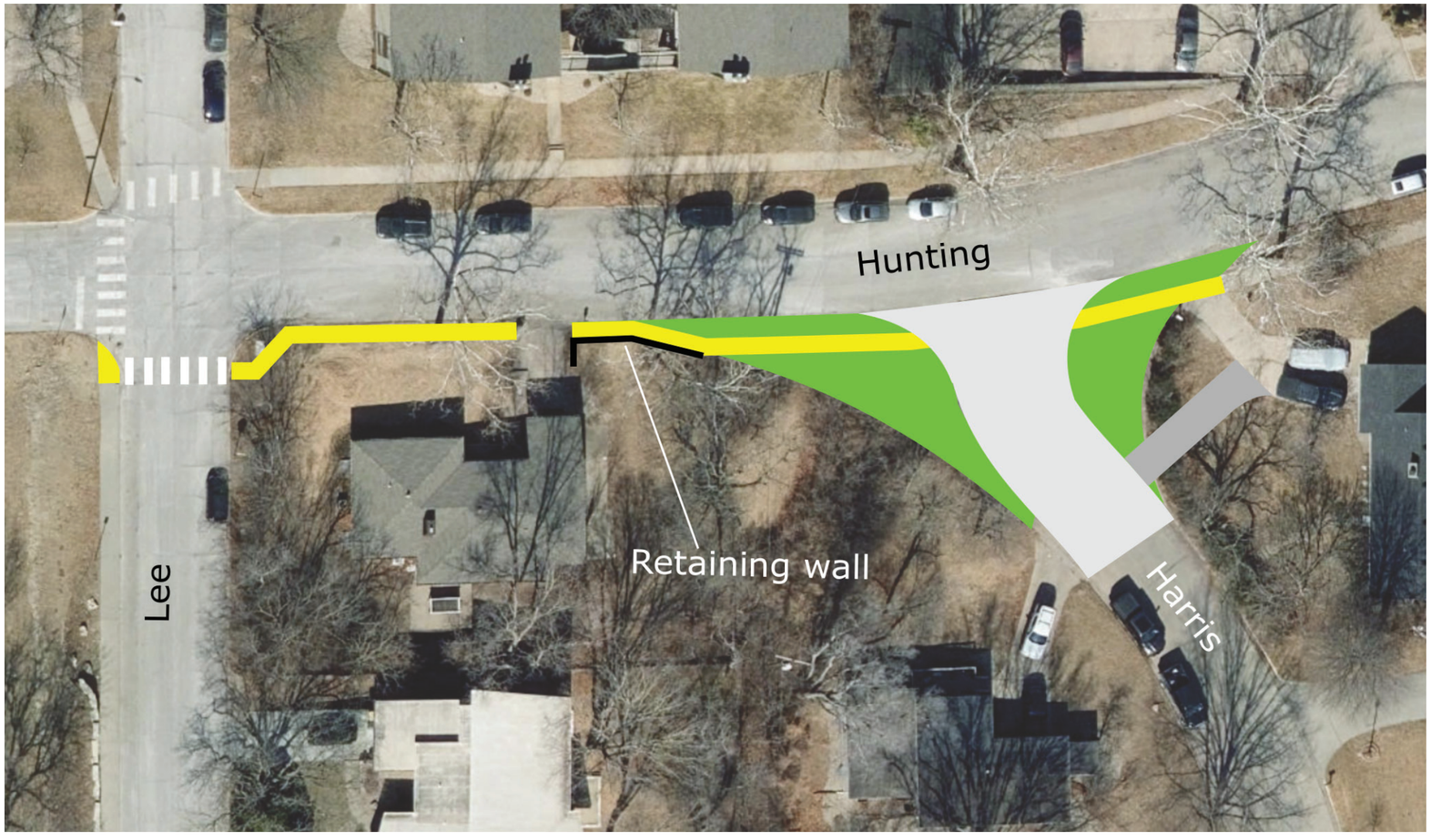


Figure L15. Proposed changes.

L2 Claflin Road at Sunset Avenue/Jarvis Drive Crossing

HIGH PRIORITY PROJECT

Estimated Project Cost:
143,125

Figure L16. Existing conditions.

This project would alter the location of the N-S crosswalk and pedestrian signals.

The left turn from northbound Sunset Avenue to westbound Claflin Road has very high traffic volumes. The current crosswalk location on the west side of the intersections creates unneeded conflict between people walking or biking, and people driving (Figure L16). However, the southbound Jarvis Drive to eastbound Claflin Road has far fewer vehicle movements. Therefore, by moving the existing crossing to the east side of the intersection as seen in Figure L17, not only will safety of people walking and biking be increased, vehicle turn flow will be increased by the removal of pedestrians.

Due to the high volume of pedestrians, this project is recommended for Lead Pedestrian Intervals (LPIs) to be added to the pedestrian signalization. See project L3 for details.

As a High Prioirty project, the estimated cost of this project has been calculated. Detailed cost estimates can be found in Appendix D.

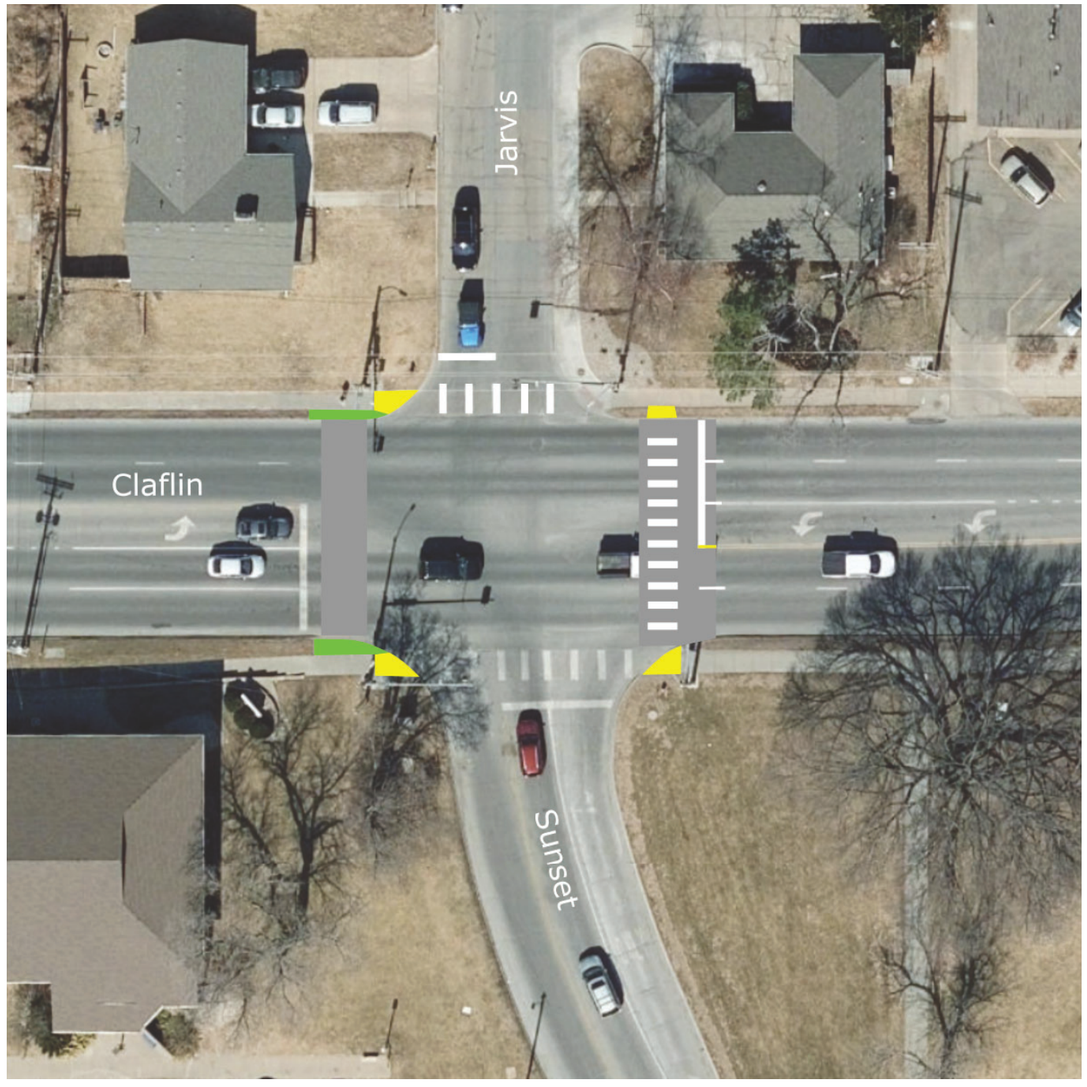


Figure L17. Proposed intersection improvements.

L3 Claflin Road at Sunset Avenue/Jarvis Drive Crossing

HIGH PRIORITY PROJECT

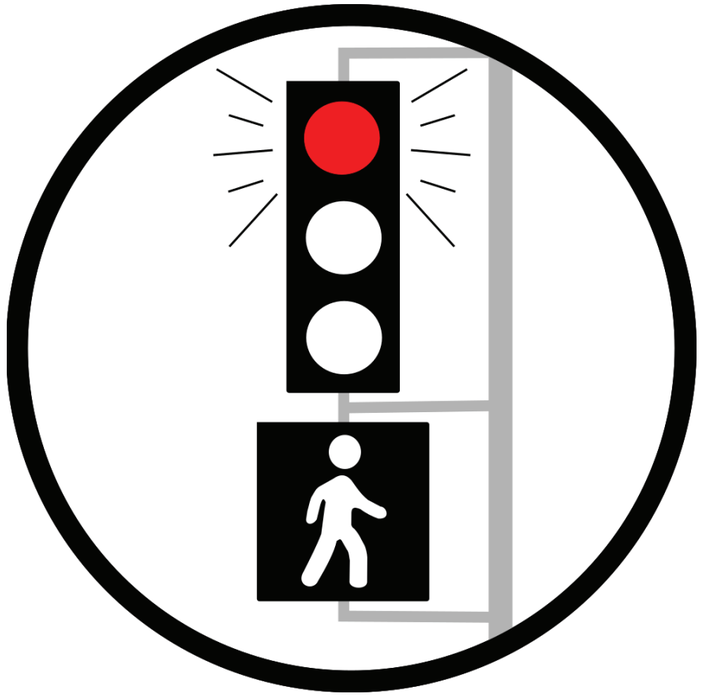


Figure L18. LPI.

This location's proximity to K-State's campus, the surrounding student housing (campus residence halls and areas north of and west along Claflin Road), and the Chester E. Peters Recreation Complex, results in high volumes of people walking and biking across this intersection. Therefore, it is a prime location for the installation of Lead Pedestrian Intervals (LPI). LPIs are a countermeasure recommended in the Federal Highway Administration's (FHWA) Safe Transportation For Every Pedestrian (STEP) program. More information on LPIs can be found in the introduction chapter of this report on page 41.

L4 College Heights Road

HIGH PRIORITY PROJECT

Estimated Project Cost:
903,219

Figure L19. Proposed sidewalk improvements.

Currently, the existing sidewalk on the north side of the roadway from Lee Street to Goodnow Avenue is very narrow (3 feet) and does not meet City standards for back of curb sidewalk width. Additionally, the separation provided by curbing is nonexistent due to continued asphalt overlay. Much of this sidewalk is also in poor condition. From Goodnow Avenue west to College Ave, no sidewalk exists.

This project would address these issues by replacing and completing the sidewalk connection along College Heights Road. The sidewalks from Lee Street to Goodnow Ave would be replaced with new, wider sidewalks and new curbing. In the process multiple trees would need to be removed and over a dozen driveways would need be partially replaced.

At Goodnow Avenue ADA ramps would be installed to allow for the crossing of College Heights Road. From Goodnow Avenue to College Avenue, the sidewalk would run along the south curb line due to ease of construction and grading.

As a High Prioirty project, the estimated cost of this project has been calculated. Detailed cost estimates can be found in Appendix D.

L5 Jarvis Drive Sidewalk

HIGH PRIORITY PROJECT

Estimated Project Cost:
338,915

Figure L20. Proposed sidewalk installation.

This project has long been identified as a need, was included in the City's Bike & Pedestrian Systems Plan as a need to connect K-State students to Recreation Complex and stadiums, as well as campus. Additionally, the installation of the sidewalk would allow international elementary students living in the Jardine residential complex safe access to Lee Elementary.

Sidewalk would be placed on the east side of Jarvis Drive to align with the existing sidewalk to the south of Todd Road. A new ADA ramp would be installed along Jardine Drive to connect to the ramp on the north.

A detailed cost estimate for project L5 can be found in Appendix D.

L6 Sunset Avenue Sidewalk

Figure L21. Proposed sidewalk installation.

This project would install sidewalk along the west side of Sunset Avenue, closing the gaps and creating a continuous connection from Claflin Road to College Heights Road. Combined with the improved crossing identified in projects L2 & L3, this would greatly improve the safety and ease of students walking or biking from the Jardine residential complex.

L7 College Heights Road Sidewalk Replacement

Figure L22. Proposed sidewalk replacement..

This project would replace the segments of “poor” rated sidewalk along College Heights Road. These sidewalks are over 50 years old and in need of replacement. In addition to aiding the elementary students living along this corridor, this project would also be highly used by K-State students and community members.

L8 Anderson Avenue Sidewalk

Figure L23. Proposed sidewalk installation.

Long identified as a need, but difficult to construct due to right of way restraints and topography, this project would install a sidewalk along the north side of Anderson Avenue from Sunset Avenue to the crosswalk at Westview Drive. In addition, it would install a crosswalk and pedestrian signals on the northern segment of the Anderson and Sunset Avenues intersection.

LEE ELEMENTARY | *Walking School Bus*

Walking School Bus Map

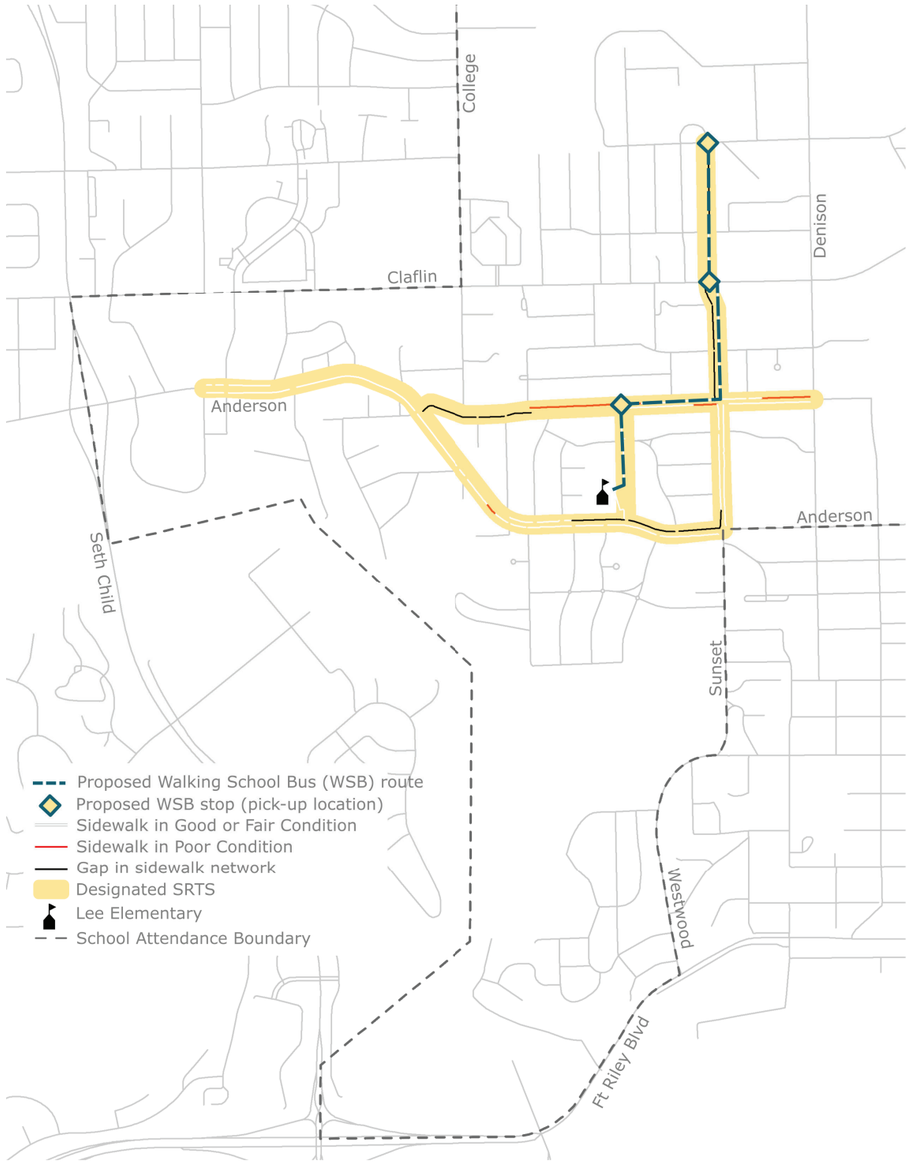


Figure L24.

The proposed Walking School Bus (WSB) route in Figure L24 showcases a route that connects the residences of international families in the Jardine residential complex to Lee Elementary via a 0.9 mile path. This distance is acceptable as it is close enough for a student to easily walk, yet far enough and with numerous street crossings, that many parents are hesitant to let their children walk alone.

WSB Directions

- Start at Jardine Drive and Jarvis Drive
- South on Jarvis Drive
- Stop at Jarvis Drive and Claflin Road
- Cross Claflin and south on Sunset Ave
- Cross Sunset Ave and west on College Heights Road
- Stop at College Heights Road and Lee Street
- South on Lee Street
- End at Lee Elementary

MARLATT ELEMENTARY

Safe Routes Grade Card

Section	Item	Grade
Proximity	Residential parcels within 1 mile of school	**64%**
	Student addresses within 1 mile of school	**72%**
	Parent perception: "Close" to school	**65%**
Built Environment	Safe Route sidewalk connectivity	**100%** *of Safe Routes have sidewalks*
	Safe Route sidewalk condition	**87%** *of sidewalks rated Good or Fair*
	Intersection issues & comments	**90%** *of comments*
Safety Perception	Child will be hit by a vehicle	**76%** *feel this is likely*
	Child will be taken by a stranger	**48%** *feel this is likely*
	School zones well enforced	**38%** *agree*
Transportation	Student walking & biking to school (counts)	**High**
	Students driven to school in private cars (survey)	**Average**

Figure M1.

The grade card in Figure M1 serves as a snapshot of key categories and data measures for Marlatt Elementary. Colors in the "Grade" column reflect the school's score in relation to others across USD 383. **Green represents satisfactory or better**, **yellow average,** and **red below average or underperforming.**

Despite parental concerns surrounding busy intersections, observational counts reveal that Marlatt Elementary has a higher than average amount of students walking or biking to school. The recommended projects for this chapter are intended to address problematic intersections and further support students walking and biking to Marlatt Elementary.

Walkability Map

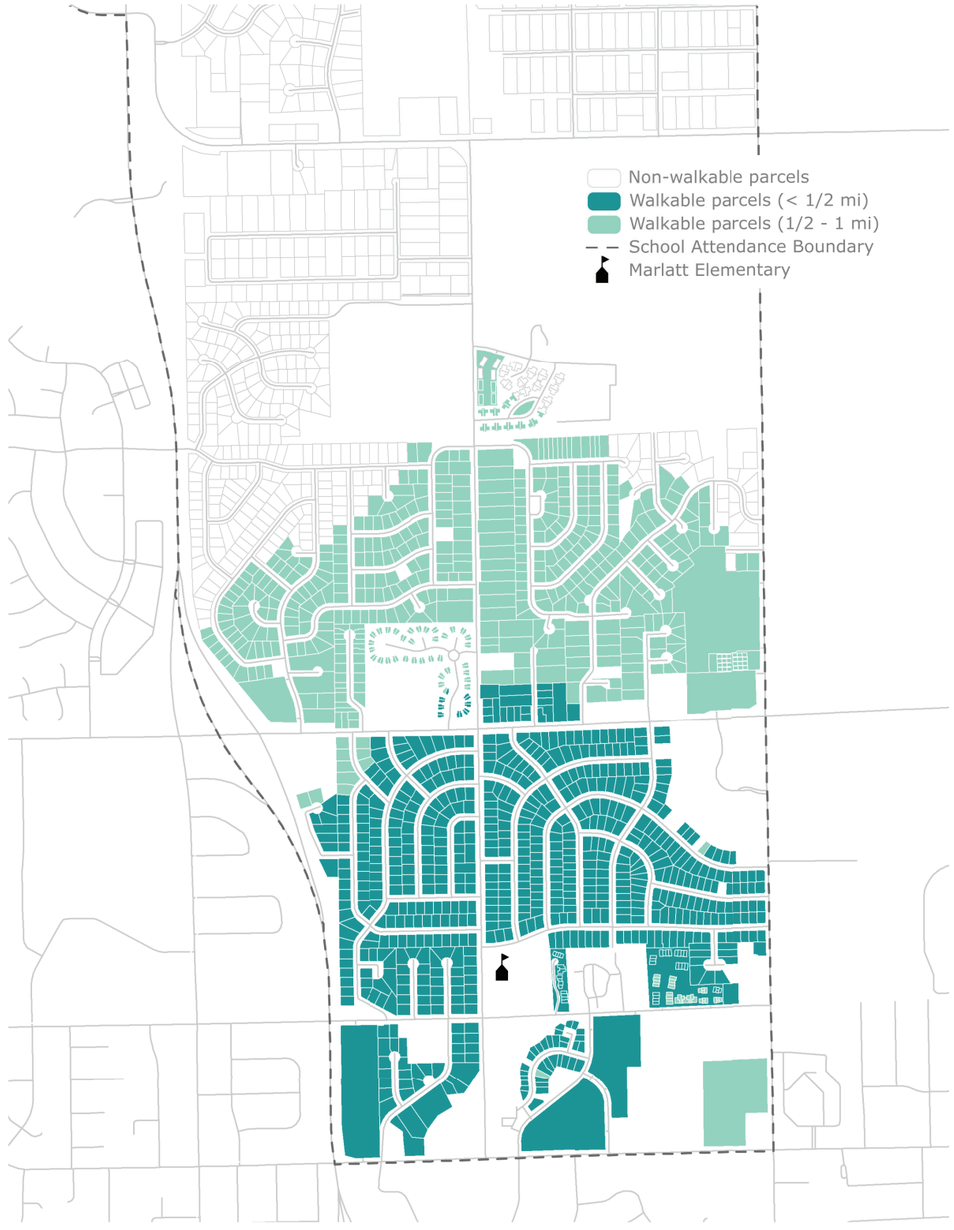


Figure M2.

Walkability Data

Marlatt Elementary is located towards the southern end of its attendance boundary. Despite this, over 2/3 of students are still within 1 mile of the school (Figures M2 - M4). These numbers correspond to parental perceptions: 65% of parents feel they live “close” to the school, as shown in Figure M5.

Residential Addresses by Proximity

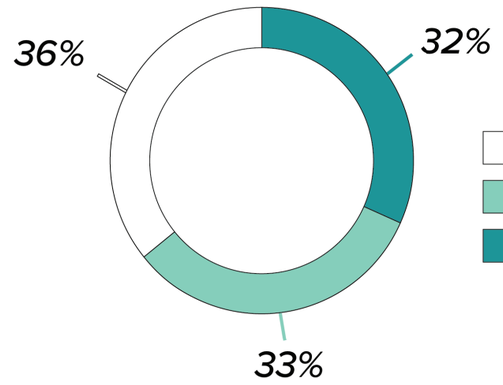


Figure M3.

Current Student Addresses by Proximity

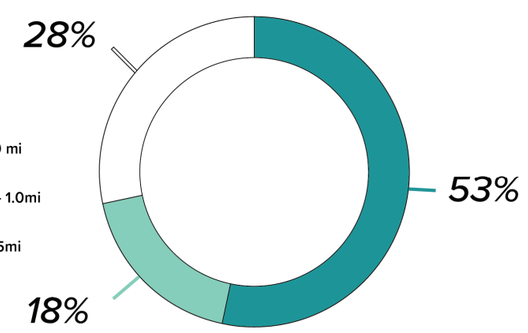


Figure M4.

Parent Perception

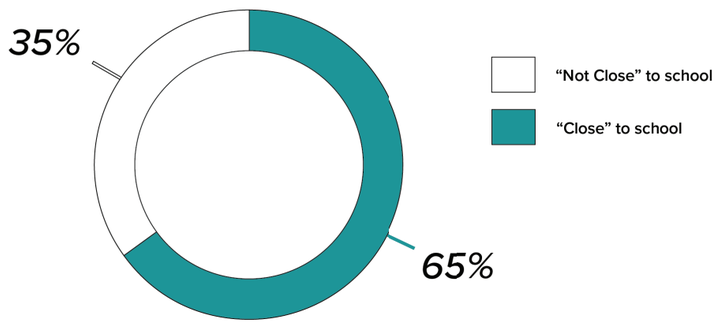


Figure M5.

Parent Surveys

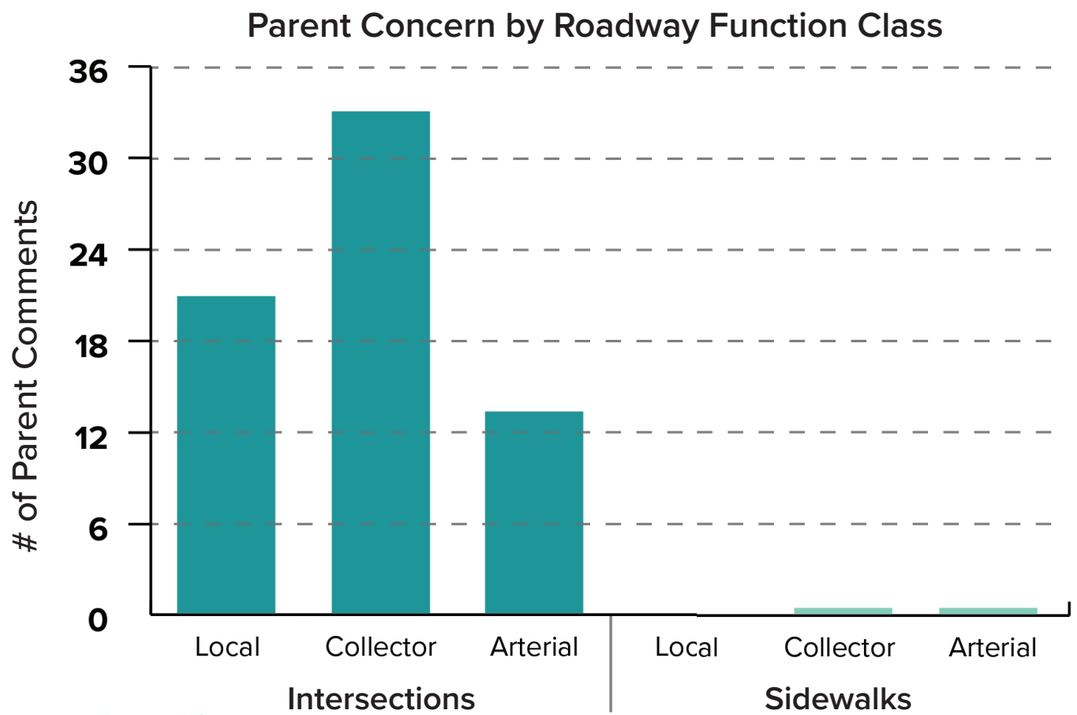


Figure M6.

Parent Concern: Sidewalks vs. Intersections

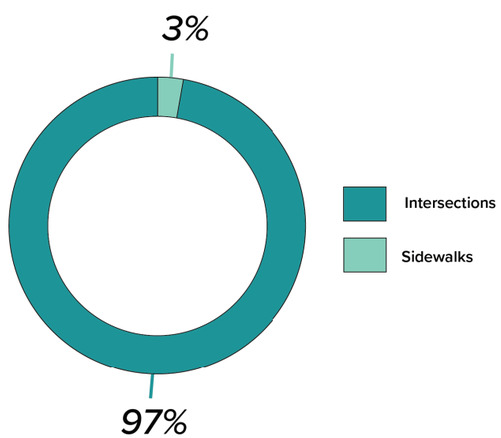


Figure M7.

The vast majority of comments from Marlatt parents were concerned with intersections (as shown in Figures M6 through M9), including busy intersections on collector and arterial streets. Browning Avenue, Kimball Avenue, and Hobbs Drive were of particular concern to many commenters (see Figure M8).

Parent Responses

Figure M8.

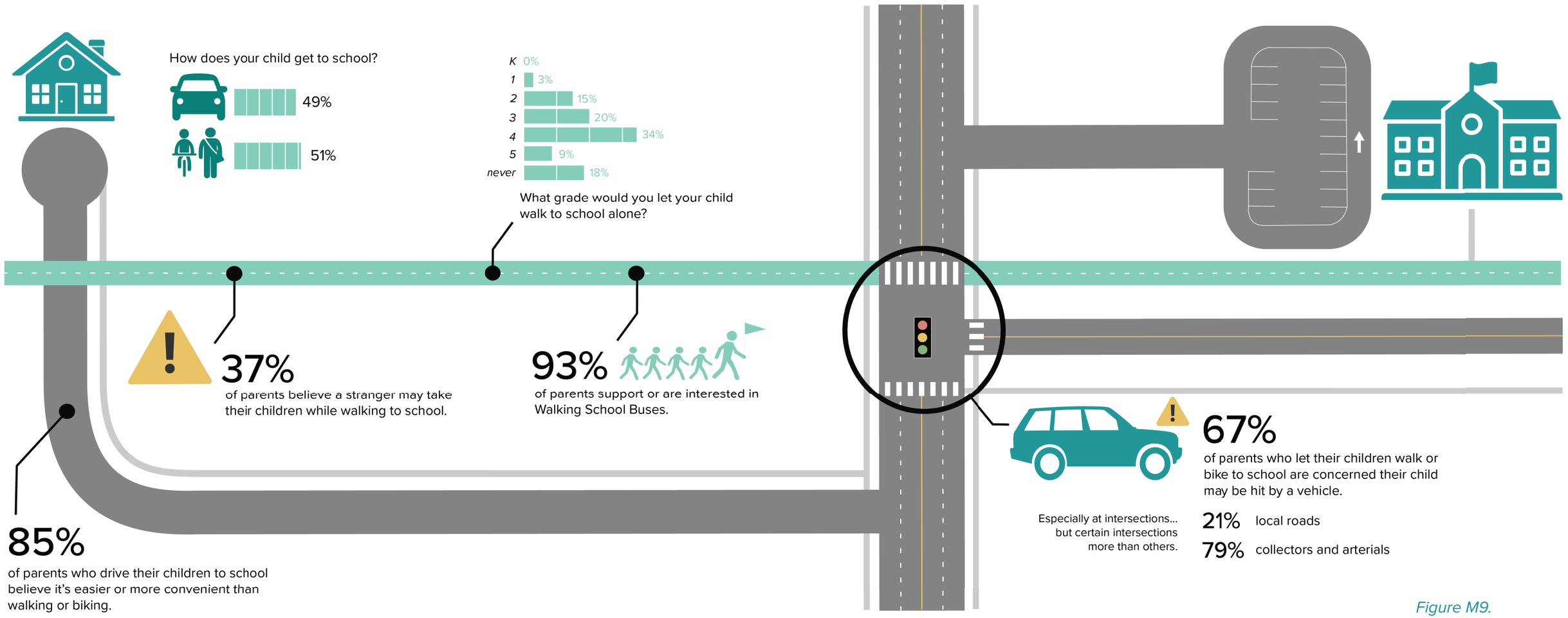

How does your child get to school?
49%
51%
K 0%
1 3%
2 15%
3 20%
4 34%
5 9%
never 18%
What grade would you let your child walk to school alone?
37%
of parents believe a stranger may take their children while walking to school.
93%
of parents support or are interested in Walking School Buses.
85%
of parents who drive their children to school believe it's easier or more convenient than walking or biking.
67%
of parents who let their children walk or bike to school are concerned their child may be hit by a vehicle.
Especially at intersections... but certain intersections more than others.
21% local roads
79% collectors and arterials

Figure M9.

Safe Routes Map

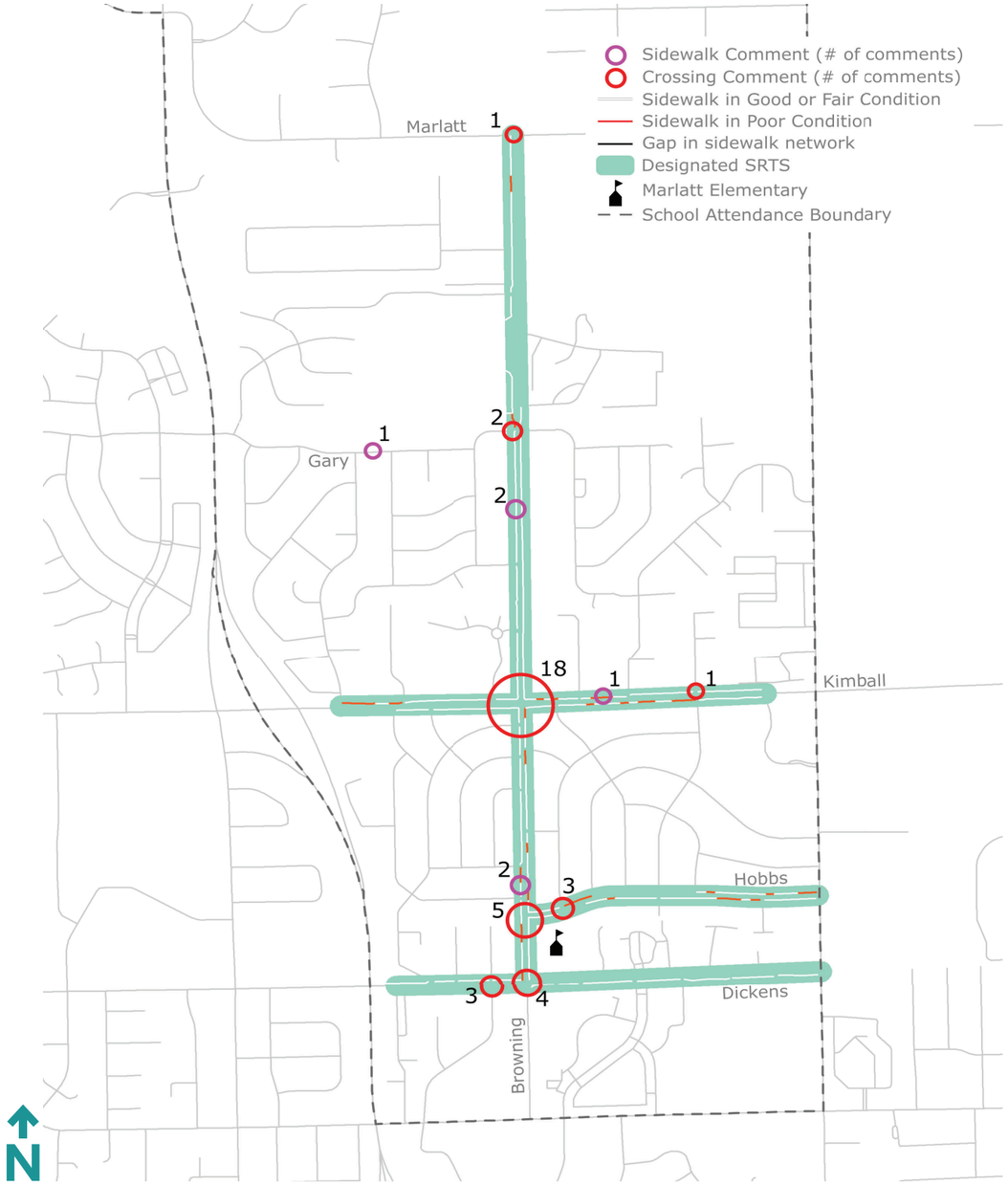


Figure M10.

Safe Routes

Designated Safe Routes are corridors leading to Marlatt Elementary, shown in Figure M10. Projects located along Safe Routes are prioritized to provide a high level of impact.

Browning Avenue: Dickens Avenue to Marlatt Avenue.

Dickens Avenue: College Avenue to Oxford Place.

Hobbs Drive: College Avenue to Browning Avenue.

Kimball Avenue: Seaton Avenue to Via Christi Place.

Sidewalk Condition

The main roads near Marlatt Avenue are well connected with sidewalks. Most of these sidewalks are in good condition (Figure M10). However, nearly all local residential street are without sidewalks. To add sidewalks to these local roads would be difficult, as mature trees block the right of way and property owner support for such changes is difficult. Despite these issues, Marlatt Elementary has high numbers of students who walk and bike to school. These volume of people on certain sidewalks does create issues, which are addressed in the projects later in this chapter.

