

RECOMMENDATIONS TO IMPROVE PEDESTRIAN SAFETY IN THE CITY OF FRESNO



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By Tony Dang, Jaime Fearer, Caro Jauregui, Wendy Alfsen,
California Walks;
Jill Cooper, UC Berkeley SafeTREC



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BY TONY DANG, JAIME FEARER, CARO JAUREGUI, WENDY ALFSEN,
CALIFORNIA WALKS;
JILL COOPER, UC BERKELEY SAFETREC

INTRODUCTION

The City of Fresno was identified as a focus community for a Community Pedestrian Safety Training, in collaboration with the Fresno Bicycle Pedestrian Advisory Committee, based on residents' interest in pedestrian safety and walkability, as well as recent and planned active transportation projects around the City.

Following additional conversations with the City of Fresno Public Works Department; Fresno Police Department; City of Fresno Parks, After School, Recreation and Community Services Department; Cultiva La Salud; Fresno Metro Ministry; Better Blackstone Association; Peds and Pedals; Southeast Fresno Community Economic Development Association; Holistic Cultural Education and Wellness Center / Fresno Center for New Americans; Fresno County Department of Public Health; Valley Children's Hospital; Caltrans District 6; and Fresno Council of Governments, the community invited the University of California at Berkeley's Safe Transportation Research and Education Center (SafeTREC) and California Walks (Cal Walks) to Fresno to facilitate a community-driven pedestrian safety action-planning workshop. Cal Walks facilitated the workshop over two days on August 20 and 21, 2015, which consisted of: 1) an overview of multidisciplinary approaches to improve pedestrian safety; 2) walkability assessments of Ventura Street/Kings Canyon Road and Blackstone Avenue in relation to seven (7) planned Blackstone/Kings Canyon Bus Rapid Transit (BRT) stations; and 3) small group action planning discussions to facilitate the development of community-prioritized recommendations to inform the City's ongoing active transportation efforts, as well as the City's planning efforts for the Blackstone/Kings Canyon BRT project. This report summarizes the workshop proceedings, as well as ideas identified during the process and recommendations for pedestrian safety projects, policies, and programs.

BACKGROUND

Community Pedestrian Safety Training Program

The Community Pedestrian Safety Training (CPST) program is a joint project of UC Berkeley SafeTREC and Cal Walks. Funding for this program is provided by a grant from the California Office of Traffic Safety (OTS) through the National Highway Traffic Safety Administration (NHTSA). The purpose of the CPST is to train local neighborhood residents and safety advocates in pedestrian safety and to educate them on how to collaborate effectively with local officials and agency staff to make communities safer and more pleasant to walk. The half-day training is designed to provide participants with pedestrian safety best practices and a range of proven strategies (the 6 E's: Empowerment & Equity, Evaluation, Engineering, Enforcement, Education, Encouragement) to address and improve pedestrian safety

conditions and concerns. Participants are then guided on a walkability assessment of nearby streets before setting pedestrian safety priorities and actionable next steps for their community.

For a summary of outcomes from past CPST workshops, please visit:

www.californiawalks.org/wp-content/uploads/2015/05/CPST_Follow-Up_2009-14.pdf

Selected Pedestrian Safety Conditions in Fresno

High Traffic Speeds & Wide Streets

As former state highways (State Routes 180 and 41, respectively), Ventura Street/Kings Canyon Road and Blackstone Avenue are extremely wide streets, with the right-of-way ranging from roughly 85 feet to 105 feet, four to six travel lanes, and posted speed limits ranging from to 30-45 MPH. The current street configuration prioritizes the movement of automobiles despite the high transit ridership and the accompanying pedestrian activity along existing Blackstone/Kings Canyon bus routes. Additionally, many destinations are concentrated along both sides of the corridors—including retail, community services, and restaurants—that necessitate safe and frequent pedestrian crossings. The multiple lanes of fast moving traffic make crossing challenging for pedestrians absent additional safety enhancements, such as curb extensions and pedestrian safety islands.



LACK OF MARKED CROSSING AT T-INTERSECTION LEADING TO A BUS STOP ON BLACKSTONE AVENUE

Distance between Marked Crossings

For many stretches of Ventura Street/Kings Canyon Road and Blackstone Avenue, there is a lack of marked crosswalks between signalized intersections. For example, between the signalized intersections of Kings Canyon Road/Peach Avenue and Kings Canyon Road/Clovis Avenue, there are three legal, unmarked crossings in addition to the marked crossings at the signalized intersections and a marked uncontrolled crossing at Minnewawa Avenue. There are residences on both sides of Kings Canyon Road, and Sunnyside High School is located on the southern edge of Kings Canyon Road near Peach Avenue. The

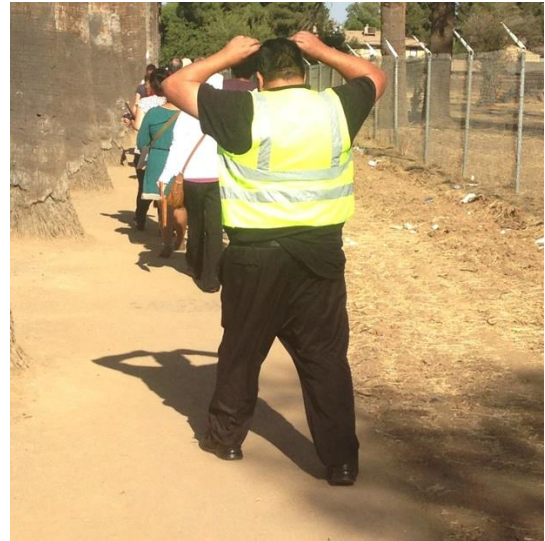
distance between Kings Canyon Road/Peach Avenue and Kings Canyon Road/Clovis Avenue is roughly 1.0 mile, and the distance between Kings Canyon Road/Minnewawa Avenue to either signalized intersection is roughly 0.5 mile. This implies that a person would need to make up to a 1.0 mile detour if she wished to only use marked crosswalks. It is unlikely that many people would make this detour, and many currently—and legally—utilize the unmarked crossings despite the unsafe conditions, including high traffic speeds.

