



# FERN BACON MIDDLE SCHOOL WALK AUDIT REPORT

FEBRUARY 2018

SAFE ROUTES TO SCHOOL



## TABLE OF CONTENTS

School Location.....	2
Existing Conditions.....	3
Mode Split .....	3
Traffic Injury Mapping.....	5
Parent Concerns .....	6
Student Perceptions on Walking and Biking to and from School .....	8
Identifying Barriers to Walking and Biking.....	12
Recommendations for Review.....	14
Infrastructure Recommendations.....	14
School Recommendations.....	24
General Recommendations .....	26
Appendix.....	27



## SCHOOL LOCATION

Fern Bacon Middle School is located at 4140 Cuny Avenue, Sacramento, CA 95823 within the Sacramento City Unified School District. For the current 2016-2017 school year, approximately 759 students were enrolled in seventh and eighth grade, of which 93.9% were eligible for free or reduced price meals.<sup>1</sup> The 2017-2018 attendance boundary is shown in red on the map (right). Students attending Fern Bacon live within the City and unincorporated County of Sacramento.

Fern Bacon Middle School is part of a multi-site campus and shares property and facilities with two other Sacramento City Unified School District schools: Bowling Green McCoy Elementary and Bowling Green Charter Chacon Language & Science Academy. The middle school is situated within a disadvantaged community in the heart of South Sacramento.<sup>2</sup> CalEnviroScreen 3.0 which identifies communities most affected by pollution and where residents are vulnerable to adverse environmental impacts ranks this community in the highest percentile (91 – 100%). The school is closely bordered to the east by Highway 99 and on the west by Franklin Boulevard. The school has a high mode share of pedestrians and cyclists despite most students' trips necessitating travel along or across major, high-speed arterial roadways.



<sup>1</sup> California Department of Education, Free/Reduced Meals Program and CalWORKS Data Files, 2013. Available from <http://www.cde.ca.gov/ds/sd/sd/files.asp>. Accessed on April 24, 2014.

<sup>2</sup> CalEnviroScreen3.0 Percentile 91- 95% (Highest Score). Map Available from <https://oehha.ca.gov/calenviroscreen/maps-data>

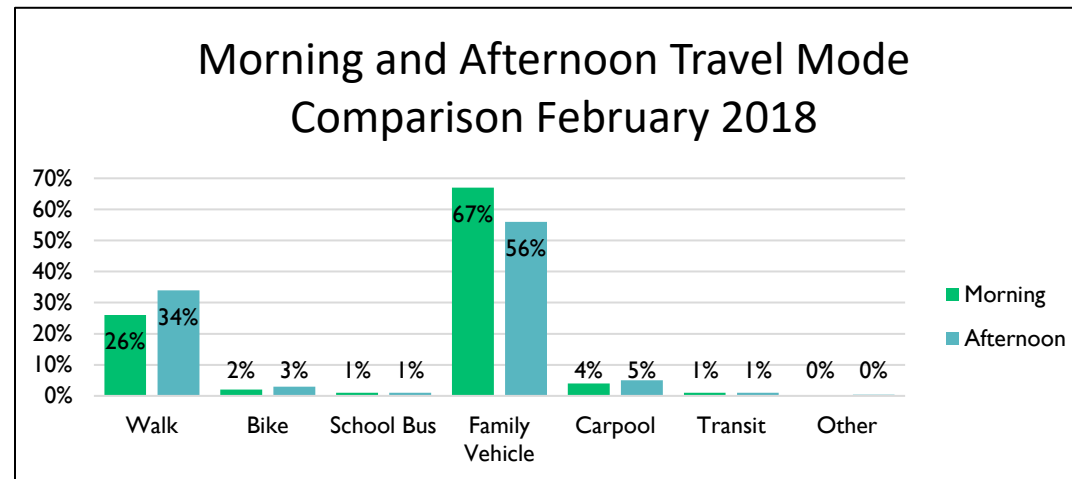
## EXISTING CONDITIONS

### MODE SPLIT

Using the National Center for Safe Routes to School Student Travel Tally<sup>3</sup> ([Appendix A](#)), in-class tallies of student travel mode were conducted over a period of three days in February 2018 and May 2018. In February 2018 there were 4,216 rides tallied over 19 classrooms and in May 2018 a total of 3,294 rides were tallied across 19 classrooms. From February 2018 to May 2018 there was little change in percentage in mode share. This may have been due to the tallies collected over a short period of time and after the programming with the school began in the fall.

February 2018	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
<b>Tuesday AM</b>	701	25%	2%	.6%	67%	4%	.4%	.4%
<b>Tuesday PM</b>	700	34%	2%	.4%	57%	5%	.7%	.4%
<b>Wednesday AM</b>	684	24%	2%	.6%	69%	4%	.6%	.1%
<b>Wednesday PM</b>	707	34%	2%	.4%	59%	4%	.7%	.4%
<b>Thursday AM</b>	695	28%	2%	.6%	65%	3%	1%	.3%
<b>Thursday PM</b>	729	35%	4%	.5%	52%	7%	1%	.3%

Percentages may not total 100% due to rounding.

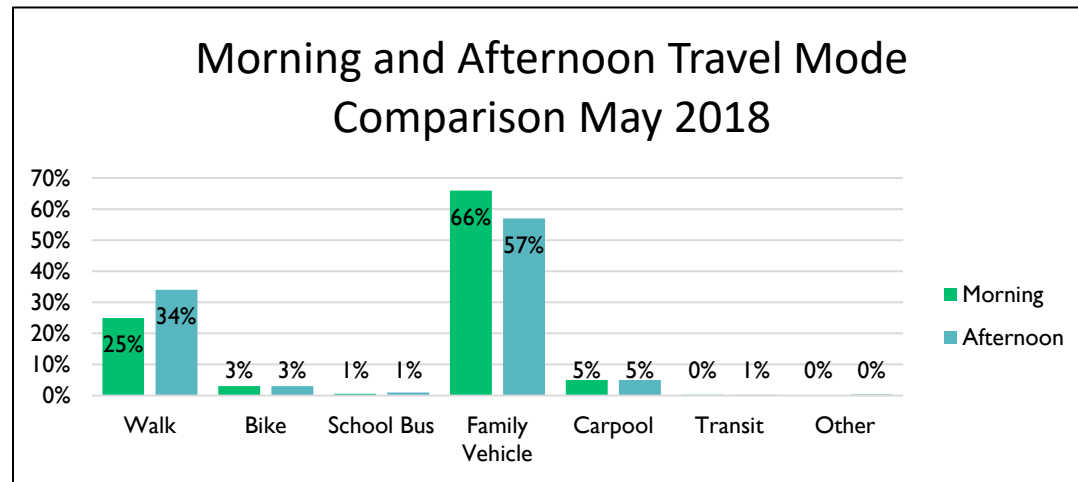


<sup>3</sup> National Center for Safe Routes to School, Evaluation: Student In-Class Travel Tally, 2018, available. Accessed January 2018



May 2018	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
<b>Tuesday AM</b>	630	25%	3%	.6%	66%	5%	.3%	.2%
<b>Tuesday PM</b>	620	34%	3%	.6%	57%	5%	.3%	.3%
<b>Wednesday AM</b>	573	27%	4%	.9%	65%	3%	.5%	.2%
<b>Wednesday PM</b>	539	33%	4%	.7%	59%	2%	.2%	.6%
<b>Thursday AM</b>	463	26%	3%	4%	62%	4%	.2%	.2%
<b>Thursday PM</b>	469	33%	3%	3%	57%	4%	.2%	.2%

Percentages may not total 100% due to rounding.



Percentages may not total 100% due to rounding

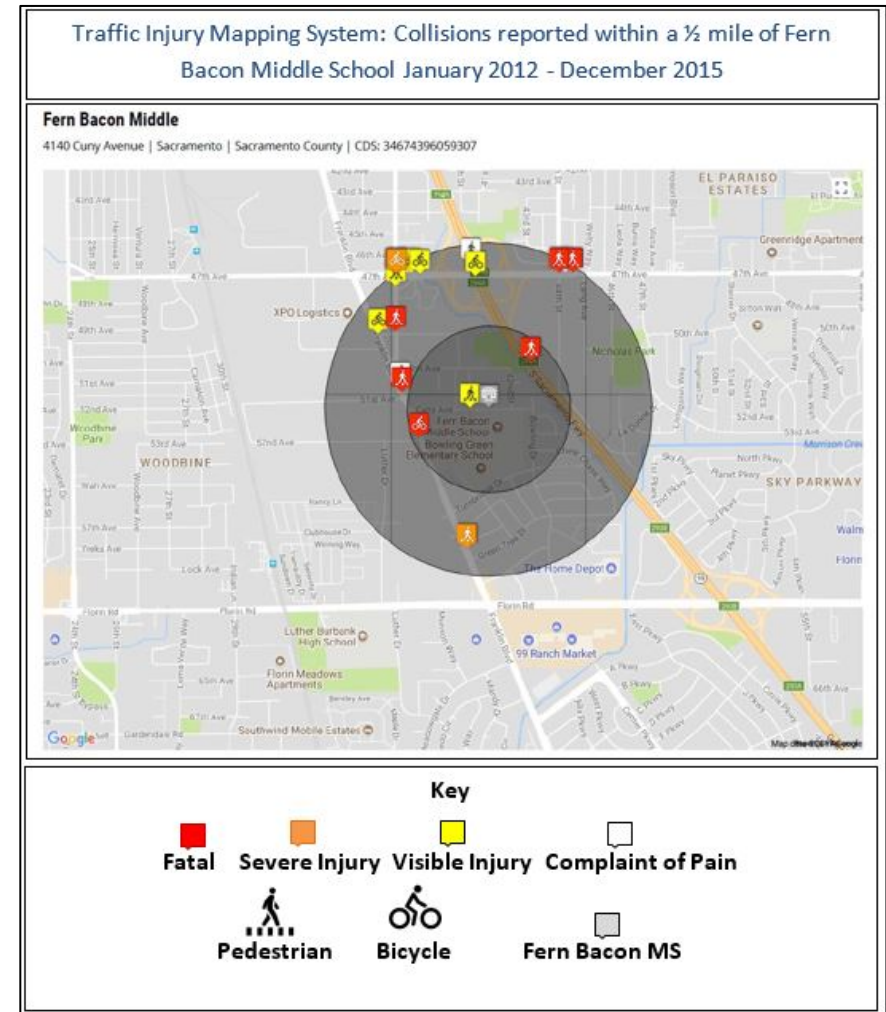
## TRAFFIC INJURY MAPPING

Over a 4-year span of January 2012 - December 2015 there were 23 reported collisions involving motorists and non-motorists within a ½ mile radius of the school ([Appendix B](#)).<sup>4</sup> Collisions occurred most frequently between the intersection of 47<sup>th</sup> Avenue and Martin Luther King Jr. Boulevard and the intersection of Franklin Boulevard and Florin Road. The intersection of 47<sup>th</sup> Avenue and Martin Luther King Jr. Boulevard is heavily used by students who live north of 47<sup>th</sup> Avenue or east of Highway 99. The intersection of Franklin Boulevard and Florin Road is heavily used by students who live south of Florin Road.

In this short time span, there have been six fatal collisions including one cyclist and five pedestrians. Seven collisions occurred between 7:30 am and 5:00 pm on weekdays, which are popular student commute times.