Safe Route Sidewalks by Condition

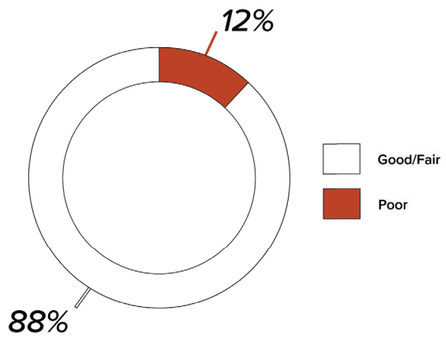


Figure M11.

Thank you to K-State Prof. Shakil Kashem and students in his Plan 836 course for their work collecting sidewalk condition data.

Recommended Project Map

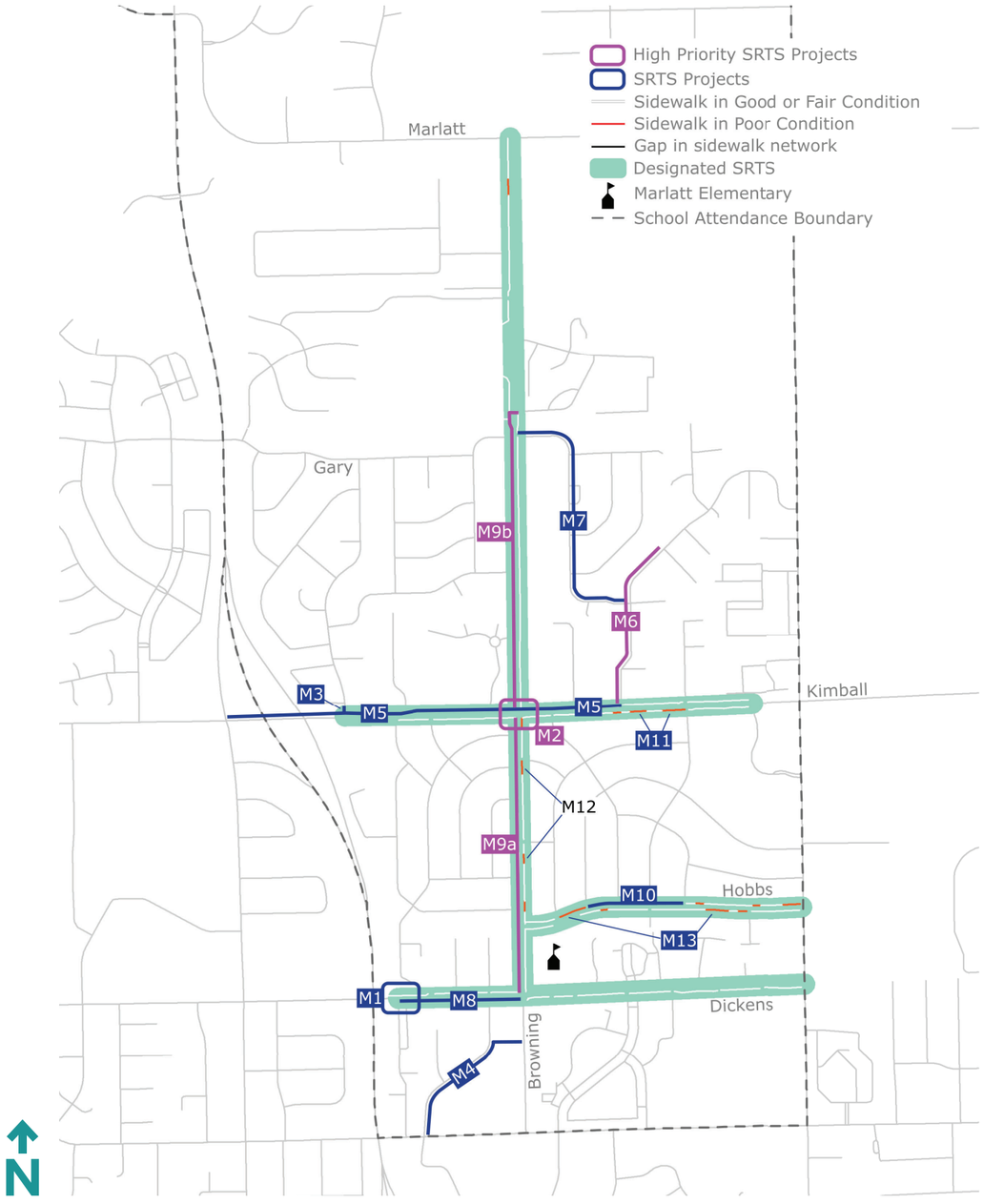


Figure M12.

Figure M12 maps the recommended projects for Marlatt Elementary. Due to an overlap in attendance zones, many of Marlatt's projects also apply to Susan B. Anthony Middle School (located north of Marlatt Elementary). These projects were based upon sidewalk condition data, parental comments, and school administration meetings. Valid projects remaining from the 2015 SRTS report have also been included. Projects are focused around the designated Safe Routes to maximize impact and safety on key corridors and at critical intersections.

A full list of projects can be found in Figures M13a and M13b, with a more detailed exploration of each project on the following pages. Additionally, High Priority projects have additional information including diagrams and engineering cost estimates.

MARLATT ELEMENTARY | *Recommended Project Table*

ID	Location	Type	Improvement	Project Details	BPSP Project	2015 SRTS Project	ATA Partner Project	Demo/Semi-Perm. Eligible	FHWA STEP	High Priority
M1	Dickens Ave at Oxford Place	Crossing	Crosswalk and signage	Install sidewalk from parking lot on Oxford Place to Dickens Ave. Install ramps and crosswalk connecting to existing sidewalk on the north side of Dickens Avenue.					●	
M2	Kimball Avenue at Browning Avenue	Crossing	LPI	Upgrade existing signals with Lead Pedestrian Intervals (LPIs).	●				●	●
M3	Seaton Avenue	Sidewalk	New Sidewalk	Install sidewalk on the west side of Seaton Avenue connecting segments on Kimball Avenue to those on Seaton Avenue.						
M4	Beechwood Terrace - Browning Avenue	Sidewalk	New Sidewalk	Install sidewalk connecting Beechwood Terrace to Browning Avenue via the easement along the north side of the apartment parking lot. Install sidewalk south along Beechwood Terrace to Claflin Road.			●			
M5	Kimball Avenue	Sidewalk	Upgrade to MUP	Replace existing sidewalk with Multi-use Path (MUP) on the northside of Kimball Avenue from Hillview Drive to Seth Child Road southbound exit ramp.	●					
M6	Hillview Drive	Sidewalk	New Sidewalk	Install sidewalk on the west side of Hillview Drive from Kimball Avenue to existing sidewalk at St. Christopher Circle.						●
M7	Snowbird Drive	Sidewalk	New Sidewalk	Install sidewalk on the north/east side of Snowbird Drive from Browning Avenue to Hillview Drive.						
M8	Dickens Avenue	Sidewalk	New Sidewalk	Install sidewalk on south side of Dickens Avenue from Oxford Place to Browning Avenue.			●			

Figure M13a.

ID	Location	Type	Improvement	Project Details	BPSP Project	2015 SRTS Project	ATA Partner Project	Demo/Semi-Perm. Eligible	FHWA STEP	High Priority
M9a	Browning Avenue	Sidewalk	Upgrade to MUP	Replace sidewalk with Multi-use Path (MUP) on the west side of Browning Avenue from Dickens Avenue to Kimball Ave		●	●			●
M9b	Browning Avenue	Sidewalk	Upgrade to MUP	Replace sidewalk with Multi-use Path (MUP) on the west side of Browning Avenue from Kimball Avenue to Susan B. Anthony Trail. Remove existing crossing at Snowbird and install PHB and crosswalk at Rec Center entrance.		●				●
M10	Hobbs Drive	Sidewalk	New Sidewalk	Install sidewalk on the north side of Hobbs Drive from Vaughn Drive to Winne Drive.		●				
M11	Kimball Avenue	Sidewalk	Replace Sidewalk	Replace “Poor” condition sidewalk along both sides of Kimball Avenue from Seaton Avenue to Sunnymeade Road.						
M12	Browning Avenue	Sidewalk	Replace Sidewalk	Replace “Poor” condition sidewalk along both sides of Browning Avenue from Kimball Avenue to Dickens Avenue.						
M13	Hobbs Drive	Sidewalk	Replace Sidewalk	Replace “Poor” condition sidewalk along both sides of Hobbs Drive from College Avenue to Browning Avenue.			●			

Figure M13b.

M1 Dickens Avenue at Oxford Place

Figure M14. Proposed project.

This project would add a connection from the apartments south of Dickens Avenue to the existing sidewalk along the north side of Dickens Avenue. To complete the project the existing culvert would be extended and fill would be added to create an area for the new sidewalk and ramps. A new ramp would also be installed on the north side of Dickens Avenue.

The crossing location was selected to take advantage of the stormwater inlet locations which will remove water flowing downhill before reaching the ramps, keeping the project cost lower.

M2 Kimball Avenue at Browning Avenue

HIGH PRIORITY PROJECT

This intersection serves as the only crossing between the neighborhoods north of Kimball Avenue and Marlatt Elementary to the south. Currently numerous students do cross here. However, this location was the number one concern of parents, who specifically called out vehicles rolling through right hand turns, stopping on and over the crosswalk, and speeding drivers as main concerns.

The installation of an Lead Pedestrian Interval would allow students to enter the intersection before vehicles, thus creating better visibility and safety. Additionally, driver behavior would change as they would realize that students have priority as they would be in the intersection before the light change. For people turning right, they would less likely to creep and roll through the intersection as the cross traffic signal lights change. Therefore, it is a prime location for the installation of an LPI.

LPIs are a countermeasure recommended in the Federal Highway Administration's (FHWA) Safe Transportation For Every Pedestrian (STEP) program. More information on LPIs can be found in the introduction chapter of this report on page 41.

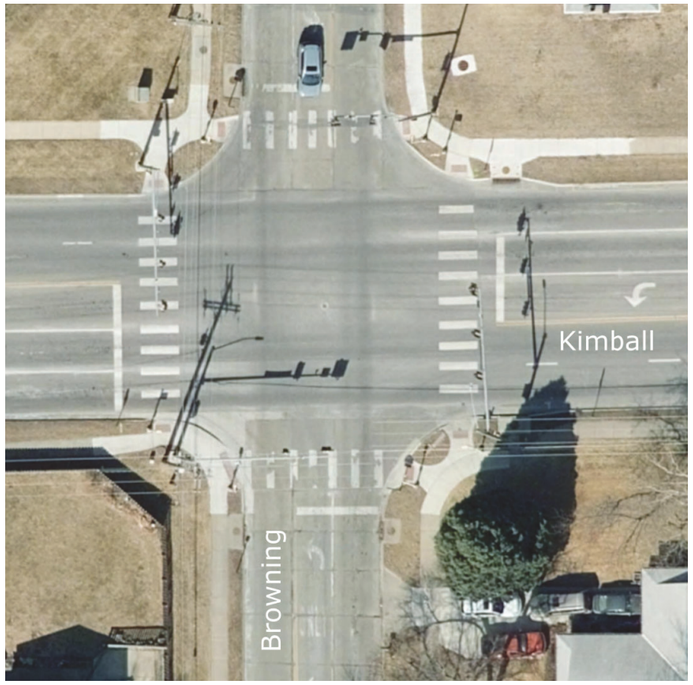


Figure M15. Location of proposed LPI.

M3 Seaton Avenue

Figure M16. Proposed sidewalk extension.

This project would extend the sidewalk from the apartments and neighborhoods along Seaton Avenue south to the existing sidewalk along Kimball Avenue. Currently students must walk in the grass or in the busy road near the intersection.

M4 Beechwood Terrace - Browning Avenue

Figure M17. Proposed sidewalk installation.

This project would install a sidewalk on the east side of Beechwood, from Claflin Road north approximately 2/10th of a mile to the end of the apartments. From here, the sidewalk would turn east utilizing easements and open space to connect to the sidewalk along Browning Avenue.

M5 Kimball Avenue

Figure M18. Proposed MUP.

This project would replace the existing sidewalk with an 8 or 10-foot multi-use path. Currently, multi-use paths are present at the to the east and west of this project location. Long identified as a need, and formally listed in the City's Bicycle and Pedestrian Systems Plan, this project would provide more room and comfort for students and the community at large.

M6 Hillview Drive

HIGH PRIORITY PROJECT

Estimated Project Cost:
375,521

Figure M19. Proposed sidewalk.

This project would install a sidewalk along the west side of Hillview Drive from Kimball Avenue north to the existing sidewalk near St. Christopher Circle. This residential area is home to many students and families and would provide a needed connection to Marlatt Elementary.

The engineering cost estimate is $375,521. Detailed line items costs can be found in Appendix D.

M7 Snowbird Drive

Figure M20. Proposed sidewalk.

This project would install a sidewalk along the east side of Snowbird Drive from Hillview Drive west and north to Browning Avenue. This residential neighborhood is home to many students and families.

Placing the sidewalk on the east side is preferable as it has fewer driveway crossings and fewer trees. Additionally, having the sidewalk on this side of the road places students on the north side of Snowbird at Browning, removing an unneeded crossing, and tying into the sidewalk along Browning.

M8 Dickens Avenue

Figure M21. Proposed sidewalk.

This project is an alternative to Project M1, which is more simple and less costly. However, this project would provide sidewalk access to the houses along the south side of Dickens Avenue. Students living in the apartments along Oxford Place would have a sidewalk connection east to Browning Avenue, and then a marked crosswalk to access Marlatt Elementary. Concerns with this project include tree removal, right of way, and elevation issues.

M9a Browning Avenue

HIGH PRIORITY PROJECT

Estimated Project Cost:
869,468

Figure M22. Proposed MUP.

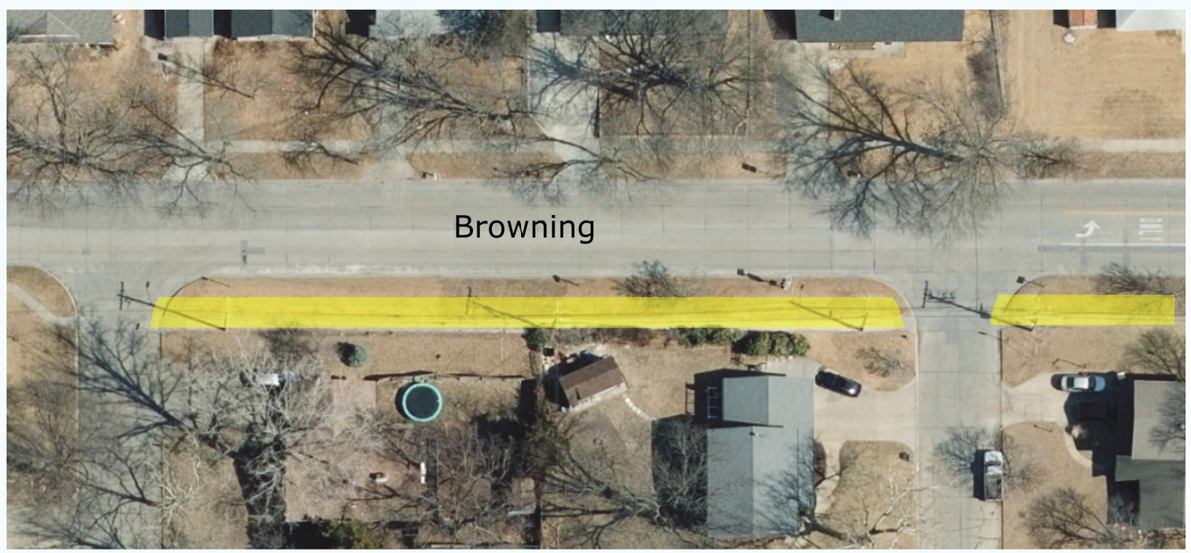


Figure M23. Map enlargement.

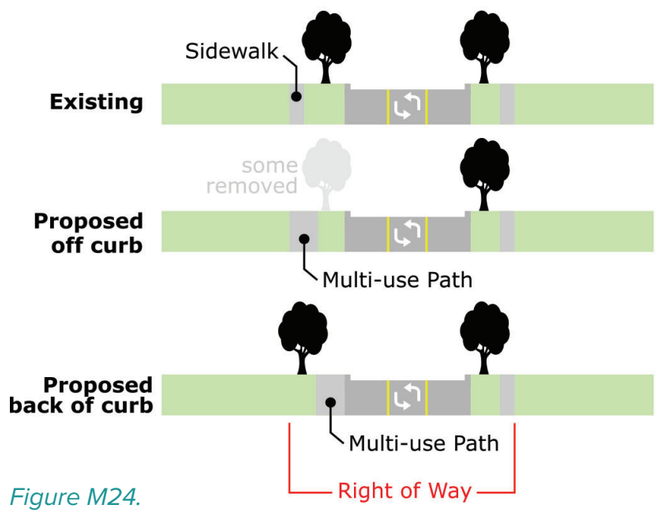


Figure M24.

This project would replace the existing sidewalk along the west side of Browning Avenue with an 8 or 10-foot multi-use path from Dickens Avenue north to Kimball Avenue (Figure M22). This segment is highly used during school hours and students must pass in the grass. Additionally, social walking and biking is not possible on the narrow existing sidewalk. Figures M23 & M24 shows a potential layout of the multi-use path in relation to the roadway and right-of-way. Issues including stormwater, trees, and right-of-way were considered and addressed in the cost estimate. A detailed cost estimate can be found in Appendix D.

M9b Browning Avenue

HIGH PRIORITY PROJECT

Estimated Project Cost:
1,061,945

Figure M25. Proposed sidewalk.

This project, an extension of project M9a, would replace the existing narrow sidewalk with a multi-use path from Kimball Avenue north to the Susan B. Anthony trail located on Anthony Middle School property. An engineering estimate placed the cost at $1,061,945. The detailed cost estimate can be found in Appendix D.

Figure M26.

Richfield, MN. Example project that replaced sidewalk with Multi-use Path along right-of-way.

M10 Hobbs Drive

Figure M27. Proposed sidewalk.

This project would close the sidewalk gap on the north side of Hobbs Drive near Marlatt Elementary. The sidewalk would run from Winne Drive to Vaughn Road, and with ample right-of-way, could wind around existing mature trees.

M11 Kimball Avenue

Figure M28. Proposed sidewalk.

This project would replace sidewalk segments in “Poor” condition along the 2600 block of Kimball Avenue. As this area is not in a US Census Bureau identified Low-Moderate Income area, these properties would not be eligible for the potential City sidewalk cost share program.

M12 Browning Avenue

Figure M29. Proposed sidewalk replacement.

This project would replace sidewalk segments in “Poor” condition along Browning Avenue. As this area is not in a US Census Bureau identified Low-Moderate Income area, these properties would not be eligible for the potential City sidewalk cost share program.

Segments on the west side of Browning Avenue could be avoided if project M9a were to be built.

M13 Hobbs Drive

Figure M30. Proposed sidewalk replacement.

This project would replace sidewalk segments in “Poor” condition along Hobbs Drive. As this area is not in a US Census Bureau identified Low-Moderate Income area, these properties would not be eligible for the potential City sidewalk cost share program.

Walking School Bus Map

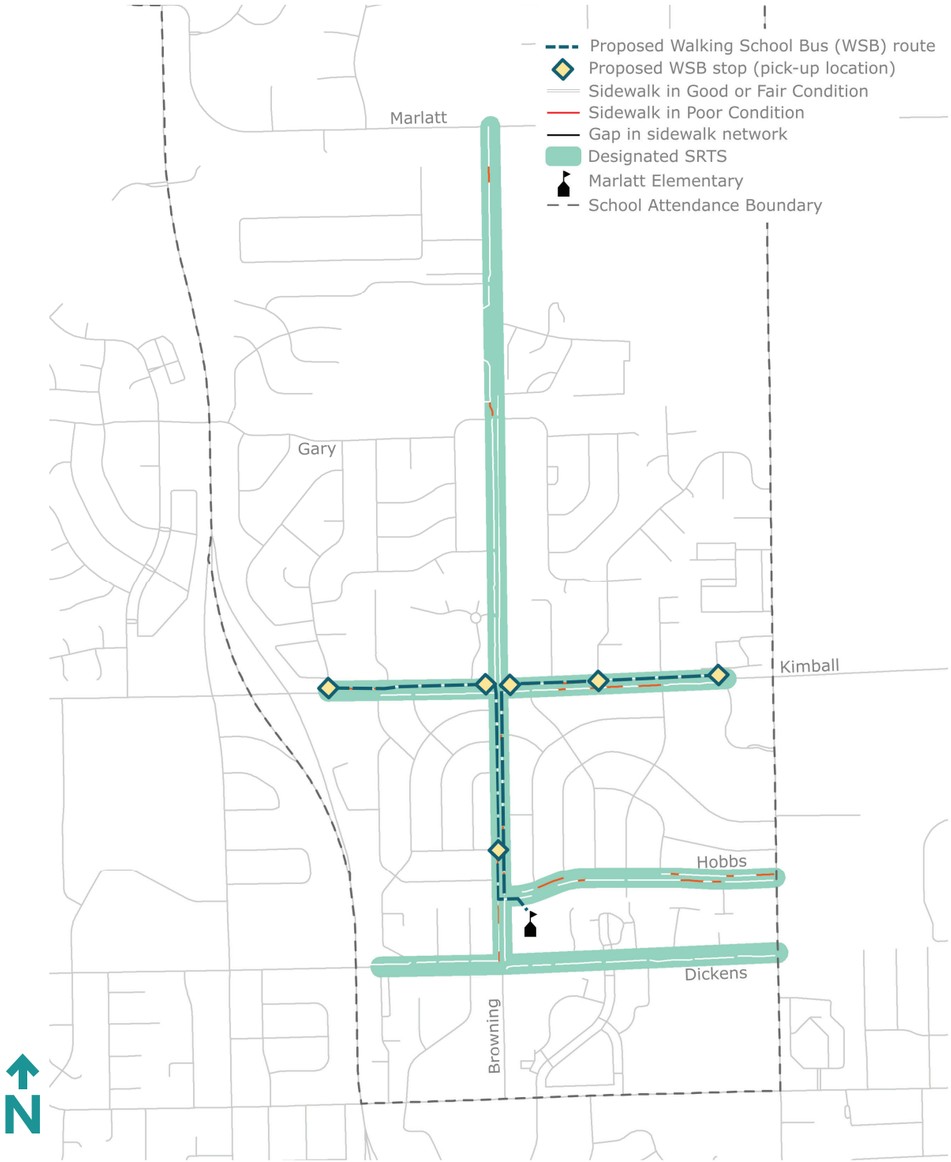


Figure M31.

The proposed Walking School Bus (WSB) route in Figure M31 showcases two potential routes that connect the neighborhoods north of Kimball Avenue to Marlatt Elementary. The distances are close enough for a student to easily walk, yet far enough and with numerous street crossings, that many parents are hesitant to let their children walk alone.

WSB Directions

East Route

- Start at Kimball Avenue and Woodway Drive
- West on Kimball Avenue
- Stop at Kimball Avenue and Browning Avenue
- South on Browning Avenue
- East on Hobbs Road
- End at Marlatt Elementary

West Route

- Start at Seaton Drive and Kimball Avenue
- East on Kimball Avenue
- Stop at Kimball Avenue and Browning Avenue
- South on Browning Avenue
- Stop at Browning Avenue and Illinois Street
- South on Browning Avenue
- East on Hobbs Road
- End at Marlatt Elementary

NORTHVIEW ELEMENTARY

Safe Routes Grade Card

Section	Item	Grade
Proximity	Residential parcels within 1 mile of school	**93%**
	Student addresses within 1 mile of school	**83%**
	Parent perception: "Close" to school	**81%**
Built Environment	Safe Route sidewalk connectivity	**87%** *of Safe Routes have sidewalks*
	Safe Route sidewalk condition	**94%** *of sidewalks rated Good or Fair*
	Intersection issues & comments	**82%** *of comments*
Safety Perception	Child will be hit by a vehicle	**74%** *feel this is likely*
	Child will be taken by a stranger	**63%** *feel this is likely*
	School zones well enforced	**43%** *agree*
Transportation	Student walking & biking to school (counts)	**Average**
	Students driven to school in private cars (survey)	**Average**

Figure N1.

The grade card in Figure N1 serves as a snapshot of key categories and data measures for Northview Elementary. Colors in the "Grade" column reflect the school's score in relation to others across USD 383. **Green represents satisfactory or better**, **yellow average,** and **red below average or underperforming.**

The neighborhoods surrounding Northview Elementary have limited but key sidewalk connections. Parental concerns are highlighted at larger street crossings and missing gaps. Project in this chapter look to address those issues, and raise Northview's already strong walking and biking to school numbers.

Walkability Map

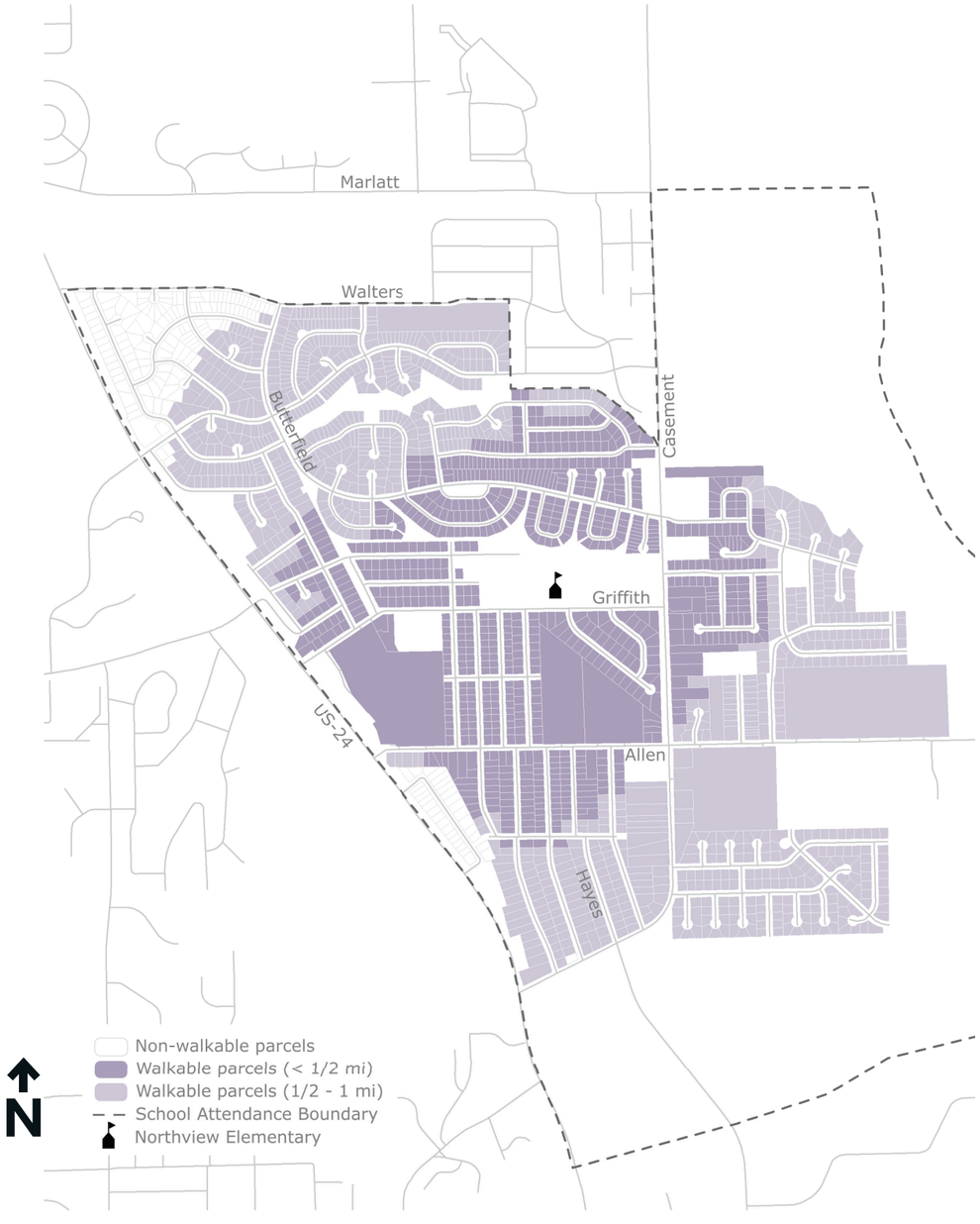


Figure N2.

Walkability Data

Northview Elementary has a very high percentage of residential addresses with a mile (93% - Figure N3) and therefore percentage of students living within a mile (84% - Figure N4). This corresponds with 81% (Figure N5) of parents feeling they do live “Close” to school. All of this should result in very high walking and biking to school numbers. However, infrastructure issues and concerns prevent some parents from having students walk.

Residential Addresses by Proximity

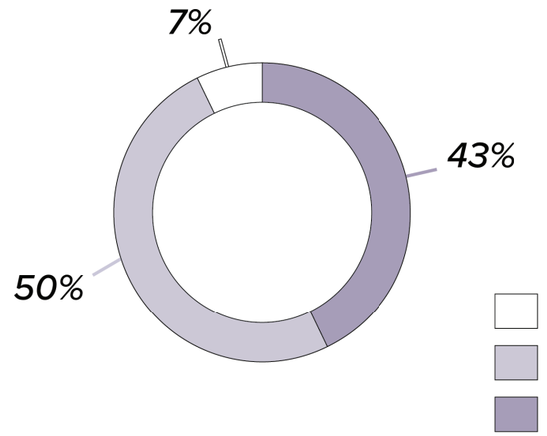


Figure N3.

Current Student Addresses by Proximity

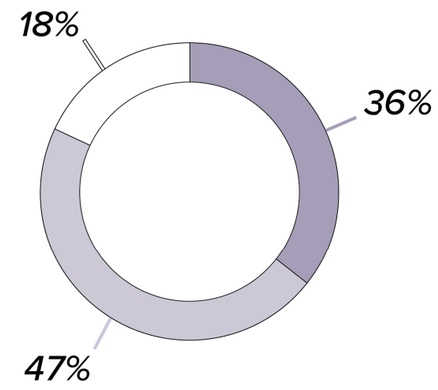


Figure N4.

Parent Perception

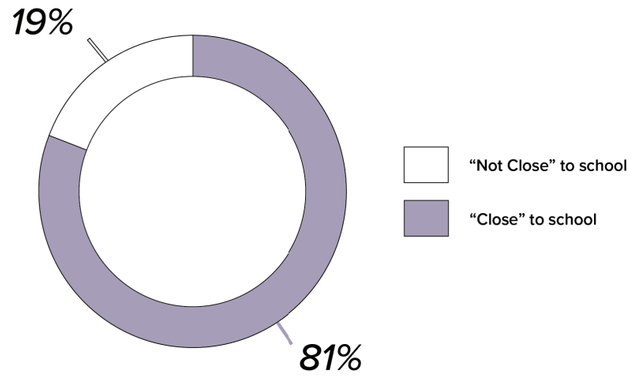


Figure N5.

Parent Surveys

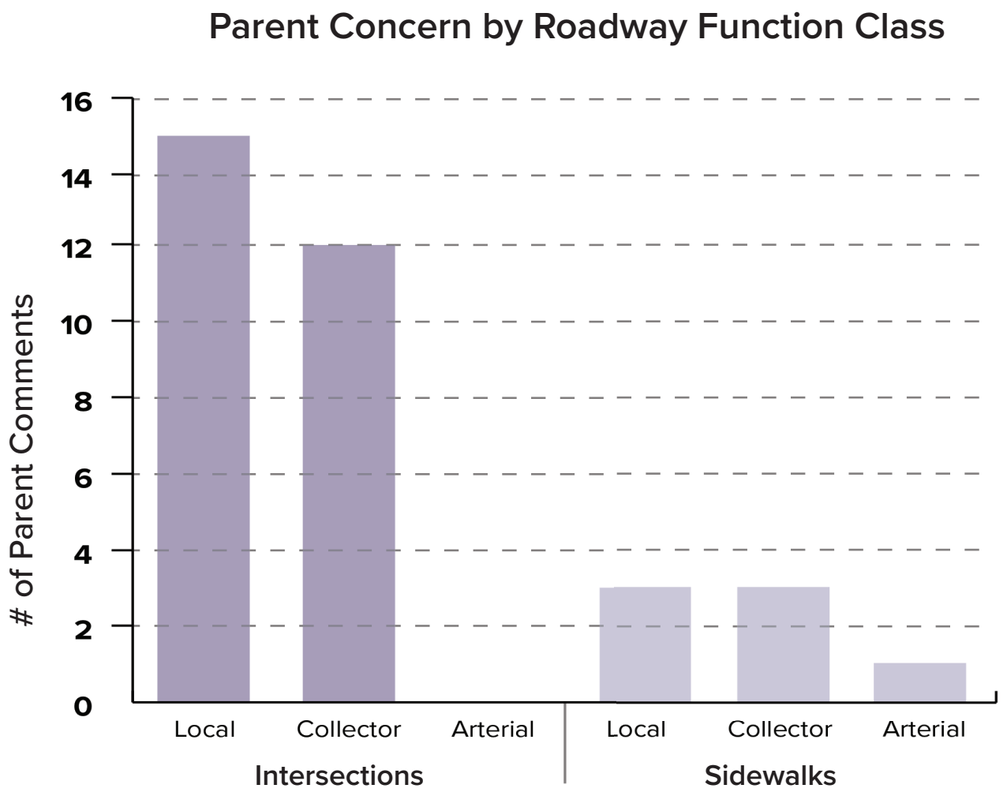


Figure N6.

Parent Concern: Sidewalks vs. Intersections

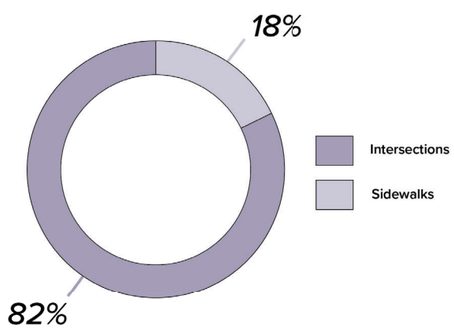


Figure N7.

Intersections on local and collector roads pose the biggest concern for Northview Elementary parents. Incomplete sidewalks are another factor making Northview parents uneasy about their children walking or biking to school.

Figures N6 through N9 highlight comments from survey respondents.

Parent Responses

Figure N8.

NORTHVIEW ELEMENTARY | *Survey Summary*

How does your child get to school?

75%

25%

K 0%
1 0%
2 4%
3 24%
4 8%
5 22%
never 43%

What grade would you let your child walk to school alone?

36%
of parents believe a stranger may take their children while walking to school.

90%
of parents support or are interested in Walking School Buses.

81%
of parents who drive their children to school believe it's easier or more convenient than walking or biking.

85%
of parents who let their children walk or bike to school are concerned their child may be hit by a vehicle.

Especially at intersections... but certain intersections more than others.

44% local roads

56% collectors and arterials

Figure N9.

Safe Routes Map

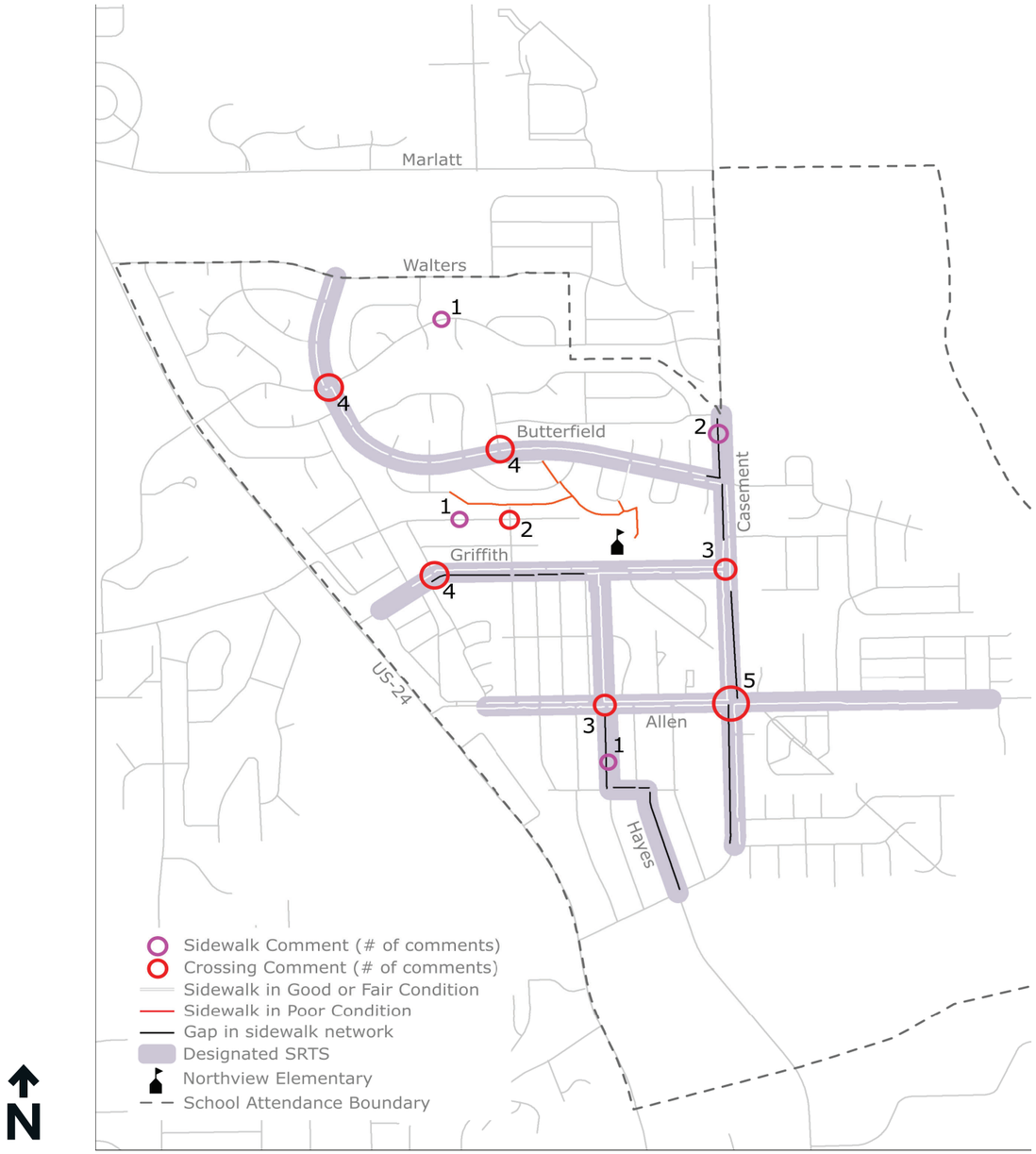


Figure N10.