Discontinuous Sidewalks, Lack of Curb Ramps & Numerous Driveways

While sidewalks are mostly present along Ventura Street/Kings Canyon Road and Blackstone Avenue, there are instances where the sidewalk abruptly ends. Additionally, ADA-compliant curb ramps are largely missing where sidewalks are missing. Lastly, the frequent driveways, particular along Blackstone Avenue, present a number of challenges for people walking. First, the ingress/egress of vehicles increased potential conflicts between drivers and pedestrians, particularly due to driver inattention when exiting driveways. Secondly, the frequent driveways make it difficult to navigate in a wheelchair or using other mobility-assistance devices due to the steep and possibly non ADA-compliant cross slopes. Combined, these challenges may impact safe travel to the proposed BRT stations.



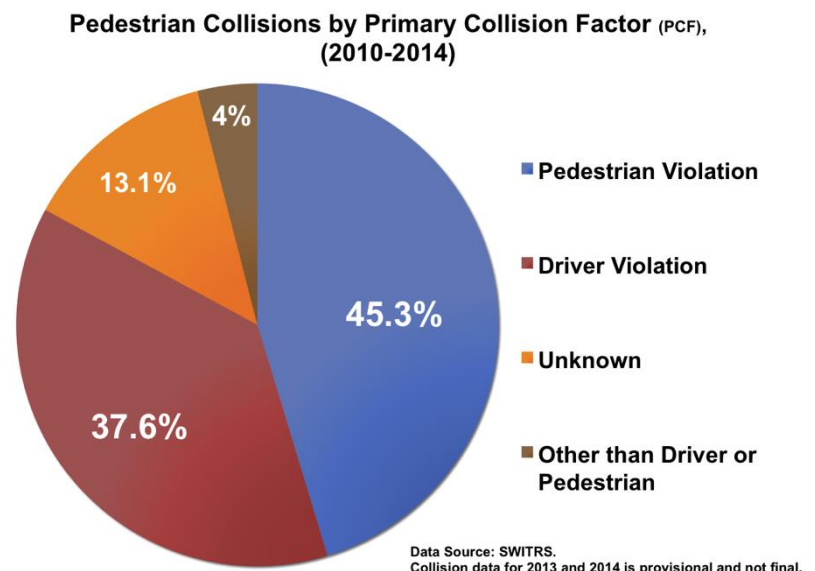
SIDEWALK ABRUPTLY ENDS ON EITHER SIDE OF RAILROAD CROSSING ALONG BLACKSTONE AVENUE FORCING PEDESTRIANS



PARTICIPANTS TRAVERSE MAJOR SIDEWALK GAP ALONG KINGS CANYON ROAD

Fresno's Pedestrian Collision History

Between 2010-2014, there were 351 pedestrian collisions in Fresno citywide,¹ including 62 fatalities and 54 severe injuries. Pedestrian collisions during this time period occurred throughout the City, though many are clustered along high-speed arterial streets including: Blackstone Avenue, Ventura Street/Kings Canyon Road, Shaw Avenue, Cedar Avenue, 1st Street, South Peach Avenue, South Chestnut Avenue, McKinley Avenue, and Fresno Street. Roughly 45% of pedestrian collisions in Fresno can be attributed to a pedestrian violation, while 38% can be attributed to driver violations. The top two Primary Collision Factors (PCF)



¹ Collision data for 2013 and 2014 are provisional and not final.

in terms of driver violations were: Pedestrian Right-of-Way Violations² (60%) and Unsafe Speed (17%)—accounting for over three-quarters of driver violations found to be the PCF in pedestrian collisions. For pedestrian violations, the top two PCFs were: Failure to Yield to Drivers when Outside a Marked or Unmarked Crosswalk³ (79%), Disobeying a Pedestrian Signal⁴ (8%), and Walking on the Roadway⁵ (8%).

AUGUST 20 & 21 WORKSHOPS

The Fresno Bicycle Pedestrian Advisory Committee in partnership with numerous community-based organizations requested a workshop to 1) provide City staff, community organizations, and residents with a toolkit for promoting pedestrian safety and walkability to inform future comprehensive active transportation planning and improvement efforts, including the Blackstone/Kings Canyon BRT project; 2) foster an open and collaborative relationship between community groups, residents, and City of Fresno agencies; and 3) develop consensus pedestrian safety priorities and actionable next steps for the Ventura Street/Kings Canyon Road and Blackstone Avenue corridors.



Because the BRT project covers 15.7 miles with 27 stations throughout the two corridors, community stakeholders requested a bifurcated workshop to allow for in-depth examination of select stations on both sections of the BRT corridor. The Ventura Street/Kings Canyon Road-focused portion of the workshop was hosted from 3:00 pm-7:30 pm on August 20 with dinner, childcare, simultaneous Spanish

RESIDENTS LEARNING THE 6 E'S APPROACH TO PEDESTRIAN SAFETY DURING THE VENTURA STREET/KINGS CANYON ROAD-FOCUSED PORTION OF THE WORKSHOP

translation, and Spanish-language workshop materials provided to encourage community resident participation, while the Blackstone Avenue-focused portion of the workshop was hosted on August 21 from 8:30 am-11:30 am with breakfast, childcare, simultaneous Spanish translation, and Spanish-language workshop materials provided to encourage community resident participation. Residents were

² Pedestrian Right-of-Way Violations are defined as instances where a driver fails to yield to a pedestrian in a marked or unmarked crosswalk when the pedestrian has the right of way (e.g., when the pedestrian has a “Walk” signal at a signalized intersection).

³ Pedestrians have the right-of-way in marked and unmarked crossings, and drivers are legally required to yield to pedestrians in these instances. However, when pedestrians cross outside of marked or unmarked crossings, pedestrians must yield the right-of-way to drivers. This is not the same as the term “jaywalking,” which refers to crossing outside of a marked or unmarked crossing between two signalized intersections. A pedestrian is legally able to cross outside of a marked or unmarked crossing between two intersections where one or none of the intersections is signalized but only if the pedestrian yields the right-of-way to oncoming drivers.

⁴ Disobeying a pedestrian signals refers to crossing when a “Don’t Walk” signal, or red hand, is displayed or when a pedestrian begins a crossing during the “Flashing Don’t Walk” phase of a pedestrian signal that may be accompanied by a countdown timer. Pedestrians are legally allowed to only begin to cross when presented with a “Walk” signal or white pedestrian figure.