**TIMS Injury Summary Statistics: Pedestrian and Bicycle Injuries 2012-2015 within a ½ Mile of Fern Bacon Middle School**

Radius	< ¼ mile	¼ - ½ mile	Total
<b>Fatal</b>	2	4	6
<b>Severe Injury</b>	0	4	4
<b>Visible Injury</b>	1	5	6
<b>Complaint of Pain</b>	0	7	7
<b>Pedestrian</b>	2	11	13
<b>Bicycle</b>	1	9	10
<b>Total</b>	3	20	23

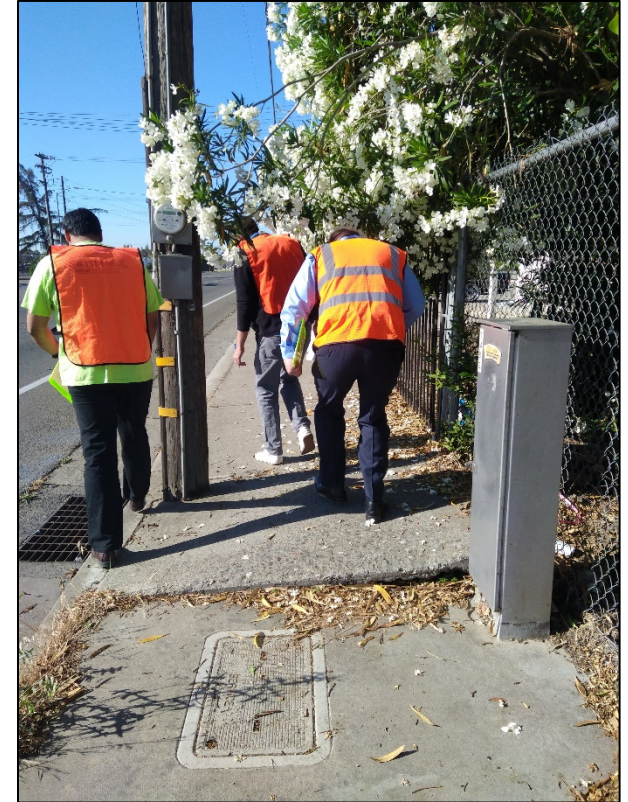


<sup>4</sup> UC Berkley Transportation Injury Mapping System: Safe Routes to School Collision Map Viewer, available at <https://tims.berkeley.edu/tools/srts/>.

## PARENT CONCERNS

Parent concerns regarding school travel were gathered during stakeholder interviews during the school's 'Bulldog Café' meetings and Safe Routes to School promotional events. Parents and guardians identified traffic safety and neighborhood crime as their top concerns for student safety when walking or biking to school. The Martin Luther King Jr. Boulevard and 47<sup>th</sup> Avenue intersection is heavily used by students who live north of 47<sup>th</sup> Avenue. The intersection is of major concern due to perceived high vehicle speeds. Martin Luther King Jr. Boulevard has a posted speed limit of 35mph, and 47<sup>th</sup> Avenue has a posted speed limit of 40mph. Speeds in excess of 30mph without barriers from traffic, such as landscaping, make for a less pleasant pedestrian environment, and are not conducive to parents allowing their students to walk or bike. A speed survey may be beneficial to confirm actual traffic speeds on both Martin Luther King Jr. Boulevard and 47<sup>th</sup> Avenue. Pedestrian facilities such as the sidewalks are unprotected from traffic and are in some locations partially obstructed by large utility poles or illegal dumping. Additionally, despite being identified by students and parents as a lower-stress alternative to walking on Martin Luther King Jr. Boulevard, the 49<sup>th</sup> Avenue to Wesley Avenue segment lacks continuous sidewalks, deterring student use.

Studies have shown that residents of neighborhoods with sidewalks are 47% more likely to be active at least 30 minutes a day.<sup>5</sup> Safe, accessible, well-maintained sidewalks are a fundamental community investment that enhances public health and maximizes social capital.<sup>6</sup> According to data provided by the Sacramento County Department of Health and Human Services, Sacramento County ranks higher than state averages for diabetes, heart disease, blood pressure, cholesterol, obesity, and asthma. 16.8% of adults in Sacramento County do not participate in regular physical activity. Only 12% of children and teens throughout the County are physically active at least one hour per day.



Walk Audit participants walk around utility poles and overgrown greenery along Martin Luther King Jr.

---

<sup>5</sup> Sallis J., et al. "Neighborhood Environments and Physical Activity among Adults in 11 countries." American Journal of Preventive Medicine, Vol. 36, No.2

<sup>6</sup> National Association of City Transportation Officials (NACTO). (October 2012) Urban Street Design Guide pp 24-25. <http://www.nyc.gov/html/dot/downloads/pdf/2012-nacto-urban-street-design-guide.pdf>.



## NATIONAL CENTER FOR SAFE ROUTES TO SCHOOL PARENT SURVEY

Parents' attitudes toward walking and biking were also surveyed using the National Center for Safe Routes to School Parent Survey ([Appendix C](#))<sup>7</sup> in September 2017. Out of 755 surveys, 420 were returned (56%). A second round of parent surveys were requested in May 2018, however, no surveys were returned.

### Key Results:

- The issues most frequently reported to affect the decision to **not** allow a student to walk or bike to/from school are violence or crime (76%), the distance of the route (75%), safety of intersections and crossings along the route (70%), and the speed of traffic along route (69%) by parents of children who do not walk or bike to/from school.
- There is an inverse relationship between the distance a student lives from school and the likelihood they have asked permission to walk or bike to school. Students that live within a mile of school are more likely to ask permission to walk and bike while students that live 1 mile or more from school are less likely to ask permission to walk or bike. As such, it may be valuable to consider prioritizing improvements within 1 mile of the school site.
- The greatest number of parents (31%) estimated the distance between home and school to be 1-2 miles.
- Despite living within a walkable and bikeable distance, the majority of parents reported the family vehicle as the typical mode of arrival (62%) and departure (57%) from school. This may indicate the need for further mode shift encouragement programs in conjunction with built environment change.

Issues reported to affect the decision to allow a child to walk or bike to/from school by parents of children who already walk or bike to/from school		
Issue	Child does not walk/bike to school	Child walks/bikes to school
Violence or Crime	76%	56%
Distance	75%	72%
Safety of Intersections and Crossings	70%	53%
Speed of Traffic Along Route	69%	42%
Weather or climate	64%	42%
Time	49%	36%
Sidewalks or Pathways	45%	36%

No response: 210

#### Note:

--Factors are listed from most to least influential for the 'Child does not walk/bike to school' group.

--Each column may sum to > 100% because respondent could select more than issue

---The calculation used to determine the percentage for each issue is based on the 'Number of Respondents per Category' within the respective columns (Child does not walk/bike to school and Child walks/bikes to school.) If comparing percentages between the two columns, please pay particular attention to each column's number of respondents because the two numbers can differ dramatically

<sup>7</sup> National Center for Safe Routes to School, Evaluation: Parent Survey, 2017, available <http://saferoutesdata.org> Internet: accessed August 2017.

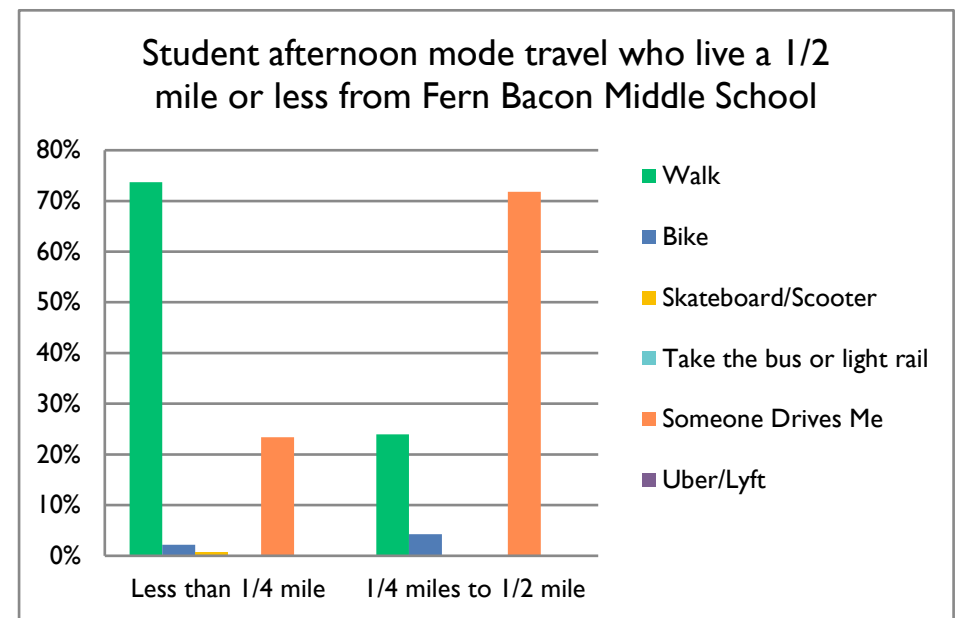
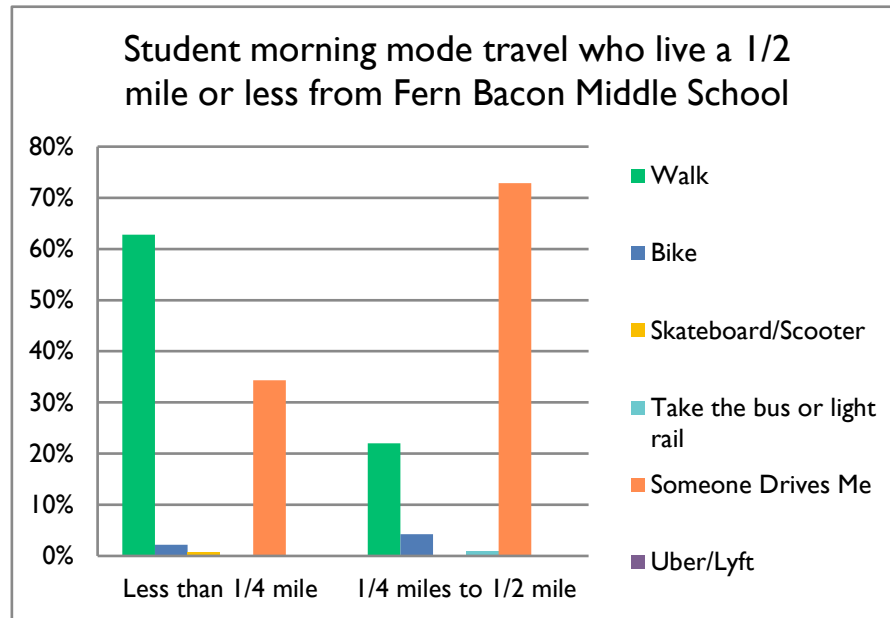
## STUDENT PERCEPTIONS ON WALKING AND BIKING TO AND FROM SCHOOL

### STUDENT SURVEYS

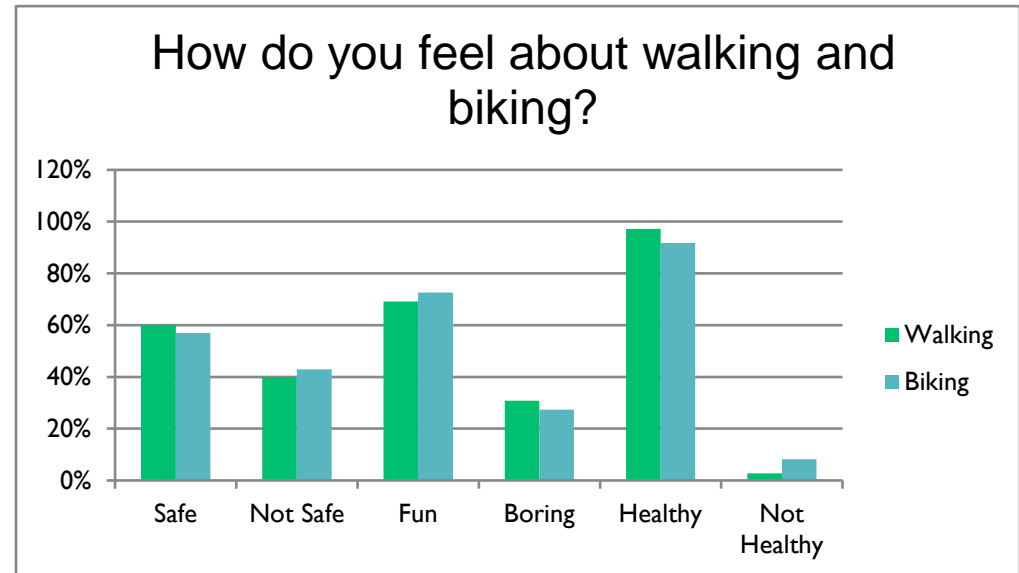
In fall 2017, 777 students were asked about their perceptions regarding walking and biking to and from Fern Bacon Middle School and what would help them do so more frequently ([Appendix D](#)).