Safe Routes

Designated Safe Routes are corridors leading to Northview Elementary, as shown in Figure N10. Projects located along Safe Routes are prioritized to provide a high level of impact.

Griffith Drive: Casement Road to Blue Valley Manufactured Home Community.

Casement Road: Harvey Drive to Brookmont Drive.

Allen Road & Knox Lane: Blue Valley Manufactured Home Community to Spruce Place.

Hayes Drive: Casement Road to Gross Street.

Gross Street: Hayes Drive to Judson Street.

Judson Street: Gross Street to Allen Road.

Prairie Glen Trail: Allen Road to Griffith Drive.

Butterfield Road: Casement Road to Walters Drive.

Sidewalk Condition

The neighborhoods surrounding Northview Elementary have sidewalks along larger roads (Figure N11). Most of these roads however have sidewalk only on one side. Large gaps still remain across the attendance zone. Most local roads are without sidewalk, especially south and west of Butterfield Road. The sidewalks that do exist are mainly in good and fair condition, with the exception being the key connections north of the school through the Butterfield Owners Association.

Safe Route Sidewalks by Condition

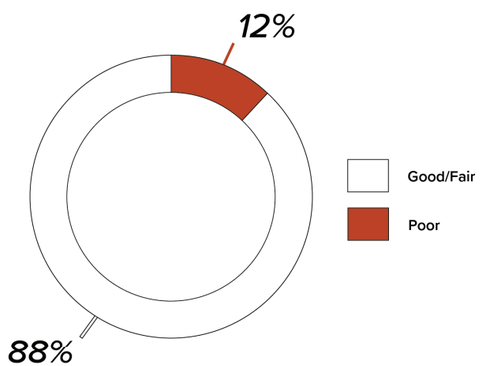


Figure N11.

Thank you to K-State Prof. Shakil Kashem and students in his Plan 836 course for their work collecting sidewalk condition data.

Recommended Project Map

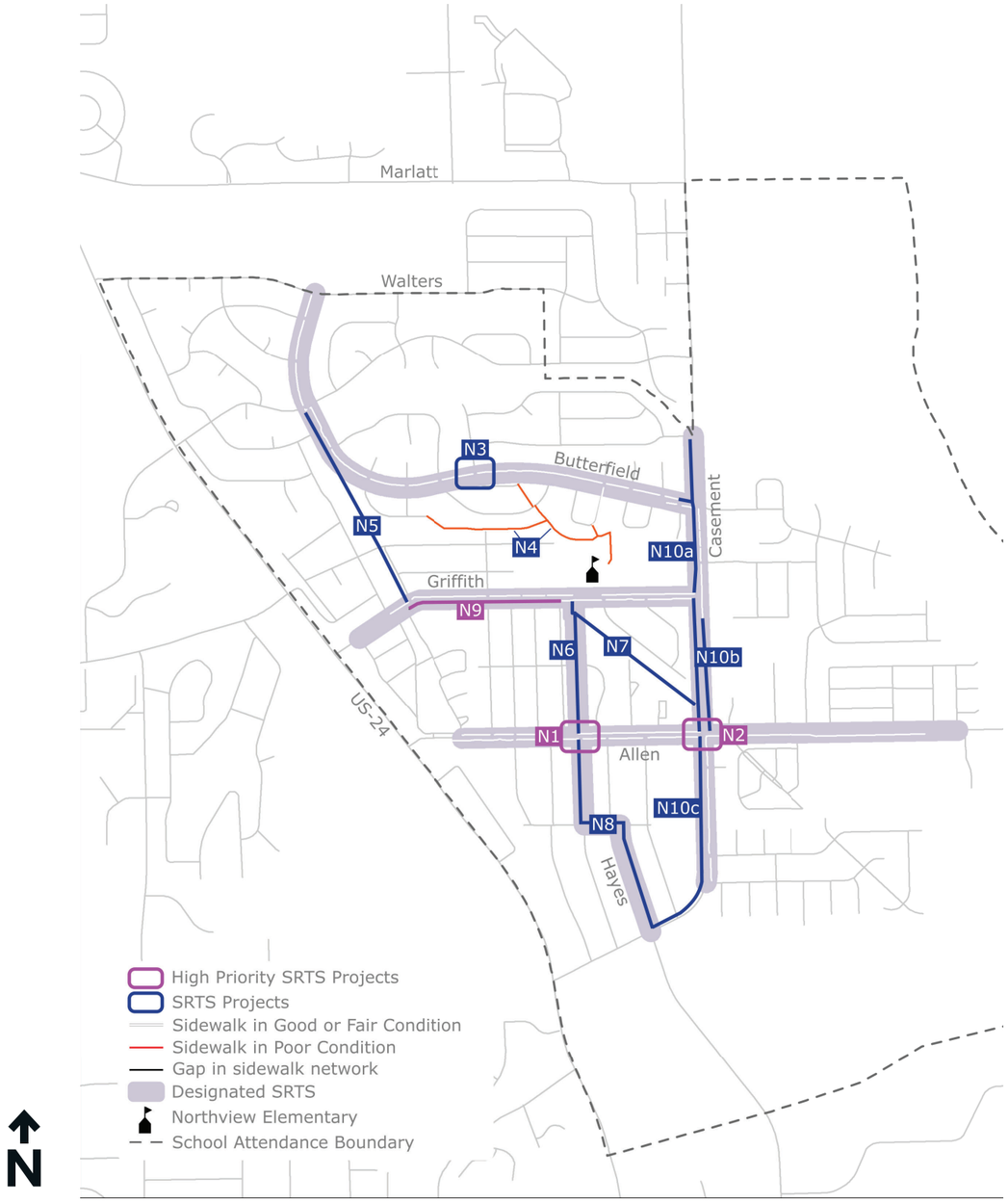


Figure N12.

Figure N12 maps the recommended projects for Northview Elementary. These projects were based upon sidewalk condition data, parental comments, and school administration meetings. Valid projects remaining from the 2015 SRTS report have also been included. Projects are focused around the designated Safe Routes to maximize impact and safety on key corridors and at critical intersections.

A full list of projects can be found in Figures N13a and N13b, with detailed information on the following pages. High Priority projects have additional information, including diagrams and engineering cost estimates.

NORTHVIEW ELEMENTARY | *Recommended Project Table*

ID	Location	Type	Improvement	Project Details	BPSP Project	2015 SRTS Project	ATA Partner Project	Demo/Semi-Perm. Eligible	FHWA STEP	High Priority
N1	Allen Road at Judson Street	Crossing	RRFBs	Install RRFBs at the crossing to Prairie Glen trail.	●				●	●
N2	Casement Road at Allen Road	Crossing	PHB	Upgrade existing RRFB crossing to PHB.	●		●		●	●
N3	Butterfield Road at Brook Lane	Crossing	Curb extension, new crosswalk, RRFBs, and new sidewalk	Install a new crosswalk of Butterfield Road with a curb extension and RRFBs at Brook Lane, and extend sidewalk to connect to Northview Elem.			●		●	
N4	Butterfield HOA	Sidewalk	Upgrade to MUP	Replace existing sidewalks with multi-use path (MUP) in Butterfield HOA, and connect to Butterfield Road.						
N5	Butterfield Road and Manifax Street	Sidewalk	New MUP	Install new multi-use path (MUP) on west side of Butterfield from Northfield, through Butterfield HOA green area and ROW, and along west side of Manifax Street to Griffith Drive.						
N6	Prairie Glen Apartments	Sidewalk	Upgrade to MUP	Replace existing sidewalk with multi-use path (MUP) from Allen Road to Griffith Drive in Prairie Glen Apartments.						
N7	Prairie Glen East Townhomes	Sidewalk	New MUP	Replace existing sidewalk and extend a multi-use path (MUP) from Casement Road sidewalk to existing Praire Glen sidewalk/ MUP via Utility easement.						
N8	Judson Street, Gross Street, and Hayes Drive	Sidewalk	New Sidewalk	Install new sidewalk from Allen Road to Casement Road along Judson and Gross street, and Hayes Drive.	●					
N9	Griffith Drive	Sidewalk	New Sidewalk	Install sidewalk on the south side of Griffith Drive from Blue Valley Mobile Home Park to existing sidewalk at Northview Drive.	●	●				●

Figure N13a.

ID	Location	Type	Improvement	Project Details	BPSP Project	2015 SRTS Project	ATA Partner Project	Demo/Semi-Perm. Eligible	FHWA STEP	High Priority
N10a	Casement Road	Sidewalk	New MUP	Install a multi-use path (MUP) along the west side of Casement Road, between Northfield Road and Griffith Drive.	●	●				
N10b	Casement Road	Sidewalk	New MUP	Install a multi-use path (MUP) along the west side of Casement Road, and a sidewalk extension on the east side of Casement Road, between Griffith Drive and Allen Road	●	●				
N10c	Casement Road	Sidewalk	New MUP	Install a multi-use path (MUP) along the east side of Casement Road, and a sidewalk on the west side of Casement Road, between Allen Road and Hayes Drive	●					

Figure N13b.

N1 Allen Road at Judson Street

HIGH PRIORITY PROJECT

Estimated Project Cost:
86,581

Figure N14. Proposed RRFB installation.

Figure N15. RRFB.

This project would improve the crossing of Allen Road at Judson Street. Long a request of parents (2017 PTA meetings), this key crossing is popular with students as it connects to the Prairie Glen Trail to the north of Allen, providing a direct, car-free route to school. While several options were reviewed, the recommended improvement involves the installation of RRFBs due to a lack of space and driveway alignments. New sidewalk ramps would also be installed.

A detailed cost estimate can be found in Appendix D.

N2 Casement Road at Allen Road

HIGH PRIORITY PROJECT

Figure N16. Proposed PHB.

This project would replace the existing RRFBs with a new PHB. Parental and general public comments expressed concern with the lack of safety and comfort at the existing crossing due to vehicle speeds and lack of vehicle compliance.

N3 Butterfield Road at Brook Lane

Figure N17. Location of proposed curb extension and RRFB.

This project will improve the connection from the neighborhoods north of Butterfield Road to Northview Elementary. A curb extension on the north side of Butterfield Road in the parking lane will narrow the crossing. Together with RRFBs, this will provide better visibility. A marked crosswalk will connect to a new sidewalk to Brook Lane. From here, students would continue on the existing sidewalk connection through the Butterfield Owners Association property.

N4 Butterfield HOA

Figure N18. Proposed sidewalk replacement.

This project would replace the existing narrow 3-foot sidewalk in “Poor” condition. This sidewalk, while on private property owned by the Butterfield Owners Association, serves as the only direct connection to the neighborhoods north of Northview Elementary.

N5 Butterfield Road and Manifax Street

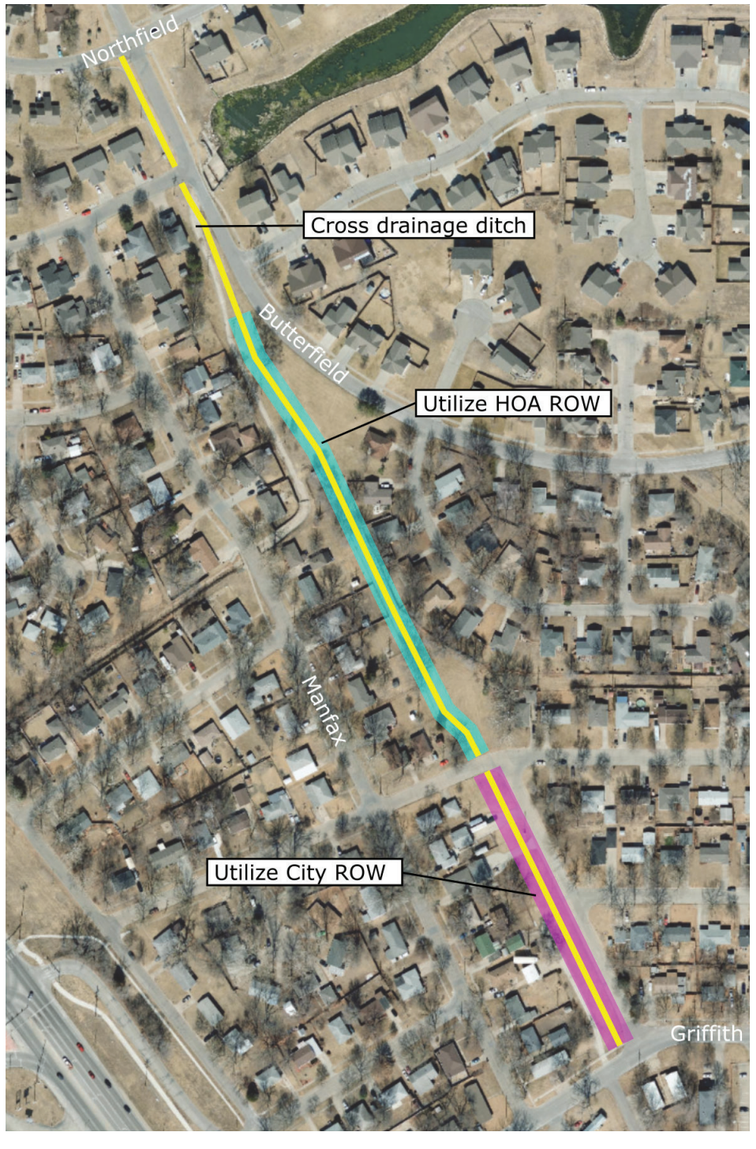


Figure N19. Proposed MUP.

This project would use City and private right-of-ways to install a direct multi-use path between Northfield Road and Griffith Drive. This connection would be a safe and comfortable connection to school, as it would tie into the existing sidewalk on the north side of Griffith Drive. In order to access the wide and unused right-of-ways, a connection over the drainage ditch to the west of Butterfield Road would need to be created.

Once completed, this project would allow students living on the west side of Butterfield a good connection to Northview Elementary and Northview Park and swimming pool, as they would not need to cross busy Butterfield Road (currently they must cross it twice to access these amenities via a circuitous route).

N6 Prairie Glen Apartments

Figure N20. Proposed MUP.

This project would upgrade the existing 5-foot sidewalk to an 8 or 10-foot multi-use path. This sidewalk connection serves as a de facto bike and pedestrian highway, as the usage by students and the public is very high.

The direct connection between the south end of the Northview area to the school, park, and pool, with limited and safe crossings, means the demand warrants an upgrade to allow for passing and social transportation.

N7 Prairie Glen East Townhomes

Figure N21. Proposed sidewalk replacement and extension.

This project would replace and extend the existing sidewalk along the north and east edge of Prairie Glen Apartments. By extending the trail through the remainder of the easement to Casement, students would have a direct connection from the housing along Knox Lane to Northview Elementary. This route would allow students to bypass the Griffith Drive crossing at Casement Road and instead use the recently improved crossing in front of the school.

N8 Judson Street, Gross Street, & Hayes Drive

Figure N22. Proposed sidewalk installation.

This project would install sidewalk along several roads to connect Casement Road to Allen Road. In doing so, those living south of Allen Road would have a sidewalk connection directly to school, via the Prairie Glen sidewalk (see Project N6). This project would also provide reverse access to Linear Trail and the Old Blue River Trail, and the services found at their southern ends.

Issues with this project include the needed removal of numerous mature trees, or the removal of parking by moving the curb into the existing roadway to create a back-of-curb sidewalk.

N9 Griffith Drive

HIGH PRIORITY PROJECT

Estimated Project Cost:
347,988

Figure N23. Proposed sidewalk installation.

This project would create a sidewalk on the south side of Griffith from the Blue Valley Manufactured Home Park, east to Judson. Once completed, students living south of Griffith Drive would have a safe sidewalk connection to Northview Elementary, as they would cross at the recently complete pedestrian island in front of the school. Currently, students must cross Griffith Drive without any crosswalks or markings, to access the sidewalk to the north.

The estimated cost of this project is $347,988. For a detailed engineering cost estimate, see Appendix D.

N10a Casement Road

Figure N24. Proposed sidewalk installation.

This project would be tied into the City's roadway expansion of Casement. The new multi-use path would connect Northfield Road to Griffith. This project has long been identified as it was included in the previous 2015 Safe Routes to School report and also the Bicycle and Pedestrian Systems Plan.

N10b Casement Road

Figure N25. Proposed MUP.

This project would be a continuation of project N10a, and would be partnered with the expansion of Casement Road. This multi-use path would be on the west side of the road and connect the Knox Lane Trail to Griffith Drive and Northview Elementary.

N10c Casement Road

Figure N26. Proposed MUP.

This project would install a multi-use path along the west side of Casement Road between Allen Road and Hayes Drive. It would be included in the expansion of Casement Road and also provide a connection to Linear Trail and the Old Blue River Trail.

Walking School Bus Map

Figure N27.

The proposed Walking School Bus (WSB) map in Figure N27 showcases two potential routes. The first would connect the neighborhoods to the north of Northview Elementary while the second would connect to those south and east. The distances are close enough for a student to easily walk, yet far enough and with numerous street crossings, that many parents are hesitant to let their children walk alone.

WSB Directions

- Start at Butterfield Road and Walters Drive
- South on Butterfield Road
- Stop at Butterfield Road and Northfield Road
- South and East on Butterfield Road
- Stop at Butterfield Road and Brook Lane
- South on Brook Lane
- South on sidewalk through neighborhood
- End at Northview Elementary

OLIVER BROWN ELEMENTARY

Safe Routes Grade Card

Section	Item	Grade
Proximity	Residential parcels within 1 mile of school	**31%**
	Student addresses within 1 mile of school	**40%**
	Parent perception: “Close” to school	**76%**
Built Environment	Safe Route sidewalk connectivity	**40%** *of Safe Routes have sidewalks*
	Safe Route sidewalk condition	**100%** *of sidewalks rated Good or Fair*
	Intersection issues & comments	**98%** *of comments*
Safety Perception	Child will be hit by a vehicle	**89%** *feel this is likely*
	Child will be taken by a stranger	**63%** *feel this is likely*
	School zones well enforced	**39%** *agree*
Transportation	Student walking & biking to school (counts)	**High**
	Students driven to school in private cars (survey)	**Average**

Figure O1.

The grade card in Figure O1 serves as a snapshot of key categories and data measures for Oliver Brown Elementary. Colors in the “Grade” column reflect the school’s score in relation to others across USD 383. **Green represents satisfactory or better**, **yellow average,** and **red below average or underperforming.**

Challenges for students walking or biking to Oliver Brown Elementary include an incomplete sidewalk network and a low percentage of student addresses close to school. Despite this, an above-average percentage of parents (76%) perceive the school as “close” to their home, and observational counts show an above-average amount of students walking or biking to school. These numbers are especially impressive given that only 40% of students live within a mile of their school.

OLIVER BROWN ELEMENTARY | *Walkability*

Walkability Map

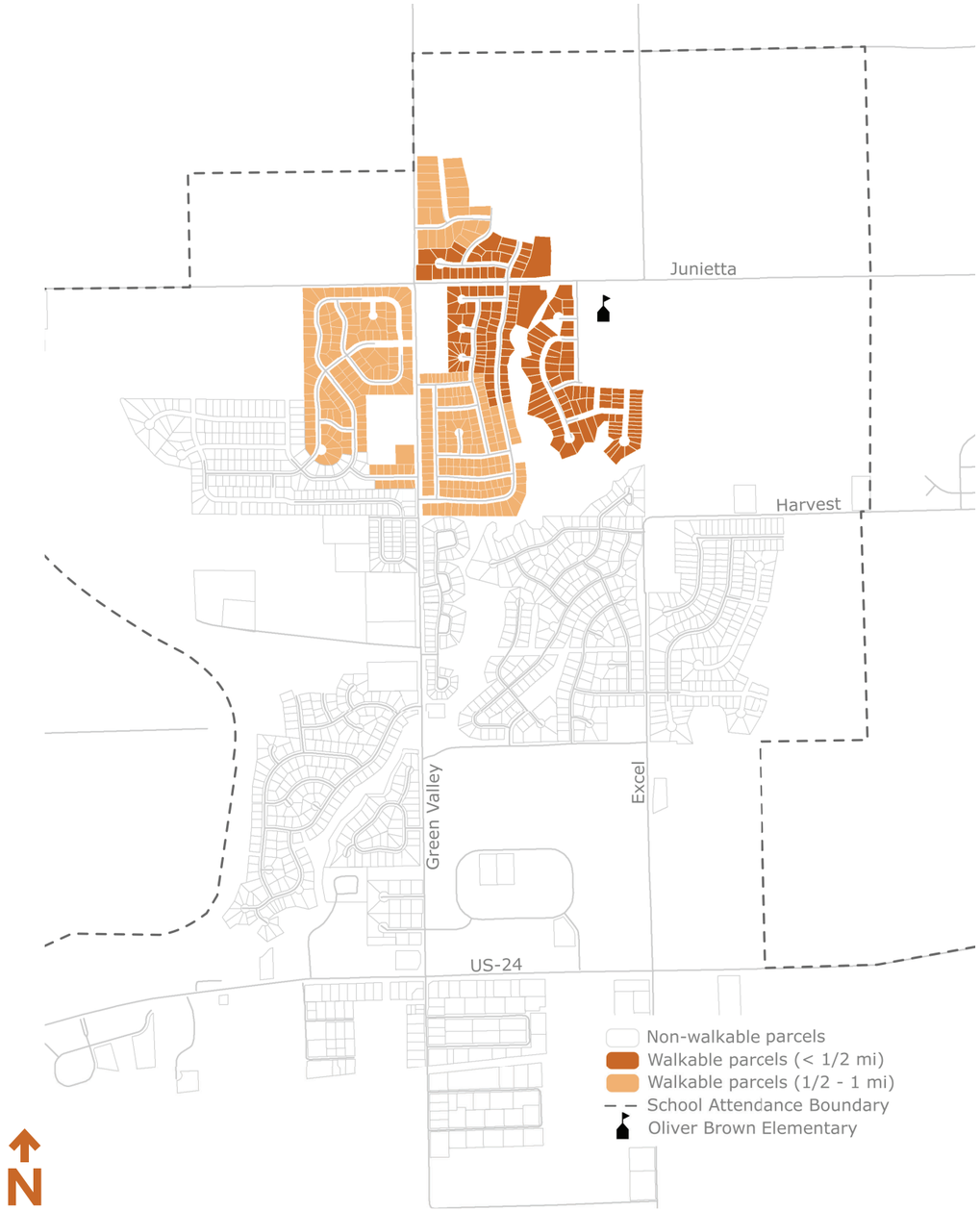


Figure O2.

Walkability Data

The neighborhoods around Oliver Brown Elementary are comprised of family housing. As can be seen in Figures O2-O5, despite only 40% of students living within 1 mile of school, 76% of parents believe they are "close" to school. This is a success story, as a higher portion of students walk to school than would be expected in other parts of the district.

Residential Addresses by Proximity

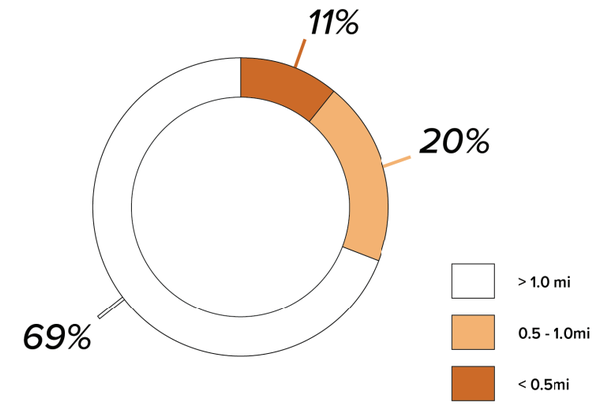


Figure O3.

Current Student Addresses by Proximity

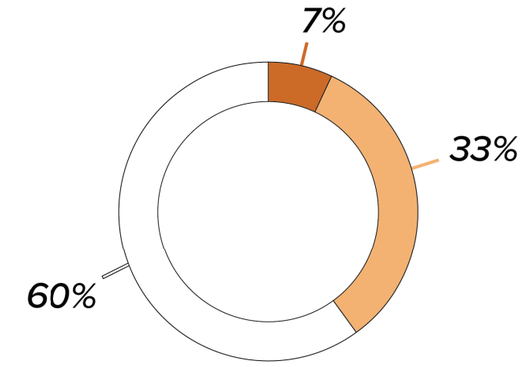


Figure O4.

Parent Perception

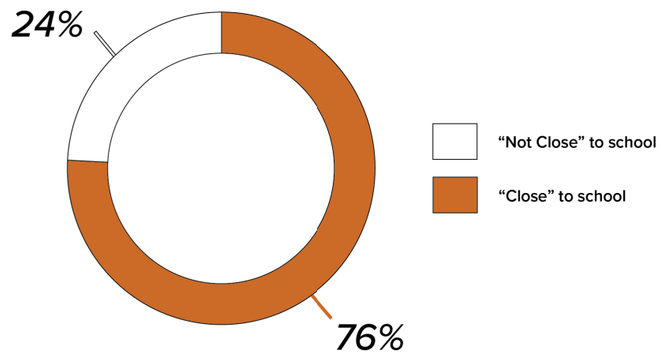


Figure O5.

Parent Surveys

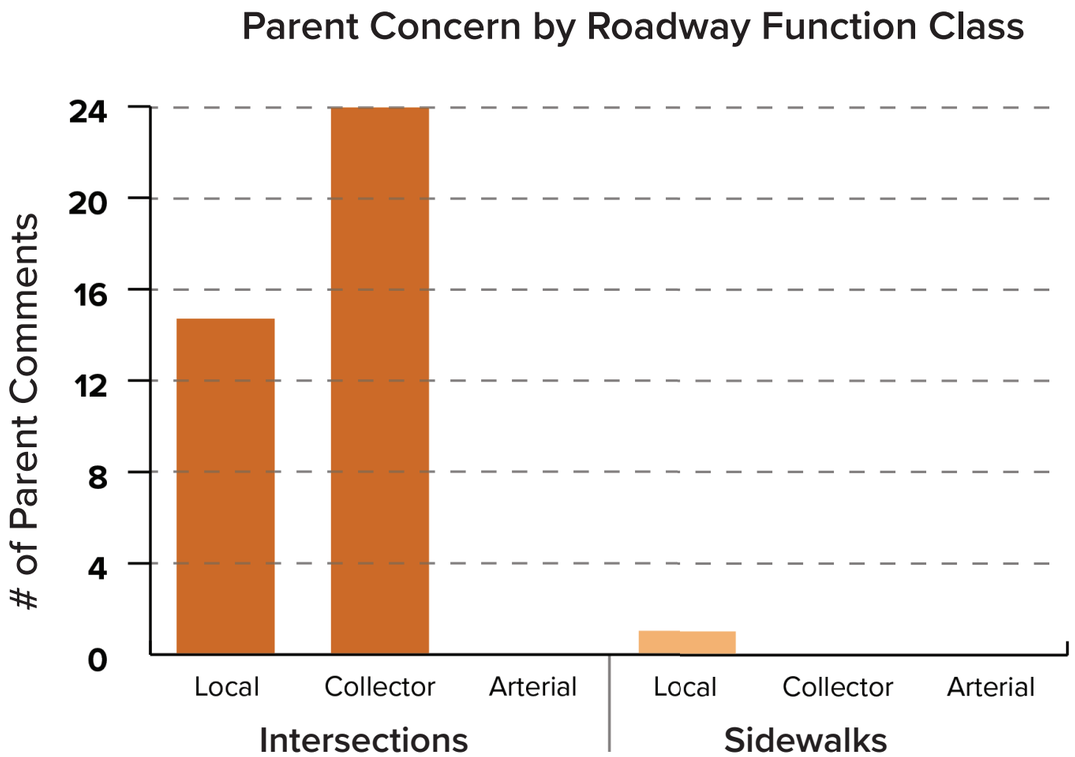


Figure O6.

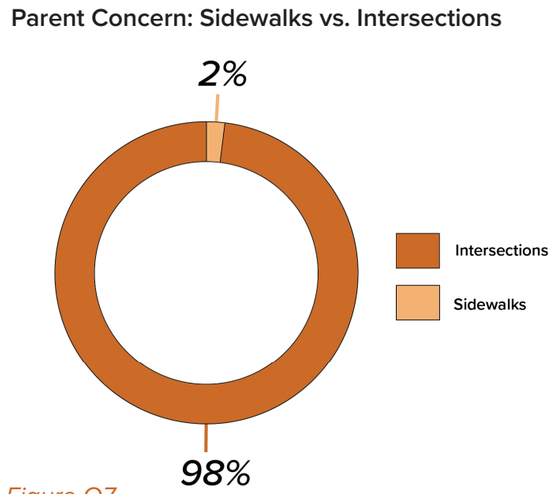


Figure O7.

Parents of Oliver Brown Elementary students, overwhelmingly focused comments on intersections, specifically those of collector streets. While these are few in number, they are safety concerns for parents, and therefore are barriers for students walking and biking to school.

Figures O6 through O9 highlight respondents' concerns.

Parent Responses

Figure O8.

OLIVER BROWN ELEMENTARY | *Survey Summary*

How does your child get to school?

55%

45%

What grade would you let your child walk to school alone?

K	0%
1	2%
2	10%
3	14%
4	39%
5	16%
never	18%

50%
of parents believe a stranger may take their children while walking to school.

86%
of parents support or are interested in Walking School Buses.

69%
of parents who drive their children to school believe it's easier or more convenient than walking or biking.

83%
of parents who let their children walk or bike to school are concerned their child may be hit by a vehicle.

Especially at intersections... but certain intersections more than others.

38% local roads

62% collectors and arterials

Figure 09.

OLIVER BROWN ELEMENTARY | *Safe Routes*

Safe Routes Map

Figure O10.

Safe Routes

Designated Safe Routes are corridors leading to Oliver Brown Elementary, as shown in Figure O10. Projects located along Safe Routes are prioritized to provide a high level of impact.

Green Valley Road: US-24 to Junietta Road

Junietta Road: Green Valley Road to Jackie's Way

Elk Creek Road: Green Valley Road to Excel Road

Excel Road: Elk Creek Road to Harvester Road

Excel Road: Future Extension: Harvester Road to Dave Drive

Harvester Road: Excel Road to Lake Elbo Road.

Sidewalk Condition

The residential neighborhoods surrounding Oliver Brown Elementary have a fairly complete network. This trend, however, does not extend to the collector and arterial roadway. This lack of sidewalk results in several subdivisions being inaccessible to students outside of a vehicle. Additionally, these larger roadways only have sidewalk on one side (Figure O10). What sidewalk does exist is in very good condition, as the areas and infrastructure are new. This can be seen in the 100% of sidewalk in good condition (Figure O11).

Safe Route Sidewalks by Condition

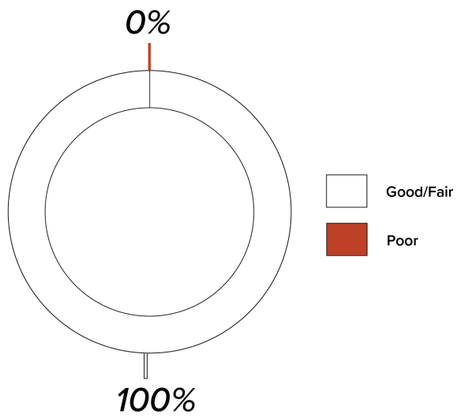


Figure O11.

Thank you to K-State Prof. Shakil Kashem and students in his Plan 836 course for their work collecting sidewalk condition data.

Recommended Project Map

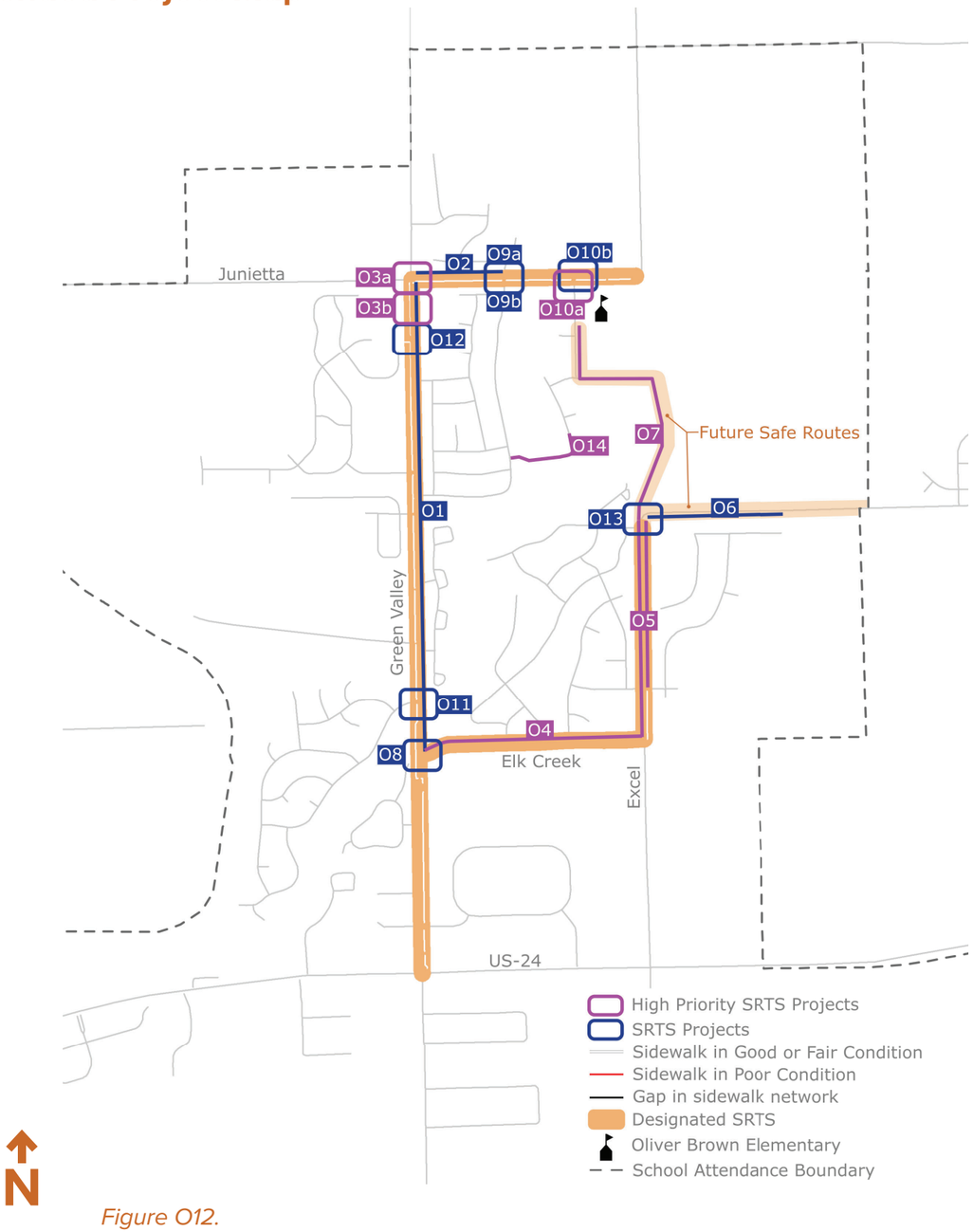


Figure O12.

Figure O12 maps the recommended projects for Oliver Brown Elementary. These projects were based upon sidewalk condition data, parental comments, and school administration meetings. Projects are focused around the designated Safe Routes to maximize impact and safety on key corridors and at critical intersections.