⁵ Where sidewalks or other physically separated pedestrian facilities do not exist, pedestrians are permitted to walk on the roadway but only on their left-hand side. This violation may either refer to pedestrians walking on the roadway where sidewalks do exist or to pedestrians walking with their back to traffic where sidewalks do not exist.

encouraged to join at any point during the workshops. Sixty-three (63) individuals attended the workshops in total, with twenty-seven (27) attending the Ventura Street/Kings Canyon Road-focused portion and thirty-six (36) attending the Blackstone Avenue-focused portion of the workshop.

Participants represented many organizations, agencies, and the community-at-large, including:

- City of Fresno Department of Public Works
- City of Fresno Bicycle Pedestrian Advisory Committee
- Fresno County Department of Public Health
- Better Blackstone Association
- Every Neighborhood Partnership
- Caltrans District 6
- Centro La Familia Advocacy Services
- Cultiva La Salud
- Fresno Metro Ministry
- Holistic Cultural & Educational Wellness Center / Fresno Center for New Americans
- League of Women Voters, Fresno
- Peds and Pedals
- Southeast Fresno Community Economic Development Association
- Fresno Residents

Reflections from Walkability Assessment

Over the two sessions, workshop participants conducted four (4) walkability assessments along Ventura Street/Kings Canyon Road and Blackstone Avenue to evaluate pedestrian safety and walkability conditions in relation to seven (7) planned BRT stations at Chestnut Avenue, Willow Avenue, Peach

Avenue, Belmont Avenue, Abby Street, Weldon Avenue, and Olive Avenue. Participants were asked to 1) observe infrastructure conditions and the behavior of all road users; 2) apply strategies learned from the 6 E's presentation that could help overcome infrastructure deficiencies and unsafe driver, pedestrian, and bicyclist behavior along the BRT corridor; 3) identify positive community assets and strategies which can build upon these assets; and 4) for the Blackstone Avenue portion, to record their observations using a standardized walkability assessment sheet. Additionally, resident leaders from previous Bakersfield-area CPSTs joined the Blackstone Avenue assessments to share their experiences, successes, and advice on how to conduct and use findings from walkability assessments with their Fresno peers. Following the walkability assessment, the participants shared the following



RESIDENTS EMBARKING ON BLACKSTONE AVENUE WALKABILITY ASSESSMENTS

reflections:

- **Kings Canyon Road**

- **Unwelcoming Environment for People Walking & Biking:** Participants noted that the environment along Kings Canyon Road was largely unwelcoming to those on foot or bicycle. The high volume and speeds of traffic generated lots of noise, emissions, and glare, contributing to the poor air quality.

Additionally, the minimal amount of shade was compounded by the urban heat island effect stemming from the large amount of blacktop pavement that constitutes the right-of-way. Participants noted that the loud atmosphere made it difficult to communicate during the assessment and that parents and children likely have difficulty communicating along Kings Canyon Road. Participants also expressed feeling on “high alert” and having a “sense of fear” when walking along and crossing Kings Canyon Road. Participants did



RESIDENT OBSERVED WALKING IN TRAFFIC ON KINGS CANYON ROAD DUE TO MISSING SIDEWALKS

note, however, that newer development on the corridor provided a good amount of shade for those walking. Lastly, participants commented on how the large number of surface parking lots, driveways, and drive-through businesses contributed negatively to the streetscape and reinforced the feeling that Kings Canyon Road is only meant for automobiles.

- **High Traffic Volumes & Speeds:** Due to the corridor’s unique access to the City and region’s highways, participants noted the high traffic volumes along Kings Canyon Road during the walkability assessment. Participants commented on how Kings Canyon Road is treated as an auxiliary highway of sorts for travelers, as evidenced by the high traffic speeds. Participants also noted the traffic volumes are amplified by the presence of big-box stores, which draw in a large number of residents from outside the neighborhood.

- **Neighborhood Infrastructure Inequities & Neglect:** Participants commented that the Kings Canyon corridor feels neglected by the City—as evidenced by numerous



SPEED FEEDBACK SIGN IN DISREPAIR NEAR OLMOS ELEMENTARY



TRAFFIC MEDIAN OBSTRUCTS CROSSWALK ON KINGS CANYON ROAD

potholes, poor pavement condition, damaged/illegible signage, faded pavement markings, and missing sidewalks—particularly when compared to the northern section of the City where newer development is occurring.

○ **Pedestrian Safety**

Improvements Needed at Mario G. Olmos Elementary School:

Participants observed students using the restricted pedestrian crossing at the north side of the Chestnut Avenue/Balch Avenue intersection, rather than the marked crossing at the south side of the intersection. Additionally, the location of the bus stop at the northwest corner of Chestnut Avenue/Balch Avenue appeared to encourage unsafe crossings away from the existing signalized marked crossing at the

school. Lastly, participants commented that the speed feedback signs surrounding the school may not be calibrated correctly and displayed incorrect speed information. City staff commented that the school district—and not the City—owns and maintains the speed feedback devices.

- **Lack of Lighting:** Though the walkability assessments were conducted during the day, participants emphasized the lack of lighting, particularly pedestrian-scale lighting, as a major pedestrian safety issue based on personal experiences.
- **Discontinuous Bike Lanes:** Participants noted the unexpected disappearance of the bicycle lane on South Chestnut Avenue between East Kings Canyon Road and East Balch Avenue. City representatives speculated that this was possibly due to utility or other construction work that did not properly restore the bicycle lane when work was finished. City representatives encouraged residents to report such issues to the Department of Public Works through the mobile application “FresGO” so that proper investigation and follow up can be conducted.
- **Pedestrian Crossing Time & Signals:** Most intersections required pedestrians to push a button to actuate the pedestrian signal to cross, and pedestrian actuated requests, at times, did not



YOUNG STUDENT USES MEDIAN AS A REFUGE TO CROSS KINGS CANYON ROAD

synchronize well with the traffic phases—forcing pedestrians to wait through a traffic cycle before receiving a walk signal. Additionally, in observing pedestrians crossing Kings Canyon Road, participants noted what they believed to be insufficient crossing time when compared to observations of pedestrians crossing other streets during the walkability assessment. Pedestrians did note that newer traffic signals did incorporate pedestrian countdown timers and expressed support for expanding the implementation of these timers citywide. Lastly, participants noted how the large width of the travel lanes made it difficult to cross the street in the time allotted for pedestrian crossings.