#### Key Results:

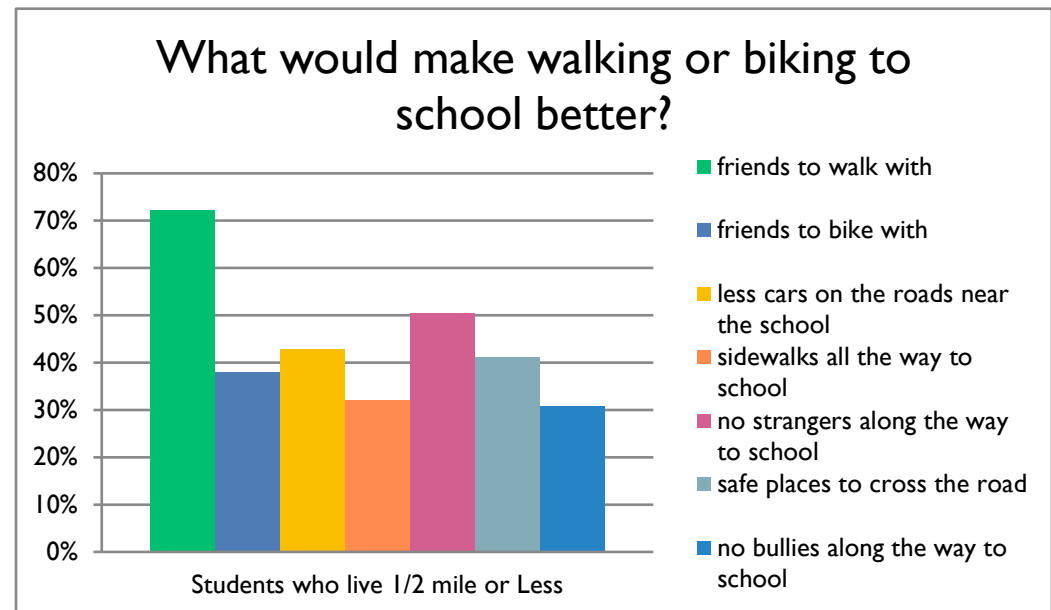
- Of those students living within a 1/2 mile or less of the school (a walkable and bikeable distance), the majority still arrive or depart via motor vehicle. This may indicate the need for further mode shift encouragement programs in conjunction with built environment change.



- Over 69% of students who live within a ½ mile of Fern Bacon Middle School view walking and biking as fun, but less than 50% of those students feel that walking and biking is a safe option. This indicates the perception of traffic safety is a major barrier to walking or biking in this community.

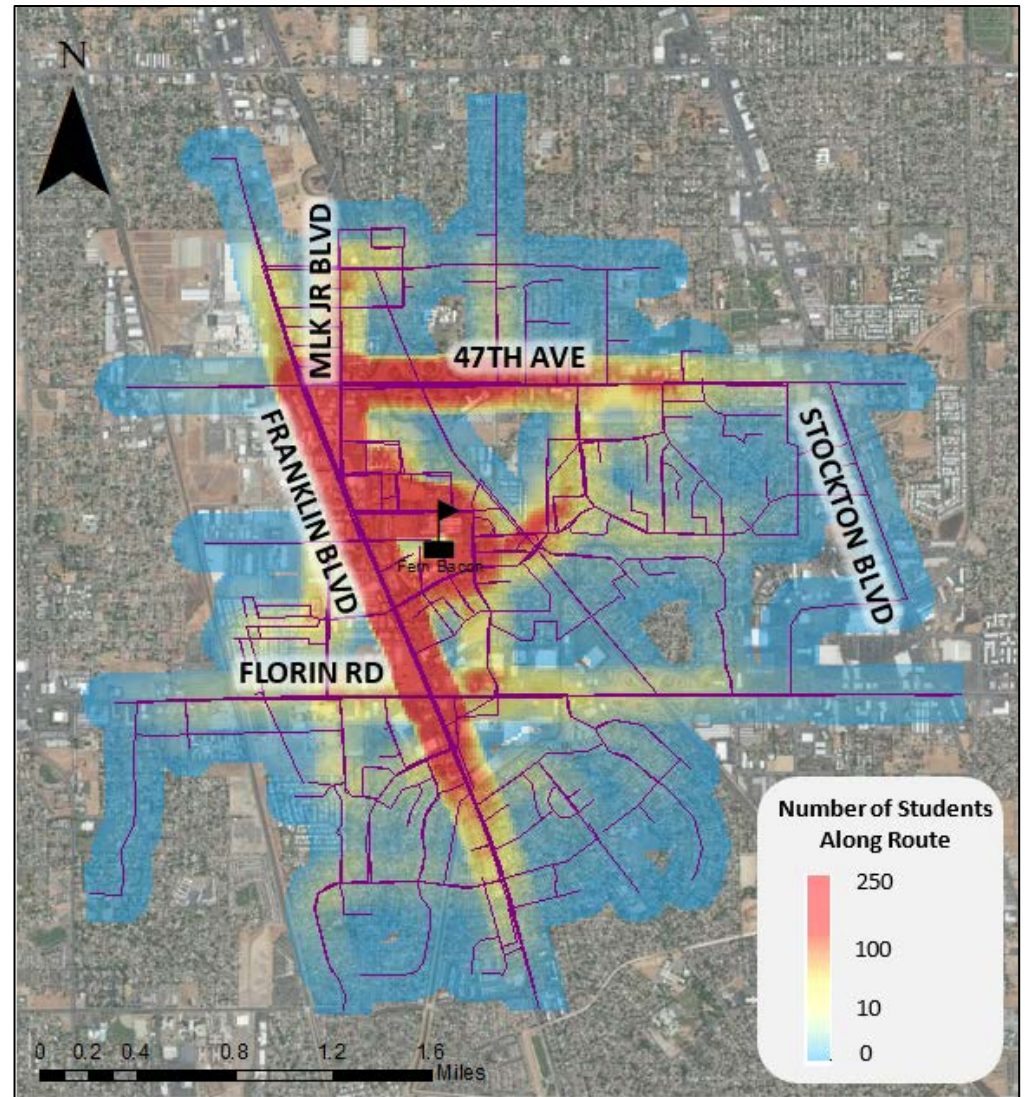


- When asked what would improve walking or biking to school, students who live within a ½ mile of the school said friends to walk with (72%), no strangers along the way to school (50%), and less cars on the road near the school (43%) as top three preferences, indicating that safety is a key concern for students who are deciding whether to walk or bike to school or be driven.





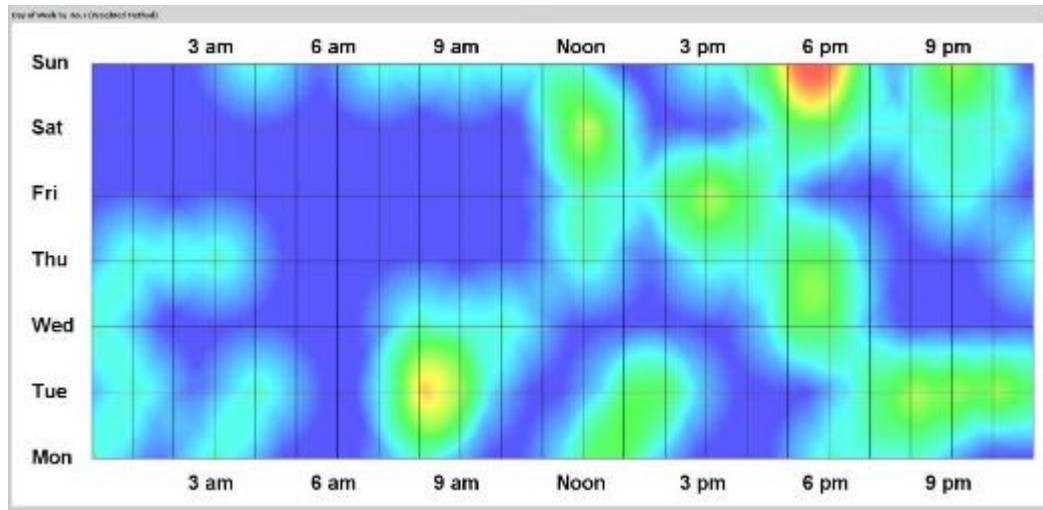
- Student Travel Heat Map
  - Students who currently walk or bike to school were asked to draw their route on a map. The goal of the exercise was to understand where students are currently walking and biking from. Doing so also helped to identify potential ‘walking school bus’ meet-up locations. The mapping exercise showed 47<sup>th</sup> Avenue, Martin Luther King Jr. Boulevard, and Franklin Boulevard as main paths of travel for students.



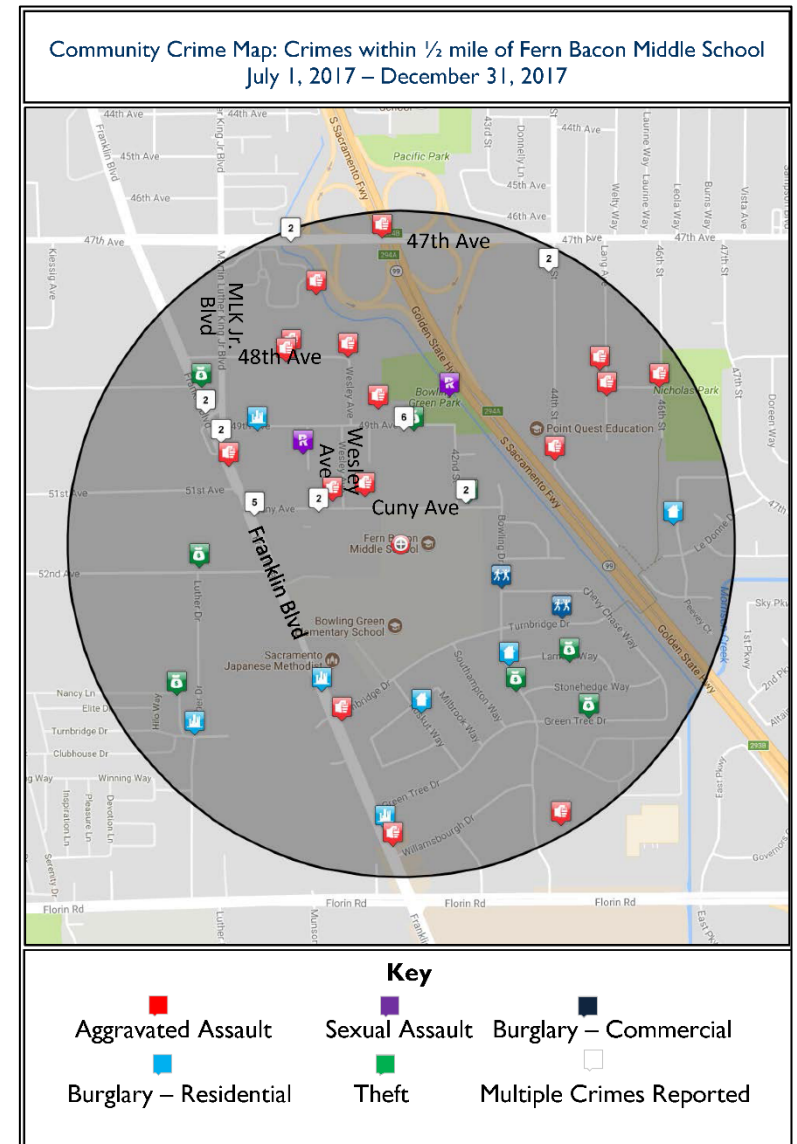
47<sup>th</sup> Avenue, Martin Luther King Jr. Boulevard, and Franklin Boulevard are main pedestrian and bicycle routes to school.

## CRIME REPORTS

Between July 1, 2017 and December 31, 2017, crimes reported within a 1/2 mile of Fern Bacon Middle School predominantly occurred between the hours of 9:00 am and 9:00 pm with a concentration during the afternoon and early evening hours around when students head home from school or after-school activities.<sup>8</sup>



Crime occurrence by time of day between July 1, 2017 – December 31, 2017 within a 1/2-mile radius of Fern Bacon Middle School.