A full list of projects can be found in Figure O13a and O13b, with detailed information on the following pages. High Priority projects have additional information, including diagrams and engineering cost estimates.

OLIVER BROWN ELEMENTARY | *Recommended Project Table*

ID	Location	Type	Improvement	Project Details	BPSP Project	2015 SRTS Project	ATA Partner Project	Demo/Semi-Perm. Eligible	FHWA STEP	High Priority
O1	Green Valley Road	Sidewalk	New Sidewalk	Install sidewalks on the east side of Green Valley Road from Elk Creek Road to Junietta Road.						
O2	Junietta Road	Sidewalk	New Sidewalk	Install sidewalk on the north side of Junietta Road from Green Valley Road to Nature Avenue.						
O3a	Green Valley Road at Junietta Road	Crossing	Multiple Options	Improve the crossing of Green Valley Road at Junietta Road following an engineering study.						●
O3b	Green Valley Road at Junietta Road	Crossing	Mid-block ped island, RRFBs, and new sidewalk	Install a mid-block pedestrian island with crosswalk, ADA ramps, and RRFBs approximately 250ft south of Junietta Road on Green Valley Road. Install sidewalk on the east side of Green Valley Road north to Junietta Road sidewalk.					●	●
O4	Elk Creek Road	Sidewalk	New Sidewalk	Install sidewalks on the north side of Elk Creek Road from Green Valley Road to Excel Road.						●
O5	Excel Road	Sidewalk	New Sidewalk	Install sidewalks on both sides of Excel Road from Elk Creek Road to Harvest Road.						●
O6	Harvest Road	Sidewalk	New Sidewalk	When Tyler Court connects to Harvest Road, install sidewalk along Harvest Road from Excel Road to Tyler Court.						
O7	Excel Road Extension	MUP	New MUP	Install a new Multi-use Path from the intersection of Excel and Harvest Roads north, across the creek, to Dave Drive and on to Oliver Brown. This extension could parallel an Excel Road extension, or be independent as a trail connection.						●

Figure O13a.

OLIVER BROWN ELEMENTARY | *Recommended Project Table (continued)*

ID	Location	Type	Improvement	Project Details	BPSP Project	2015 SRTS Project	ATA Partner Project	Demo/Semi-Perm. Eligible	FHWA STEP	High Priority
O8	Green Valley Road at Elk Creek Road	Crossing	Multiple Options	Upon the completion of project O4 (Elk Creek Road sidewalk), this intersection crossing should be improved to a level beyond standard painted crosswalks.						
O9a	Nature Avenue at Junietta Road	Crossing	RRFBs	Install RRFBs at the eastern side crossing of Junietta Road at Nature Avenue.					●	
O9b	Nature Avenue at Junietta Road	Crossing	Mid-block ped island and RRFBs	Upon the completion of Junietta Road expansion to a three lane roadway, extend sidewalk on the north side of Junietta to a mid-block pedestrian island crossing and relocate the RRFBs.					●	
O10a	Jackie's Way at Junietta Road	Crossing	Crosswalk	Install a Continental or Ladder Hi-Visibility crosswalk across Jackie's Way. Recommended median extension with median nose to provide pedestrian island.					●	
O10b	Junietta Road at Jackie's Way	Crossing	RRFBs	Install RRFBs at the eastern side crossing of the Junietta Road at Jackie's Way.					●	●
O11	Eagle's Landing	Crossing	Median Extension	Extend the existing median on Eagle's Landing east, terminating in line with the existing Green Valley Road curb line to provide a pedestrian island for the sidewalk along Green Valley Road.						
O12	Kinzie Jo's Way	Crossing	Median Extension	Extend the existing median on Kinzie Jo's Way east, terminating in line with the existing Green Valley Road curb line to provide a pedestrian island for the sidewalk along Green Valley Road.						
O13	Excel Road at Harvest Road	Crossing	Multiple Options	During the planning and design of the paving of Excel Road and/or Harvest Road and/or the extension of Excel Road north towards Dave Drive, engineering staff should propose a safe crossing, above and beyond standard painted crosswalks.						
O14	Elbo Creek: Nature Avenue to Raven Creek Drive	Creek Crossing	Bridge and Sidewalk	Install a pedestrian bridge across Elbo Creek, sidewalk extending to Nature Avenue on the west and the utility access road off of Raven Creek Drive.						●

Figure O13b.

O1 Green Valley Road

Figure O14. Proposed sidewalk on Green Valley Road.

This project would install a sidewalk on the east side of Green Valley Road from Elk Creek Road north to Junietta Road. As a major collector roadway, Green Valley Road should have sidewalks on both sides of the roadway, allowing residents to limit road crossings.

By adding this sidewalk, students living in Timber Creek would have a sidewalk connection to school. Currently, students must cross the busy Green Valley Road without a crosswalk, then walk north to cross Green Valley Road again to continue on a sidewalk. Not only is this not safe, but also not efficient and practical, but it is not supportive of walking and biking to school.

O2 Junietta Road

Figure O15. Proposed sidewalk on Junietta Road.

This project would install a sidewak on the north side of Junietta Road from Green Valley Road to Nature Ave. As a major collector, Junietta Road should have sidewalks on both sides of the road.

This project will become increasingly needed as development continues north of Junietta Road. Connecting to the future improved crossing at Green Valley Road (see Project O3a) would increase safety for those walking & biking, as well as provide access to Oliver Brown.

O3a Green Valley Road at Junietta Road

HIGH PRIORITY PROJECT

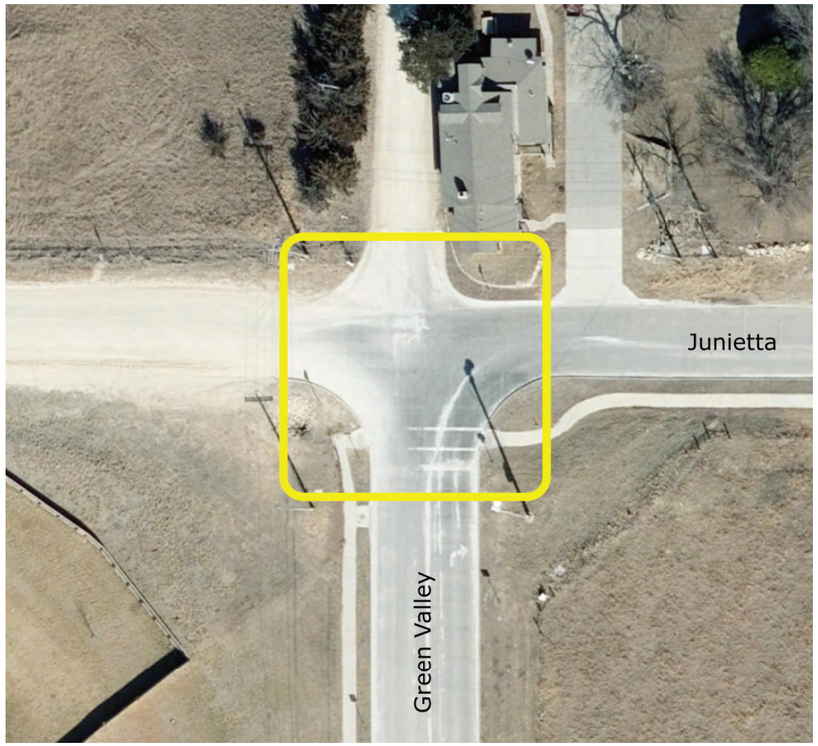


Figure O16. Location of proposed engineering study.

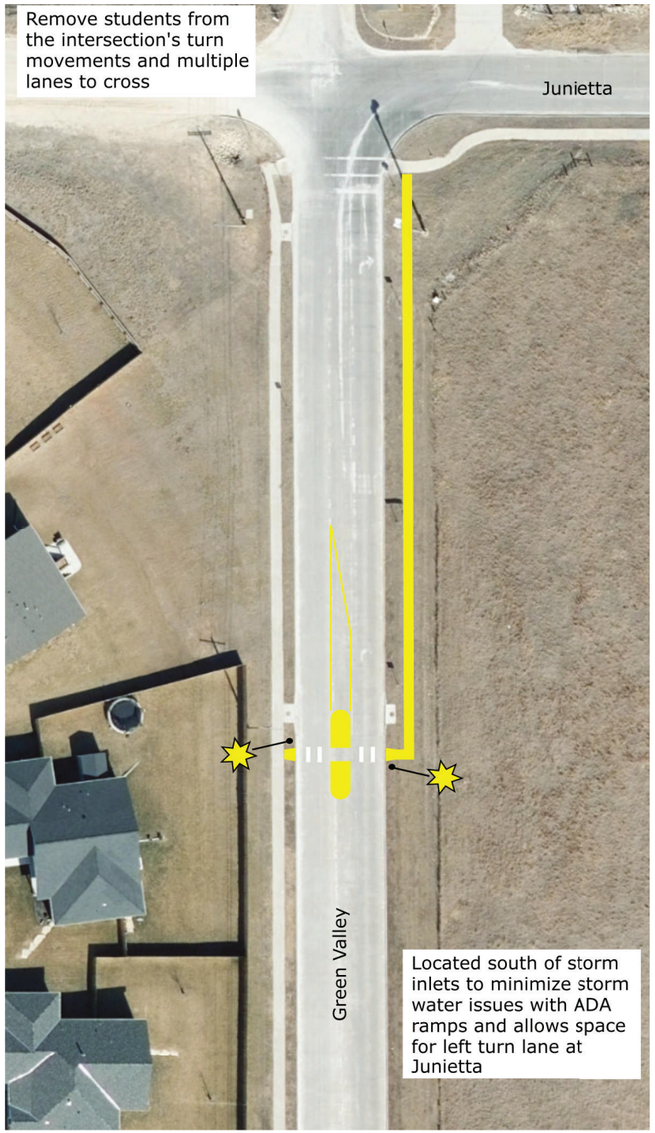
With the growth in the Green Valley Road corridor continuing, traffic follows suit. Therefore, an engineering study should be conducted for this intersection. This study should recommend improvements that address the safety of people walking and biking.

Short Term

This solution can be implemented in the short term, while Project 3B is a longer-term solution.

O3b Green Valley Road at Junietta Road

HIGH PRIORITY PROJECT



Long Term

Figure O17. Proposed improvements at the intersection of Green Valley and Junietta.

The intersection of Green Valley Road and Junietta Road was the location of most concern in parent surveys. Despite future studies and projects yet to be identified in project O3a, this project should be pursued in the near term.

Utilizing FHWA's Safe Transportation For Every Pedestrian (STEP) proven Pedestrian Island countermeasure, students walking and biking to school will be able to avoid the dangerous and wide intersection to the north.

Placing the pedestrian island roughly 250ft south of the intersection allows the left turn lane on Green Valley to be preserved, with plenty of length for future traffic. Additionally, it places the ADA ramps just south and downslope of the existing stormwater inlets, removing issues with stormwater.

The sidewalk extension on the east side of Green Valley Road is also addressed in project O1. However, if this project precedes project O1, the sidewalk should be built to extend north to Junietta Road.

04 Elk Creek Road
HIGH PRIORITY PROJECT

Figure O18. Proposed sidewalk on Elk Creek Road.

This project would install a sidewalk on the north side of Elk Creek Road from Green Valley Road to Excel Road. As a Collector, Elk Creek Road should have a sidewalk on at least one side. This sidewalk would connect the Timber Creek neighborhoods to the new Green Valley Road multi-use and provide a route to Oliver Brown and the services along US-24.

05 Excel Road
HIGH PRIORITY PROJECT

Figure O19. Proposed sidewalk on Excel Road.

This project would install sidewalks on both the west and east side of Excel Road. As these sidewalks could be done together or individually, please see the details below.

West side: This segment would extend south to Elk Creek Road, where, through a new crosswalk, it would connect to the existing sidewalk down to US-24. The sidewalk would extend north towards Harvest Road. Additionally, a segment should be installed that connects the Timber Creek neighborhood sidewalk via the gas pipeline easement.

East side: This segment would extend from Cara's Way north to Harvest Road, allowing for connection to future development.

Crossings: Crossings are key to ensuring the neighborhoods east of Excel Road have connection to Oliver Brown. A mid-block crossing (potentially in line with the Timber Creek sidewalk) would allow for students to cross safely while heading in the direction of school (assuming Excel Road is extended north towards Junietta; see Project O7).

06 Harvest Road

Figure O20. Proposed sidewalk.

This project would install a sidewalk on the south side of Harvest Road from Excel Road east to the future subdivision road connection. With continued growth along Harvest Road, this sidewalk would connect to the proposed Excel Road sidewalks (projects O5 & O7) allowing students to walk or bike to Oliver Brown Elementary.

07 Excel Road Extension

HIGH PRIORITY PROJECT

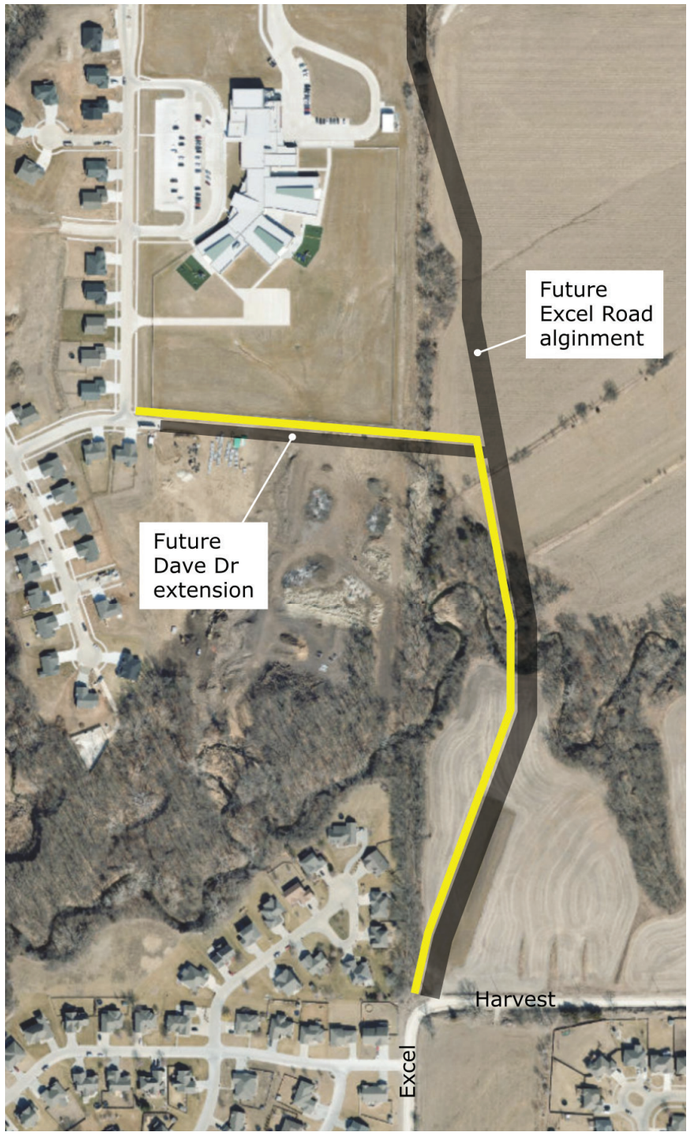


Figure O21. Proposed multi-use path.

This project would create a vital connection for the neighborhoods along Excel and Harvest Road to Oliver Brown Elementary. Because of the proximity of housing and students, this connection should be a multi-use path to allow for the amount of users expected.

The routing of the multi-use path should follow the right-of-way of the planned Excel Road connection from Harvest Road to Dave Drive. Upon crossing Dave Drive, the path would parallel Dave Drive west to the existing Jackie's Way sidewalk.

O9a Nature Avenue at Junietta Road

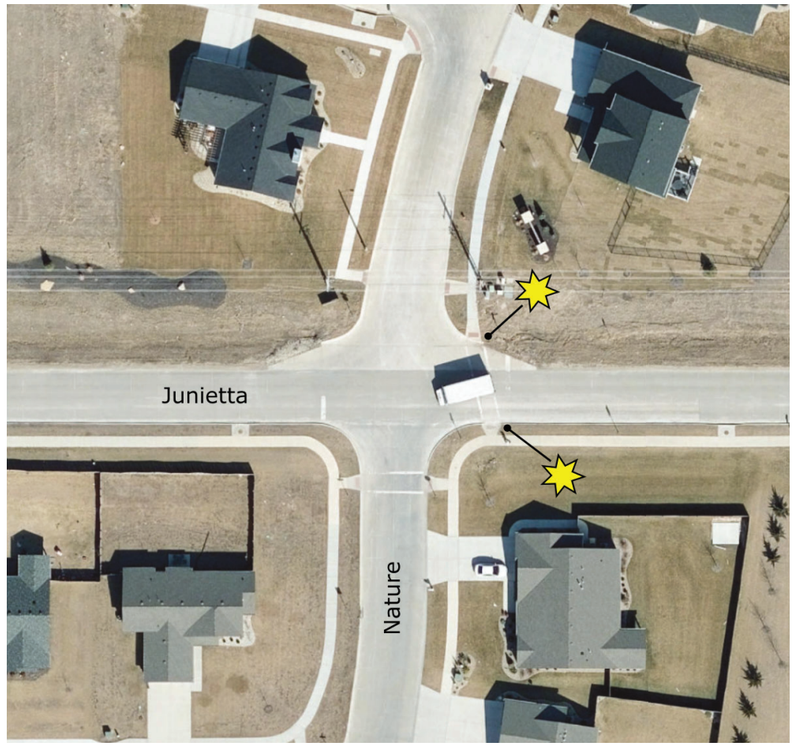


Figure O22. Proposed RRFBs.

With the continued development north of Junietta combining with the high traffic volumes at school drop-off and pick-up, the existing crossing is not satisfactory. Therefore, this project would install RRFBs to increase visual warning to drivers of students crossing the roadway.

O9b Nature Avenue at Junietta Road

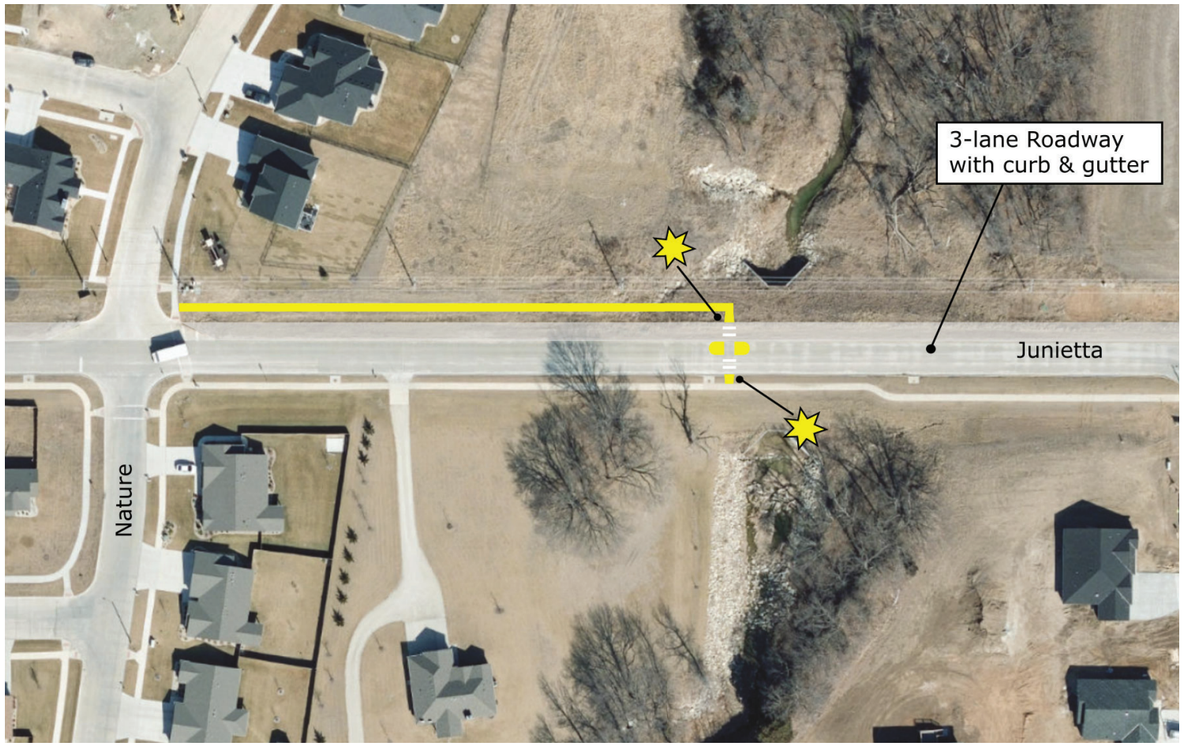


Figure O23. Proposed mid-block pedestrian island with RRFB.

This project would move the crossing of Junietta Road to a mid-block crossing. Doing so would simplify the crossing by eliminating the turn movements students must observe and judge, as well as provide a pedestrian island allowing them to cross only one lane of traffic at a time. Additionally, RRFBs could be added to the crossing to increase visual warning for drivers.

O10a Junietta Road at Jackie's Way

Figure O24. Median extension of Pedestrian Island.

Figure O25. Demonstration Project 2021.

Figure O26. Demonstration Project 2021.

In September of 2021, the Flint Hills MPO installed this project as a Demonstration Project. While only present for two weeks, the project's elongated median defined and narrowed the roadway, resulting in tighter turn radii and thus slower turning vehicles. The slower speeds, together with the Pedestrian Island (within median) created a safer environment for students, and was supported by parents. Figures O25 & O26 show the Demonstration Project.

Project O10a would recreate the Demonstration Project, but it would be built with concrete and be permanent. The median on Jackie's Way would be extended north to the intersection. A Pedestrian Island would be created with a gap of the median in line with the sidewalk. Crosswalk markings would also be installed.

Demo Project

This project was implemented as a **Demonstration Project** to test the layout. Upon success of the project, it could be installed as a **Semi-Permanent Project** for several years until final construction can be completed.

O10b Jackie's Way at Junietta Road

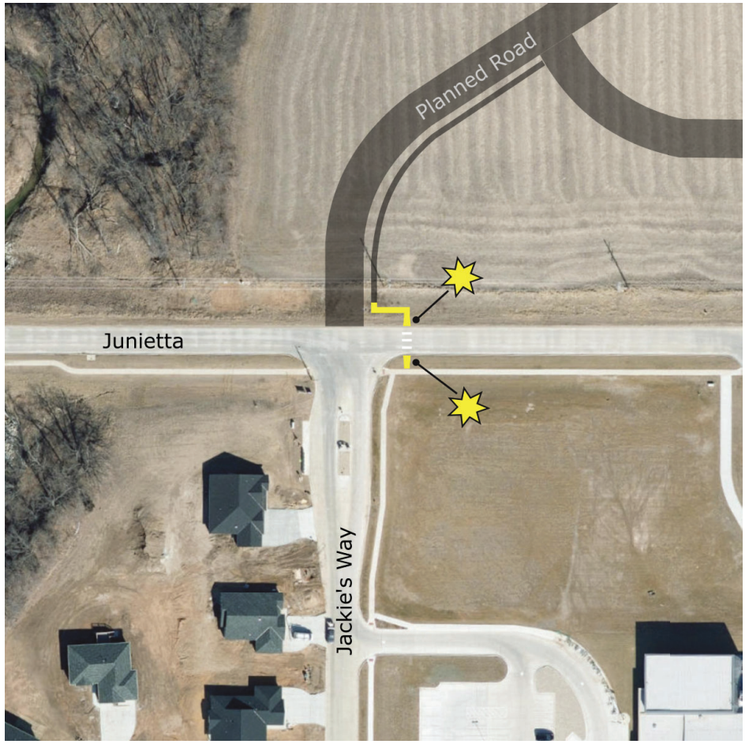


Figure O27. Proposed crossing with RRFBs.

This project will address future students living north of Junietta Road by creating a safe crossing. Installation of a sidewalk would connect with the future subdivision sidewalks, and jog east before crossing Junietta Road. RRFPs should accompany the crosswalk.

Project O10b can accompany Project O10a, but can also be independent of it.

O11 Eagle's Landing

Figure O28. Proposed median extension with Pedestrian Island.

This project would extend the median towards the intersection, thus creating a Pedestrian Island and adding crosswalk markings. This project was tested as a Demonstration Project in 2021 and found to be successful.

The biggest improvement for people walking came from the slowing of left turning vehicles from Green Valley Road on to Eagle's Landing. With the median extension, vehicles could no long cut the corner at high speeds. Further, the crossing was simplified (only one direction of vehicles at a time) and crossing distance greatly shortened.

Demo Project

This project was implemented as a **Demonstration Project** to test the layout. Upon success of the project, it could be installed as a **Semi-Permanent Project** for several years until final construction can be completed.

O12 Kinzie Jo's Way

Figure O29. Proposed median extension with Pedestrian Island.

Similar to Project O11, this project would extend the median towards the intersection, thus creating a Pedestrian Island and adding crosswalk markings. This project was tested as a Demonstration Project in 2021 and found to be successful. The biggest improvement for people walking came from the slowing of left turning vehicles from Green Valley Road on to Kinzie Jo's Way. With the median extension, vehicles could no long cut the corner at high speeds (see the dark tire marks in the image above). Further, the crossing was simplified (only one direction of vehicles at a time) and crossing distance greatly shortened.

O13 Excel Road at Harvest Road

Figure O30. Future intersection crossing.

This project would install a crossing of Excel Road at Harvest Road. Completion is contingent upon the completion of the paving and urbanization of both Excel Road and Harvest Road. Additionally, this project could be installed as part of project O6 (Harvest Road Sidewalk). Regardless, this report proposes a crossing be installed. This crossing should be studied at the time of design and have features beyond a standard painted crosswalk.

O14 Elbo Creek: Nature Avenue to Raven Creek Drive

HIGH PRIORITY PROJECT

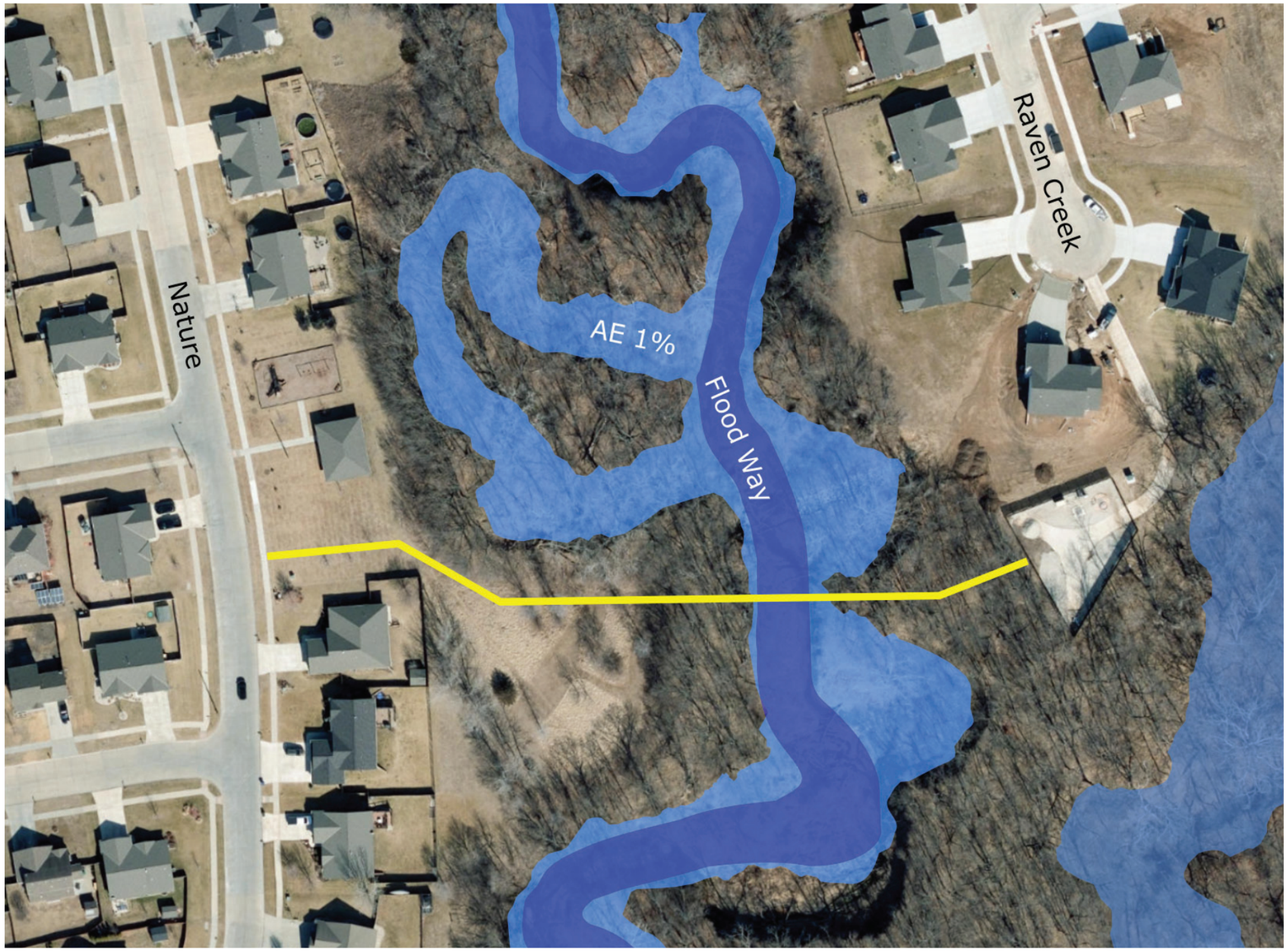


Figure O31. Proposed sidewalk.

This project would create a direct connection between Nature Avenue and Raven Creek Drive, and on to Oliver Brown Elementary. This connection would improve the walk to school for the many students living south along Nature Avenue and west of Green Valley Road including houses along Fox Ridge Drive, Eagle's Landing, Williams Drive, and Hughes Road. In addition to shortening the walk, the route would be much safer as it provides minimal street crossings and the removal of traffic.

Beginning at the sidewalk along the east side of Nature Avenue, a new sidewalk would head east through the neighborhood association's park land and creekside property before crossing Elbo Creek. From here, the sidewalk would continue east to the utility access road that connects to the southern end of Raven Creek Drive. A gate or access would need to be provided through the utility fence to access the roadway.

As Elbo Creek does have floodway, and 1% annual chance (AE) flood zone, the bridge would need to be studied by an engineer to ensure all weather access. In addition, creek bank erosion and stabilization should also be studied.

Walking School Bus Map

Figure O32.

The proposed Walking School Bus (WSB) route in Figure O32 showcases a route that connects the residential neighborhoods along Green Valley Road to Oliver Brown Elementary. At 1.65 miles, this route, while longer than most, is short enough for a student to easily walk, yet far enough and with numerous street crossings, that many parents are hesitant to let their children walk alone.

WSB Directions

- Start at Green Valley Road and Fox Ridge Drive
- North on Green Valley Road
- Stop at Green Valley Road and Elk Creek Road
- North on Green Valley Road
- Stop at Green Valley Road and Timber Creek Drive
- North on Green Valley Road
- Stop at Green Valley Road and Kinzie Jo's Way
- North on Green Valley Road
- East on Junietta Road
- Stop at Junietta Road and Nature Avenue
- East on Junietta road
- South on Jackie's Way
- End at Oliver Brown Elementary

THEODORE ROOSEVELT ELEMENTARY

Safe Routes Grade Card

Section	Item	Grade
Proximity	Residential parcels within 1 mile of school	**69%**
	Student addresses within 1 mile of school	**54%**
	Parent perception: "Close" to school	**63%**
Built Environment	Safe Route sidewalk connectivity	**100%** *of Safe Routes have sidewalks*
	Safe Route sidewalk condition	**94%** *of sidewalks rated Good or Fair*
	Intersection issues & comments	**100%** *of comments*
Safety Perception	Child will be hit by a vehicle	**67%** *feel this is likely*
	Child will be taken by a stranger	**0%** *feel this is likely*
	School zones well enforced	**10%** *agree*
Transportation	Student walking & biking to school (counts)	**Average**
	Students driven to school in private cars (survey)	**Low**

Figure R1.

The grade card in Figure R1 serves as a snapshot of key categories and data measures for Theodore Roosevelt Elementary. Colors in the "Grade" column reflect the school's score in relation to others across USD 383. **Green represents satisfactory or better**, **yellow average,** and **red below average or underperforming.**

With a very complete sidewalk network, and few major road crossings for many students, Roosevelt Elementary has low numbers of students driven to school, but only average numbers of students walk or bike. The projects identified in this chapter will address parental concerns with projects that improve safety and comfort."

THEODORE ROOSEVELT ELEMENTARY | *Walkability*

Walkability Map

Figure R2.

Walkability Data

Only 54% of current students live within 1 mile of school, despite nearly 70% of residences within the attendance zone located within the same distance (Figures R2, R3, & R4). The remaining students and addresses are found to the south of Fort Riley Boulevard and along the Stagg Hill corridor, where no safe connection is available and the distance too far for most to walk or bike.

Residential Addresses by Proximity

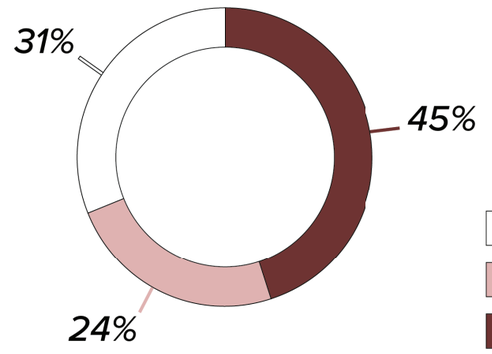


Figure R3.

Current Student Addresses by Proximity

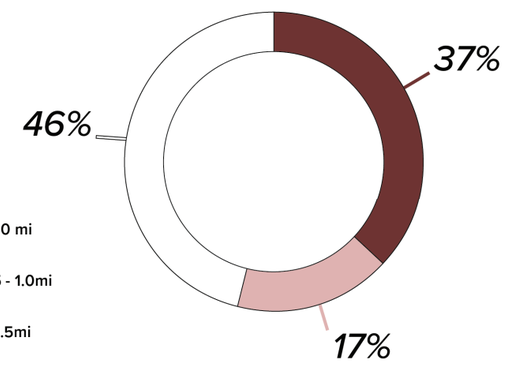


Figure R4.

Parent Perception

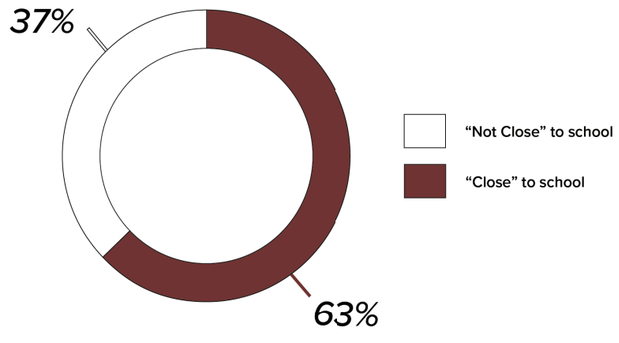


Figure R5.

Parent Surveys

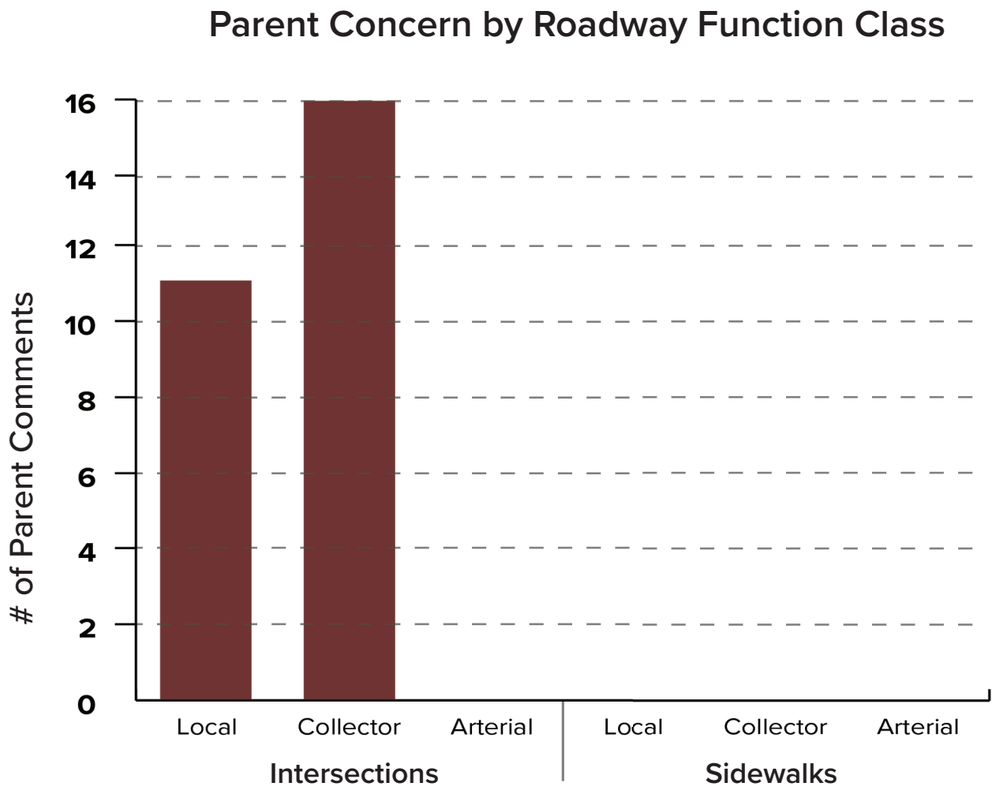


Figure R6.