- **Long Distances between Marked Crossings:** Participants noted the long distances between marked crossings along Kings Canyon Road, and City staff contributed to a robust discussion for the need for additional safety enhancements for any new crossings to be installed across Kings Canyon Road given the traffic speeds and volumes.

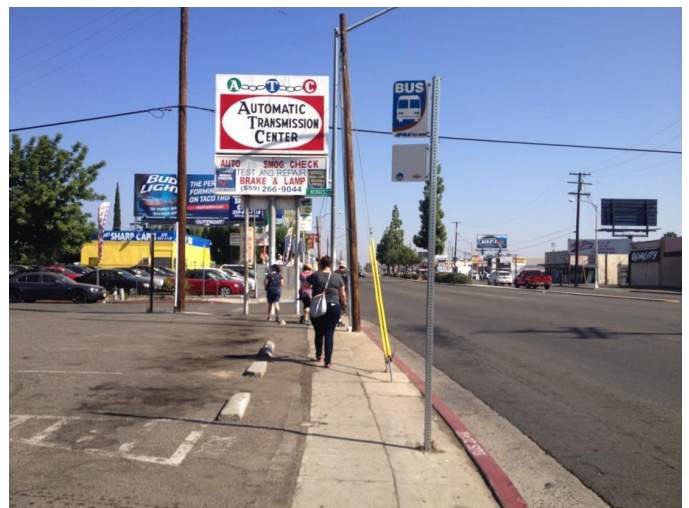
- **Blackstone Avenue**

- **Unwelcoming Environment for People Walking & Biking:** Similar to the observations and concerns on Kings Canyon Road, participants noted that the environment along Blackstone Avenue was largely unwelcoming to those on foot or bicycle. Throughout the corridor, businesses encroach on the sidewalks with displays and parked cars, and in some sections, it was difficult to discern where frontage parking ends and the sidewalk space begins. Additionally, residents noted the challenges they face walking on one-way streets versus two-way streets; in particular, the drivers' expectations of free right turns without other vehicles approaching from the right presents a dangerous environment for pedestrians trying to cross.



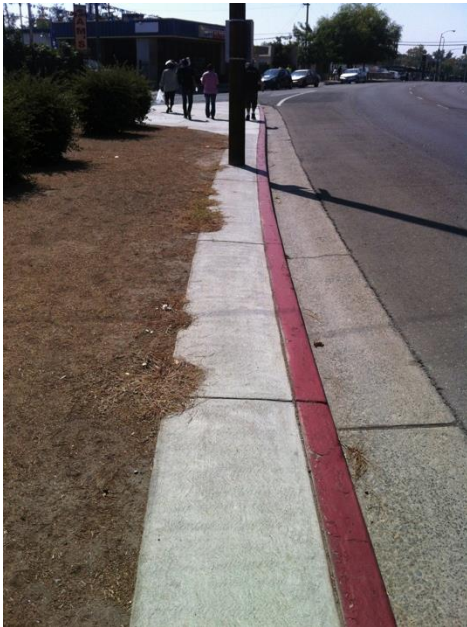
PARTICIPANTS NAVIGATE AROUND PARKED CARS AND OTHER ENCROACHMENTS ALONG BLACKSTONE AVENUE

- **Transit Infrastructure:** Many existing bus stops lack improvements such as benches, trash receptacles, and shade. Because of obstructions and/or easy-to-miss signage, a number of bus stops are not very visible to drivers or to pedestrians from afar.
- **Sidewalk Construction & Maintenance:** Participants observed numerous safety issues on sidewalks including: **uneven and broken sidewalks**, specifically noted around



EXAMPLE OF UNIMPROVED BUS STOP WITH NARROW SIDEWALKS

the Blackstone Avenue and Belmont Avenue intersection; **narrow sidewalks** that make it challenging for those pushing strollers or using assistive devices to navigate, particularly on the west side of Blackstone between Webster Avenue and Hedges Avenue; **missing sidewalks and/or curb ramps** on sections along the Blackstone Avenue corridor including the east side of Blackstone Avenue crossing the railroad tracks by Home Avenue and the west side of Olive Avenue between Abby Street and Blackstone Avenue; and **sidewalk obstructions**, including vegetation that impedes passage and trees that block visibility.



**EXTREMELY NARROW SIDEWALK
OBSTRUCTED BY UTILITY POLE**



EXAMPLE OF THE NUMEROUS UNMARKED T-INTERSECTIONS ALONG BLACKSTONE AVENUE

- **Inadequate Pedestrian Crossings & Long Distances between Marked Crossings:**
Participants noticed insufficient crossing times at many of the major intersections along Blackstone Avenue that made them feel unsafe. Most crossings required push-button activation, and some of the buttons are installed relatively far away from the curb ramps; in general residents commented that they would prefer pedestrian signals to be set on automatic recall, particularly at major crossings. Additionally, participants noted the distances between marked crossings and strongly voiced the need for high-visibility crosswalk markings at a number of the currently unmarked crossings along the corridor.
- **Pedestrian Safety Improvements Needed at Susan B. Anthony Elementary School:**
Residents—particularly the many mothers who joined the Blackstone Avenue-focused portion of the workshop—highlighted a number of improvements they feel will improve and make safer children's access to the school. The mothers highlighted the Blackstone Avenue/Tyler Avenue, Blackstone Avenue/Webster Avenue, and Blackstone Avenue/Clay Avenue intersections as priority candidates for improvements: at these T-intersections, there are no crosswalk markings or signals across Blackstone Avenue, despite being the most direct routes to the school from the neighborhood to the east. Additionally, while not adjacent to the school, many of the participating mothers continue to seek improvements, including crosswalk markings, at Blackstone Avenue and Abby Street.



TRAFFIC MEDIAN OBSTRUCTS CROSSWALK ON BLACKSTONE AVENUE

The mothers shared that they met with the City in May 2015 to express their interest in becoming volunteer crossing guards if the City agreed to install a marked crosswalk at this location. The community is awaiting the City's response.