<sup>8</sup>Department, S. C. (n.d.). *Community Crime Map*. Retrieved from LexisNexis : <https://communitycrimemap.com/>

## IDENTIFYING BARRIERS TO WALKING AND BIKING

Infrastructure and non-infrastructure barriers to walking and biking to school were identified through two walk audits, traffic observations, and discussions with school staff, parents, and community members.

### WALK AUDIT

Walk audits were conducted on June 2, 2017 and November 30, 2017. Walk audits are community feedback and data gathering events where participants analyze current conditions and opportunities for improvement. Participants included Fern Bacon Middle School administrative staff and parents, community members, California Department of Health staff, County of Sacramento DOT Staff, SMUD staff, WALKSacramento staff, and representatives from District 2 Board Supervisor Patrick Kennedy's office.

The main barriers to safe walking and biking identified through the walk audit were the lack of pedestrian and bicycle facilities, namely sidewalks and crossings.

### TRAFFIC OBSERVATIONS

Morning and afternoon traffic observations ([Appendix E](#)) were conducted on Tuesday, May 30, 2017. Traffic observations are surveying events where participants analyze parent and student travel behaviors. Participants included a Sacramento City Unified School District Board Member, Fern Bacon Middle School administrative staff, Sacramento County DOT staff, and WALKSacramento staff. Observations were made at the designated pick-up and drop-off areas on Cuny Avenue. Main issues included double parking on Cuny Avenue and high traffic speeds through the Wesley Avenue and Cuny Avenue intersection where students regularly cross.



Participants discuss areas of focus for the November 30, 2017 Walk Audit.



## STUDENT EDUCATION AND ENCOURAGEMENT

October 22, 2017 Fern Bacon Middle School celebrated its first Walk to School Day, with over 150 students and staff participating and celebrating the benefits of walking and biking. Students received encouragement prizes and safety information for walking and biking. Students who biked, skateboarded, or scootered were fitted for helmets from California Highway Patrol. Additional community partners attended the event, including Sacramento County Sheriff, Supervisor Kennedy and staff, and Health Education Council. The school has indicated interest in continuing to hold these events well into the future. A Bike to School Day event is planned for May 23, 2018. These events highlight the need for safer infrastructure, safety education, and greater enforcement of traffic violations around the school.

On February 22, 2018 WALKSacramento hosted a school bike rodeo and repair clinic to educate students on key safety skills and bicycle maintenance. League Certified Instructors and Sacramento City Police Department provided course instruction for students which included basic balance techniques, hand signals, and advanced turn movement practice. Sacramento Area Bicycle Advocates provided an ABC quick check and repair station. Mechanics taught students about basic bicycle repair and maintenance. Students received encouragement prizes and safety information for participating, and helmets were provided by California Highway Patrol. Additional community partners who attended the event included The Historic Monterey Trail District, Health Education Council, and the Sacramento Tree Foundation. Over 30 students participated in the event.

Fern Bacon Middle School has also committed to starting a monthly walking school bus with staff and students in the spring.



California Highway Patrol provides bike helmets and safety information during Walk to School Day 2017

## RECOMMENDATIONS FOR REVIEW

Through traffic observations, two community walk audits, and numerous discussions with school staff, students, and parents, the following were identified as opportunities for Safe Routes to School improvements:

### INFRASTRUCTURE RECOMMENDATIONS

ID	Location	Recommendations	Justification
I	Martin Luther King Jr Boulevard (Rainbow Mini Park to 47 <sup>th</sup> Avenue)	<ul style="list-style-type: none"> <li>Traffic Calming</li> <li>Removal of utility poles from pedestrian right of way</li> <li>Buffering or separating bicycle facilities (Buffered Class II or Class IV bikeways)</li> </ul>	<p>North of 47<sup>th</sup> Avenue on Martin Luther King Jr. Boulevard, sidewalks are narrow and often littered with illegally dumped material. Large utility poles in the center of already narrow sidewalks further minimize the available pedestrian zone. Speeds greater than 25mph create a poor pedestrian environment and make legal crossings at unmarked and unsignalized intersections difficult. Reducing the number of lanes, narrowing lane widths, installing buffered bicycle facilities, and/or separating sidewalks with landscaping would help to calm traffic. Official engineering studies will be required to assess the feasibility and any traffic impacts. Removing and/or undergrounding utilities along the pedestrian right of way would significantly improve conditions for students as well as parents with strollers or those using wheelchairs.</p> <p>Despite the provision of class II bike facilities on Martin Luther King Jr. Boulevard along this stretch of roadway, students and adults tend to ride their bikes on the sidewalks. Motorists often pass one another in the bike lanes or are parked within them. High speed traffic with little to separate cyclists from traffic likely cause cyclists to feel safer riding on sidewalks. Given the wide bicycle facilities, buffering or separating the lanes with striping or physical curbs or delineators would significantly increase the safety of students biking to and from school.</p> <p>Accompanying these infrastructure changes, the County should work closely with code enforcement and the Sheriff's department to minimize illegal dumping, reduce the prevalence of conspicuous criminal activity, and speeding along the corridor.</p>



Visual 1: Aerial view of location

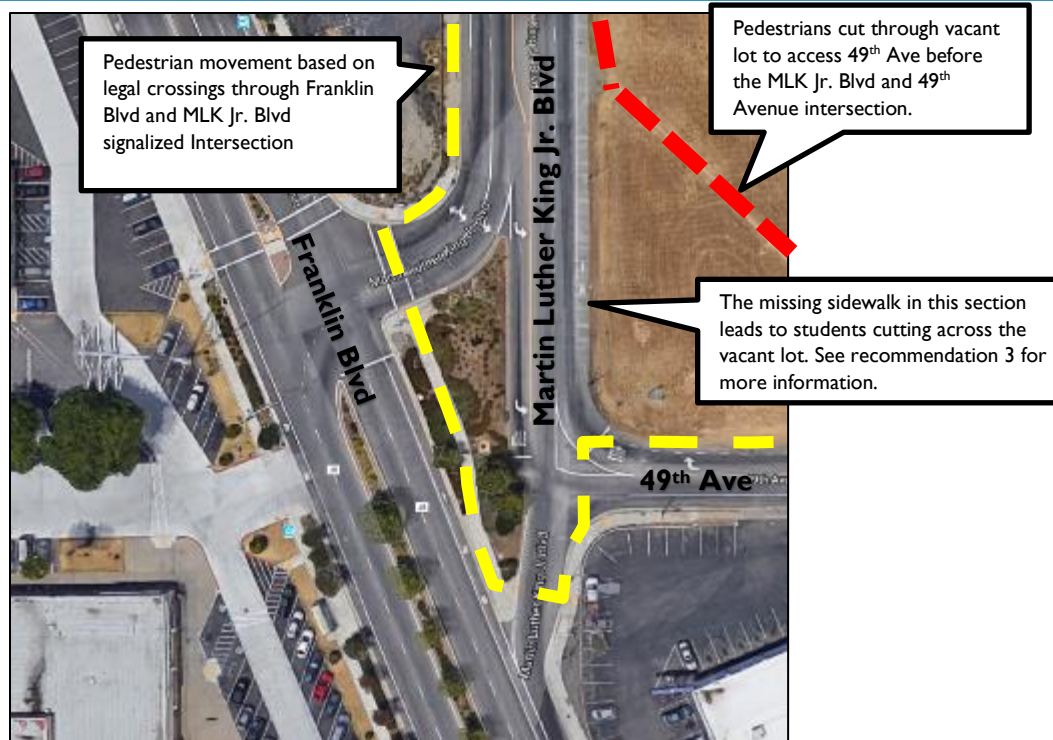


Visual 2: A damaged fence impedes the sidewalk at Martin Luther King Jr. Boulevard and 44<sup>th</sup> Avenue



ID	Location	Recommendations	Justification
2	Intersection of Franklin Boulevard, Martin Luther King Jr. Boulevard, and 49 <sup>th</sup> Avenue	<ul style="list-style-type: none"> <li>Improve pedestrian crossings</li> <li>Better facilitate through-traffic and turn movements within the intersection</li> </ul>	<p>Students and families say that the intersection of Franklin Boulevard and Martin Luther King Jr. Boulevard is confusing and requires several challenging crossings to navigate. Students traveling from the west often use this intersection to access the school sites. Currently students cut across the vacant lot on the corner of Martin Luther King Jr. Boulevard and 49<sup>th</sup> avenue to avoid the intersection (visual I red line). Alternatively, students would have to cross to the southbound side of the street at the intersection of Martin Luther King Jr. Boulevard and 47<sup>th</sup> avenue, approximately 1,300 feet north of the signalized crosswalk or across an unmarked crosswalk at Martin Luther King Jr. Boulevard and 48<sup>th</sup> Avenue, approximately 126 feet north of the signalized crosswalk. Efforts to clarify crossings at this intersection and improve lines of sight for drivers, pedestrians, and cyclists will significantly improve active transportation in this area.</p> <p>To improve pedestrian crossings, enhance the intersection by including traffic calming measures and safe pedestrian and bicycling facilities including sidewalks, marked crossings, and additional stop controls.</p>

#### Visual



Visual I: Pedestrian movements to access 49<sup>th</sup> Avenue at intersection of Martin Luther King Jr. Blvd and Franklin Blvd.

ID	Location	Recommendation	Justification
3	Martin Luther King Jr. Boulevard, 48 <sup>th</sup> Avenue, Wesley Avenue, 49 <sup>th</sup> Avenue.	<ul style="list-style-type: none"> <li>Construct new sidewalks</li> </ul> <p>Prioritize:</p> <ol style="list-style-type: none"> <li>Wesley Avenue (Northbound traffic side) between Cuny Ave and 49<sup>th</sup> Ave</li> <li>Martin Luther King Jr. Blvd between 48<sup>th</sup> Avenue and 49<sup>th</sup> Avenue</li> <li>Wesley Avenue between 49<sup>th</sup> Avenue and 48<sup>th</sup> Avenue</li> <li>48<sup>th</sup> Avenue between MLK Jr. Blvd and Wesley Avenue</li> </ol>	<p>Students travel south on Martin Luther King Jr. Boulevard then transition onto 48<sup>th</sup> Avenue or 49<sup>th</sup> Avenue to get to school. Neither 48<sup>th</sup> Avenue nor 49<sup>th</sup> Avenue have continuous sidewalks that facilitate safe pedestrian travel.</p> <p>Furthermore, there is no sidewalk between 48<sup>th</sup> Avenue and 49<sup>th</sup> Avenue on Martin Luther King Jr. Boulevard. The lack of sidewalk has caused confusion about where pedestrians and bicyclists should be as they arrive to the already confusing intersection(s) of Martin Luther King Jr. Boulevard, Franklin Boulevard, and 49<sup>th</sup> Avenue. Due to the lack of sidewalks, pedestrians travel diagonally through the vacant lot on Martin Luther King Jr. Boulevard to access 49<sup>th</sup> Avenue. In the winter, the vacant lot floods, making the footpath unusable, requiring pedestrians to walk in the shoulder.</p> <p>As 48<sup>th</sup> Avenue continues onto Wesley Avenue, students walk in the road or cut across vacant lots due to the lack of sidewalks along the vacant parcels on the east side of the road. Even though there are missing sidewalks, students and parents prefer travel along this route over traveling on Franklin Boulevard to access Cuny Avenue due to high-speed traffic.</p> <p>Adding new sidewalks would drastically improve safety for students getting to school on Martin Luther King Jr. Boulevard, 48<sup>th</sup> Avenue, Wesley Avenue, and 49<sup>th</sup> Avenue. The sidewalk segments were prioritized based on stakeholder feedback during the walk audits.</p>



Visual 1: Recommended sidewalk infill routes



Visual 2: Students on Wesley Avenue travel south to Fern Bacon Middle School



Visual 3: Walk Audit participants on the corner of 49<sup>th</sup> Avenue and Martin Luther King Jr. Boulevard observe missing sidewalks