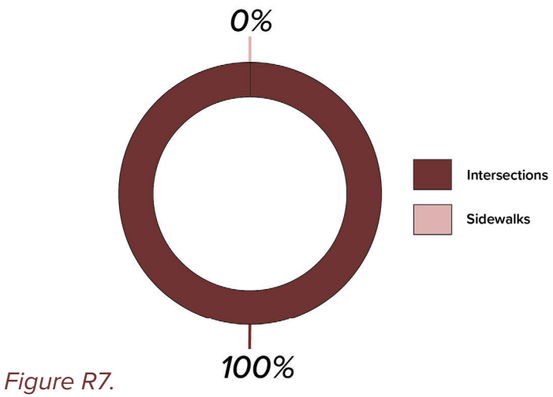


Figure R7.

All of the Roosevelt Elementary parents who responded to the survey listed intersections they found concerning; there were no comments on sidewalks. This is likely due (at least in part) to the good condition of Roosevelt Elementary's sidewalk network.

Figures R6 through R9 highlight comments from survey respondents.

Parent Responses

Figure R8.

THEODORE ROOSEVELT ELEMENTARY | *Survey Summary*

How does your child get to school?

14%

86%

K 0%
1 0%
2 0%
3 29%
4 29%
5 29%
never 14%

What grade would you let your child walk to school alone?

61%
of parents believe a stranger may take their children while walking to school.

86%
of parents support or are interested in Walking School Buses.

67%
of parents who drive their children to school believe it's easier or more convenient than walking or biking.

78%
of parents who let their children walk or bike to school are concerned their child may be hit by a vehicle.

Especially at intersections... but certain intersections more than others.

40% local roads

60% collectors and arterials

Figure R9.

Safe Routes Map

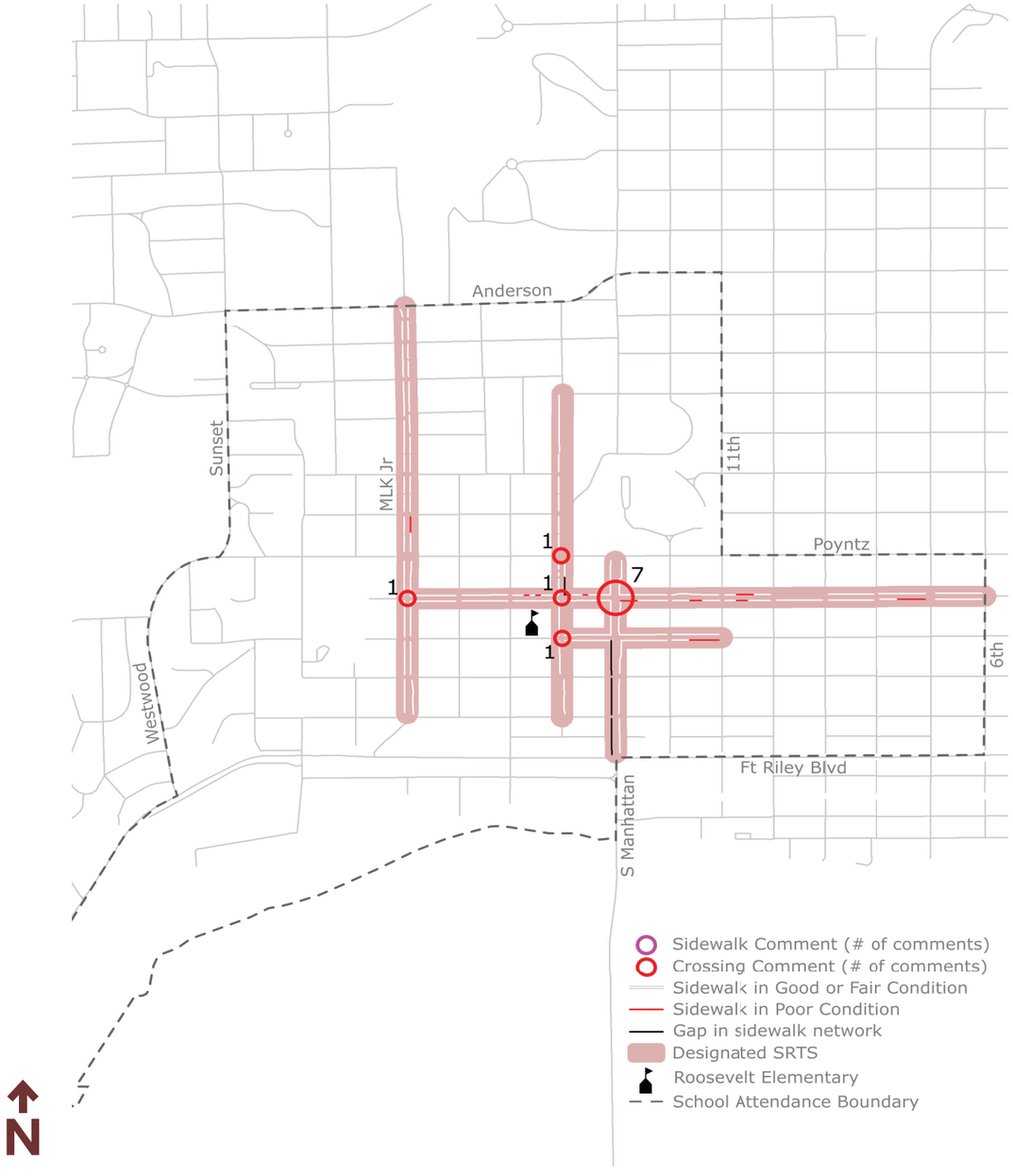


Figure R10.

Safe Routes

Designated Safe Routes are corridors leading to Roosevelt Elementary, shown in Figure R10. Projects located along Safe Routes are prioritized to provide a high level of impact.

Houston Street: 6th Street to MLK Jr. Drive.

S Manhattan Avenue: Fort Riley Boulevard to Poyntz Avenue.

14th Street: Yuma Street to Fremont Street.

MLK Jr Drive: Yuma Street to Anderson Avenue.

Sidewalk Condition

The neighborhoods surrounding Roosevelt have a good network of sidewalks. There is however a large gap along South Manhattan Avenue, and a few (6%) sidewalks along the designated Safe Routes are rated “Poor” (Figures R10 and R11).

Safe Route Sidewalks by Condition

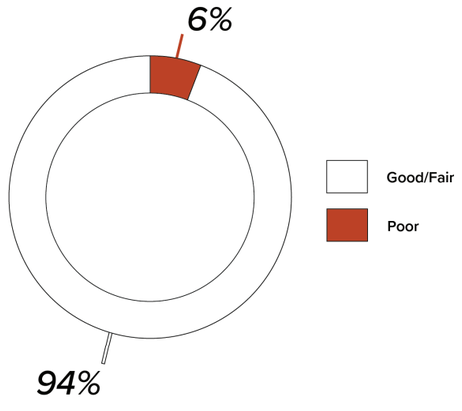


Figure R11.

Thanks to K-State Prof. Shakil Kashem and students in his Plan 836 course for their work collecting sidewalk condition data.

Recommended Project Map

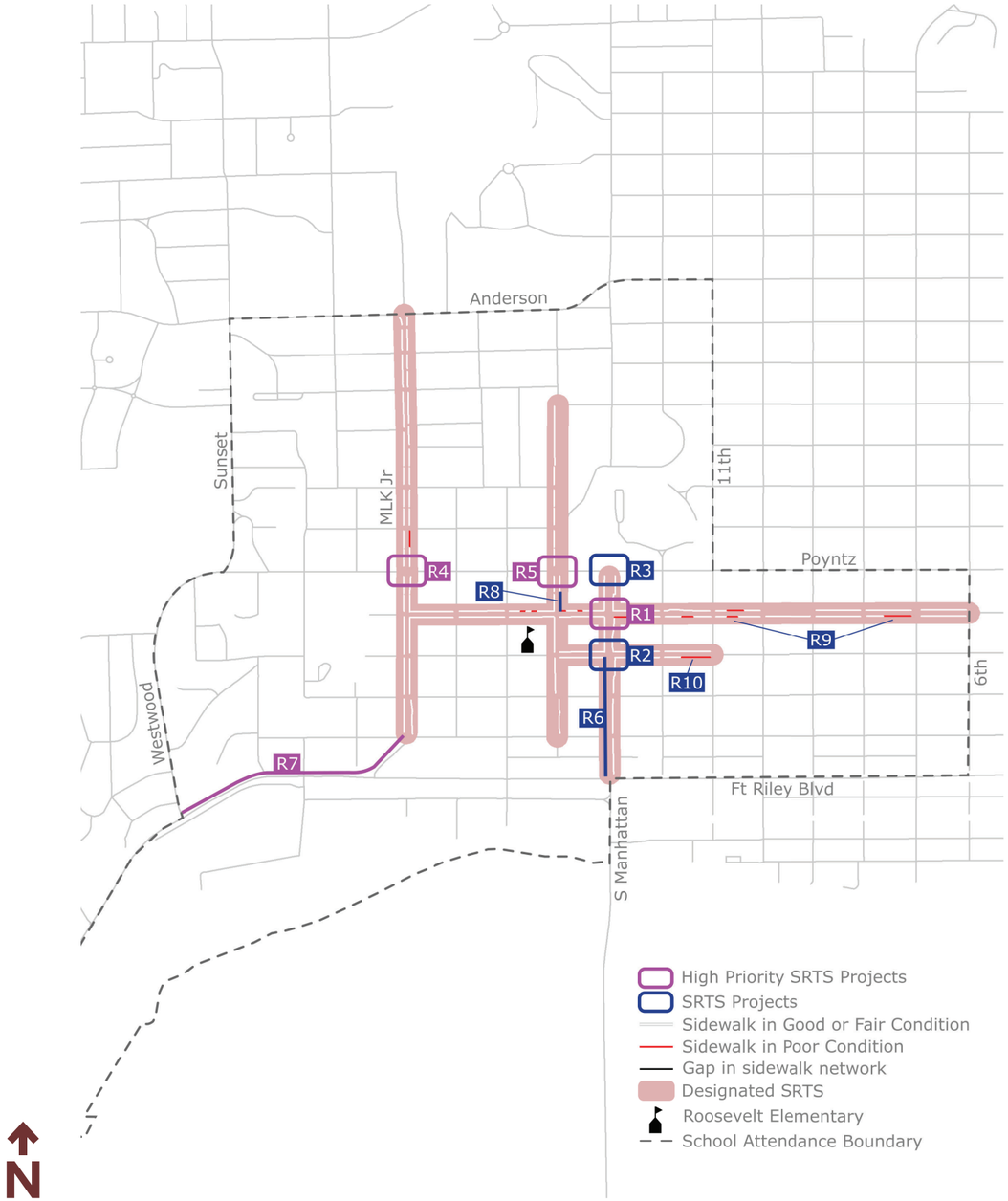


Figure R12.

Figure R12 maps the recommended projects for Theodore Roosevelt Elementary. These projects were based upon sidewalk condition data, parental comments, and school administration meetings. Valid projects remaining from the 2015 SRTS report have also been included.

Projects are focused around the designated Safe Routes to maximize impact and safety on key corridors and at critical intersections.

A full list of projects can be found in Figure R13, with detailed information on the following pages. High Priority projects have additional information, including diagrams and engineering cost estimates.

THEODORE ROOSEVELT ELEMENTARY | *Recommended Project Table*

ID	Location	Type	Improvement	Project Details	BPSP Project	2015 SRTS Project	ATA Partner Project	Demo/Semi-Perm. Eligible	FHWA STEP	High Priority
R1	S Manhattan Avenue at Houston Street	Crossing	Curb Extensions	Install crosswalk, signage, and curb extensions on S Manhattan Ave.				●	●	●
R2	S Manhattan Avenue at Pierre Street	Crossing	Curb Extensions	Install crosswalk, signage, and curb extensions on S Manhattan Ave.				●	●	
R3	Poyntz Avenue at S Manhattan Avenue	Crossing	Curb Extension and Ped Island	Remove existing crosswalk. Install new crosswalk on west side of intersection with curb extension on SW corner and ped island in unused turn lane.				●	●	
R4	Poyntz Avenue and MLK Jr Drive	Crossing	LPI	Upgrade existing signals with Lead Pedestrian Intervals (LPIs).			●		●	●
R5	14th Street and Poyntz Avenue	Crossing	LPI	Upgrade existing signals with Lead Pedestrian Intervals (LPIs).					●	●
R6	S Manhattan Avenue	Sidewalk	New Sidewalk	Install sidewalk along the west side of S Manhattan Avenue from Pierre Street to Ft. Riley Boulevard.		●				
R7	Ft. Riley Boulevard	Sidewalk	New Sidewalk	Install sidewalk or multi-use path (MUP) on the north side of Ft Riley Boulevard from Westwood Road to MLK Jr. Drive and Yuma Street.	●	●				●
R8	14th Street	Sidewalk	New Sidewalk	Install sidewalk on the east side of 14th Street from Houston Street, north to existing sidewalk at the alley.						
R9	Houston Street	Sidewalk	Replace Sidewalk	Replace “Poor” condition sidewalk along both sides of Houston Street from Juliette Avenue to 15th Street.						
R10	Pierre Street	Sidewalk	Replace Sidewalk	Replace “Poor” condition sidewalk in the 1100 Block of Pierre Street.						

Figure R13.

R1 S Manhattan Avenue at Houston Street

HIGH PRIORITY PROJECT

Estimated Project Cost:
537,157

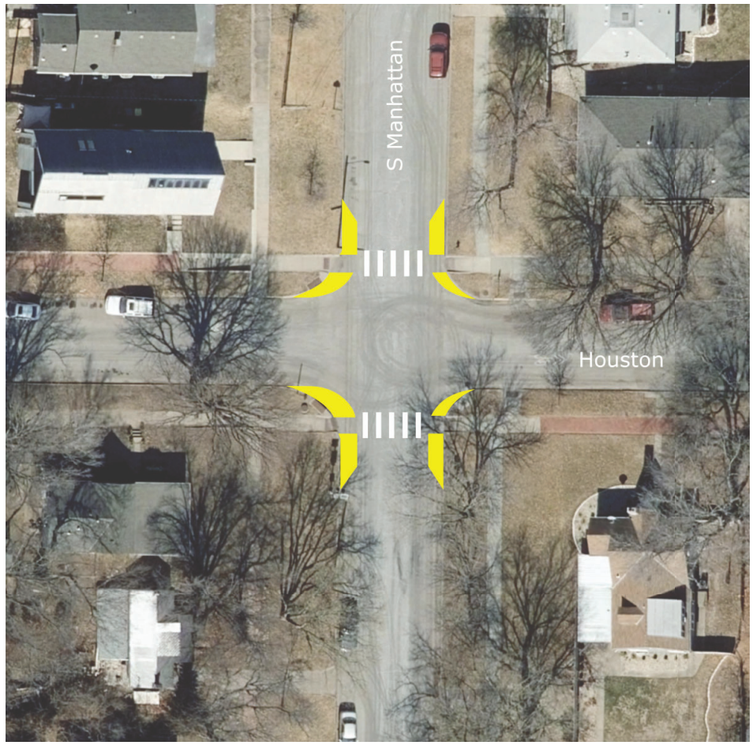


Figure R14. Proposed intersection improvements.

Demo Project

This project can be implemented in the near-term as a **Demonstration Project** to test the layout. Upon success of the project, it could be installed as a **Semi-Permanent Project** for several years until final construction could be completed.

School administration and multiple survey respondents expressed concern about this particular intersection. Current conditions are unsafe, with no marked crossings and some northbound drivers accelerating as they exit the school zone. This project would install a crosswalk, signage, and curb extensions on S Manhattan Avenue. Testing layouts would be possible through demonstration and semi-permanent projects.

As a high priority project, this project has a detailed engineering cost estimate located in Appendix D.

R2 S Manhattan Avenue at Pierre Street

Figure R15. Proposed intersection improvements.

Demo Project

This project can be implemented in the near-term as a **Demonstration Project** to test the layout. Upon success of the project, it could be installed as a **Semi-Permanent Project** for several years until final construction could be completed.

Parents expressed concerns that drivers do not adhere to the posted school zone speed limit at this intersection or yield at the crosswalk. This project would install additional crosswalks across Pierre Street, improve signage, and place curb extensions at the intersection. These interventions aim to reduce the speed of drivers and make it safer for pedestrians to cross.

R3 Poyntz Avenue at S Manhattan Avenue

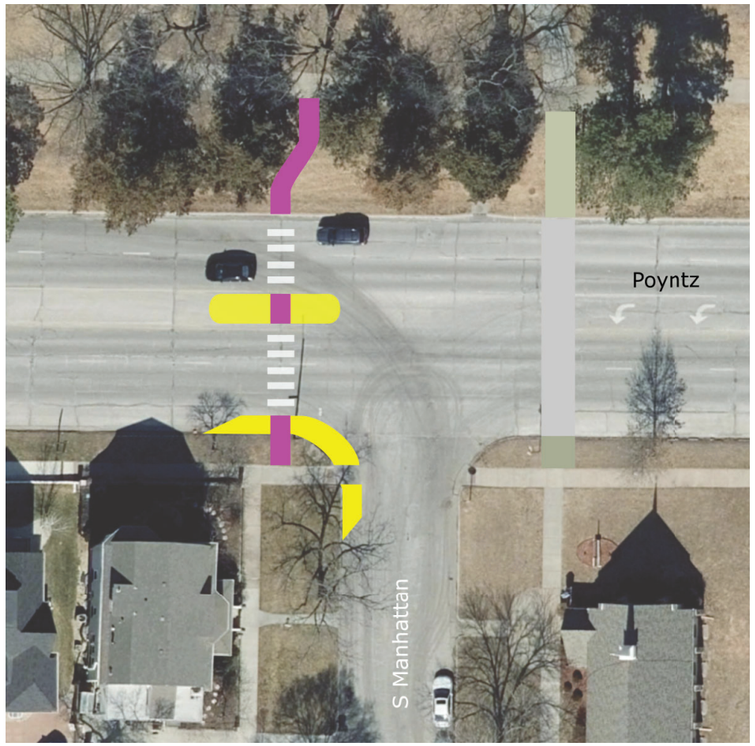


Figure R16. Proposed intersection interventions.

Demo Project

This project can be implemented in the near-term as a **Demonstration Project** to test the layout. Upon success of the project, it could be installed as a **Semi-Permanent Project** for several years until final construction could be completed.

This project would remove the existing crosswalk and install a new crosswalk on the west side of the intersection of S Manhattan and Poyntz. In addition, the project would introduce a curb extension on the southwest corner of the intersection and a pedestrian island in the unused turn lane. A pedestrian island would allow pedestrians to make two shorter journeys instead of crossing the entire four-lane road at once. Testing layouts would be possible through demonstration and semi-permanent projects.

R4 Poyntz Avenue and MLK Jr Drive

HIGH PRIORITY PROJECT

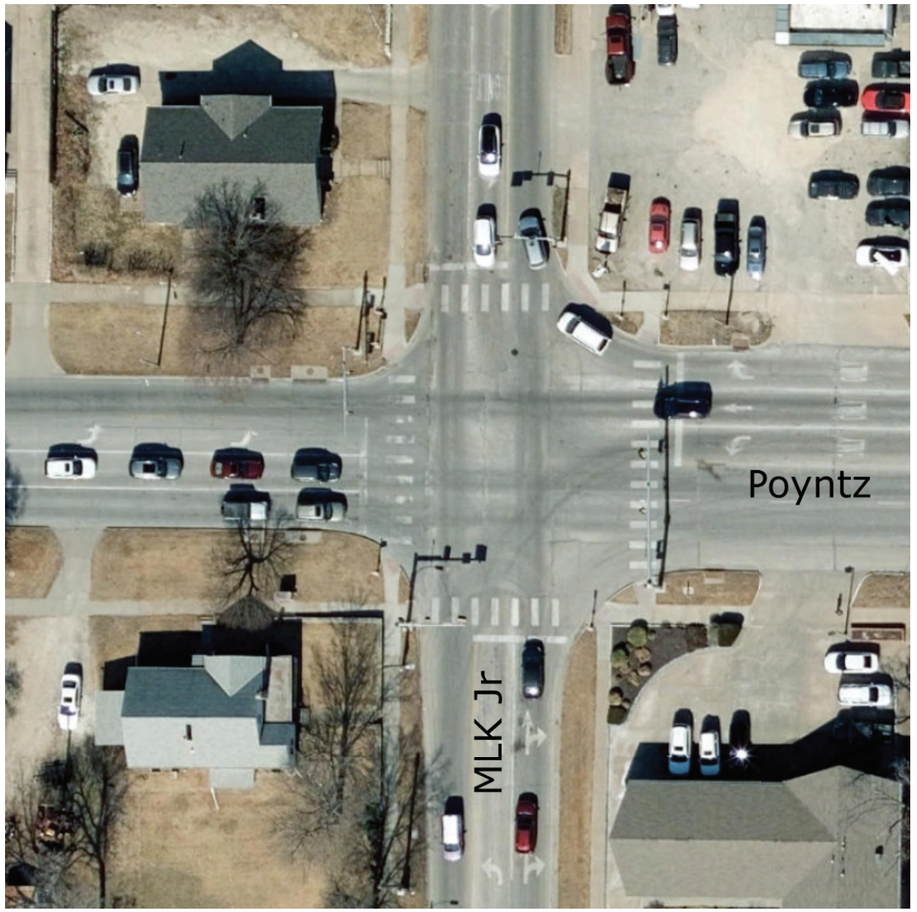


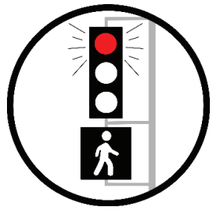
Figure R17. Location of proposed LPIs.

LPI

This project would upgrade the existing signals at this intersection with Lead Pedestrian Intervals (LPIs), improving the visibility of pedestrians to drivers. For more detailed information on LPIs, see the Intro chapter.

R5 14th Street and Poyntz Avenue

HIGH PRIORITY PROJECT



LPI

Figure R18. Location of proposed LPIs.

This project involves adding Lead Pedestrian Intervals (LPIs) to the existing signals, improving the visibility of pedestrians to drivers at this busy intersection. For more detailed information on LPIs, see the Intro chapter.

R6 S Manhattan Avenue

Figure R19. Proposed sidewalk installation.

This project would add sidewalk to the west side of S Manhattan Avenue from Pierre Street to Ft Riley Boulevard. This would create an important connection with the existing sidewalk on the north side of Ft Riley Boulevard.

R7 Ft. Riley Boulevard

HIGH PRIORITY PROJECT

Estimated Project Cost:
1,722,834

Figure R20. Proposed MUP.

This project would close the sidewalk gap between Westwood Road and MLK Jr. Drive along Fort Riley Boulevard. This connection has long been identified as a major need as it would provide a direct and safe connection to the neighborhoods along Fort Riley Boulevard and the assets to the west.

R8 14th Street

Figure R21. Proposed sidewalk addition.

This project would fill the sidewalk gap on the east side of 14th Street between Houston Street and the alley, thus improving the connection from Poyntz Avenue.

R9 Houston Street

Figure R22. Proposed sidewalk addition.

This project would reconstruct sidewalk in poor condition along Houston Street. As this area is within the US Census defined LMI areas, properties along Houston would be able to access a proposed City-run cost share program.

R10 Pierre Street

Figure R23. Proposed sidewalk addition.

This project would reconstruct sidewalk in poor condition along Pierre Street. As this area is within the US Census defined LMI areas, properties along this segment would be able to access a proposed City-run cost share program.

Walking School Bus Map

Figure R24.

The proposed Walking School Bus (WSB) route in Figure R24 showcases a route that connects the housing along Yuma Street to Roosevelt Elementary. This route is acceptable as it is short enough for a student to easily walk, yet far enough and with numerous street crossings, that many parents are hesitant to let their children walk alone.

WSB Directions

- Start at Juliette Avenue and Yuma Street
- West on Yuma Street
- Stop at Yuma Street and 11th Street
- North on 11th Street
- West on Pierre Street
- North on South Manhattan Avenue
- Stop at South Manhattan Avenue and Houston Street
- West on Houston Street
- End at Roosevelt Elementary

WOODROW WILSON ELEMENTARY

Safe Routes Grade Card

Section	Item	Grade
Proximity	Residential parcels within 1 mile of school	**68%**
	Student addresses within 1 mile of school	**37%**
	Parent perception: "Close" to school	**69%**
Built Environment	Safe Route sidewalk connectivity	**100%** *of Safe Routes have sidewalks*
	Safe Route sidewalk condition	**92%** *of sidewalks rated Good or Fair*
	Intersection issues & comments	**100%** *of comments*
Safety Perception	Child will be hit by a vehicle	**100%** *feel this is likely*
	Child will be taken by a stranger	**100%** *feel this is likely*
	School zones well enforced	**25%** *agree*
Transportation	Student walking & biking to school (counts)	**Low**
	Students driven to school in private cars (survey)	**Average**

Figure W1.

The grade card in Figure W1 serves as a snapshot of key categories and data measures for Wilson Elementary. Colors in the "Grade" column reflect the school's score in relation to others across USD 383. **Green represents satisfactory or better**, **yellow average,** and **red below average or underperforming.**

Despite only 37% of students living within walking distance of their school, 69% of parents perceive their homes as "close" to school. However, the rate of students walking and biking to Wilson Elementary is still low. Projects in this chapter address issues at key intersections, as well as stretches of poor quality sidewalk that might dissuade students and parents from walking or biking to school.

Walkability Map

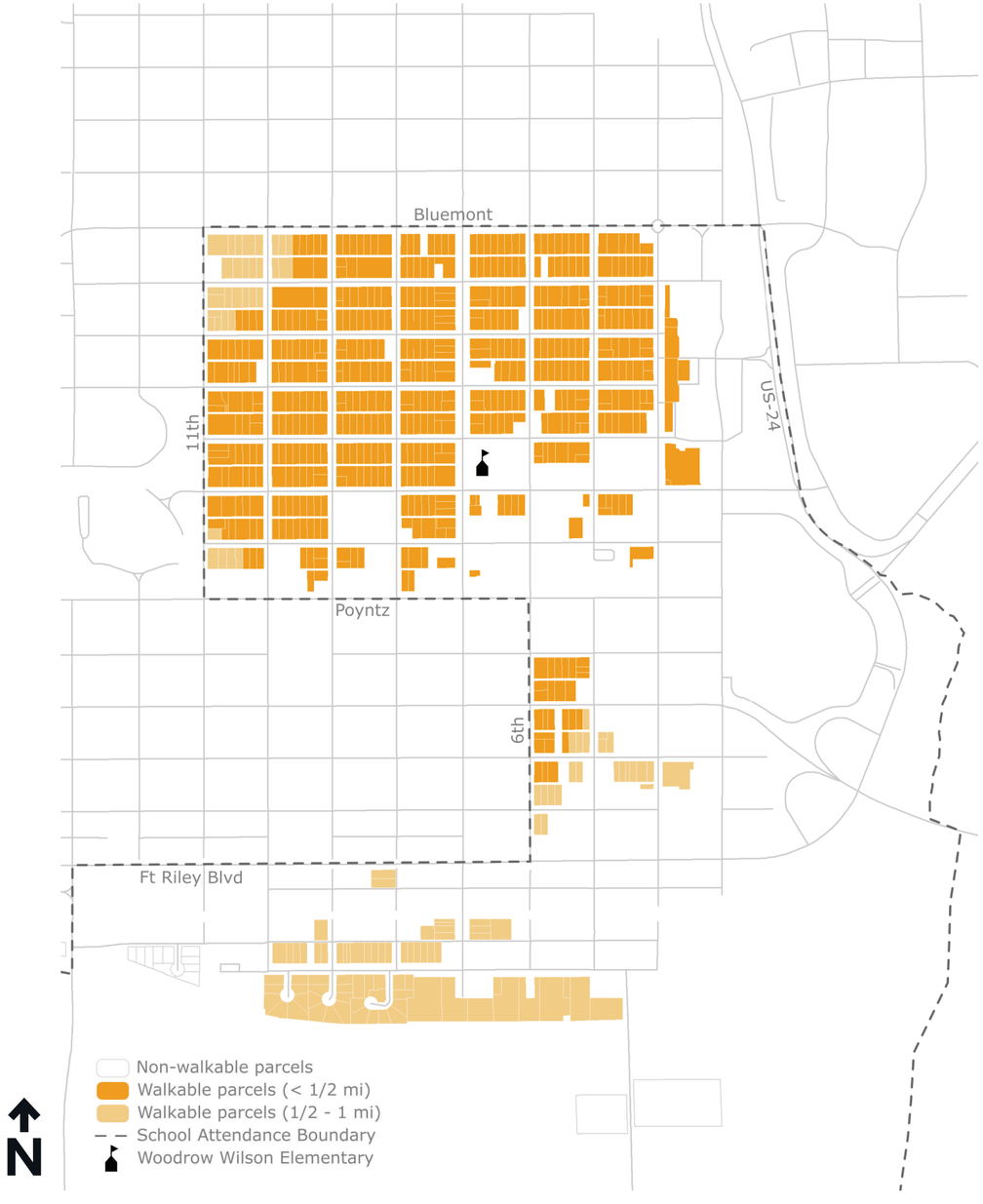


Figure W2.

Walkability Data

Woodrow Wilson Elementary is surrounded by residential neighborhoods, with over 2/3 of antecedence zone addresses within 1 mile of school (Figures W2 & W3). However, the attendance zone of Wilson is divided with students living on the far west of Manhattan along Scenic Drive, attending school. This results in a lower number of current students living within 1 mile of school (Figure W4) and low numbers walking and biking to school.

Residential Addresses by Proximity

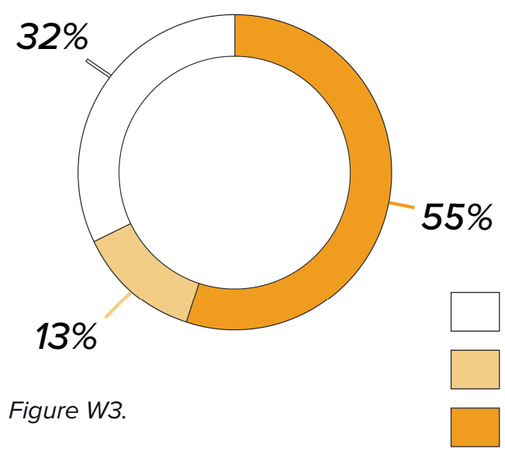


Figure W3.

Current Student Addresses by Proximity

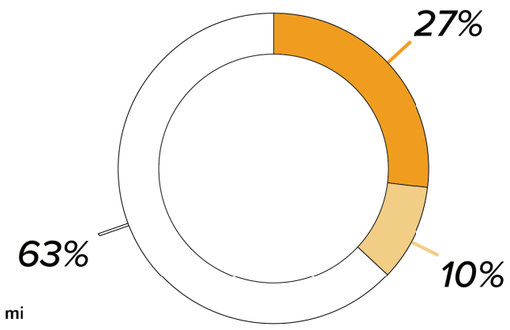


Figure W4.

Parent Perception

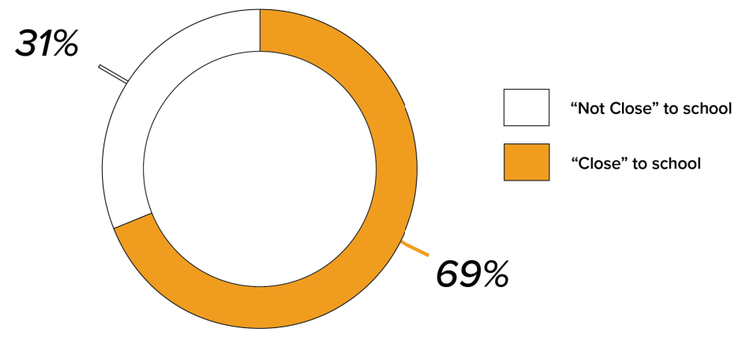


Figure W5.

Parent Surveys

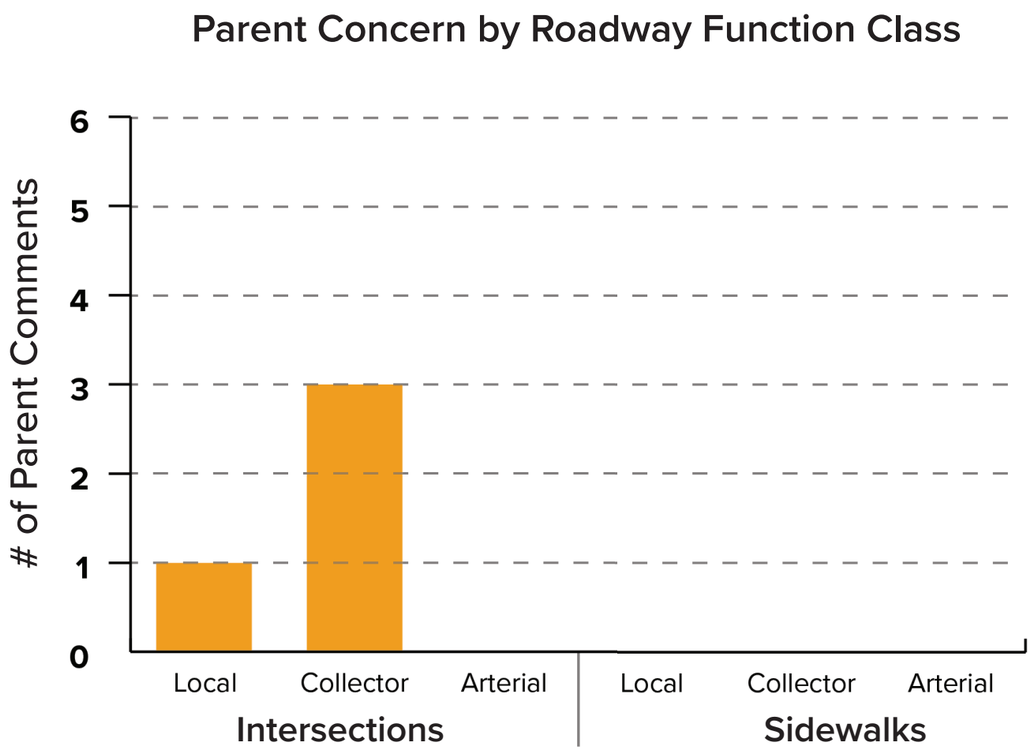


Figure W6.

Parent Concern: Sidewalks vs. Intersections

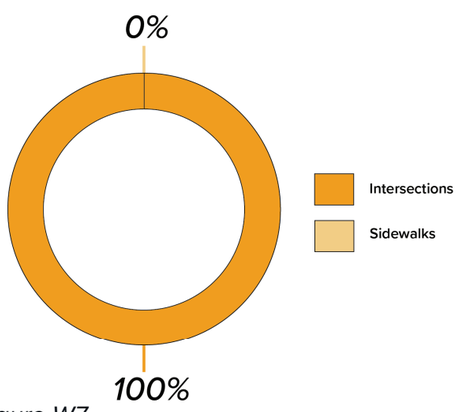


Figure W7.

Parent Responses

Figure W8.

Parent comments for Wilson Elementary were relatively sparse, with only 4 total comments received. Each of the four comments addressed intersections parents viewed as concerning. Figures W6 through W9 highlight parent responses.

WILSON ELEMENTARY | *Survey Summary*

How does your child get to school?

25%

75%

K 0%
1 0%
2 13%
3 50%
4 25%
5 13%
never 0%

What grade would you let your child walk to school alone?

50%
of parents believe a stranger may take their children while walking to school.

88%
of parents support or are interested in Walking School Buses.

100%
of parents who drive their children to school believe it's easier or more convenient than walking or biking.

50%
of parents who let their children walk or bike to school are concerned their child may be hit by a vehicle.

Especially at intersections... but certain intersections more than others.

25% local roads

75% collectors and arterials

Figure W9.