- **Lack of Bike**

Infrastructure: The lack of bicycle infrastructure along Blackstone Avenue results in bicyclists using the sidewalk as a safe refuge from fast moving traffic. This invites unnecessary conflict between pedestrians and bicyclists on the sidewalk,

- **Safety & Perceptions of Safety:** The community raised concerns over homeless and transient people around Susan B. Anthony Elementary School and on Tyler and Clay avenues. They were also concerned with the trash and graffiti in that area. Additionally, residents shared concerns about the danger posed by the lack of fencing/barrier by the canal on the east side of Blackstone between Webster and Olive avenues. The visiting resident leaders of the Greenfield Walking Group from Bakersfield—Gema Perez, Rosa Lopez, and José Pinto—shared their support and advice to begin to address some of these issues, including some of their experiences with similar personal security and safety issues at Stiern Park in their community where they:

- United and began to collectively exercise together at the park, created a walking group, organized Zumba classes, and used trees as goal posts to play soccer to activate and reclaim the public space;

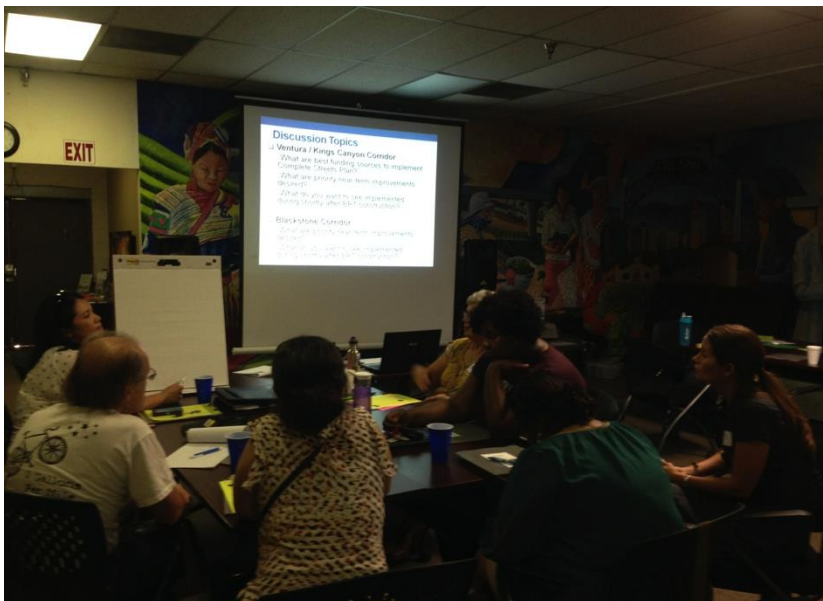


EXPOSED CANAL INVITES LITTER, GRAFFITI, AND BLIGHT

- Created a community garden and a neighborhood watch program to place more “eyes on the street;”
- Organized to champion successful County ordinances that prohibit smoking inside parks, limiting smoking only to park parking lots;
- Raised money to install a walking path around the park; and
- Attended and continue to attend City meetings.

The Greenfield Walking Group continues to struggle with graffiti problems, and most recently, the community has begun to reach out to and recruit those who graffiti to work on a mural that incorporates their artwork. The hope is that if the taggers have ownership in the art, they will stop tagging in their community.

Compiled detailed field notes and photographs from the Blackstone Avenue walkability assessments can be found in Appendix 1 of this report. Appendix 2 of this report contains the walkability checklist used during the assessments.



PARTICIPANTS ENGAGED IN ACTION PLANNING DISCUSSIONS FOR KINGS CANYON ROAD

Community Resident Recommendations

Following the walkability assessments, Cal Walks facilitated small-group action planning discussions. Workshop participants were tasked with developing concrete recommendations based on the 6 E's of pedestrian safety and walkability to improve the pedestrian safety and walkability of the Blackstone Avenue/Kings Canyon Road corridors observed during the workshop, as well as more broadly to improve pedestrian access to the Blackstone/Kings Canyon BRT stations. Workshop participants provided the following priority recommendations for

overall pedestrian safety improvements along the Blackstone/Kings Canyon BRT corridor:

- **Ensure Sidewalk Continuity & Prioritize Filling Sidewalk Gaps:** Workshop participants underscored that routes to the planned BRT stations must have completed sidewalk networks in order to maximize ridership. The BRT project construction will only focus on the BRT stations, and there are no plans for addressing pedestrian connectivity and access beyond the stations. Participants supported pursuing funding through the state Active Transportation Program to complete sidewalk gaps along Blackstone Avenue/Kings Canyon Road directly leading to the BRT stations, as well as side streets that will also direct pedestrian traffic to the stations.
- **Prioritize Sidewalk Repair & Maintenance:** Where sidewalks currently exist on Blackstone Avenue/Kings Canyon Road, participants strongly supported prioritizing repair and maintenance of these sidewalks in order to ensure access to the BRT stations and to maximize potential ridership. Participants noted sidewalks in disrepair and numerous sidewalk obstructions during the walkability assessments. Systematically addressing these sidewalk needs will require

coordination between the Department of Public Works—for broken and uneven sidewalks and missing/inadequate curb ramps—and the Community Revitalization Division (formerly Code Enforcement) of the Development and Resource Management Department (formerly the Planning and Development Department)—for vegetation and right-of-way encroachment issues.