ID	Location	Recommendation	Justification
4	Pedestrian Bridge (Chevy Chase Way and Maynard way)	<ul style="list-style-type: none"> <li>• Code enforcement and landscaping</li> <li>• Pedestrian Lighting</li> <li>• Improved Pedestrian entrance on Maynard Way</li> </ul>	<p>Students who live east of Highway 99 frequently travel to Fern Bacon Middle School via this pedestrian bridge and often in the evening following afterschool activities.</p> <p>The bridge has minimal lighting to aid visibility in the morning and after dusk. The entrance of the bridge on Maynard Way (image below) is hidden behind an extension of the sound wall and unnoticeable due to overgrown greenery. This is a common camping site and has been described by families as an attractor of dangerous/criminal activities.</p> <p>Increasing safe, secure access to the footbridge and installing additional lighting near and on the bridge will significantly improve safety for students of all three sites traveling to and from school.</p>

#### Visual

Visual 1: Pedestrian Bridge Entrance on Chevy Chase Way



Visual 2: Pedestrian Bridge Entrance on Maynard Way is hidden by overgrown greenery



ID	Location	Recommendation	Justification
5	Cuny Avenue	<ul style="list-style-type: none"> <li>• Add high visibility crosswalks at the intersection of Cuny Avenue and Wesley Avenue (Exhibit A in visual)</li> <li>• Add a marked crosswalk at the intersection of Cuny Avenue and 42<sup>nd</sup> Street (Exhibit B in visual)</li> <li>• Add curb bulb-out on Cuny Avenue and Bowling Green Drive (Exhibit C in visual)</li> <li>• Restrict Parking during Pick-Up and Drop-off Hours (Exhibit D in Visual)</li> </ul>	<p>A. Students traveling to and from areas to the north of the school cross Cuny Avenue at the intersection of Wesley Avenue. Currently there is one crosswalk on the east side of Cuny Avenue. Cars move through the intersection quickly and often do not stop for students trying to cross. Students heading home cross Cuny Avenue to the north-east corner, then proceed to cross diagonally across Wesley Avenue to access the west side of the road where there are sidewalks. Adding two additional crosswalks, (southbound side of Cuny Avenue and across Wesley Avenue) will increase the visibility of crossing pedestrians and enable students to access sidewalks on Wesley Avenue in a safer manner.</p> <p>B. Many students live in the Bowling Green Village Apartments located on the corner of 42<sup>nd</sup> Street and 49<sup>th</sup> Avenue. Students travel south on 42<sup>nd</sup> street and cross at the intersection of 42<sup>nd</sup> Street and Cuny Avenue. There is a speed table and high visibility crossing approximately 258 feet to the west. After vehicles proceed through the speed table, they tend to speed up, where they then encounter students crossing the street at 42<sup>nd</sup> Street. Adding a crossing and/or additional traffic calming measures will aid in safer crossings for pedestrians and encourage traffic to drop off further along the street.</p> <p>C. Motorist approach the right turn at Bowling Drive at relatively high speeds after dropping off their students. There is a high visibility crosswalk across the southern leg of the Bowling Drive intersection. Adding a curb bulb-out on the south-west corner of the intersection and red striping on each side of the crosswalk will aid in slowing down traffic and increasing visibility for students crossing Bowling Green Drive.</p> <p>D. During the traffic observations, drivers left their vehicles idling on Cuny Avenue while waiting to pick up or drop off their students, causing unnecessary backup and decreased visibility of pedestrians trying to cross at crosswalks to oncoming traffic. Cars who park in front of the school parking lot reduce the visibility of oncoming traffic for vehicles exiting the parking lot. Restrict parking near the crosswalks and school driveway to increase visibility and to encourage parents to pick up and drop off further down Bowling Drive. This increases the queuing distance, reduces the incidence of double parking and slows down traffic along Bowling Drive as it approaches the T intersection.</p>

## Visual



Visual 1: Location of recommendations

Visual 2: Intersection of Wesley Avenue and Cuny Avenue. students heading home cross Cuny Avenue to the north-east corner, then proceed to cross diagonally across Wesley Avenue to access the west side of the road where there are sidewalks.



ID	Location	Recommendation	Justification
6	Intersection of Martin Luther King Jr. Blvd and 47th Avenue	Add landscaping along lawn to deter camping and sidewalk blockage.	<p>The Arco station attracts a high population of transients and illegitimate activity. The lawn along Arco property and Martin Luther King Jr. Blvd is a shaded area for transients to camp during high temperature afternoons, often spilling over into the sidewalk. Fern Bacon Middle School students and administration have reported concern over walking in the turn lane to avoid campers. Pedestrian safety is a top concern at this intersection for parents, students, and the school administration.</p> <p>Working with property owners to add low-maintenance landscaping such as native bushes, will add visual curb appeal while deterring camping on the lawn and decreasing the chances of the sidewalk becoming blocked.</p>

#### Visual



Visual 1: Recommended lawn landscaping in yellow.



MAP OF RECCOMENDATIONS





## SCHOOL RECOMMENDATIONS

In addition to the recommendations to the County of Sacramento, for long-term built environment change to improve the pedestrian and bicycle environment, WALKSacramento recommends Fern Bacon Middle School continue Safe Routes to School programming through the following approaches to continue building a strong safety pedestrian and bicycle culture.

---

### EDUCATION

Education programs teach students, parents, and community members about traffic safety behaviors and benefits of walking and biking. Education takes part during regular class time, as part of after-school programs, or through club activities. Safety education campaigns are held during October and May to complement Walk to School Day and Bike to School Day events. Education can take the form of video voice projects, PE class activities, and bike rodeos to name a few.

For more information on bicycle and pedestrian education and resources, visit: <https://www.saferoutespartnership.org/resourcecenter/publications/CurriculaGuide>

---

### ENCOURAGEMENT

Encouragement activities are crucial because they help make the case for further infrastructure change and can make marked improvements in school based traffic and local air quality by encouraging students who would otherwise be driven to school to walk or ride their bike. Establishing regular monthly walking school buses or celebrating Bike to School Day and Walk to School Day events help create broader support for SRTS programs and reinforce the “safety in numbers” concept. *Safety in numbers: more walkers and bicyclists, safer walking and bicycling*, a study conducted by Peter Jacobson in 2003 concluded that “Where, or when, more people walk or bicycle, the less likely any of them are to be injured by motorists. There is safety in numbers.”<sup>9</sup>

---

### WALKING SCHOOL BUS

Based on student survey exercises, students who live within a ½ mile or 15-20 minute walk or bike ride of Fern Bacon Middle School, identified four locations as ideal meeting places to walk to school together; Rainbow Mini Park (Martin Luther King Jr. Boulevard and 47<sup>th</sup> Avenue), Luther Burbank High School (Florin Road), Southgate Plaza (Franklin Boulevard and Florin Road), and Nicholas Park (46<sup>th</sup> Street and Masonry Way). Meeting locations can be rotated each month, to ensure all students have an opportunity to meet and walk to school together. During off days, students should be encouraged to use the identified locations as regular meeting points and remote drop-offs for students who live too far to walk or bike from their home.

For more information how to start a walking school bus, visit: <http://www.walkingschoolbus.org/>

---

<sup>9</sup>Jacobsen PL Safety in numbers: more walkers and bicyclists, safer walking and bicycling Injury Prevention 2003;9:205-209.

---

## WALK TO SCHOOL DAY AND BIKE TO SCHOOL DAY

Walk and Bike to School days are held in October and May during National Walking Month and May is Bike Month. These events celebrate the benefits of walking and biking to school. Walk and Bike to School events are larger celebrations that can build upon the monthly walking school bus or bicycle train programs and create interest with other families. These events are great opportunities to invite community partners such as law enforcement, neighborhood associations, and school board officials to celebrate with Fern Bacon Middle School.

For more information on how to organize a walking school bus, a Walk to School day, or a Bike to School Day Event, visit: <http://www.walkbiketoschool.org>

---

## SAFE WALKING AND BIKING MAPS

Safe walking and biking maps encourage students to walk and bike to school and identify common meeting locations for students to walk to school together. Maps also provide reminders of areas for students to take additional precaution while walking or biking to school ([Appendix F](#)). WALKSacramento recommends including the maps in the school handbook and distribute to families at the beginning of each academic year.

---

## ENFORCEMENT

---

### LOCAL LAW ENFORCEMENT

Partnerships with Law enforcement help increase awareness and obedience of traffic safety laws and can reduce the prevalence of crime near schools. Enforcement programs can include working with local law enforcement officials to educate the public on traffic safety and safe speeds. Programs with law enforcement should consider the community's perception of law enforcement and should aim to be educational rather than punitive.

---

### SCHOOL CROSSING GUARD PROGRAMS

Schools can also develop a crossing guard program to assist with daily enforcement of safety for students and other pedestrians and bikers. Student crossing guard programs are a great opportunity for students to take ownership of pedestrian and bike safety.

For more information on California School Crossing Guard Training, visit: <http://www.scusd.edu/post/california-school-crossing-guard-training>

For more information on how to establish a student crossing guard program, visit: <https://schoolsafety.calstate.aaa.com/>

---

### PICK-UP AND DROP-OFF PROCEDURES

School staff, law enforcement, and crossing guards can work together to enforce pick-up and drop-off procedures to provide daily safety reminders to be alert while in school zones and support an orderly process for traffic flow. WALKSacramento recommends pick-up and drop-off procedures be adopted into the school handbook and distribute to parents at the beginning of the year ([Appendix G](#)).

## GENERAL RECOMMENDATIONS

---

### LANDSCAPING

Landscaping and upkeep can significantly improve the walking environment of a neighborhood. Where foliage does exist, many areas are not well maintained and encroach upon the walking path. Encourage neighborhood residents to plant shade trees in their yards to provide shade for pedestrians and improve the overall walking experience. WALKSacramento encourages partnering with the Sacramento Tree Foundation to perform tree plantings and address the urban heat island effect.

---

### MAINTENANCE AND ILLEGAL DUMPING

Vacant lots along Wesley Avenue, Martin Luther King Jr. Blvd, and the pedestrian bridge entrances at 44<sup>th</sup> Avenue North of Fern Bacon Middle School and Chevy Chase Way south of Fern Bacon Middle School are popular sites for illegal dumping, resulting in trash blocking walking paths and bike lanes. Ensuring regular cleanup and pedestrian level lighting of roadways and pedestrian bridge entrances will support more “eyes-on-the-street” to discourage illicit activity and improve safety for students traveling at dusk.

---

### BIKE LANES

Bike lanes are not clearly indicated in all cases and should be restriped and signed to clearly indicate to all users where facilities start and end. People are most likely to use bike lanes when they are buffered or separated from adjacent traffic. Consider buffering or separating bicycle facilities where feasible given roadway widths.

## APPENDIX A: NATIONAL SAFE ROUTES TO SCHOOL TRAVEL TALLY FORM

# Safe Routes to School Students Arrival and Departure Tally Sheet

**+ CAPITAL LETTERS ONLY – BLUE OR BLACK INK ONLY +**

**School Name:**

**Teacher's First Name:**

**Teacher's Last Name:**

**Grade:** (PK,K,1,2,3,...)  

0

2

**Monday's Date** (Week count was conducted)  

M

M

D

D

Y

Y

Y

Y

**Number of Students Enrolled in Class:**  

3

3

• Please conduct these counts on two of the following three days **Tuesday, Wednesday, or Thursday**. (Three days would provide better data if counted)

• **Please do not conduct these counts on Mondays or Fridays.**

• Before asking your students to raise their hands, please read through all possible answer choices so they will know their choices. Each Student may only answer once.

• Ask your students as a group the question **"How did you arrive at school today?"**

• Then, record each answer choice and record the number of students that raised their hands for each. **Place just one character or number in each box.**

• Follow the same procedure for the question **"How do you plan to leave for home after school?"**

• You can conduct the counts once per day but during the count please ask students both the school arrival and departure questions.

• Please conduct this count regardless of weather conditions (i.e., ask these questions on rainy days, too).