Safe Routes Map

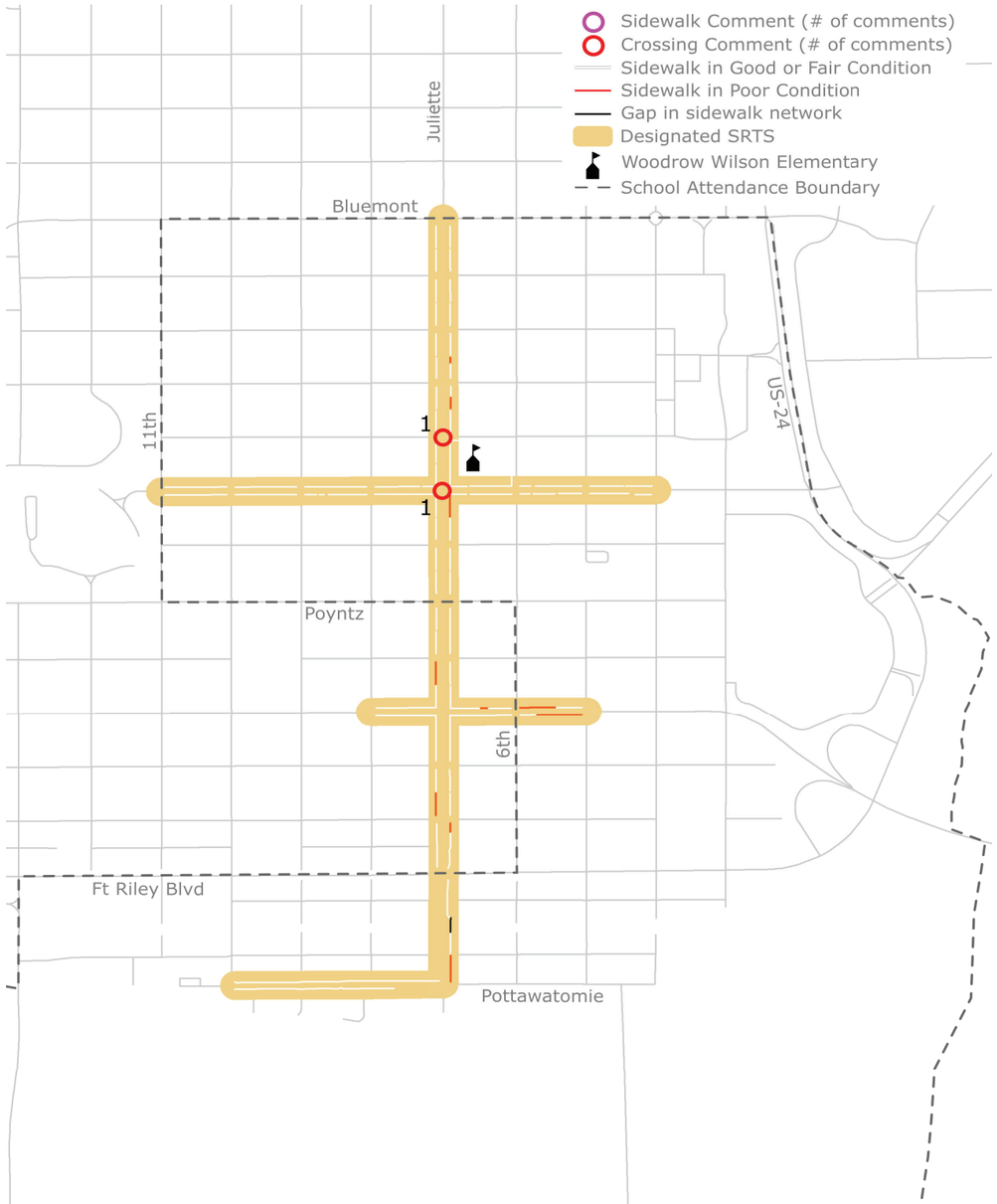


Figure W10.

Safe Routes

Designated Safe Routes, shown in Figure W10, are corridors leading to Wilson Elementary. Projects located along Safe Routes are prioritized to provide a high level of impact.

Juliette Avenue: Bluemont Avenue to Pottawatomie Avenue.

Pottawotamie Avenue: Juliette Avenue to 10th Street.

Pierre Street: 5th Street to 8th Street.

Leavenworth Street: 4th Street to 11th Street.

Sidewalk Condition

The neighborhoods surrounding Wilson Elementary have a nearly complete network of sidewalks, including along the designated Safe Routes (Figure W10). Over 90% of these sidewalks are in Good or Fair condition, with the remaining Poor sidewalks being mainly brick (Figure W11).

Safe Route Sidewalks by Condition

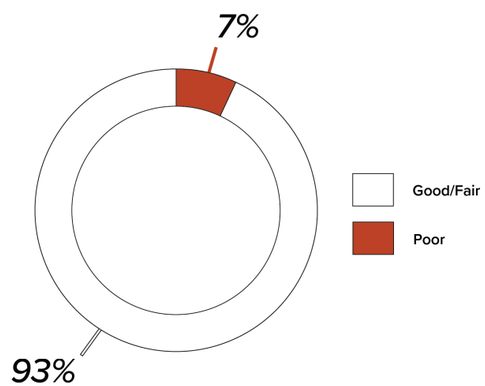


Figure W11.

Thank you to K-State Prof. Shakil Kashem and students in his Plan 836 course for their work collecting sidewalk condition data.

Recommended Project Map

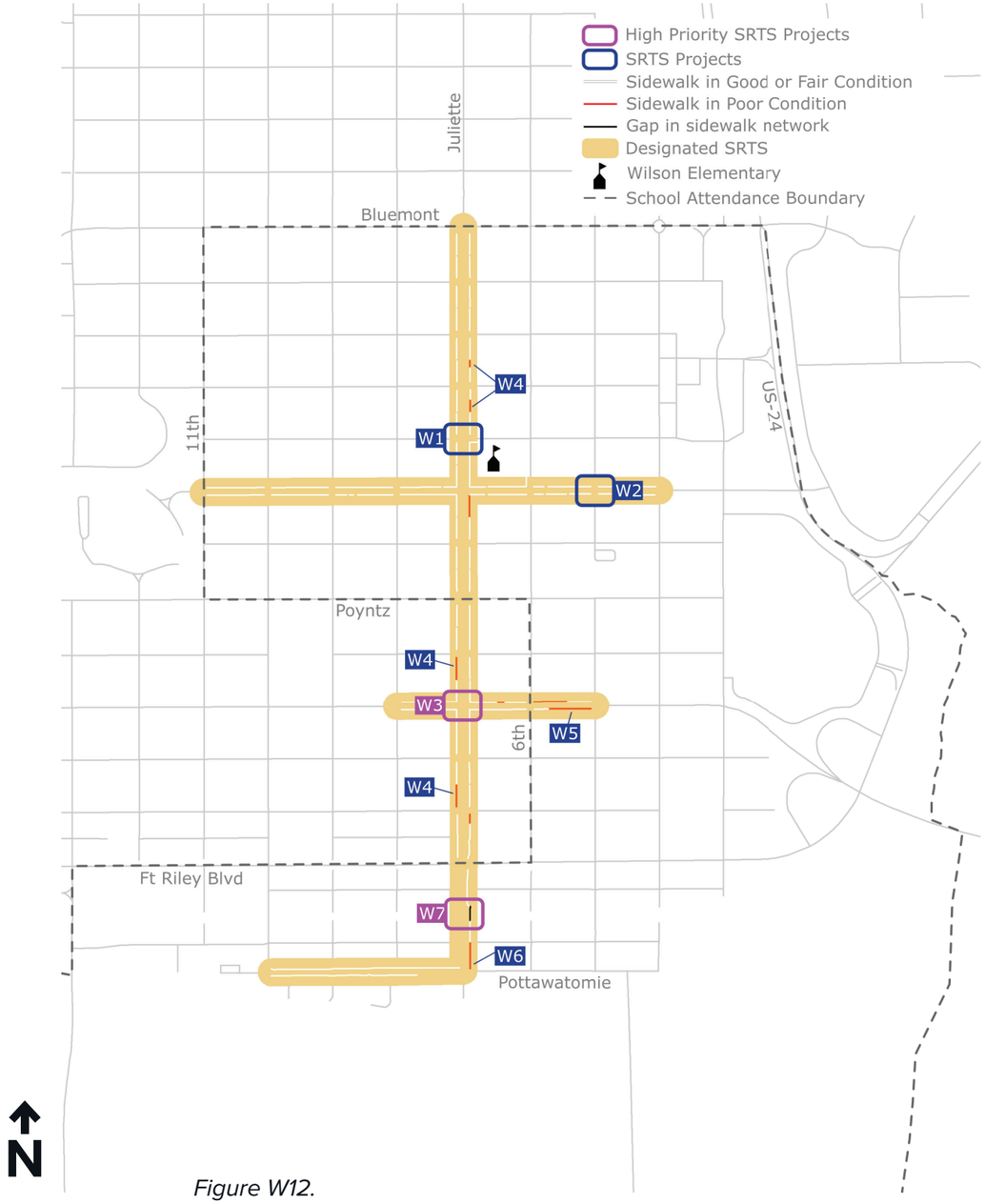


Figure W12.

Figure W12 maps the recommended projects for Wilson Elementary. These projects were based upon sidewalk condition data, parental comments, and school administration meetings. Valid projects remaining from the 2015 SRTS report have also been included.

Projects are focused around the designated Safe Routes to maximize impact and safety on key corridors and at critical intersections.

A full list of projects can be found in Figure W13, with detailed information on the following pages. High Priority projects have additional information, including diagrams and engineering cost estimates.

WILSON ELEMENTARY | *Recommended Project Table*

ID	Location	Type	Improvement	Project Details	BPSP Project	2015 SRTS Project	ATA Partner Project	Demo/Semi-Perm. Eligible	FHWA STEP	High Priority
W1	Juliette Avenue at Osage Street	Crossing	RRFBs	Install RRFBs at the south crosswalk of the intersection.					●	
W2	5th Street and Leavenworth Street	Crossing	Curb Extensions	Install curb extensions on all corners.			●	●	●	
W3	Juliette Avenue and Pierre Street	Crossing	Curb Extensions	Install curb extensions on all corners.	●			●	●	●
W4	Juliette Avenue	Sidewalk	Replace Sidewalk	Replace “Poor” condition sidewalk along both sides of Juliette Avenue from Pottawatomie Avenue to Laramie Street.						
W5	Pierre Street	Sidewalk	Replace Sidewalk	Replace “Poor” condition sidewalk along both sides of Pierre Street between 5th Street and Juliette Avenue.						
W6	Juliette Avenue	Sidewalk	Replace Sidewalk	Replace “Poor” condition sidewalk on east side of Juliette.						
W7	Juliette Avenue at Railroad Tracks	Crossing	New Sidewalk & Signals	Install sidewalk on east side of Juliette filling the gap across the railroad tracks. Install signals & gates as needed.						●

Figure W13.

W1 Juliette Avenue at Osage Street

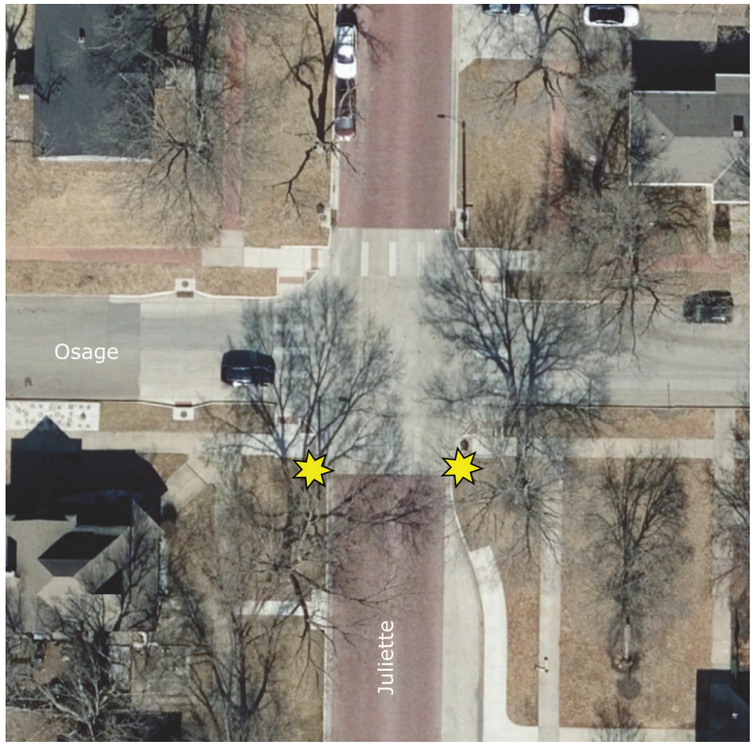


Figure W14. Proposed location of RRFBs.

This project would place rectangular rapid flashing beacons (RRFBs) at the south crosswalk of the intersection between Juliette Avenue and Osage Street. The addition of RRFBs would make the crossing more visible to drivers. For more information about RRFBs, see the Intro Chapter on page X.

W2 5th Street and Leavenworth Street

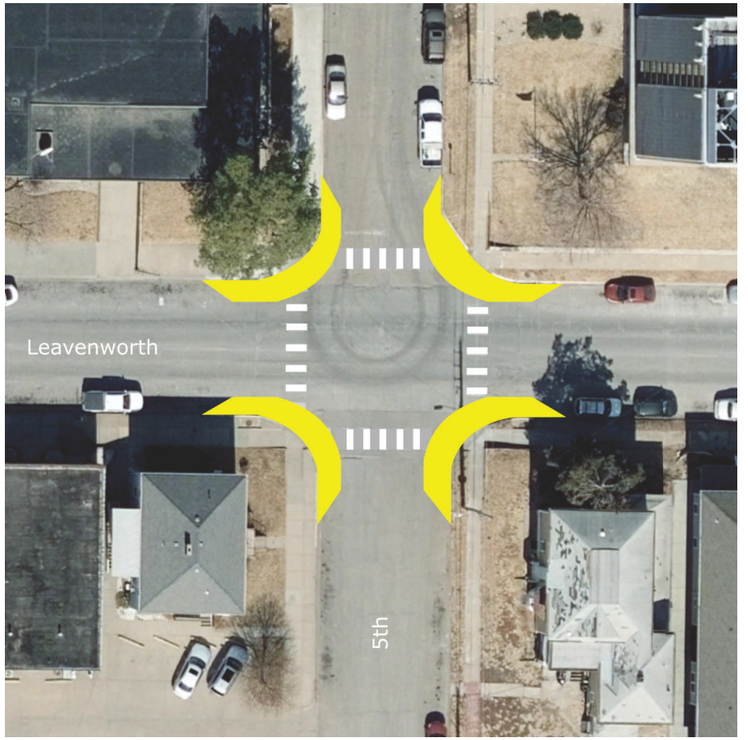


Figure W15. Proposed curb extensions.

Leavenworth Street and FIfth Street meet at a busy 2-way intersection. Cross traffic through this intersection moves relatively quickly, with drivers often traveling faster than the posted speed limit of 20 mph. Installing curb extensions would slow traffic and create additional space for pedestrians crossing the street.

Demo Project

This project can be implemented in the near-term as a **Demonstration Project** to test the layout. Upon success of the project, it could be installed as a **Semi-Permanent Project** for several years until final construction could be completed.

W3 Juliette Avenue and Pierre Street

HIGH PRIORITY PROJECT

Estimated Project Cost:
1,500,510

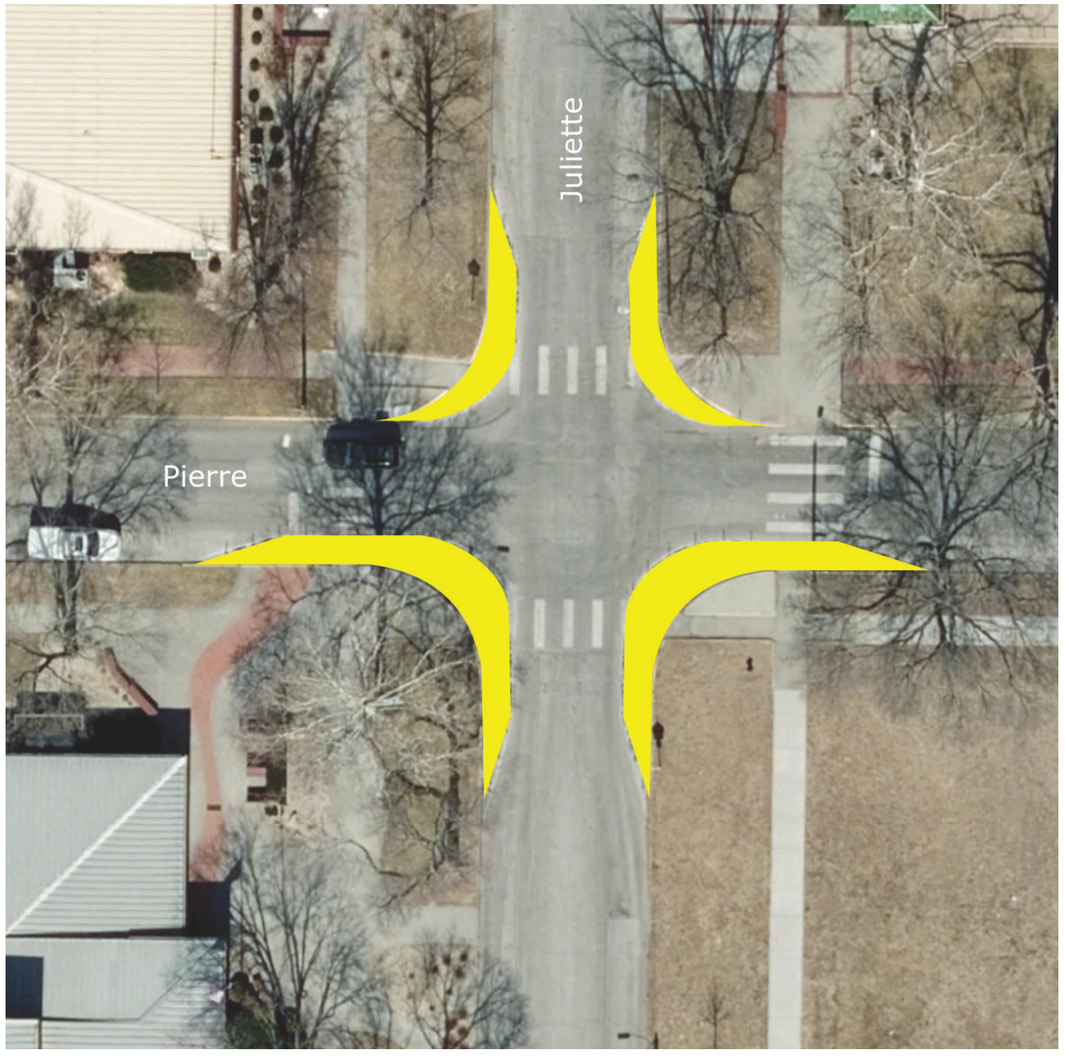


Figure W16. Proposed curb extensions.

Figure W17.

Figure W18.

Semi-permanent curb extensions were installed at the intersection between Juliette and Pierre in 2021, following a successful demo project from 2017 to 2018 (see Figures W16 and W17). This project would upgrade the semi-permanent curb extensions to permanent. In addition to making this crossing safer for Wilson Elementary students, the curb extensions benefit students of nearby Manhattan Catholic School.

As a High Priority project, engineering cost estimates have been carried out for this project. Detailed cost estimates can be found in Appendix D.

Demo Project

This project was implemented in the near-term as a **Demonstration Project** to test the layout. Upon success of the project, it was installed as a **Semi-Permanent Project** for several years.

W3 Juliette Avenue and Pierre Street (continued)

HIGH PRIORITY PROJECT

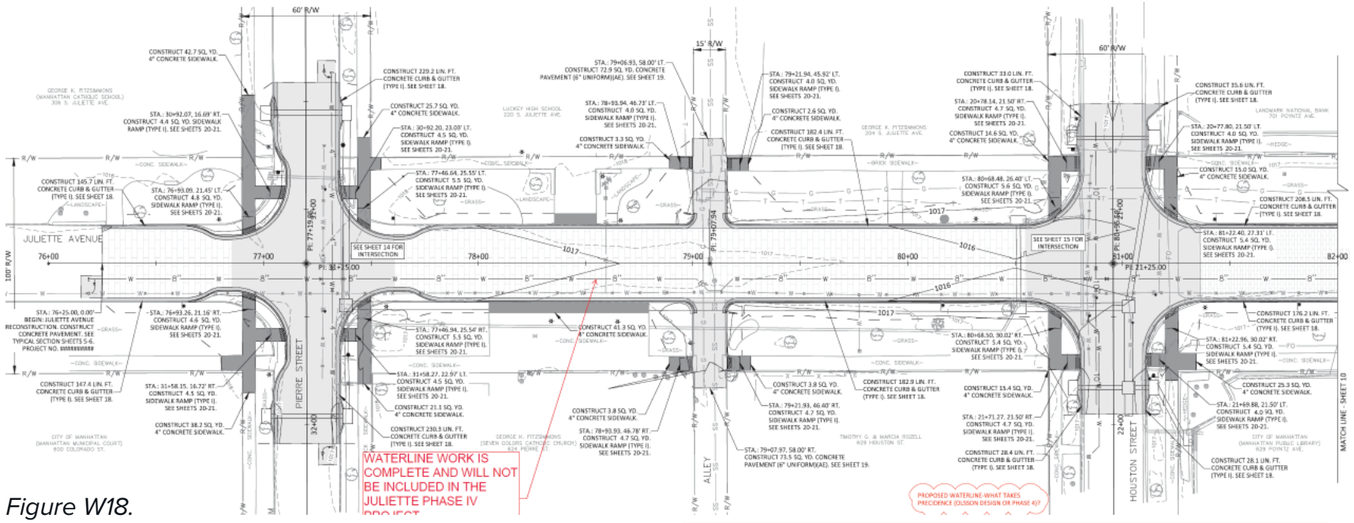


Figure W18.

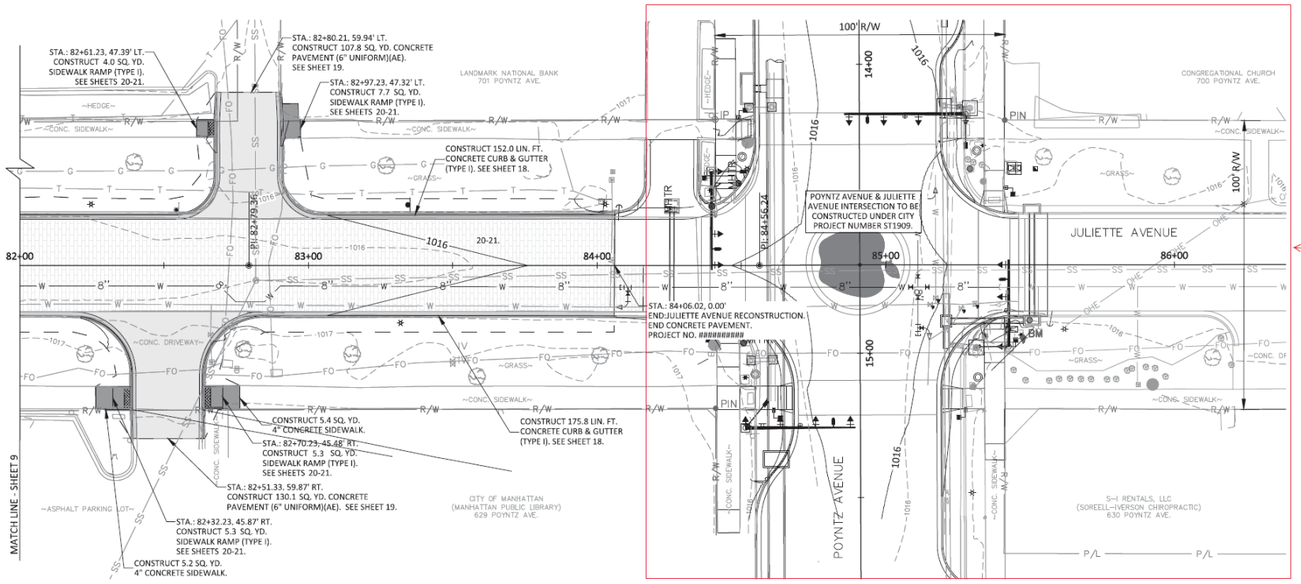


Figure W19.

In addition to the curb extensions at street level, Juliette Avenue will be reconstructed from Poyntz Avenue south to Pierre Street (Figures W18 and W19). The historic brick street between Poyntz Avenue and Houston Street will be reconstructed. Brick roadway will be added in the Houston Street to Pierre Street block. In addition, stormwater upgrades and other utility work will be completed as part of this project.

W4 Juliette Avenue

Figure W20. Proposed sidewalk replacement.

This project would replace “Poor” condition sidewalk along both sides of Juliette Avenue, from Pottawatomie Avenue to Laramie Street. Currently, the sidewalk is uneven and may be difficult for students to traverse on foot or on a bike.

As outlined in the report’s introduction chapter, a Sidewalk Cost Share policy could be leveraged for property owners along Juliette Avenue where the sidewalk quality has a “poor” rating. Splitting the cost would provide an incentive and help homeowners in the LMI area invest in the sidewalks used by USD students and the community as a whole.

W5 Pierre Street

Figure W21. Proposed sidewalk replacement.

This project proposes replacing sidewalks in “Poor” condition along both sides of Pierre Street between 5th Street and Juliette Avenue. Many sections of sidewalk along this route are uneven and overgrown.

W6 Juliette Avenue

Figure W22. Proposed sidewalk replacement.

This project would replace existing sidewalk in “Poor” condition along the east side of Juliette Avenue between Pottawatomie Avenue and Riley Lane.

W7 Juliette Avenue at Railroad Tracks

HIGH PRIORITY PROJECT

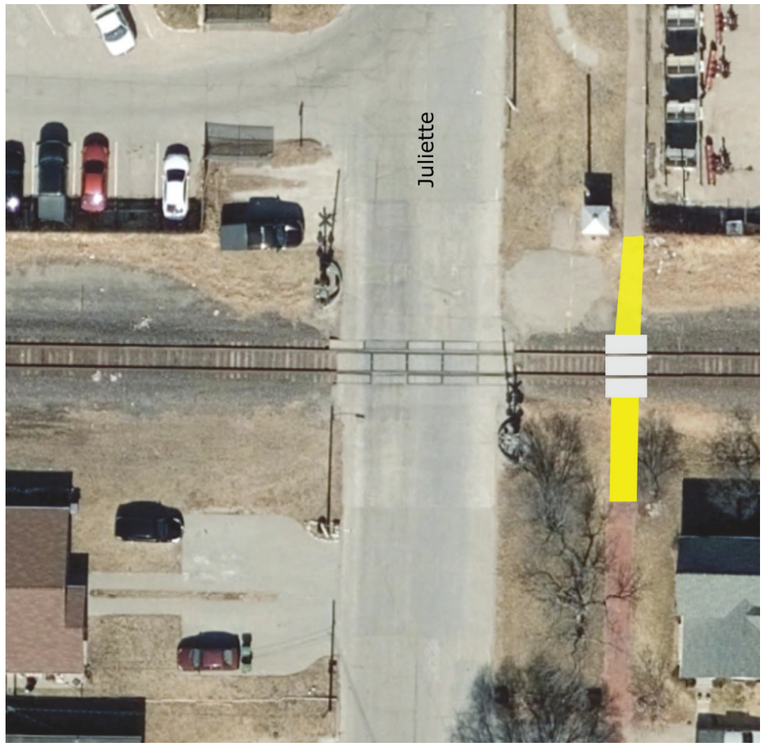


Figure W23. Location of proposed crossing.

Currently, there is no sidewalk where the railroad tracks cross Juliette Avenue, forcing pedestrians to walk along the road to cross the tracks. This project proposes installing a crossing on the east side of Juliette Avenue, filling the sidewalk gap across the railroad tracks. Signals and a gate would also be installed for additional safety. These measures would improve access for students living south of the railroad tracks.

Walking School Bus Map

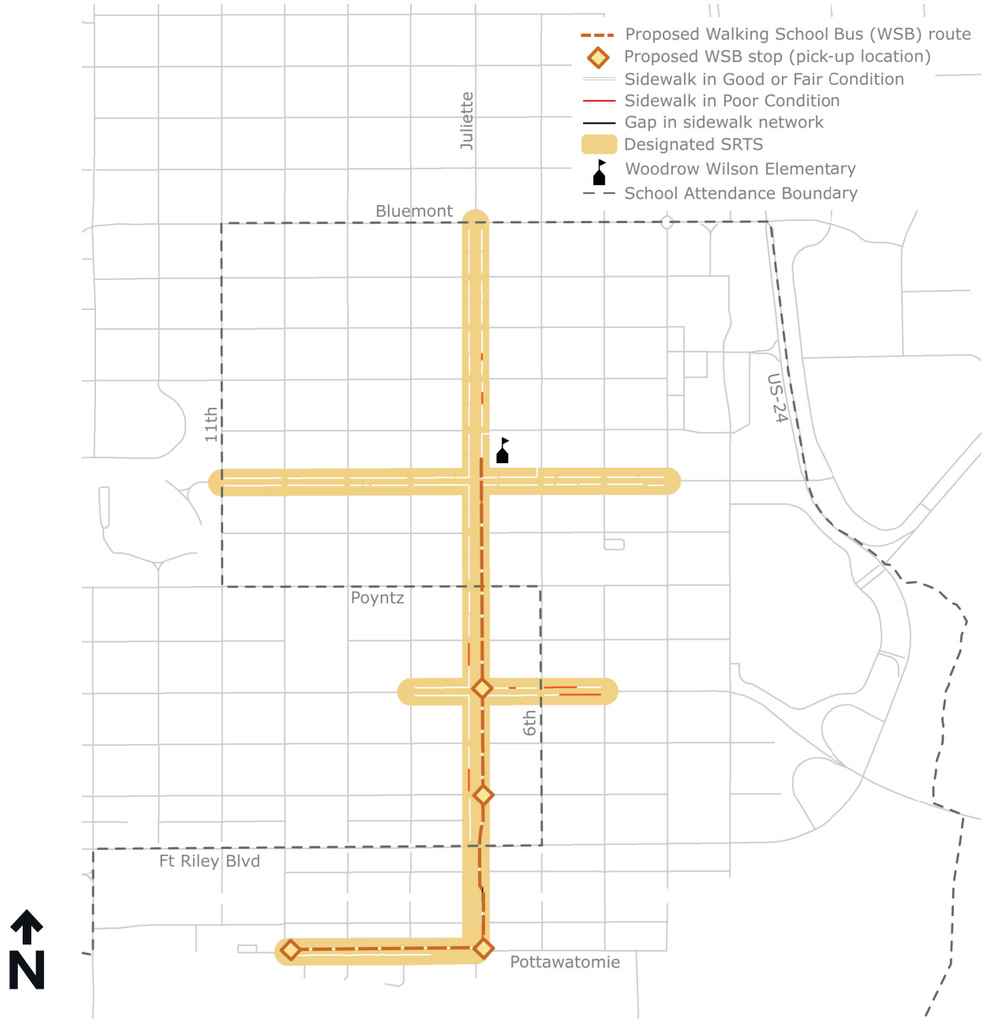


Figure W24.

The proposed Walking School Bus (WSB) route in Figure W24 showcases a route that connects the apartments and single family homes south of Fort Riley Blvd, and south of Poyntz Avenue to Wilson Elementary. This route is acceptable as it is short enough for a student to easily walk, yet far enough and with numerous street crossings, that many parents are hesitant to let their children walk alone.

WSB Directions

- Start at Pottawatomie Avenue and 10th Street
- East on Pottawatomie Avenue
- Stop at Pottawatomie Avenue and Juliette Avenue
- North on Juliette Avenue
- Stop at Juliette Avenue and Yuma Street
- North on Juliette Avenue
- Stop at Juliette Avenue and Pierre Street
- North on Juliette Avenue
- End at Woodrow Wilson Elementary

SUSAN B. ANTHONY MIDDLE SCHOOL

Safe Routes Grade Card

Section	Item	Grade
Proximity	Residential parcels within 1 mile of school	**2,380**
	Student addresses within 1 mile of school	**21%**
	Parent perception: "Close" to school	**24%**
Built Environment	Safe Route sidewalk connectivity	**100%** *of Safe Routes have sidewalks*
	Safe Route sidewalk condition	**92%** *of sidewalks rated Good or Fair*
	Intersection issues & comments	**81%** *of comments*
Safety Perception	Child will be hit by a vehicle	**79%** *feel this is likely*
	Child will be taken by a stranger	**31%** *feel this is likely*
	School zones well enforced	**24%** *agree*
Transportation	Student walking & biking to school (counts)	**Average**
	Students driven to school in private cars (survey)	**Average**

Figure AMS1

The grade card in Figure AMS1 serves as a snapshot of key categories and data measures for Anthony Middle School. Colors in the "Grade" column reflect the school's score in relation to others across USD 383. **Green represents satisfactory or better**, **yellow average,** and **red below average or underperforming.**

Sharing much of the same immediate attendance zone as Marlatt Elementary, the sidewalk network is mostly complete on major roads, resulting in a good built environment score. Safety perception is a key issue, with details available the Parent Survey section of this chapter. Projects to alleviate parent concerns and improve safety will be the focus of this chapter.

ANTHONY MIDDLE SCHOOL | *Walkability*

Walkability Map

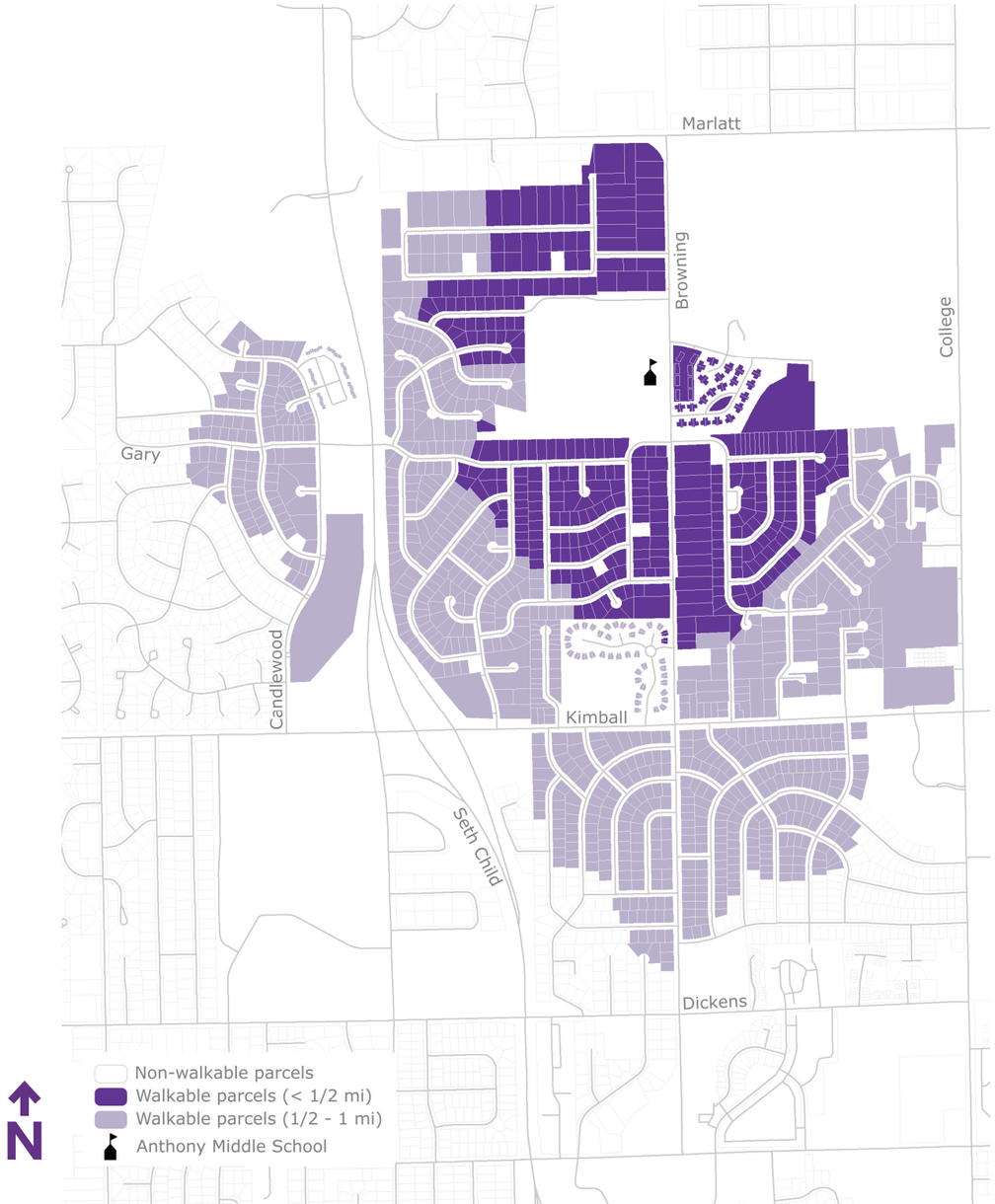


Figure AMS2

Walkability Data

As the attendance zone of Anthony Middle School extends over large portions of Manhattan, proximity of students and parental perception of being “Close to School” are minimal (Figures AMS2 - AMS4). Only 22% of students currently live within 1 mile of school.