- **Install Additional Pedestrian Crossings with Accompanying Signals/Beacons at Midblock Locations:** Participants strongly supported the installation of additional pedestrian crossings at midblock locations on the Blackstone/Kings Canyon corridor that would be accompanied by a full traffic signal or pedestrian hybrid beacon (PHB). Participants noted how the distances between existing marked crossings along the corridor were too far and that additional midblock crossings are needed to better facilitate pedestrian mobility along the corridor, particularly since there are pedestrian attractors on both sides of Blackstone Avenue and Kings Canyon Road. Participants understood the need for more in-depth engineering and evaluation to be completed by the Department of Public Works in order to determine the appropriate location(s).
- **Upgrade to High-Visibility Crosswalk Markings Upon Repaving:** Participants expressed that the existing crosswalk markings along the corridor are not very visible to drivers and strongly supported leveraging the street repaving schedule to upgrade these crosswalk markings to high-visibility ladder or continental style crosswalk markings in a cost-effective manner.
- **Install Lighting, including Pedestrian-Scale Lighting:** Participants strongly supported pursuing funding to install additional lighting, including pedestrian-scale lighting, along the Blackstone/Kings Canyon BRT corridor through state Active Transportation Program. Participants noted that additional lighting would address traffic safety concerns, as well as personal security concerns.
- **Evaluate Systematically & Readjust Pedestrian Crossing Times As Needed:** Participants observed many instances during the walkability assessment of what appeared to be insufficient crossing time for pedestrians on the Blackstone/Kings Canyon BRT corridor. As the traffic signal timing for the corridor will likely be re-evaluated/re-programmed as part of the BRT project, participants strongly recommended also evaluating the pedestrian crossing time along the corridor and making adjustments where warranted to provide pedestrians—particularly children, seniors, and people with disabilities—with more time to cross the street.
- **Retrofit Driveways Impacting BRT Stops:** The numerous driveways along the Blackstone/Kings Canyon BRT corridor present a challenge to people walking, as well as to transit riders making their way to the transit stations. Participants recommend retrofitting driveways closest to the BRT stops that could be funded through the creation of a Property Business Improvement District. Retrofits could include: narrowing the width the driveway as much as possible in order to reduce pedestrian crossing distances; tightening turning radii; improving driveway definition through clearly delineating that the sidewalk crosses the driveway; and removing any landscaping or signage that may obscure driver/pedestrian sight lines.
- **Strengthen Coordination with School District for Pedestrian Safety Improvements:** Participants' observations of the Chestnut Avenue/Balch Avenue intersection near Mario G. Olmos Elementary School underscored the need for the City to work more closely with the school district to implement, update, and/or maintain pedestrian safety improvements for students. For Olmos Elementary School in particular, participants recommend that the City work with the district to explore: the restoration of the pedestrian crossing at the north side of the Chestnut Avenue/Balch Avenue intersection; the relocation of the school bus stop to align with

the existing marked crossing; the relocation of Fresno Area Express (FAX) bus stops along Chestnut Avenue to better align with marked crossings; the exploration of a marked crossing at Mono Street across Chestnut Avenue; and the installation of a pedestrian safety islands on Chestnut Avenue. For Susan B. Anthony Elementary School, participants strongly supported continued, open, and meaningful dialogue with the City and the school district in order to move toward implementation of pedestrian safety improvements near the school, particularly for the establishment of a crossing guard program paired with new marked crossings near the school.

A compilation of all workshop participant recommendations can be found in Appendix 3 of this report.

California Walks/SafeTREC Recommendations

Cal Walks and SafeTREC also submit the following recommendations for consideration by the City of Fresno:

- **Pursue Grant Funding for Pedestrian Access to Transit Planning & Implementation of Improvements:** Cal Walks and SafeTREC strongly support residents' recommendation to prioritize the completion of sidewalk gaps along the Blackstone/Kings Canyon BRT corridor and along side streets leading to the BRT stations. We recommend that the City of Fresno, Department of Transportation, and Fresno Area Express (FAX) pursue funding through the Caltrans Sustainable Transportation Planning Grant Program to conduct a Pedestrian Access to Transit study to systematically identify and prioritize pedestrian safety improvements—such as sidewalk and crossing improvements—to increase access to transit, including for the Blackstone/Kings Canyon BRT line. Similar studies have been completed or are underway in Portland, OR⁶ and Santa Clara County, CA.⁷ As an interim measure, we recommend the City pursue funding through the state Active Transportation Program, the City's Community-Development Block Grant funds, or the City's Transportation Development Act, Article 3 (TDA-3) funds to fast-track sidewalk infill projects along the Blackstone/Kings Canyon BRT corridor to ensure that pedestrian access to the BRT stations is maximized and assured by the end of BRT construction.
- **Establish Comprehensive Midblock & Uncontrolled Crossing Policy:** Cal Walks and SafeTREC recommend that the City Department of Public Works develop a comprehensive pedestrian crossing policy for midblock and uncontrolled crossings in consultation with the City's Bicycle Pedestrian Advisory Committee. Developing an objective, transparent policy that guides when the Department will install additional crossings will help educate residents about the process, as well as help set residents' expectations. Example policies that could be used as a starting point include Washington County, OR's Pedestrian Crossing Policy at Mid-Block and Uncontrolled Locations⁸ and Caltrans' Crosswalk Enhancements Policy.⁹
- **Install Curb Extensions & Bus Bulb Outs:** Cal Walks and SafeTREC recommend the City install curb extensions and bus bulb outs along the Blackstone/Kings Canyon BRT corridor to improve pedestrian safety at crossings, as well as to improve transit boarding/alighting times.
- **Refine the Walkability Assessment Process:** Cal Walks and SafeTREC recommend further adapting the Pedestrian Safety Assessment Checklist used during the Blackstone Avenue portion of the workshop to suit the community's needs. These refinements may include:

⁶ See TriMet, Pedestrian Network Analysis Project, available at trimet.org/projects/pednetwork/index.htm

⁷ See Santa Clara Valley Transportation Authority (VTA), Pedestrian Access to Transit Plan, available at www.vta.org/pedestrian-plan

⁸ Available at <http://www.co.washington.or.us/LUT/upload/MidblockCountyPolicy2010.pdf>

⁹ See Caltrans Traffic Operations Policy Directive 12-03, available at www.dot.ca.gov/hq/traffops/policy/12-03.pdf

- Providing participants with one assessment form per block to better keep notes and observations organized for data collection—this may in turn mean that each assessment is of one block at a time;
- Further exploration of the symbology column, which is intended to help filter who and/or what agency may be responsible for improvements as well as the estimated timeline for completion; and
- Encouraging participants to take pictures of both challenges and assets and, if possible, incorporate PhotoVoice and/or VideoVoice as an integral part of the assessment process.¹⁰

ACKNOWLEDGMENTS

We would like to thank the City of Fresno and its residents for inviting us into their community and for hosting the Community Pedestrian Safety Training. Thank you to Joe Martinez and Tony Molina of the Fresno Bicycle Pedestrian Advisory Committee; Jill Gormley and Andrew Benelli of the City of Fresno Department of Public Works; Melanie Ruvalcaba of the Fresno County Department of Public Health; Genoveva Islas-Hooker, Esther Postiglione, and Gabriela Mares of Cultiva La Salud; Sarah Sharpe, Christine Barker, and Laura Hirahara of Fresno Metro Ministry and the Better Blackstone Association; and Jose Leon-Barraza of the Southeast Fresno Community Economic Development Association for their full commitment to and leadership of community-driven transportation planning and meaningful engagement with community residents. We would also like to thank the Holistic Cultural & Educational Wellness Center and the Fresno Center for New Americans for generously donating the meeting space for the workshop, as well as CalViva Health for generously donating meals for the workshop.