**Step 1.**

Fill in the weather conditions and number of students in each class

**Step 2.**

**AM – "How did you arrive at school today?"** Record the number of hands for each answer.

**PM – "How do you plan to leave for home after school?"** Record the number of hands for each answer.

	Weather	Student Tally	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
<b>Key</b>	S= sunny R= rainy O=overcast SN=snow	Number in class when count made	-	-	-	Only with Children from your family	Riding with children from other families	City bus, subway, etc.	Skate-board, scooter, etc.
Sample AM	S N	2 0	2	3	8	3		3	1
Sample PM	R	1 9	3	3	8	1	2	2	
Tues. AM									
Tues. PM									
Wed. AM									
Wed. PM									
Thurs. AM									
Thurs. PM									

Please list any disruptions to these counts or any unusual travel conditions to/from the school on the days of the tally.

**+ +**



APPENDIX B: UC BERKLEY TRANSPORTATION INJURY MAPPING SYSTEM: SAFE ROUTES TO SCHOOL COLLISION MAP VIEWER, FERN BACON MIDDLE SCHOOL

UC BerkeleySafeTREC

Transportation Injury Mapping System

HomeAboutToolsNewsHelpDonate

molly.wagner

Help

Safe Routes to School Collision Map Viewer

Interactive map and data summaries of bicycle and/or pedestrian collisions around school.

Select by County/City/School

SacramentoSacramentoFern Bacon Middle

Or Enter an Address:

Type address or zipcode

Types of Collisions: ☒ Bicycle ☒ Pedestrian

Collision Severity: ☒ Fatal ☒ Severe Injury ☒ Other Visible Injury ☒ Complaint of Pain

Years: 20062007200820092010201120122013201420152016

2015 - 2016 data is provisional and subject to change.

Fern Bacon Middle

4140 Cury Avenue | Sacramento | Sacramento County | CDS: 34674366556307

PrintDownload Collisions

Summary Statistics

Radius	Fatal	Severe Injury	Visible Injury	Complaint of Pain	Pedestrian	Bicycle	Total
<1/4 mi.	2	0	1	0	2	1	3
1/4 - 1/2 mi.	4	4	5	7	11	9	20
Total	6	4	6	7	13	10	23

Summary Statistics

Radius	Fatal	Severe Injury	Visible Injury	Complaint of Pain	Pedestrian	Bicycle	Total
<1/4 mi.	2	0	1	0	2	1	3
1/4 - 1/2 mi.	4	4	5	7	11	9	20
Total	6	4	6	7	13	10	23

Collision List

Case ID	Date	Time	Primary	Secondary	Distance	Direction	Bike	Ped
5780222	2012-07-23	15:45	FRANKLIN BL	MARTIN LUTHER KING JR BL	100	S	No	Yes
5754776	2012-08-02	17:05	47TH AV	44TH ST	0	-	Yes	No
5639839	2012-10-29	19:00	FRANKLIN BL	MARTIN LUTHER KING JR BL	179	S	No	Yes
5539581	2012-01-02	19:25	47TH AV	45TH ST	23	W	No	Yes
6325167	2013-11-19	7:35	RT 99	47TH AV	0	-	Yes	No
6325163	2013-11-06	14:25	CUNY AV	WESLEY AV	240	E	No	Yes
6306607	2013-11-25	17:10	RT 99	47TH AV	8	S	Yes	No
6296223	2013-12-10	17:21	FRANKLIN BL	GREEN TREE DR	150	N	No	Yes
6290380	2013-10-01	15:10	52ND AV	FRANKLIN BL	25	W	Yes	No
6250946	2013-09-24	11:49	47TH AV	MARTIN LUTHER KING JR BL	0	-	Yes	No
6238138	2013-10-06	21:02	47TH AV	MARTIN LUTHER KING JR BL	0	-	Yes	No
6216007	2013-09-04	23:15	47TH AV	MARTIN LUTHER KING JR BL	0	-	No	Yes
6017923	2013-03-05	19:05	47TH AV	MARTIN LUTHER KING JR BL	189	E	No	Yes
5960615	2013-02-25	16:10	47TH AV	44TH ST	100	E	No	Yes
5911427	2013-05-24	11:00	47TH AV	44TH ST	0	-	No	Yes
5911288	2013-08-09	21:55	RT 99	47TH AV	1380	S	No	Yes
6867400	2015-03-17	12:30	FRANKLIN BL	48TH AV	40	S	Yes	No
6718371	2015-01-06	17:32	MARTIN LUTHER KING JR BL	48TH AV	10	N	No	Yes
6759398	2014-12-14	17:15	MARTIN LUTHER KING JR BL	47TH AV	200	S	No	Yes
6523767	2014-05-27	16:15	47TH AV	MARTIN LUTHER KING JR BL	250	E	Yes	No
6458135	2014-02-22	18:07	RT 99	47TH AV	0	-	Yes	No
6394325	2014-02-05	13:35	RT 99	47TH AV	2	S	No	Yes
6359763	2014-01-21	18:12	47TH AV	MARTIN LUTHER KING JR BL	9	E	Yes	No

Berkeley

UNIVERSITY OF CALIFORNIA

Donate to SafeTREC through the Berkeley Give program.

HomeAboutNewsHelp

Safe Transportation Research & Education Center (SafeTREC)

CA Active Transportation Safety Information Pages (CATSIP)

California Office of Traffic Safety (COTS)

Fern Bacon Middle School Walk Audit Report | 28

## APPENDIX C: NATIONAL CENTER FOR SAFE ROUTES TO SCHOOL PARENT SURVEY FORM

Parent Survey About Walking and Biking to School			
<p><b>Dear Parent or Caregiver,</b>            Your child's school wants to learn your thoughts about children walking and biking to school. This survey will take about 5 - 10 minutes to complete. We ask that each family complete only one survey per school your children attend. If more than one child from a school brings a survey home, please fill out the survey for the child with the next birthday from today's date.            After you have completed this survey, send it back to the school with your child or give it to the teacher. Your responses will be kept confidential and neither your name nor your child's name will be associated with any results.  <b>Thank you for participating in this survey!</b></p>			
<p><b>+ CAPITAL LETTERS ONLY – BLUE OR BLACK INK ONLY +</b></p>			
<p>School Name: _____</p>			
<p>1. What is the grade of the child who brought home this survey? <input type="text"/> Grade (PK,K,1,2,3...)</p>			
<p>2. Is the child who brought home this survey male or female? <input type="checkbox"/> Male <input type="checkbox"/> Female</p>			
<p>3. How many children do you have in Kindergarten through 8<sup>th</sup> grade? <input type="text"/></p>			
<p>4. What is the street intersection nearest your home? (Provide the names of two intersecting streets)            _____ and _____</p>			
<p><b>Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box.</b></p>			
<p>5. How far does your child live from school?  <input type="checkbox"/> Less than ¼ mile <input type="checkbox"/> ½ mile up to 1 mile <input type="checkbox"/> More than 2 miles  <input type="checkbox"/> ¼ mile up to ½ mile <input type="checkbox"/> 1 mile up to 2 miles <input type="checkbox"/> Don't know</p>			
<p><b>Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box.</b></p>			
<p>6. On most days, how does your child arrive and leave for school? (Select one choice per column, mark box with X)</p> <table border="0"> <tr> <td> <p><b>Arrive at school</b></p> <p><input type="checkbox"/> Walk</p> <p><input type="checkbox"/> Bike</p> <p><input type="checkbox"/> School Bus</p> <p><input type="checkbox"/> Family vehicle (only children in your family)</p> <p><input type="checkbox"/> Carpool (Children from other families)</p> <p><input type="checkbox"/> Transit (city bus, subway, etc.)</p> <p><input type="checkbox"/> Other (skateboard, scooter, inline skates, etc.)</p> </td> <td> <p><b>Leave from school</b></p> <p><input type="checkbox"/> Walk</p> <p><input type="checkbox"/> Bike</p> <p><input type="checkbox"/> School Bus</p> <p><input type="checkbox"/> Family vehicle (only children in your family)</p> <p><input type="checkbox"/> Carpool (Children from other families)</p> <p><input type="checkbox"/> Transit (city bus, subway, etc.)</p> <p><input type="checkbox"/> Other (skateboard, scooter, inline skates, etc.)</p> </td> </tr> </table>		<p><b>Arrive at school</b></p> <p><input type="checkbox"/> Walk</p> <p><input type="checkbox"/> Bike</p> <p><input type="checkbox"/> School Bus</p> <p><input type="checkbox"/> Family vehicle (only children in your family)</p> <p><input type="checkbox"/> Carpool (Children from other families)</p> <p><input type="checkbox"/> Transit (city bus, subway, etc.)</p> <p><input type="checkbox"/> Other (skateboard, scooter, inline skates, etc.)</p>	<p><b>Leave from school</b></p> <p><input type="checkbox"/> Walk</p> <p><input type="checkbox"/> Bike</p> <p><input type="checkbox"/> School Bus</p> <p><input type="checkbox"/> Family vehicle (only children in your family)</p> <p><input type="checkbox"/> Carpool (Children from other families)</p> <p><input type="checkbox"/> Transit (city bus, subway, etc.)</p> <p><input type="checkbox"/> Other (skateboard, scooter, inline skates, etc.)</p>
<p><b>Arrive at school</b></p> <p><input type="checkbox"/> Walk</p> <p><input type="checkbox"/> Bike</p> <p><input type="checkbox"/> School Bus</p> <p><input type="checkbox"/> Family vehicle (only children in your family)</p> <p><input type="checkbox"/> Carpool (Children from other families)</p> <p><input type="checkbox"/> Transit (city bus, subway, etc.)</p> <p><input type="checkbox"/> Other (skateboard, scooter, inline skates, etc.)</p>	<p><b>Leave from school</b></p> <p><input type="checkbox"/> Walk</p> <p><input type="checkbox"/> Bike</p> <p><input type="checkbox"/> School Bus</p> <p><input type="checkbox"/> Family vehicle (only children in your family)</p> <p><input type="checkbox"/> Carpool (Children from other families)</p> <p><input type="checkbox"/> Transit (city bus, subway, etc.)</p> <p><input type="checkbox"/> Other (skateboard, scooter, inline skates, etc.)</p>		
<p><b>+ Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box +</b></p>			
<p>7. How long does it normally take your child to get to/from school? (Select one choice per column, mark box with X)</p> <table border="0"> <tr> <td> <p><b>Travel time to school</b></p> <p><input type="checkbox"/> Less than 5 minutes</p> <p><input type="checkbox"/> 5 – 10 minutes</p> <p><input type="checkbox"/> 11 – 20 minutes</p> <p><input type="checkbox"/> More than 20 minutes</p> <p><input type="checkbox"/> Don't know / Not sure</p> </td> <td> <p><b>Travel time from school</b></p> <p><input type="checkbox"/> Less than 5 minutes</p> <p><input type="checkbox"/> 5 – 10 minutes</p> <p><input type="checkbox"/> 11 – 20 minutes</p> <p><input type="checkbox"/> More than 20 minutes</p> <p><input type="checkbox"/> Don't know / Not sure</p> </td> </tr> </table>		<p><b>Travel time to school</b></p> <p><input type="checkbox"/> Less than 5 minutes</p> <p><input type="checkbox"/> 5 – 10 minutes</p> <p><input type="checkbox"/> 11 – 20 minutes</p> <p><input type="checkbox"/> More than 20 minutes</p> <p><input type="checkbox"/> Don't know / Not sure</p>	<p><b>Travel time from school</b></p> <p><input type="checkbox"/> Less than 5 minutes</p> <p><input type="checkbox"/> 5 – 10 minutes</p> <p><input type="checkbox"/> 11 – 20 minutes</p> <p><input type="checkbox"/> More than 20 minutes</p> <p><input type="checkbox"/> Don't know / Not sure</p>
<p><b>Travel time to school</b></p> <p><input type="checkbox"/> Less than 5 minutes</p> <p><input type="checkbox"/> 5 – 10 minutes</p> <p><input type="checkbox"/> 11 – 20 minutes</p> <p><input type="checkbox"/> More than 20 minutes</p> <p><input type="checkbox"/> Don't know / Not sure</p>	<p><b>Travel time from school</b></p> <p><input type="checkbox"/> Less than 5 minutes</p> <p><input type="checkbox"/> 5 – 10 minutes</p> <p><input type="checkbox"/> 11 – 20 minutes</p> <p><input type="checkbox"/> More than 20 minutes</p> <p><input type="checkbox"/> Don't know / Not sure</p>		