Current Student Addresses by Proximity

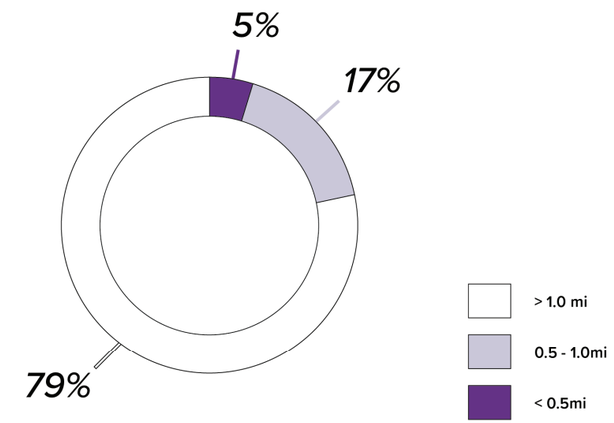


Figure AMS3

Parent Perception

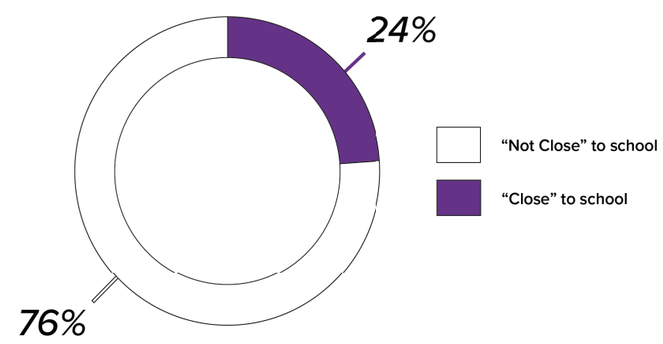


Figure AMS4

Parent Surveys

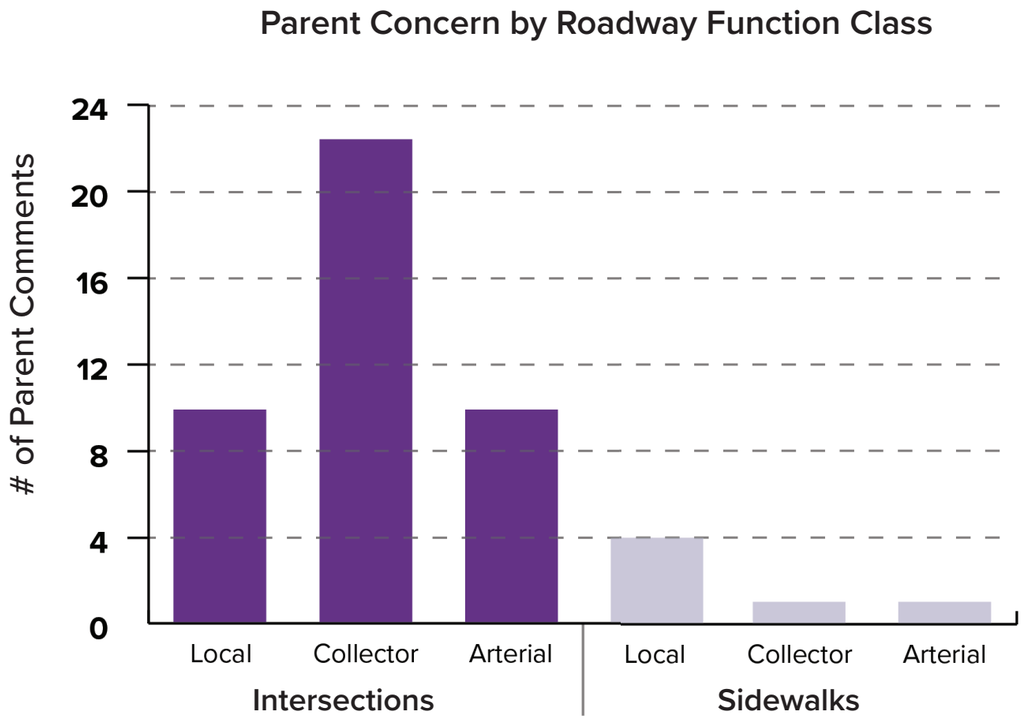


Figure AMS5

Parent Concern: Sidewalks vs. Intersections

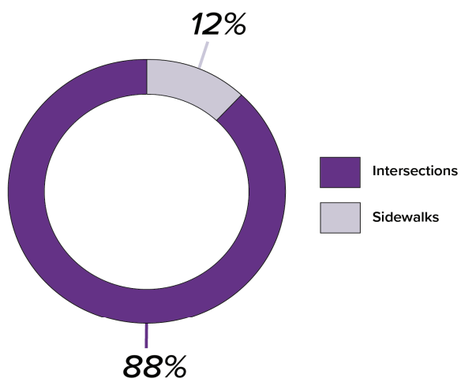


Figure AMS6

Due to the overlap in attendance zones, parents of Anthony Middle School students share many concerns with parents of Marlatt Elementary students. Numerous parents commented on Browning Avenue and its associated intersections, which are commonly perceived as unsafe.

Parent Responses

Figure AMS7

ANTHONY MIDDLE SCHOOL | *Safe Routes*

Safe Routes Map

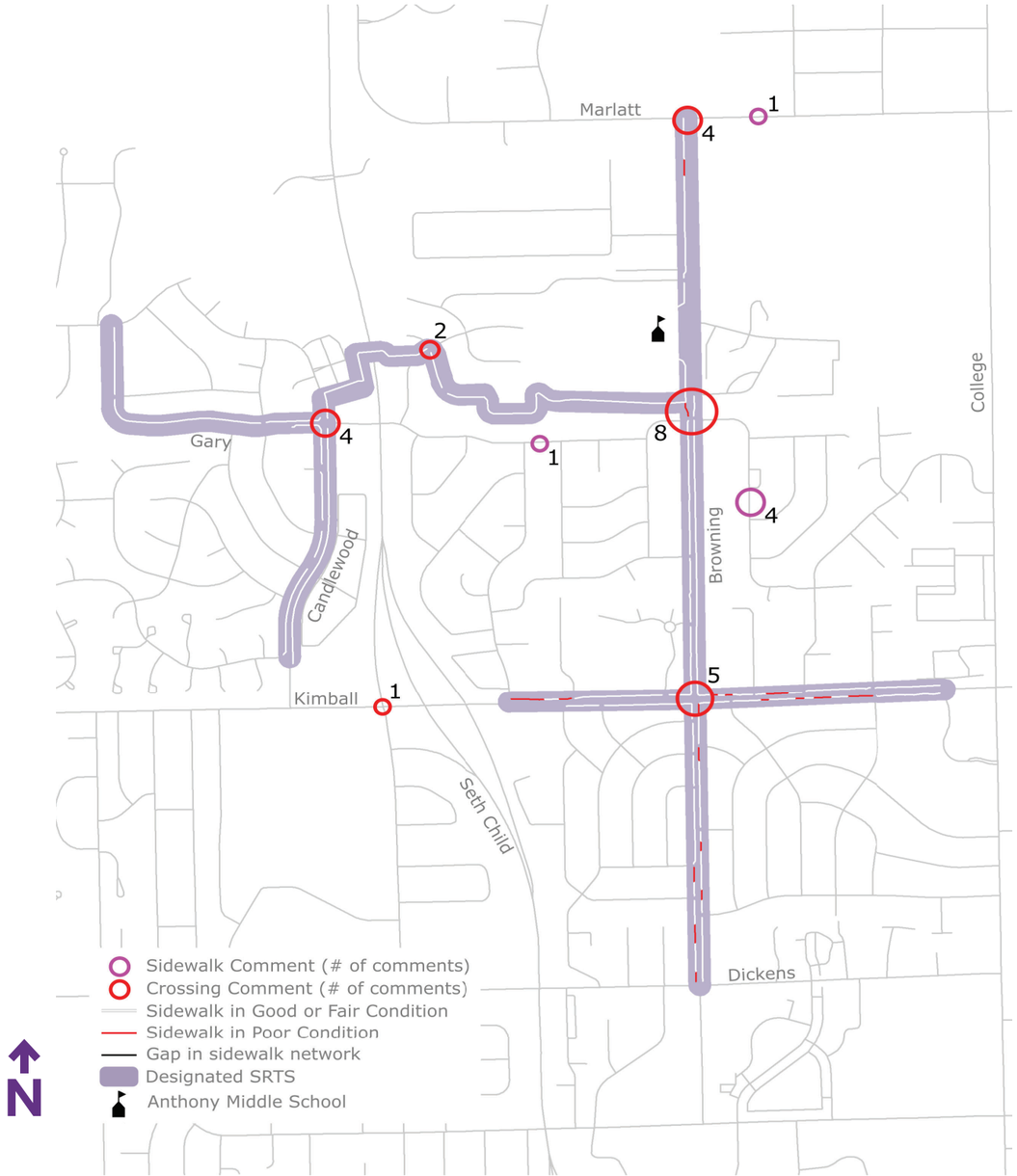


Figure AMS8

Safe Routes

Designated Safe Routes are corridors leading to Anthony Middle School. Projects located along Safe Routes are prioritized to provide a high level of impact.

Browning Avenue: Dickens Avenue to Marlatt Avenue.

Kimball Avenue: Seaton Avenue to Via Christi Place.

Susan B. Anthony Trail: Entirety.

Candlewood Drive: Englewood Street to Gary Avenue.

Gary Avenue: Candlewood Drive to Churchill Street.

Sidewalk Condition

The major roads along designated Safe Routes have a solid sidewalk network, with no major gaps. Condition is also good, with only a few intermittent segments rated as “Poor” (figures AMS8 and AMS9).

Safe Route Sidewalks by Condition

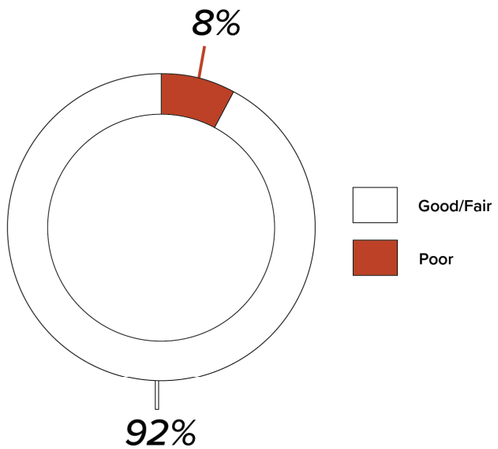


Figure AMS9

Thank you to K-State Prof. Shakil Kashem and students in his Plan 836 course for their work collecting sidewalk condition data.

Recommended Project Map

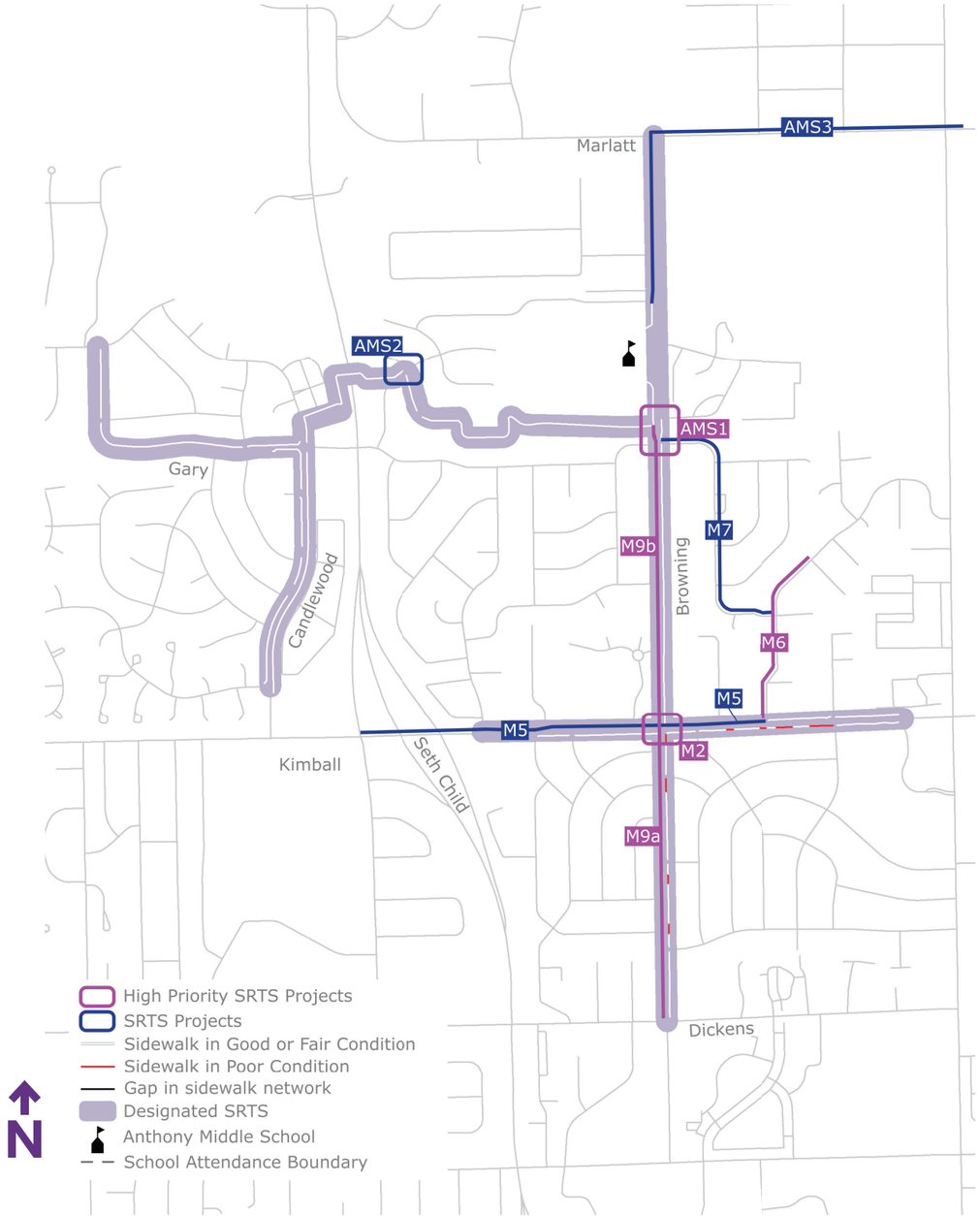


Figure AMS10

Figure AMS10 maps the recommended projects for Anthony Middle School. Due to the close proximity of Marlatt Elementary, some projects overlap between these two schools. These projects were based upon sidewalk condition data, parental comments, and school administration meetings.

Projects are focused around the designated Safe Routes to maximize impact and safety on key corridors and at critical intersections. A full list of projects can be found in Figure AMS11, with detailed information on the following pages. All projects beginning with M (M2, M5, etc) are located in the Marlatt Elementary chapter. High Priority projects have additional information, including diagrams and engineering cost estimates.

ANTHONY MIDDLE SCHOOL | *Recommended Project Table*

ID	Location	Type	Improvement	Project Details	BPSP Project	2015 SRTS Project	ATA Partner Project	Demo/Semi-Perm. Eligible	FHWA STEP	High Priority
AMS1	Browning Avenue at Snowbird Drive	Crossing	PHB	Remove existing crosswalk and ramps at Snowbird and install new crossing with PHB on the south side of the Rec Center driveway.					●	●
AMS2	Meadowood Drive at Willowood Circle	Crossing	Crosswalk	Install a crosswalk across Meadowood Drive at Willowood Circle for the Susan B Anthony Trail.						
AMS3	Browning Avenue and Marlatt Avenue	Sidewalk	New MUP & Crossing	Install a Multi-use Path along the west side of Browning from Pecanwood Drive north, across Marlatt Avenue, then east to Denison Avenue.	●					
M2	Kimball Avenue at Browning Avenue	Crossing	LPIs	Upgrade existing signals with Lead Pedestrian Intervals (LPIs)	●				●	●
M5	Kimball Avenue	Sidewalk	Upgrade to MUP	Replace existing sidewalk with Multi-use Path (MUP) on the northside of Kimball Avenue from Hillview Drive to Seth Child Road southbound exit ramp.	●					
M6	Hillview Drive	Sidewalk	New Sidewalk	Install sidewalk on the west side of Hillview Drive from Kimball Avenue to existing sidewalk at St. Christopher Circle.						●
M7	Snowbird Drive	Sidewalk	New Sidewalk	Install sidewalk on the north/east side of Snowbird Drive from Browning Avenue to Hillview Drive.						
M9a	Browning Avenue	Sidewalk	Upgrade to MUP	Replace sidewalk with Multi-use Path (MUP) on the west side of Browning Avenue from Dickens Avenue to Kimball Ave		●	●			●
M9b	Browning Avenue	Sidewalk	Upgrade to MUP	Replace sidewalk with Multi-use Path (MUP) on the west side of Browning Avenue from Kimball Avenue to Susan B. Anthony Trail. Remove existing crossing at Snowbird and install PHB and crosswalk at Rec Center entrance.		●				●

Figure AMS11

AMS1

Browning Avenue at Snowbird Drive

HIGH PRIORITY PROJECT

Estimated Project Cost:
243,335

AMS1 + M9b

Figure AMS12. Proposed project.

This project would imrpove the crossing of Browning Avenue, by removing the existing crosswalk and ramps at Snowbird Drive/ Lawrence Road. A new crosswalk would be installed on the southern side of the intersection with Stone Valley Drive/Rec Center driveway. New ramps would be constructed along with a Pedestrian Hybrid Beacon (PHB). Additionally, the Susan B. Anthony trail would be rerouted to align with this new crossing.

This project should be constructed in unison with project M9b (See Marlatt Elementary chapter), as they compliment each other, and would create a strong grant application.

As a high priority project, an engineering cost estimate was created. Details of this estimate can be found in Appendix D.

AMS2 Meadowood Drive at Willowood Circle

Figure AMS13. Proposed crosswalk.

This project would install a crosswalk across Meadowood Drive where the Susan B. Anthony trail crosses. Crosswalk signage should also be installed.

AMS3 Browning Avenue and Marlatt Avenue

Figure AMS13. Proposed crosswalk.

This project would connect the houses northeast of Marlatt and Browning Avenues to Anthony Middle School, and the rest of Manhattan's sidewalk network, via an eight or ten-foot wide multi-use path. Long identified as a needed recreational extension of the Linear Trail, this segment would have transportation overlap. On the eastern end of the project the trail would tie into the recently constructed Denison-Marlatt trail, and connect to the sidewalk network in the Northview area.

Addressing the crossing of Marlatt Avenue will be key to the projects success and safety for students. With a marked speed limit of 40mph, simple crosswalk markings and static signage do not meet parental perceptions and safety standards.

South of Marlatt Avenue, this multiuse path would replace existing segments of sidewalk before connecting to the school property.

ANTHONY MIDDLE SCHOOL

Bike Bus Map

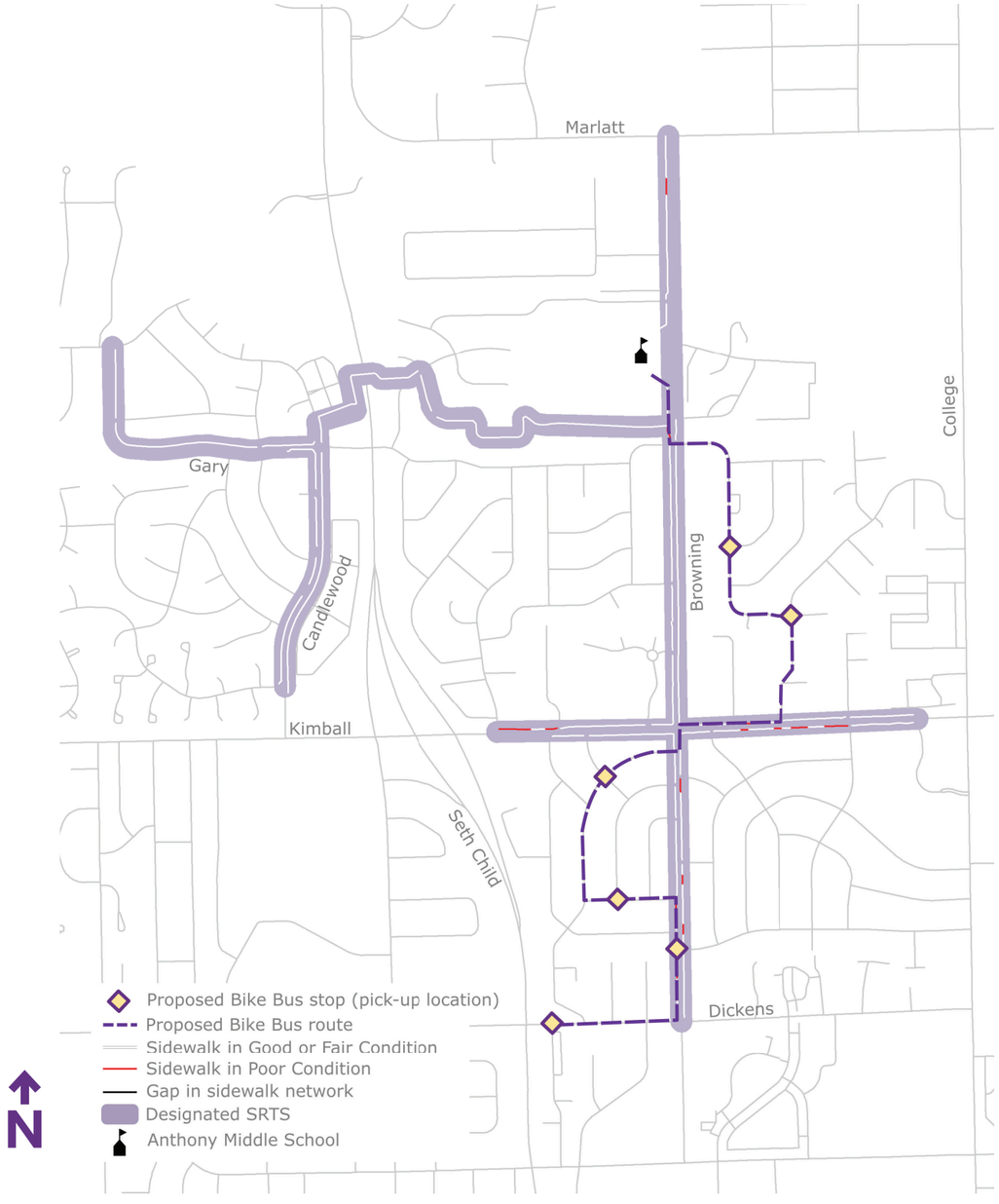


Figure AMS10

This Bike Bus route connects several neighborhoods and allows for locations where students to join along the route. While not direct, this route would provide students with a guided crossing of several large roads.

Upon completion of the Anthony Middle School Bike Bus, organizers can then proceed to the beginning of the Marlatt Elementary Bike Bus and start that route, maximizing volunteer time.

Bike Bus Directions

- Start at Dickens Avenue and Oxfor Place
- East on Dickens Avenue
- North on Browning Avenue sidewalk
- Stop at Browning Avenue and Hobbs Drive
- North on Browning Avenue sidewalk
- West on Illinois Lane
- Stop at Illinois Lane and Oregon Lane
- West on Illinois Lane
- North on Virginia Drive
- Stop at Virginia Drive and Indiana Lane
- North on Virginia Lane
- North on Browning Avenue sidewalk
- Cross Kimball Avenue
- East on Kimball Avenue sidewalk
- North on Hillview Drive
- Stop at Hillview Drive and Snowbird Drive
- West on Snowbird Drive
- Stop at Snowbird Drive and Alta Drive
- North on Snowbird Drive, crossing Browning Avenue
- North on Browning Avenue sidewalk
- End at Anthony Middle School

EISENHOWER MIDDLE SCHOOL

Safe Routes Grade Card

Section	Item	Grade
Proximity	Residential parcels within 1 mile of school	**2,853**
	Student addresses within 1 mile of school	**24%**
	Parent perception: “Close” to school	**22%**
Built Environment	Safe Route sidewalk connectivity	**82%** *of Safe Routes have sidewalks*
	Safe Route sidewalk condition	**95%** *of sidewalks rated Good or Fair*
	Intersection issues & comments	**71%** *of comments*
Safety Perception	Child will be hit by a vehicle	**67%** *feel this is likely*
	Child will be taken by a stranger	**15%** *feel this is likely*
	School zones well enforced	**22%** *agree*
Transportation	Student walking & biking to school (counts)	**Average**
	Students driven to school in private cars (survey)	**Average**

Figure EMS1

The grade card in Figure EMS1 serves as a snapshot of key categories and data measures for Eisenhower Middle School. Colors in the “Grade” column reflect the school’s score in relation to others across USD 383. **Green represents satisfactory or better**, **yellow average,** and **red below average or underperforming.**

Sharing much of the same immediate attendance zone as Northview Elementary, the sidewalk network is mostly complete on major roads, with only a few large gaps, resutling in an average Built Environment score. Safety perception is a key issue of concern, with details available the Parent Survey section of this chapter. Projects to alleviate parent concerns and improve safety will be the focus of this chapter.

EISENHOWER MIDDLE SCHOOL | *Walkability*

Walkability Map

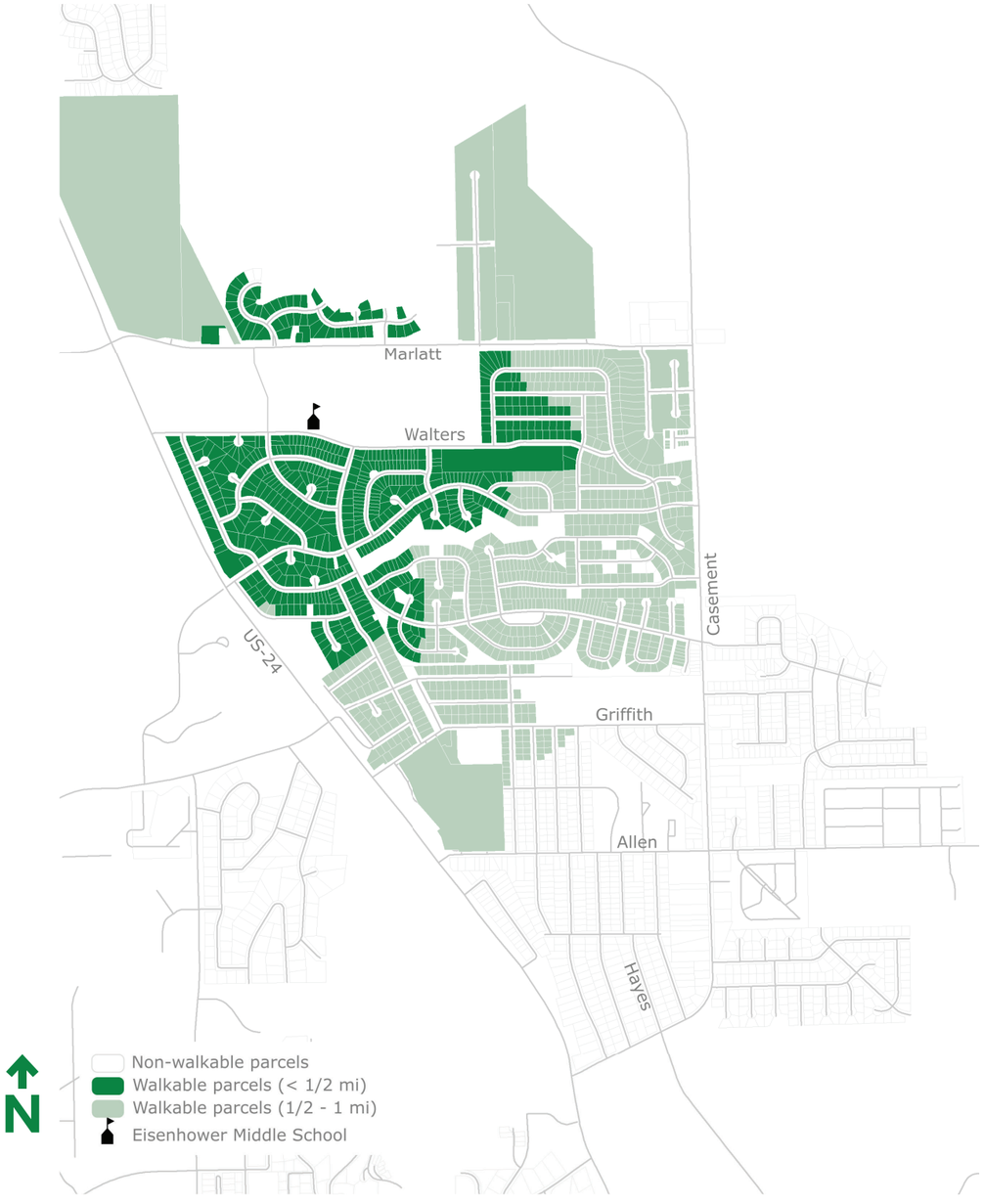


Figure EMS2

Walkability Data

As the attendance zone of Eisenhower Middle School extends over large portions of Manhattan, proximity of students and parental perception of being “Close to School” are minimal (Figures EMS2 - AMS4). Only 24% of students currently live within 1 mile of school.

Current Student Addresses by Proximity

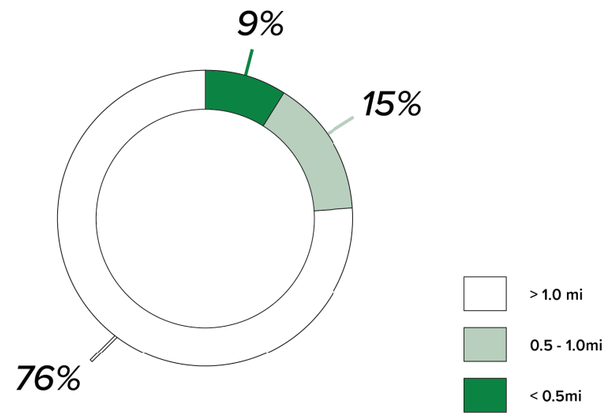


Figure EMS3

Parent Perception

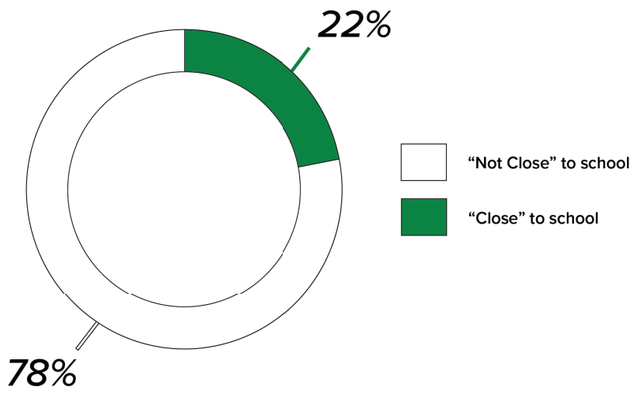


Figure EMS4

Parent Surveys

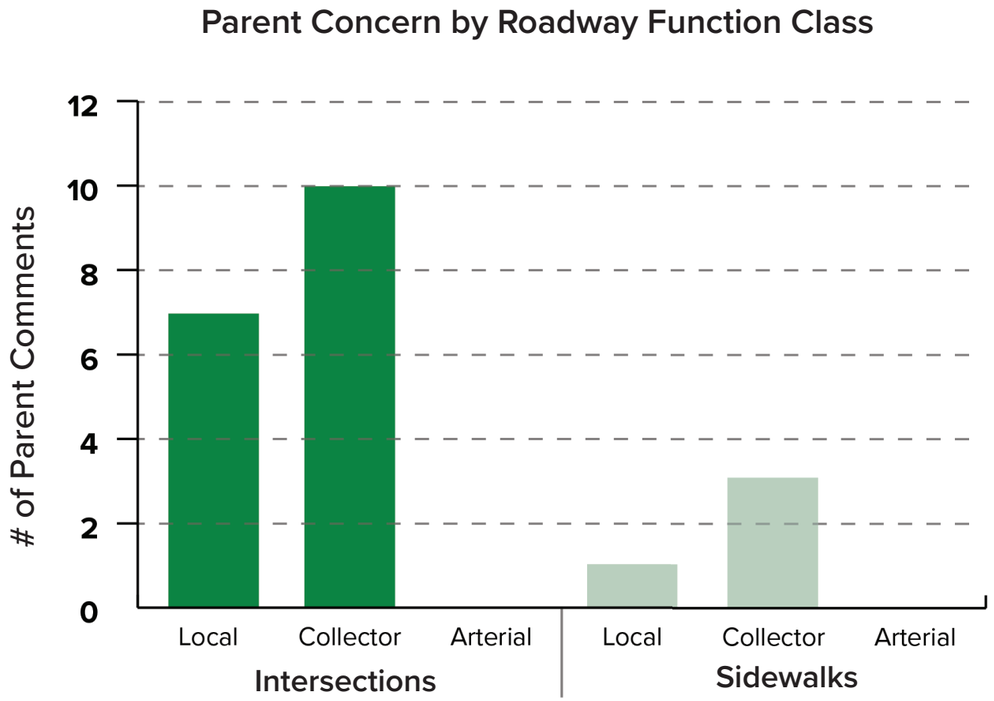


Figure EMS5.

Parent Concern: Sidewalks vs. Intersections

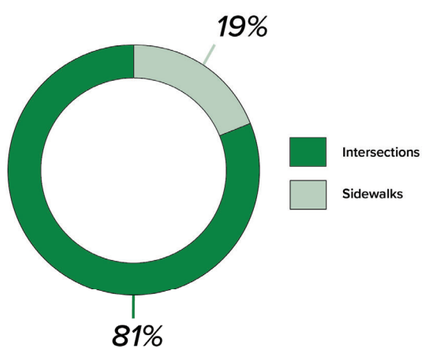


Figure EMS6.

Due to the overlap in attendance zones, parents of Eisenhower Middle School students share many concerns with the parents of Northview Elementary students. Crossings were the major concern of parents, with major roadways such as Casement, Butterfield, and Marlatt, being of highest priority.

Parent Responses

Figure EMS7

Safe Routes Map

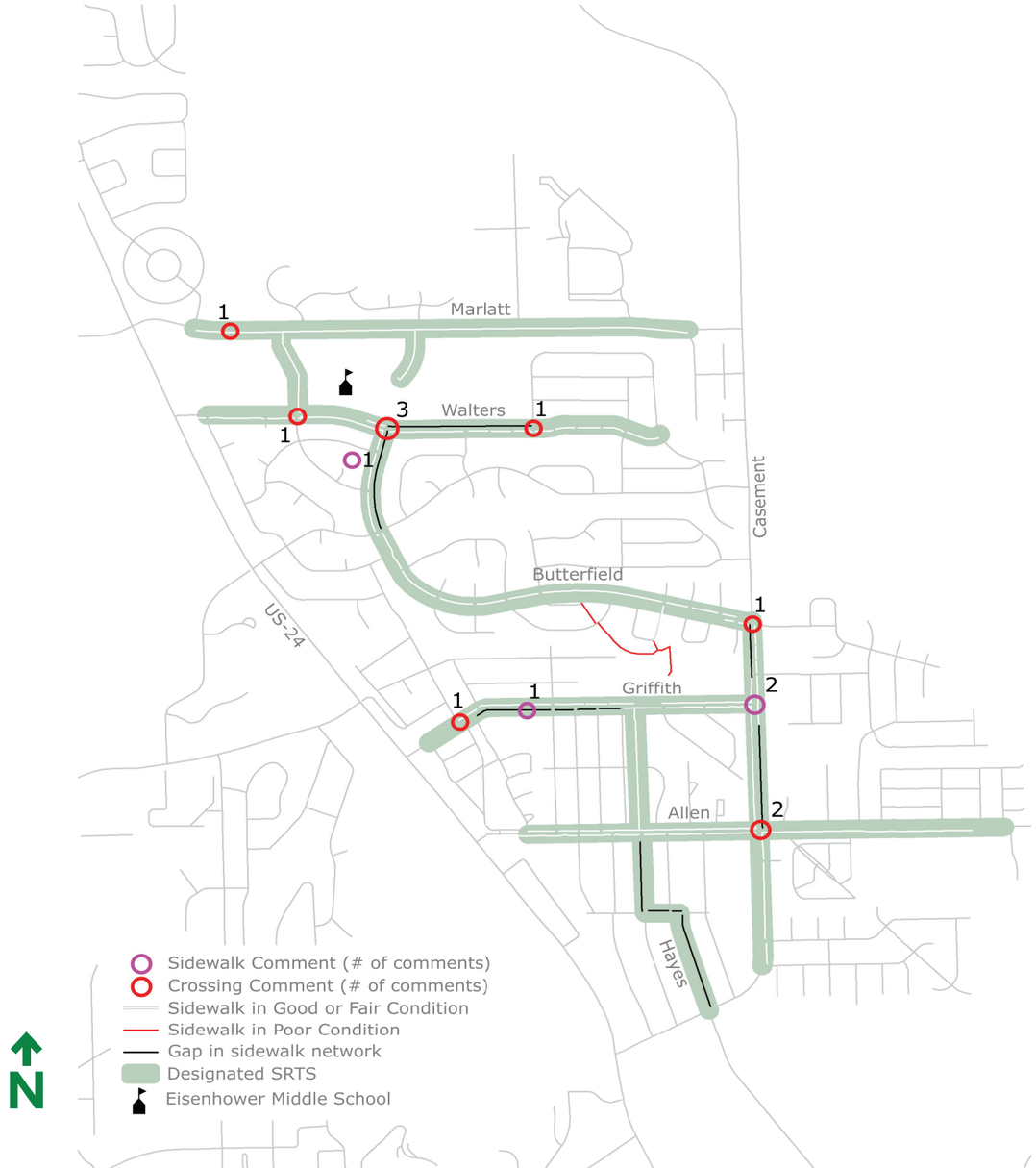


Figure EMS8

Safe Routes

Designated Safe Routes are corridors leading to Northview Elementary. Projects located along Safe Routes are prioritized to provide a high level of impact.