We would like to acknowledge the many community members whose attendance of the workshop and dedication to pedestrian safety meaningfully informed and strengthened the workshop's outcomes.

Funding for the Community Pedestrian Safety Training program was provided by a grant to University of California at Berkeley Safe Transportation Research & Education Center (SafeTREC) from the California Office of Traffic Safety through the National Highway Traffic Safety Administration.

¹⁰ PhotoVoice and VideoVoice enable residents not only to document infrastructure or other environmental deficiencies but also to identify solutions they would like the City to pursue. See California Walks PhotoVoice & VideoVoice Mapping Case Studies, available at <http://californiawalks.org/resources/calwalks-publications/>

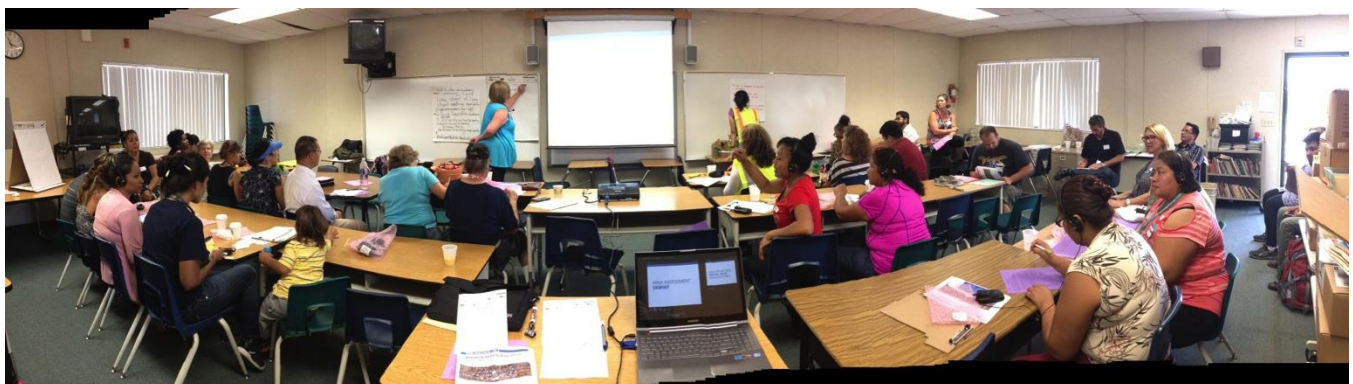
Appendix 1. Blackstone Avenue Walkability Assessment Field Notes & Photos




Participants learning how to conduct a walkability assessment.







Participants during walkability assessment.






Participants debriefing following walkability assessment.

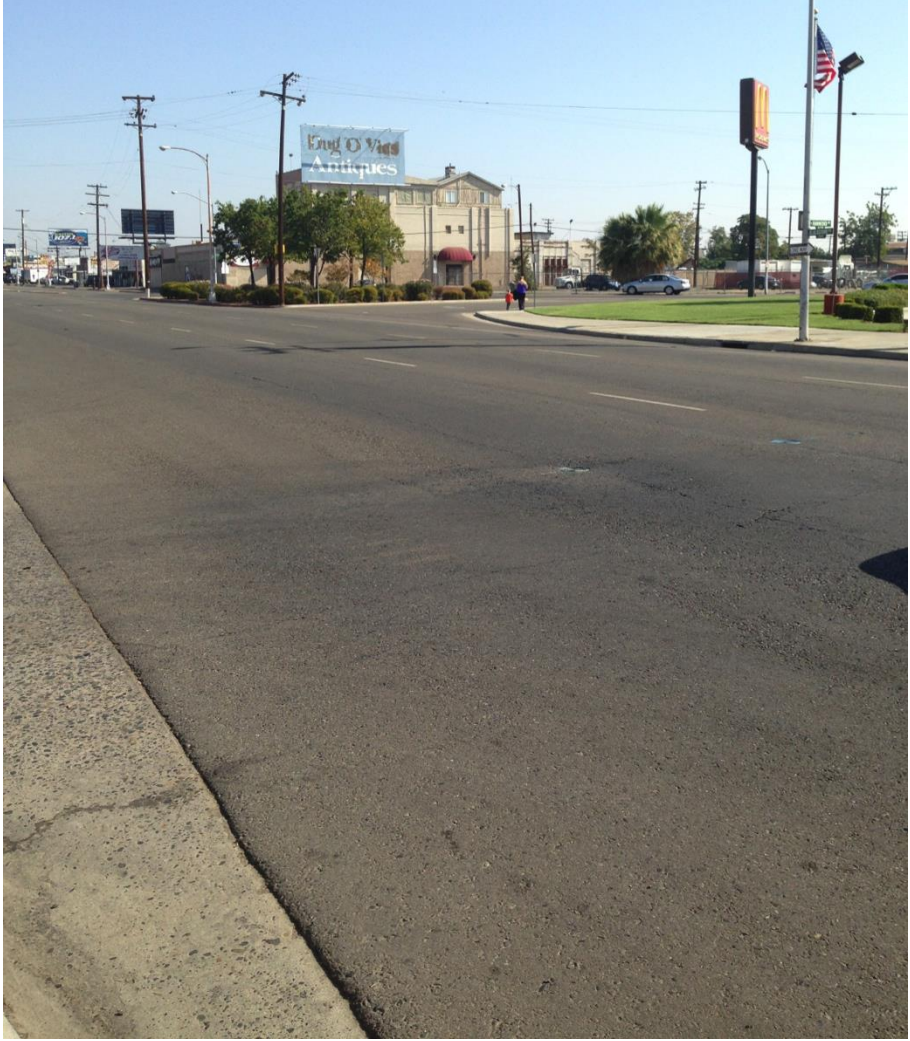
Infrastructure	Notes & Observations	Photos
<p>Missing Sidewalks</p>	<ul style="list-style-type: none">• Sidewalks lacking on Home Avenue to the west of Blackstone Avenue• Sidewalk ends abruptly on east side of Blackstone Avenue between Home Avenue and McKinley Avenue• Missing sidewalk at Belmont Avenue and Abby Street• Sidewalks missing at Blackstone Avenue/McKinley Avenue and Blackstone Avenue/Weldon Avenue	 <p>The top photograph shows a street corner where a sidewalk is missing. A white pickup truck is parked on the road, and a person is standing on the sidewalk. The bottom photograph shows a group of people walking on a street, with a white pickup truck parked on the side. The street is wide and appears to be a main thoroughfare.</p>