<p><b>+ +</b></p>			
<p>8. Has your child asked you for permission to walk or bike to/from school in the last year? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>			
<p>9. At what grade would you allow your child to walk or bike to/from school without an adult?            (Select a grade between PK,K,1,2,3...) <input type="text"/> grade (or) <input type="checkbox"/> I would not feel comfortable at any grade</p>			
<p><b>Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box</b></p>			
<p>10. What of the following issues affected your decision to allow, or not allow, your child to walk or bike to/from school? (Select ALL that apply)</p> <table border="0"> <tr> <td> <p><input type="checkbox"/> Distance.....</p> <p><input type="checkbox"/> Convenience of driving.....</p> <p><input type="checkbox"/> Time.....</p> <p><input type="checkbox"/> Child's before or after-school activities.....</p> <p><input type="checkbox"/> Speed of traffic along route.....</p> <p><input type="checkbox"/> Amount of traffic along route.....</p> <p><input type="checkbox"/> Adults to walk or bike with.....</p> <p><input type="checkbox"/> Sidewalks or pathways.....</p> <p><input type="checkbox"/> Safety of intersections and crossings.....</p> <p><input type="checkbox"/> Crossing guards.....</p> <p><input type="checkbox"/> Violence or crime.....</p> <p><input type="checkbox"/> Weather or climate.....</p> </td> <td> <p><input type="checkbox"/> My child already walks or bikes to/from school</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> </td> </tr> </table>		<p><input type="checkbox"/> Distance.....</p> <p><input type="checkbox"/> Convenience of driving.....</p> <p><input type="checkbox"/> Time.....</p> <p><input type="checkbox"/> Child's before or after-school activities.....</p> <p><input type="checkbox"/> Speed of traffic along route.....</p> <p><input type="checkbox"/> Amount of traffic along route.....</p> <p><input type="checkbox"/> Adults to walk or bike with.....</p> <p><input type="checkbox"/> Sidewalks or pathways.....</p> <p><input type="checkbox"/> Safety of intersections and crossings.....</p> <p><input type="checkbox"/> Crossing guards.....</p> <p><input type="checkbox"/> Violence or crime.....</p> <p><input type="checkbox"/> Weather or climate.....</p>	<p><input type="checkbox"/> My child already walks or bikes to/from school</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p>
<p><input type="checkbox"/> Distance.....</p> <p><input type="checkbox"/> Convenience of driving.....</p> <p><input type="checkbox"/> Time.....</p> <p><input type="checkbox"/> Child's before or after-school activities.....</p> <p><input type="checkbox"/> Speed of traffic along route.....</p> <p><input type="checkbox"/> Amount of traffic along route.....</p> <p><input type="checkbox"/> Adults to walk or bike with.....</p> <p><input type="checkbox"/> Sidewalks or pathways.....</p> <p><input type="checkbox"/> Safety of intersections and crossings.....</p> <p><input type="checkbox"/> Crossing guards.....</p> <p><input type="checkbox"/> Violence or crime.....</p> <p><input type="checkbox"/> Weather or climate.....</p>	<p><input type="checkbox"/> My child already walks or bikes to/from school</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure</p>		
<p>11. Would you probably let your child walk or bike to/from school if this problem were changed or improved? (Select one choice per line, mark box with X)</p>			
<p><b>+ Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box +</b></p>			
<p>12. In your opinion, how much does your child's school encourage or discourage walking and biking to/from school?</p> <table border="0"> <tr> <td> <p><input type="checkbox"/> Strongly Encourages</p> <p><input type="checkbox"/> Encourages</p> <p><input type="checkbox"/> Neither</p> <p><input type="checkbox"/> Discourages</p> <p><input type="checkbox"/> Strongly Discourages</p> </td> </tr> </table>		<p><input type="checkbox"/> Strongly Encourages</p> <p><input type="checkbox"/> Encourages</p> <p><input type="checkbox"/> Neither</p> <p><input type="checkbox"/> Discourages</p> <p><input type="checkbox"/> Strongly Discourages</p>	
<p><input type="checkbox"/> Strongly Encourages</p> <p><input type="checkbox"/> Encourages</p> <p><input type="checkbox"/> Neither</p> <p><input type="checkbox"/> Discourages</p> <p><input type="checkbox"/> Strongly Discourages</p>			
<p>13. How much fun is walking or biking to/from school for your child?</p> <table border="0"> <tr> <td> <p><input type="checkbox"/> Very Fun</p> <p><input type="checkbox"/> Fun</p> <p><input type="checkbox"/> Neutral</p> <p><input type="checkbox"/> Boring</p> <p><input type="checkbox"/> Very Boring</p> </td> </tr> </table>		<p><input type="checkbox"/> Very Fun</p> <p><input type="checkbox"/> Fun</p> <p><input type="checkbox"/> Neutral</p> <p><input type="checkbox"/> Boring</p> <p><input type="checkbox"/> Very Boring</p>	
<p><input type="checkbox"/> Very Fun</p> <p><input type="checkbox"/> Fun</p> <p><input type="checkbox"/> Neutral</p> <p><input type="checkbox"/> Boring</p> <p><input type="checkbox"/> Very Boring</p>			
<p>14. How healthy is walking or biking to/from school for your child?</p> <table border="0"> <tr> <td> <p><input type="checkbox"/> Very Healthy</p> <p><input type="checkbox"/> Healthy</p> <p><input type="checkbox"/> Neutral</p> <p><input type="checkbox"/> Unhealthy</p> <p><input type="checkbox"/> Very Unhealthy</p> </td> </tr> </table>		<p><input type="checkbox"/> Very Healthy</p> <p><input type="checkbox"/> Healthy</p> <p><input type="checkbox"/> Neutral</p> <p><input type="checkbox"/> Unhealthy</p> <p><input type="checkbox"/> Very Unhealthy</p>	
<p><input type="checkbox"/> Very Healthy</p> <p><input type="checkbox"/> Healthy</p> <p><input type="checkbox"/> Neutral</p> <p><input type="checkbox"/> Unhealthy</p> <p><input type="checkbox"/> Very Unhealthy</p>			
<p><b>+ Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box +</b></p>			
<p>15. What is the highest grade or year of school you completed?</p> <table border="0"> <tr> <td> <p><input type="checkbox"/> Grades 1 through 8 (Elementary)</p> <p><input type="checkbox"/> Grades 9 through 11 (Some high school)</p> <p><input type="checkbox"/> Grade 12 or GED (High school graduate)</p> </td> <td> <p><input type="checkbox"/> College 1 to 3 years (Some college or technical school)</p> <p><input type="checkbox"/> College 4 years or more (College graduate)</p> <p><input type="checkbox"/> Prefer not to answer</p> </td> </tr> </table>		<p><input type="checkbox"/> Grades 1 through 8 (Elementary)</p> <p><input type="checkbox"/> Grades 9 through 11 (Some high school)</p> <p><input type="checkbox"/> Grade 12 or GED (High school graduate)</p>	<p><input type="checkbox"/> College 1 to 3 years (Some college or technical school)</p> <p><input type="checkbox"/> College 4 years or more (College graduate)</p> <p><input type="checkbox"/> Prefer not to answer</p>
<p><input type="checkbox"/> Grades 1 through 8 (Elementary)</p> <p><input type="checkbox"/> Grades 9 through 11 (Some high school)</p> <p><input type="checkbox"/> Grade 12 or GED (High school graduate)</p>	<p><input type="checkbox"/> College 1 to 3 years (Some college or technical school)</p> <p><input type="checkbox"/> College 4 years or more (College graduate)</p> <p><input type="checkbox"/> Prefer not to answer</p>		
<p>16. Please provide any additional comments below.</p> <p>_____</p> <p>_____</p> <p>_____</p>			

## APPENDIX D: STUDENT SURVEY

### Student Transportation Survey: How do you get to and from school?

Date: \_\_\_\_\_ Teacher: \_\_\_\_\_ Grade: \_\_\_\_\_

1. How far do you live from school? (Use your best guess. Check one box)

- ☐ Less than ¼ mile
- ☐ ¼ miles to ½ mile
- ☐ ½ mile to 1 mile
- ☐ 1 mile to 2 miles
- ☐ More than 2 miles
- ☐ I don't know

2. How do you usually get to school in the morning? (check one box)

- ☐ Walk
- ☐ Bike
- ☐ Skateboard/Scooter
- ☐ Take the Bus or Light Rail
- ☐ Someone Drives Me
- ☐ Uber or Lyft

3. Who do you usually go to school with in the morning? (check one box)

- ☐ By myself
- ☐ With friends or neighbors
- ☐ With a parent or adult
- ☐ With a brother or sister

4. How do you usually get home from school? (check one box)

- ☐ Walk
- ☐ Bike
- ☐ Skateboard/Scooter
- ☐ Take the Bus or Light Rail
- ☐ Someone Drives Me
- ☐ Uber or Lyft

5. Who do you usually go home from school with?

- ☐ By myself
- ☐ With friends or neighbors

- ☐ With a parent or adult
- ☐ With a brother or sister

6. Do you participate in afterschool activities? (check one box)

- ☐ Yes
- ☐ No

7. If you had a choice, how would you most like to get to school? (check all that apply)

- ☐ Walk
- ☐ Bike
- ☐ Skateboard/Scooter
- ☐ Take the Bus or Light Rail
- ☐ Someone Drives Me
- ☐ Uber or Lyft

8. Do you currently have a bicycle that you can ride to school? (check on box)

- ☐ Yes
- ☐ No

9. Do you have a helmet? (check one box)

- ☐ Yes
- ☐ No

10. How often do you walk or ride your bicycle to places other than school? (check one box)

- ☐ Daily
- ☐ Weekdays
- ☐ Weekends
- ☐ Rarely
- ☐ Never

11. Do your parents/guardians have a car they can use? (check one box)

- ☐ Yes
- ☐ No

12. How do you feel about walking and biking?

Walking		Biking	
(Circle one word/phrase on each line)		(Circle one word/phrase on each line)	
fun	boring	fun	boring
safe	not safe	safe	not safe
not healthy	healthy	not healthy	healthy
cool	not cool	cool	not cool
saves time	does not save time	saves time	does not save time

13. What would make walking or biking to school better? (check all that you think)

- |  |   |
|--|---|
| <input type="checkbox"/> friends to walk with                      | <input type="checkbox"/> more crossing guards               |
| <input type="checkbox"/> friends to bike with                      | <input type="checkbox"/> better lighting                    |
| <input type="checkbox"/> less cars on the roads near the school    | <input type="checkbox"/> safe places to cross the road      |
| <input type="checkbox"/> less cars in the school parking lot       | <input type="checkbox"/> no bullies along the way to school |
| <input type="checkbox"/> sidewalks all the way to school           | <input type="checkbox"/> nothing – I live too far to walk   |
| <input type="checkbox"/> bike racks/a safe place to leave my bike  | <input type="checkbox"/> other _____                        |
| <input type="checkbox"/> no strangers along the way to school      |   |
| <input type="checkbox"/> nothing – my parents will not let me walk |   |

14. Would you walk or bike to school if your route to school was improved so you felt safer? (check one box)

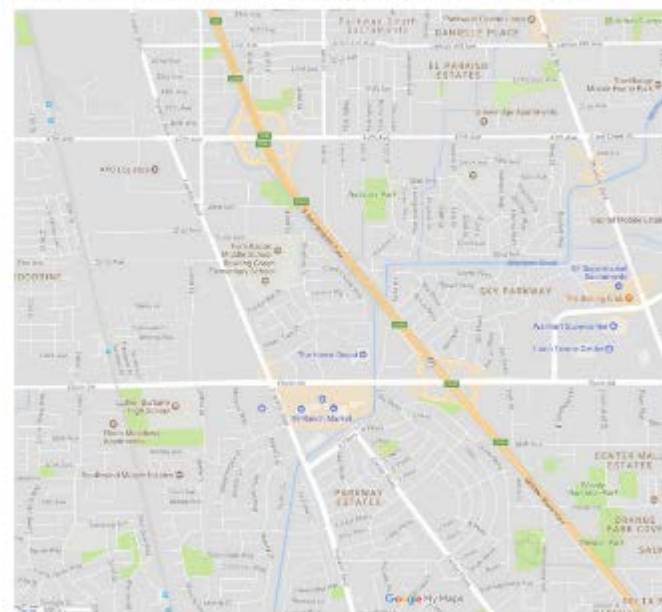
- ☐ Yes  
☐ No  
☐ Maybe

Turn over for Mapping Exercise →

## Mapping Exercise

If you walk to or from school, follow the instructions below:

- Trace your route on the map.
- Think of a good location students could meet before school and walk to school together. Mark it with X. Example: A Park. If you can't find the location on the map, write it down in the notes section.
- Note anything else you want us to know. Example: difficult places to cross the street, trash, fast traffic.