Griffith Drive: Casement Road to Blue Valley Manufactured Home Community.

Casement Road: Harvey Drive to Brookmont Drive.

Allen Road & Knox Lane: Blue Valley Manufactured Home Community to Spruce Place.

Hayes Drive: Casement Road to Gross Street.

Gross Street: Hayes Drive to Judson Street.

Judson Street: Gross Street to Allen Road.

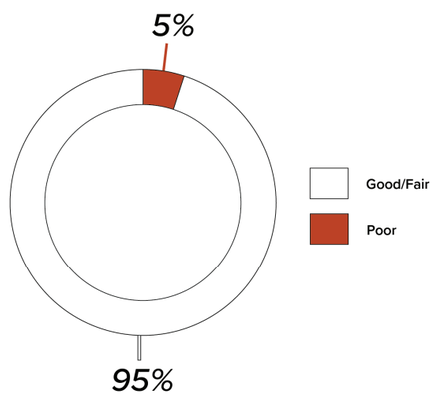
Prairie Glen Trail: Allen Road to Griffith Drive.

Butterfield Road: Casement Road to Walters Drive.

Sidewalk Condition

The neighborhoods surrounding Anthony Middle School have sidewalks along larger roads (Figure EMS8). Most of these roads however have sidewalk only on one side. Large gaps still remain across the attendance zone. Most local roads are without sidewalk, especially south and west of Butterfield Road. The sidewalks that do exist are mainly in good and fair condition, with the exception being the key connections north of the school through the Butterfield Owners Association.

Safe Route Sidewalks by Condition



Thank you to K-State Prof. Shakil Kashem and students in his Plan 836 course for their work collecting sidewalk condition data.

Figure EMS9

Recommended Project Map

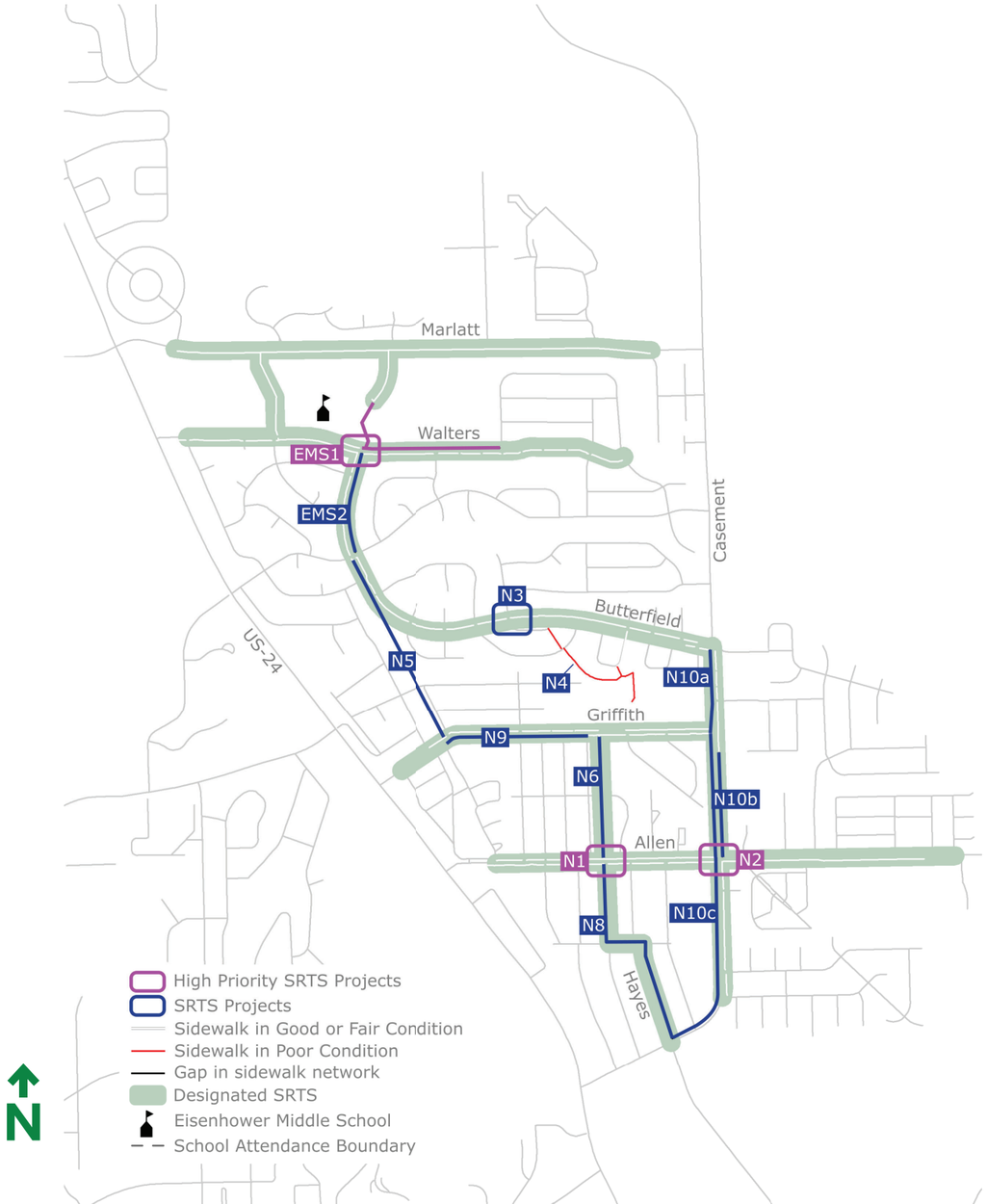


Figure EMS10

Figure EMS10 maps the recommended projects for Eisenhower Middle School. These projects were based upon sidewalk condition data, parental comments, and school administration meetings. Due to the close proximity of Northview Elementary, some projects overlap between these two schools. Valid projects remaining from the 2015 SRTS report have also been included. Projects are focused around the designated Safe Routes to maximize impact and safety on key corridors and at critical intersections.

A full list of projects can be found in Figure EMS11, with detailed information on the following pages. All projects beginning with N (N1, N2, etc) are located in the Northview Elementary chapter. High Priority projects have additional information, including diagrams and engineering cost estimates.

EISENHOWER MIDDLE SCHOOL

ID	Location	Type	Improvement	Project Details	BPSP Project	2015 SRTS Project	ATA Partner Project	Demo/Semi-Perm. Eligible	FHWA STEP	High Priority
EMS1	Walters Drive at Butterfield Road	Crossing & Sidewalk	Crosswalk & New Sidewalk	Remove the existing crossing of Walters Drive at Butterfield. Install a new mid-block crossing at the bus drop-off entry. Install sidewalk on the north side of Walters Drive from Brookville Drive to the Eisenhower parking lot entrance. Install new sidewalk north along the east side of the parking lot driveway to connect to the existing park sidewalk.					●	●
EMS2	Butterfield Road	Sidewalk	New Sidewalk	Install sidewalk on the east side of Butterfield Road from Walters Drive south to Northfield Road			●			
N1	Allen Road at Judson Street	Crossing	RRFBs	Install RRFBs at the crossing to Prairie Glen trail.	●				●	●
N2	Casement Road at Allen Road	Crossing	PHB	Upgrade existing RRFB crossing to PHB or full signal.	●		●		●	●
N3	Butterfield Road at Brook Lane	Crossing	Curb extension, new crosswalk, RRFBs, and new sidewalk	Install a new crosswalk of Butterfield Road with a curb extension and RRFBs at Brook Lane, and extend sidewalk to connect to Northview Elem.			●		●	
N4	Butterfield HOA	Sidewalk	Upgrade to MUP	Replace existing sidewalks with multi-use path (MUP) in Butterfield HOA, and connect to Butterfield Road.						
N5	Butterfield Road and Manifax Street	Sidewalk	New MUP	Install new multi-use path (MUP) on west side of Butterfield from Northfield, through Butterfield HOA green area and ROW, and along west side of Manifax Street to Griffith Drive.						
N6	Prairie Glen Apartments	Sidewalk	Upgrade to MUP	Replace existing sidewalk with multi-use path (MUP) from Allen Road to Griffith Drive in Prairie Glen Apartments.						

Figure EMS11a

EISENHOWER MIDDLE SCHOOL

ID	Location	Type	Improvement	Project Details	BPSP Project	2015 SRTS Project	ATA Partner Project	Demo/Semi-Perm. Eligible	FHWA STEP	High Priority
N8	Judson Street, Gross Street, and Hayes Drive	Sidewalk	New Sidewalk	Install new sidewalk from Allen Road to Casement Road along Judson and Gross street, and Hayes Drive.	●					
N9	Griffith Drive	Sidewalk	New Sidewalk	Install sidewalk on the south side of Griffith Drive from Blue Valley Mobile Home Park to existing sidewalk at Northview Drive.	●	●				●
N10a	Casement Road	Sidewalk	New MUP	Install a multi-use path (MUP) along the west side of Casement Road, between Northfield Road and Griffith Drive.	●	●				
N10b	Casement Road	Sidewalk	New MUP	Install a multi-use path (MUP) along the west side of Casement Road, and a sidewalk extension on the east side of Casement Road, between Griffith Drive and Allen Road	●	●				
N10c	Casement Road	Sidewalk	New MUP	Install a multi-use path (MUP) along the east side of Casement Road, and a sidewalk on the west side of Casement Road, between Allen Road and Hayes Drive	●					

Figure EMS11b

EMS1 Walters Drive at Butterfield Road

HIGH PRIORITY PROJECT

Estimated Project Cost:
330,460

Figure EMS12. Proposed project.

This project would connect the the neighborhoods northeast of Walters Drive and Brookville Drive to Eisenhower Middle School via a sidewalk along the north side of Walters Drive. In addition to connecting to the school, the Eisenhower Baseball Complex and it's fields and playground would also become connected to the residential areas.

At the intersection of Butterfield Road/parking lot driveway, the existing crossing of Butterfield would be removed. This location has seen student-vehicle crashes, and the combination of high traffic and turn movements, makes crossing very difficult for students. A new mid-block crossing would be installed further west, and align with the eastern corner of the drop-off loop of Eisenhower Middle School.

Sidewalk would also be isntalled along the eastern side of the parking lot driveway, connecting the new Walters Drive sidewalk to the sidewalk along the parking lot and connecting to the park.

As a high priority project a detailed cost estimate was completed and can be found in Appendix D.

Figure EMS12. Enlargement of Butterfield and Walters intersection.

EMS2 Butterfield Road

Figure EMS13. Proposed sidewalk.

This project would fill the sidewalk gap along the east side of Butterfield Road between Northfield Road and Walters Drive. With a functional classification of Minor Collector, Butterfield Road should have sidewalk on both sides. Additionally, its proximity to both the school and part demand this segment be built to minimize unneeded crossings of Butterfield Road.

Bike Bus Map

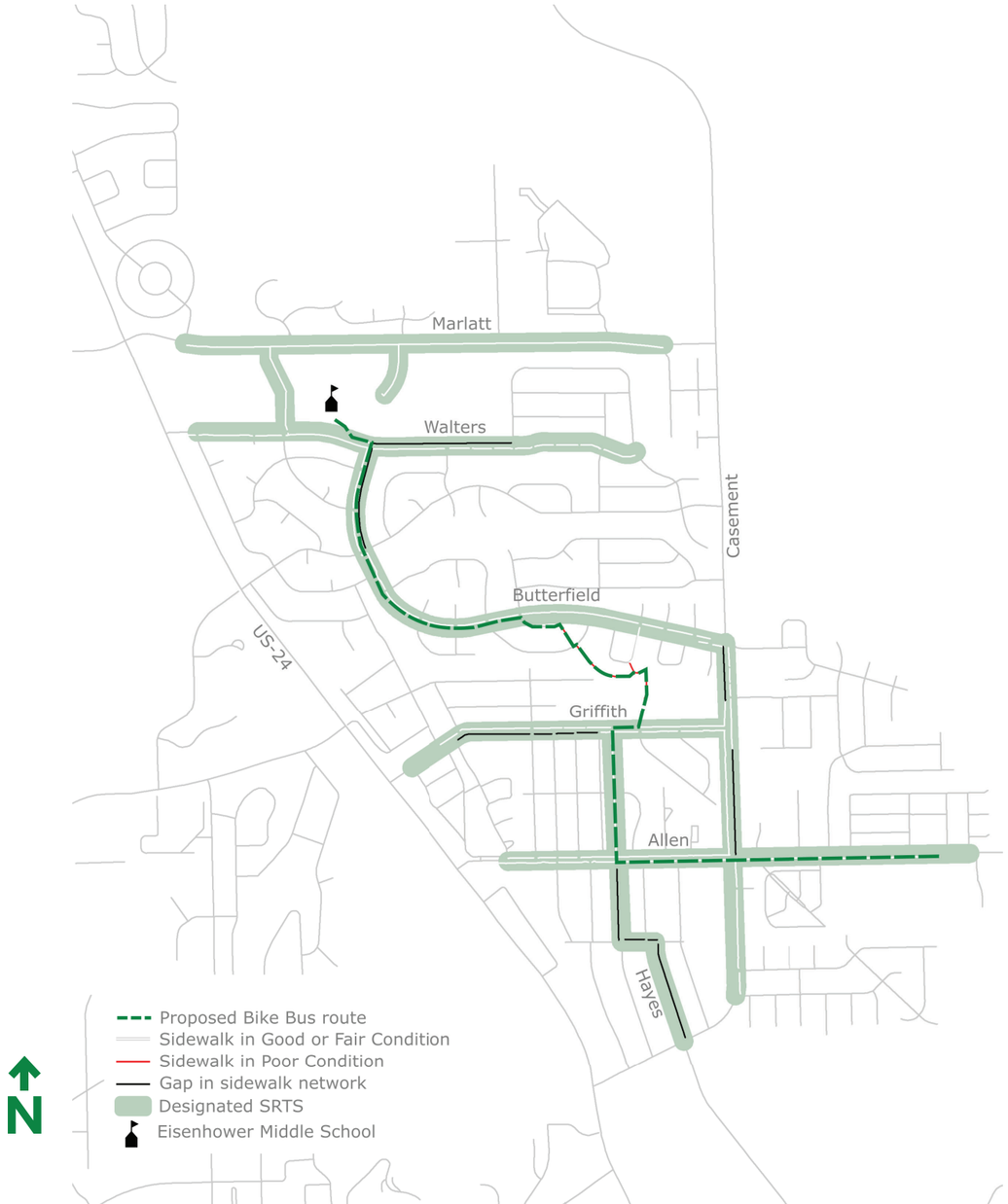


Figure EMS14

This Bike Bus route connects several neighborhoods and allows for locations where students to join along the route. While not direct, this route would provide students with a guided crossing of several large roads and crossings.

Bike Bus Directions

- Start at Knox Lane (Knox Trail) and Spruce Place
- West on Knox Trail
- Stop at Knox Trail and Powerline Place
- West on Knox Trail, cross Casement Road
- Stop at Allen Road at Judson Street
- North on Prairie Glen trail
- Stop at Prairie Glen trail and Prairie Glen Place
- North on Prairie Glen trail, cross Griffith
- North through Northview Elementary playground area
- West and north on Butterfield Owners Association sidewalk
- Stop at Brook Lane
- West on Brook Lane
- Stop at Butterfield Road and Brook Lane
- West on Butterfield Road
- Stop at Butterfield Road and Northfield Road
- North on Butterfield Road
- End at Eisenhower Middle School

MANHATTAN HIGH SCHOOL

Safe Routes Grade Card

Section	Item	Grade
Proximity	Residential parcels within 1 mile of school	**271**
	Student addresses within 1 mile of school	**7%**
	Parent perception: "Close" to school	**n/a**
Built Environment	Safe Route sidewalk connectivity	**79%** *of Safe Routes have sidewalks*
	Safe Route sidewalk condition	**94%** *of sidewalks rated Good or Fair*
	Intersection issues & comments	**n/a**
Safety Perception	Child will be hit by a vehicle	**n/a**
	Child will be taken by a stranger	**n/a**
	School zones well enforced	**n/a**
Transportation	Student walking & biking to school (counts)	**High**
	Students driven to school in private cars (survey)	**n/a**

Figure HS1

The grade card in Figure HS1 serves as a snapshot of key categories and data measures for Manhattan High School. Colors in the "Grade" column reflect the school's score in relation to others across USD 383. **Green represents satisfactory or better**, **yellow average,** and **red below average or underperforming.**

The High School report card is incomplete as parental surveys were not sent out. Instead, focus is on the built environment. The remainder of this chapter will focus on projects to improve conditions for those who can walk to school.

Walkability Map

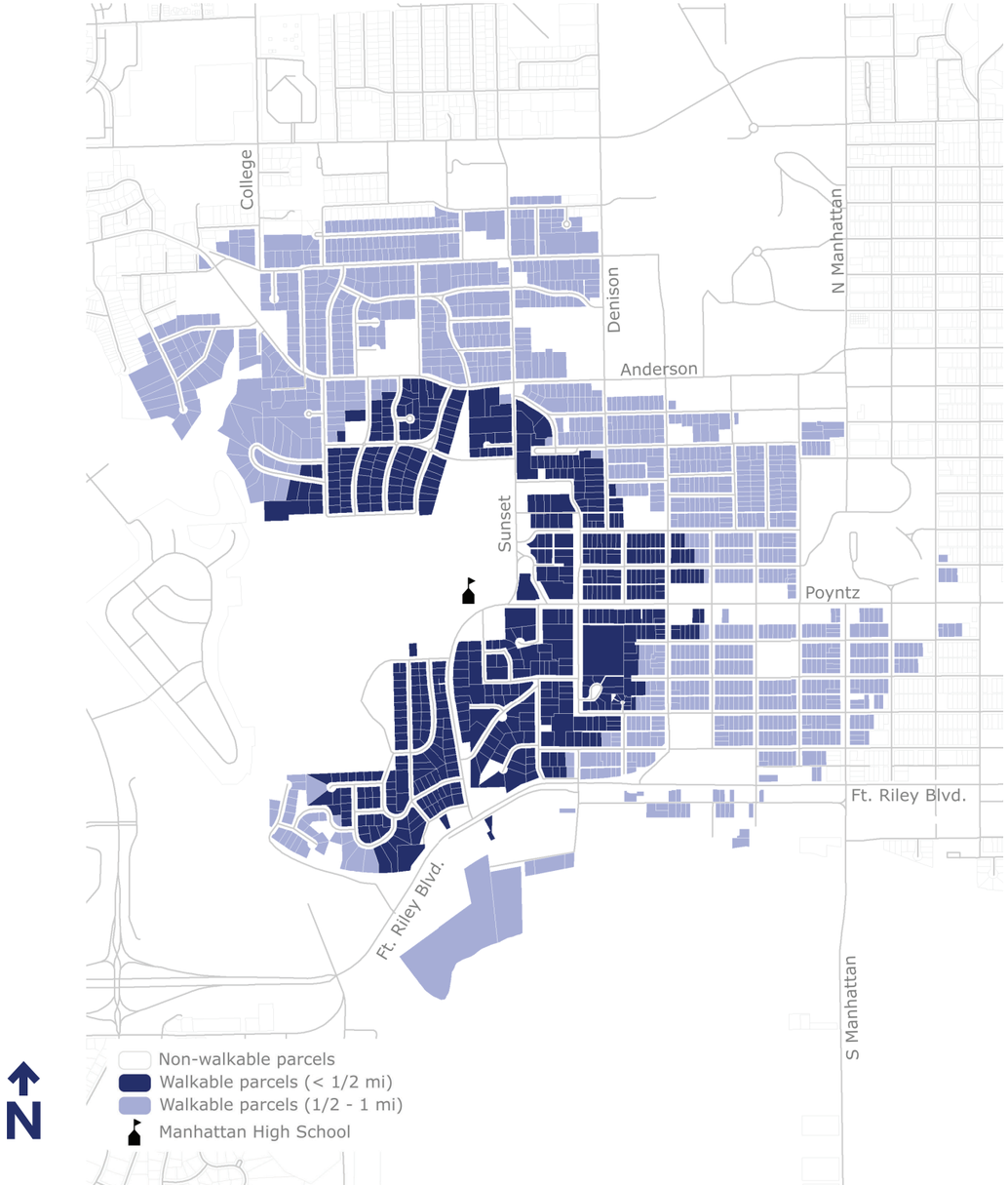


Figure HS2

Walkability Data

Serving as a city and region-wide school, Manhattan High School is not walkable for most students. However, there are many neighborhoods surrounding the school that are walkable (Figures HS2 and HS3).

Current Student Addresses by Proximity

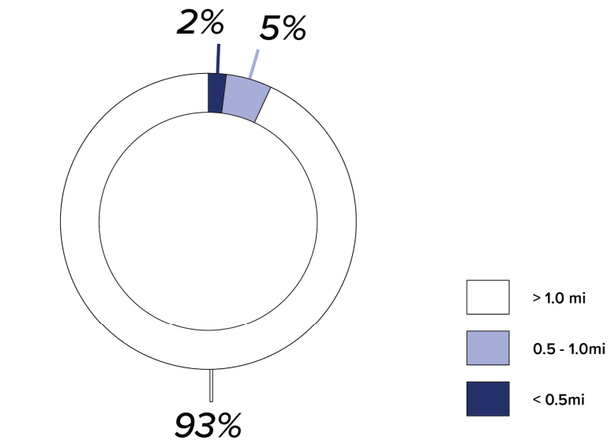


Figure HS3

Safe Routes Map

Figure HS4

Safe Routes

Designated Safe Routes are corridors leading to Manhattan High School. Projects located along Safe Routes are prioritized to provide a high level of impact.

Poyntz Avenue: MLK Jr. Drive to Pine Drive.

Westwood Road: Ft. Riley Boulevard to Pine Drive

Sunset Avenue: Anderson Avenue to Poyntz Avenue

Claflin Road: 10th Street to McCain Lane.

Ratone Street: Juliette Avenue to 10th Street.

Sidewalk Condition

The neighborhoods around Manhattan High School have a mix of gridded streets with complete sidewalk networks and later suburban areas lacking all sidewalks. Along the defined Safe Routes major gaps exist (Figure HS8), most noteably along Westwood Road. In addition to the gaps, there are areas of poor sidewalk that need to be addressed (Figure HS9).

Safe Route Sidewalks by Condition

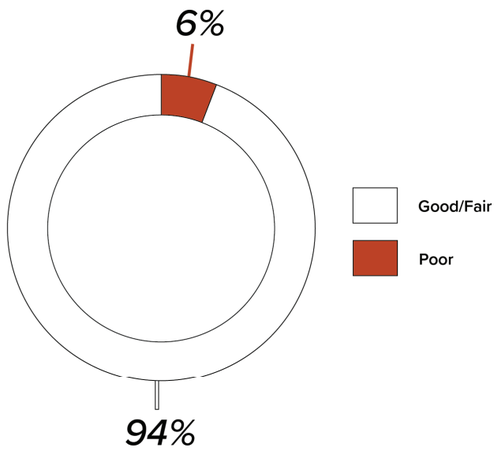


Figure HS5

Thank you to K-State Prof. Shakil Kashem and students in his Plan 836 course for their work collecting sidewalk condition data.

Recommended Project Map

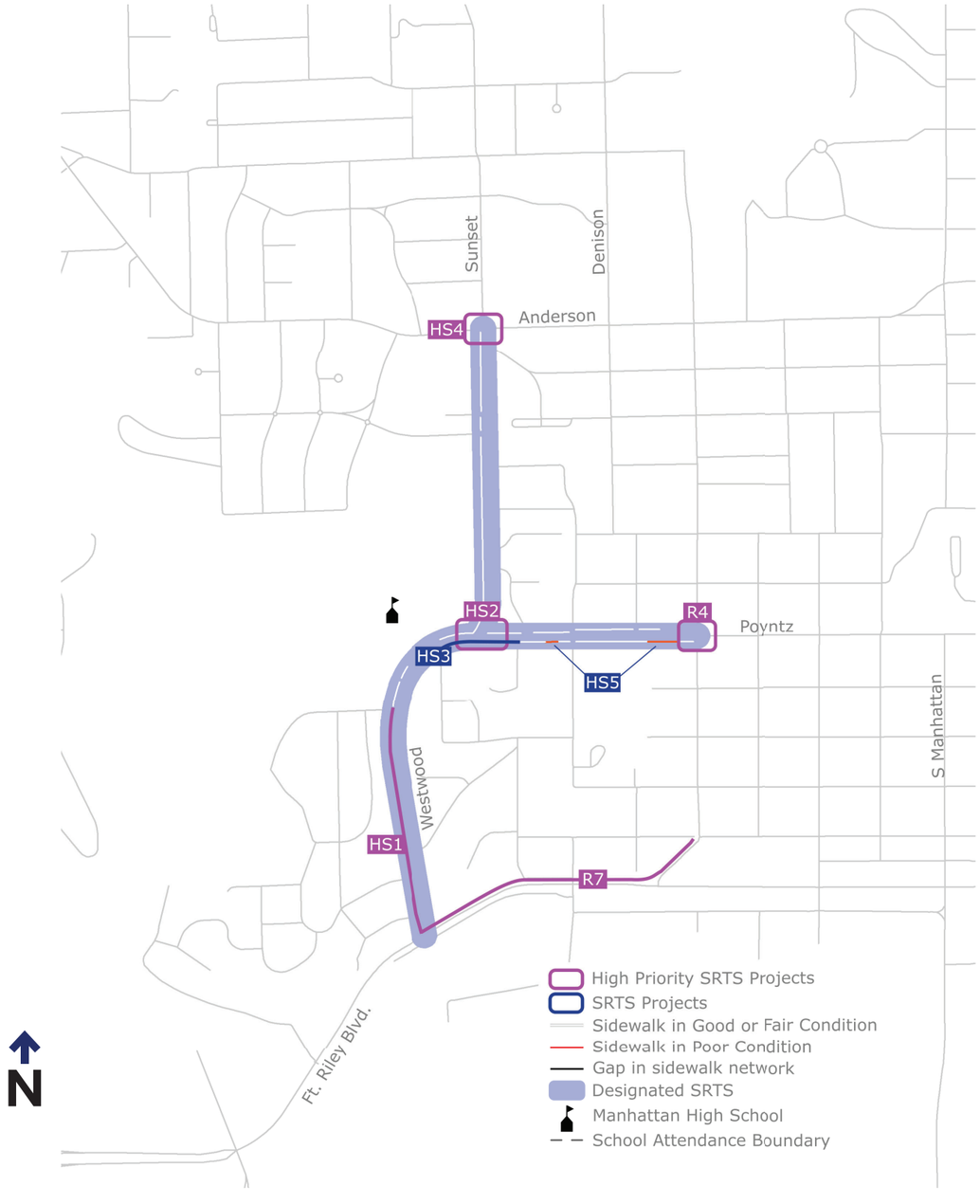


Figure HS6

Figure HS10 maps the recommended projects for Manhattan High School. These projects are based on existing condition analysis and site visits.

Projects are focused along the designated Safe Routes to maximize impact and safety on key corridors and at critical intersections.

A full list of projects can be found in figure HS11, with detailed information on the following pages. Additionally, High Priority projects have additional information including diagrams and engineering cost estimates.

MANHATTAN HIGH SCHOOL | *Recommended Project Table*

ID	Location	Type	Improvement	Project Details	BPSP Project	2015 SRTS Project	ATA Partner Project	Demo/Semi-Perm. Eligible	FHWA STEP	High Priority
HS1	Westwood Road	Sidewalk	New Sidewalk	Install new sidewalk on the west side of Westwood Road from Ft. Riley Boulevard to Oak Street by removing existing curb line and shifting it 6ft east. Remove uphill bike lane and restripe roadway.			●			●
HS2	Poyntz Avenue and Sunset Avenue	Crossing	Multiple Options	Improve the crossing of Sunset Avenue at Poyntz Avenue. Repair roadway. Options include roundabout, etc., dependent upon engineering study.			●		●	●
HS3	Poyntz Avenue	Sidewalk	New Sidewalk	Install new sidewalk on the south side of Poyntz Avenue from Evergreen Avenue to Pine Drive.						
HS4	Anderson Avenue and Sunset Avenue	Crossing	LPI	Upgrade existing signals with Lead Pedestrian Intervals (LPIs).					●	●
HS5	Poyntz Avenue	Sidewalk	Replace Sidewalk	Replace “Poor” condition sidewalk along south side of Poyntz Avenue between MLK Jr. Drive and Evergreen Street.			●		●	
R7	Ft. Riley Boulevard	Sidewalk	New Sidewalk	Install sidewalk or multi-use path (MUP) on the north side of Ft Riley Boulevard from Westwood Road to MLK Jr. Drive and Yuma Street.	●	●				●
R8	14th Street	Sidewalk	New Sidewalk	Install sidewalk on the east side of 14th Street from Houston Street, north to existing sidewalk at the alley.						

Figure HS7.

HS1 Westwood Road

HIGH PRIORITY PROJECT

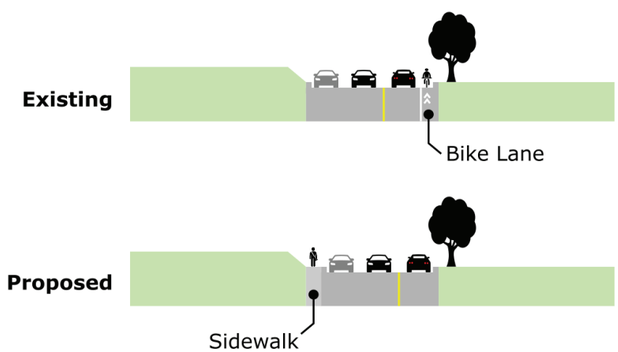
Estimated Project Cost:
632,434

Figure HS8. Proposed project.

This project would reorganize Westwood Road to allow for the inclusion of a sidewalk along the western side, from the existing sidewalks along Ft. Riley Boulevard and Oak Street. To do so, the existing uphill bike lane would be removed. The current western curb would be removed, and a new curb installed 6ft into the current roadway. The road would be re-striped to shift the drive lanes east.

While removing bike lanes is not ideal, providing a sidewalk is more important. With housing along the west side of Westwood Road, as well as the new Ft. Riley Boulevard sidewalk connection, this sidewalk connection to the High School is critical. Currently people must walk in the street very near to vehicles traveling quickly downhill.

The detailed engineering estimate noted issues including moving stormwater inlets and piping, as well as tree pruning along the east side of Westwood. This estimate can be found in Appendix D.



HS2 Poyntz Avenue and Sunset Avenue

HIGH PRIORITY PROJECT

Figure HS9. Conceptual sketch of proposed roundabout.

This intersection has long proven a difficult and unsafe one for all road users, in particular for students walking to the High School and crossing Sunset Avenue. With limited sight distances and steep grades, turning from Sunset Avenue on to Poyntz Avenue is difficult, and causes major traffic queuing at school drop-off and pick-up times. These problems will become exacerbated in autumn 2023 when 9th graders will be attending the school full-time as the 9th Grade Center (East Campus) will be closed.

An engineering study should be conducted to look at the best options given these new conditions. A potential option could include a roundabout (see conceptual sketch to the left), and associated sidewalk alterations.

HS3 Poyntz Avenue

Figure HS10. Proposed sidewalk.

This project could complement or replace project HS2, depending on design. With the installation of a sidewalk along the south side of Poyntz Avenue from Evergreen Street to Pine Street, this project would both close a sidewalk gap as well as provide a safe option to access the High School by removing the need to cross at the difficult Sunset Avenue crosswalk.

Issues include tight Right-of-Way and grade issues. However, this segment would allow for the use of the RRFBs located at the new crosswalk at Pine Drive.

HS4 Anderson Avenue and Sunset Avenue

HIGH PRIORITY PROJECT

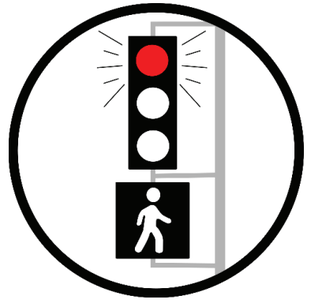
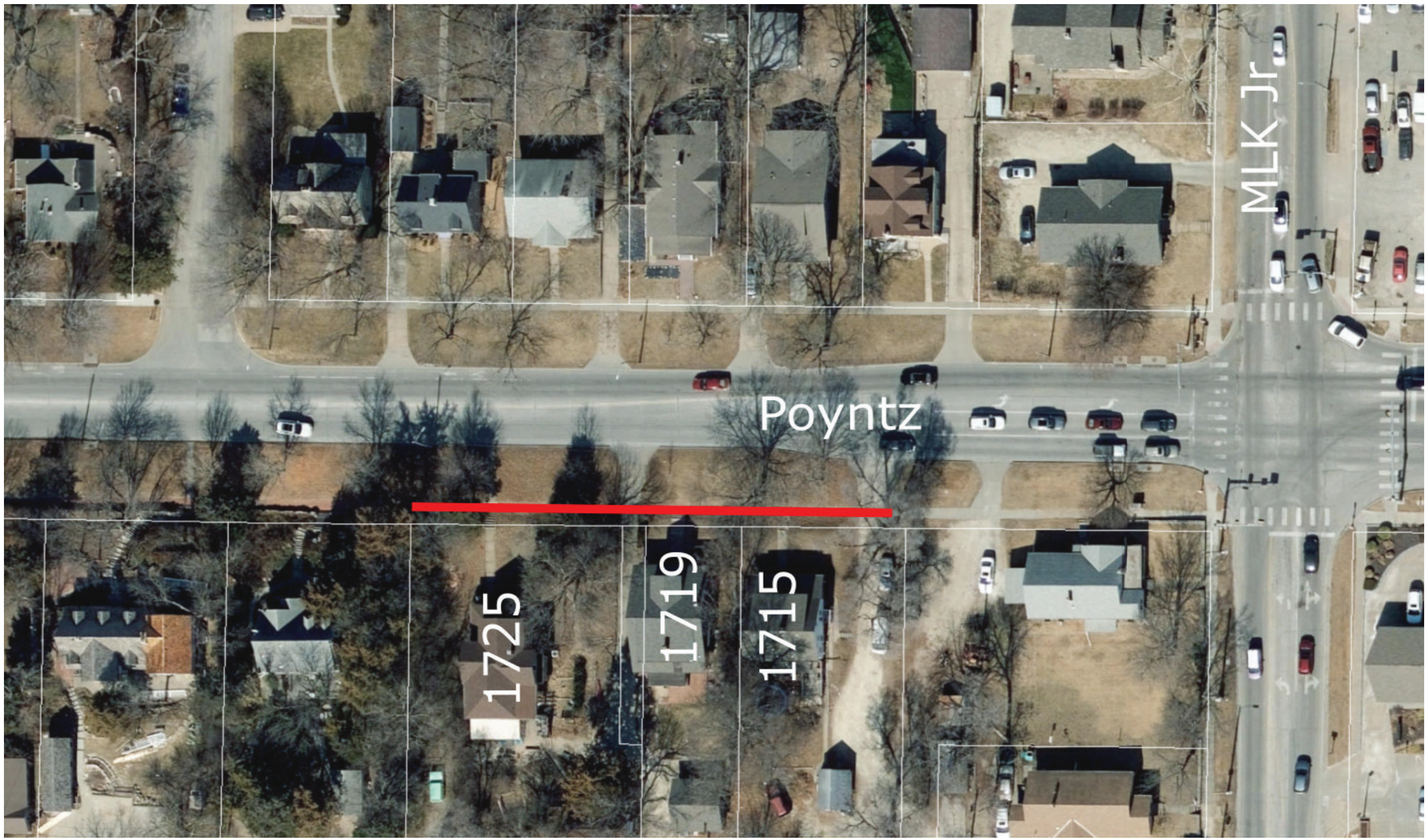


Figure HS11. Proposed crossings and LPI.

This project would install Lead Pedestrian Interval (LPI) timing to the existing signals, allowing for increased safety by giving people walking a head start into the roadway. With high amounts of people walking and biking, combined with high traffic volumes at school drop-off and pick-up times, and a high percentage of young drivers, LPI signals would help address conflict point safety issues.

HS5 Poyntz Avenue



This project would replace the existing poor condition sidewalk along Poyntz Avenue between MLK Jr. Drive and the High School.

Figure HS12. Proposed sidewalk replacement.