Notes:

---



---



---





Due to a recent pedestrian and car incident, the parking lot is closed to parents during pick-up. Fern Bacon Middle School has deemed the parking lot too risky for conflict points between cars and pedestrians in the lot. All traffic is directed to pick-up or drop-off students on Cuny Avenue.

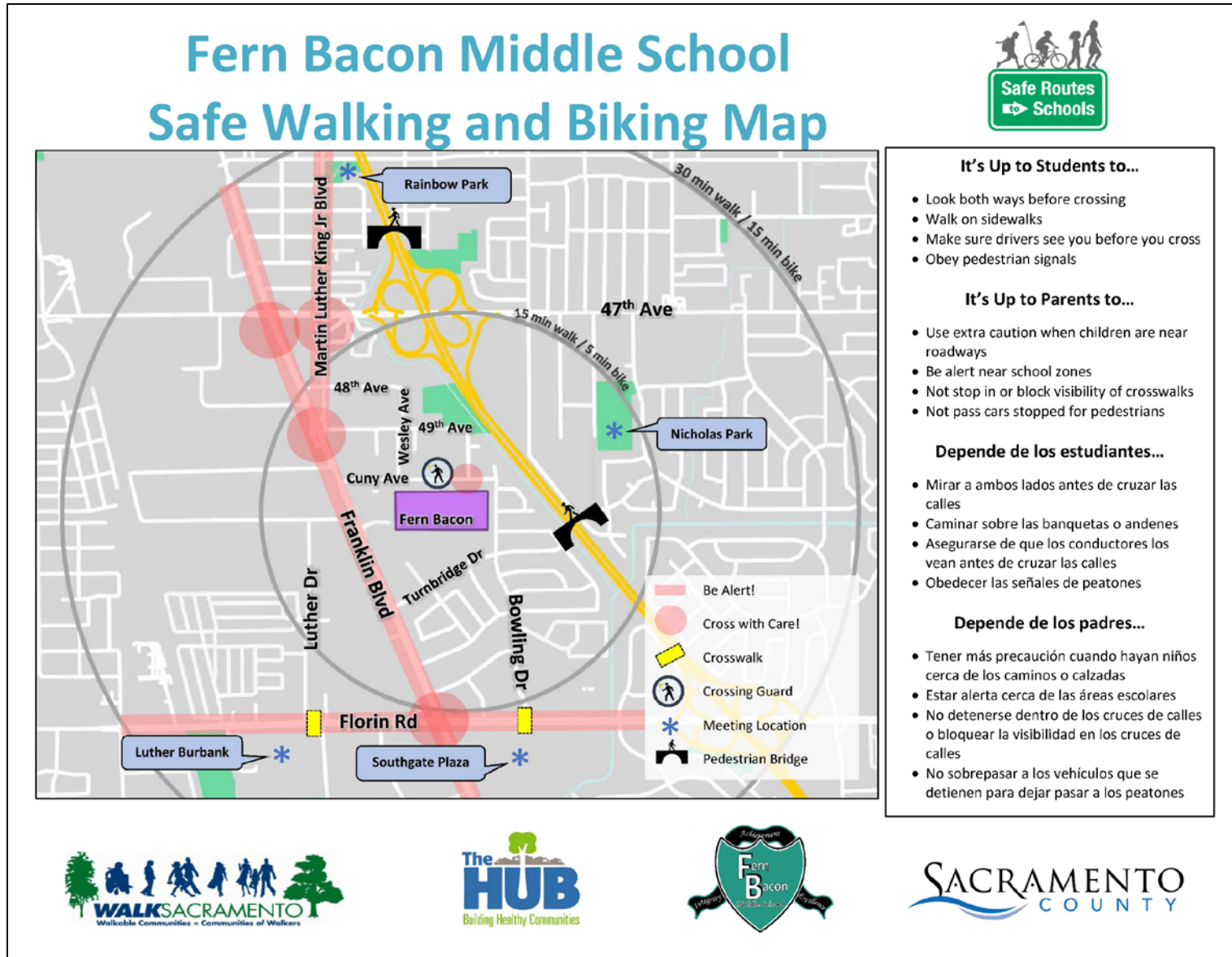
### **3. Notes from Cuny Ave between the raised crosswalk and Bowling Green Drive**

During drop-off cars pull up to the raised crosswalk and drop students off. Staff and City Year students assist students across the crosswalk. As the school start time nears, this causes a ripple effect of backed up cars double parking to drop students off. In the afternoons, cars park along Cuny Ave well before the end of school which also causes back up as drivers who park early, do not have students who are ready to be picked up first.

Many students who live in Bowling Green Apartments between 42<sup>nd</sup> Street cross at the intersection of Cuny Avenue and 42<sup>nd</sup> Street, where no marked crossing exists. Students were observed running across street to avoid oncoming traffic. As drivers pull out on Cuny Avenue to exit the school pick-up and drop-off area, they were observed speeding up, not anticipating additional pedestrian crossings at 42<sup>nd</sup> street or on the corner of Bowling Green Drive and Cuny Avenue.

### **4. Notes from the Back Entrance of School**

Students who live south of the school can enter through the back entrance of the school that connects to Bowling Green Charter School. Two staff members situated on the pavement to monitor students arriving and departing through this entrance. The bike cage is located here. Twenty bikes, two scooters, and one skateboard were observed to be stored in the bike cage. Only two students wore helmets.







#### WALKING

- Students must wait for crossing guard OK before crossing the street.
- Students should look *before* crossing large driveways.
- Teach your students how to safely cross the street:
  - Stop at the curb.
  - Look left, right, and left again.
  - Ask, "Is it safe to cross?"
  - If a car comes, start over.
  - If a car stops for you, make eye contact with the driver to make sure they see you.
- Tell your students to walk, *never run*, across the street.

#### BIKING

- Students always need to wear a helmet. It's the law!
- Students riding on the sidewalk should let walkers know that they are behind them. Leave plenty of room when passing.
- Students must walk their bike when in a crosswalk.
- Students should only park their bike in the bike racks.

### Fern Bacon Middle School Pick-up/Drop-off Procedures

For the safety of your child, please follow the pick-up and drop-off procedures:

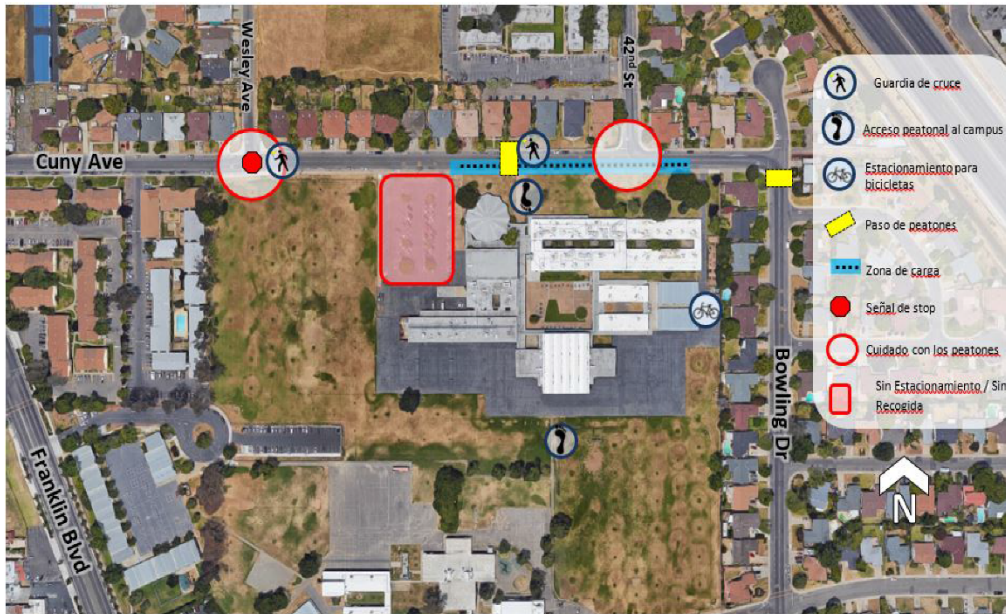
#### BE A COURTEOUS DRIVER

- Be alert for students walking and biking to school. They are more likely to dart out into the street.
- Always drive 25 MPH or less around the school during school travel times.
- Do not stop in or block visibility of crosswalks.
- Do not use cellular devices while driving in a school zone.
- Do not block visibility or access to the Parking lot.

#### CUNY AVENUE PICK-UP AND DROP-OFF

- Drop-off and pick-up your children only on the school-side of the street. Do not have your children cross the street midblock.
- Your students should enter and exit your vehicle only on the passenger side.
- The school side of the street is for loading only. Do not park and block other cars from loading at the curb.
- The parking lot entrance is closed to pick-up.
- Do not drop students off in front of the parking lot driveway.





#### A PIE

- Los estudiantes deben esperar la señal del guardia de cruce escolar antes de cruzar la calle.
- Los estudiantes deben mirar antes de cruzar las avenidas anchas.
- Enseñe a sus estudiantes a cruzar las calles con seguridad:
  - Detenerse al llegar a la orilla de la banqueta.
  - Mirar a la izquierda, a la derecha y nuevamente a la izquierda.
  - Preguntarse "¿es seguro cruzar?"
  - Si viene un auto, repetir todo lo anterior.
  - Si un auto se detiene frente a ti, hacer contacto visual con el conductor para asegurar ser visto.
- Instruya a sus estudiantes a caminar, *nunca correr*, al cruzar la calle.

#### EN BICICLETA

- Los estudiantes siempre deben usar el casco. ¡Es la ley!
- Los estudiantes que transitan sobre la banqueta deben advertir a los peatones cuando van manejando detrás de ellos. Dejar suficiente espacio al pasar.
- Los estudiantes deben llevar su bicicleta caminando cuando atraviesan el cruce peatonal.
- Los estudiantes deben estacionar sus bicicletas únicamente en los estantes designados para ello.

### Procedimiento para recoger y dejar estudiantes en Fern Bacon Middle School

Por la seguridad de sus hijos, por favor cumpla con los procedimientos para recogerlos y dejarlos:

#### SEA UN CONDUCTOR CORTÉS

- Esté atento a los estudiantes que transitan a la escuela en bicicleta o a pie. Es más probable que se lancen a la calle repentinamente.
- Maneje siempre a menos de 25 millas por hora en los alrededores de la escuela durante el horario de transporte escolar.
- No se detenga ni bloquee la visibilidad de los cruces de peatones.
- No use dispositivos celulares mientras conduce en una zona escolar.
- No bloquee la visibilidad ni el acceso al estacionamiento.

#### PARA RECOGER Y DEJAR ESTUDIANTES EN CUNY AVENUE

- Recoja o deje a sus estudiantes solo del lado de la escuela. Sus estudiantes no deben cruzar a media calle.
- Sus estudiantes deben subir y bajar de su vehículo solo del lado del pasajero.
- El lado de la escuela de la calle es solo para cargar. No estacione y bloquee que otros carros no se carguen.
- La entrada al estacionamiento está cerrada para recoger el tráfico.
- No deje a los estudiantes frente a la entrada del estacionamiento.