Infrastructure	Notes & Observations	Photos
Sidewalk Width	<ul style="list-style-type: none">• Sidewalk narrow at southwest corner of Blackstone Avenue and Olive Avenue• Felt too narrow from Olive Avenue to Weldon Avenue• Expand sidewalk at southwest corner of Blackstone Avenue/Olive Avenue• In most places, conforms to 4' minimum; some spots below standard• Very narrow in most spots from Olive Avenue to Weldon Avenue• Southwest corner of Blackstone Avenue and Belmont Avenue needs more space• Variable between Olive Avenue to Belmont Avenue• Sidewalks need to be widened for bus stops• Wide at some points and narrow at others• Insufficient space to walk and cross• Narrows between Olive Avenue and Hedges Avenue	<div></div> <div></div>


Infrastructure	Notes & Observations	Photos
Sidewalk Maintenance	<ul style="list-style-type: none">• Lots of trees uplifting sidewalks• High-quality sidewalks including new ADA improvements in front of O'Reilly's• Tripping hazards due to sidewalk maintenance• Many areas that needed improvements were fixed with asphalt and not concrete• Poor condition at Blackstone Avenue and Lewis Avenue• Many uplifted sidewalks• Broken curbs• Traffic cone bolted to street light• Poor conditions on Blackstone Avenue and on McKinley Avenue• Sidewalks in disrepair due to trees• Blackstone Avenue & Olive Avenue: No fence on canal on west side of street	 

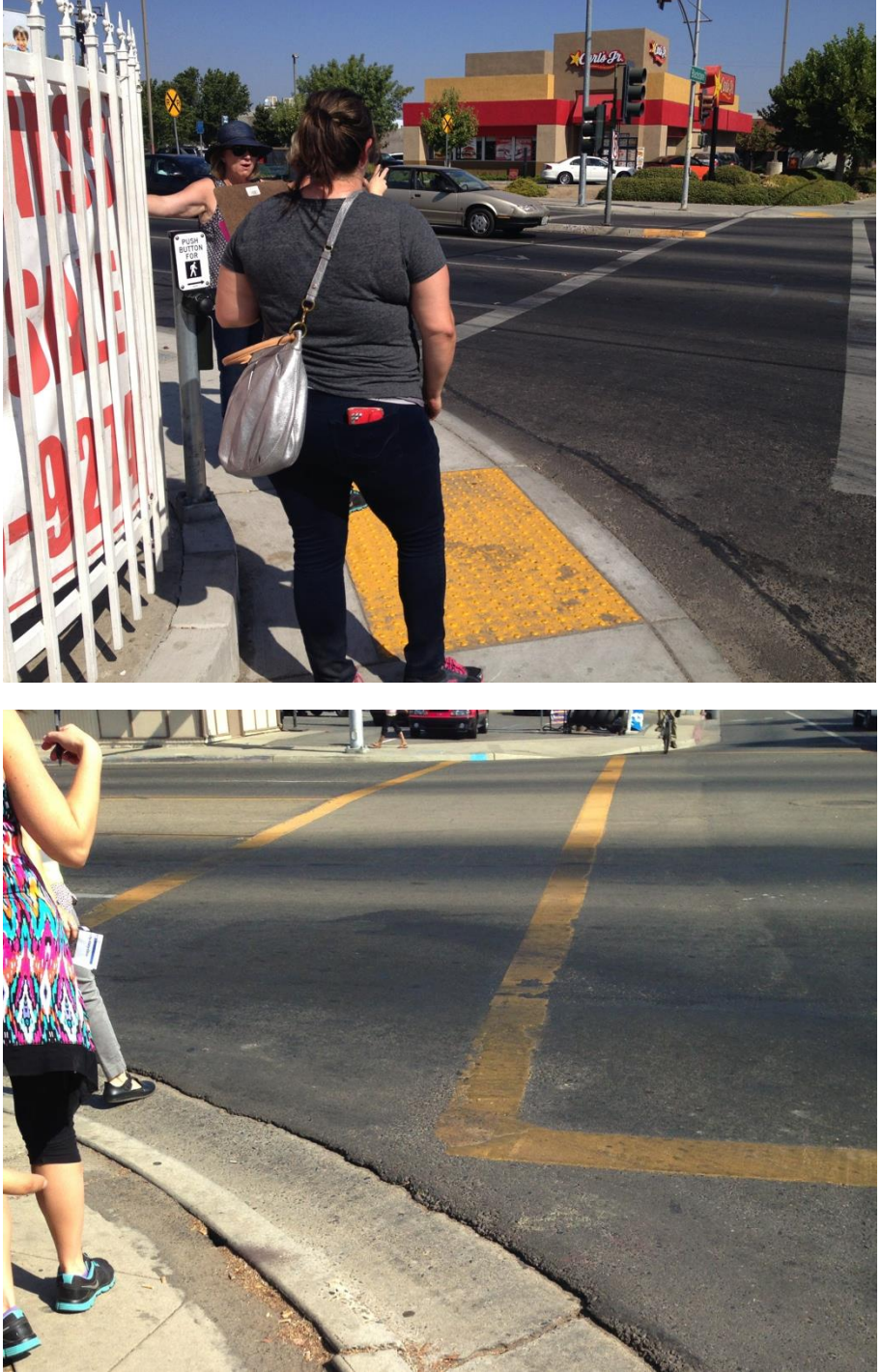
Infrastructure	Notes & Observations	Photos
Sidewalk Obstructions	<ul style="list-style-type: none">• Utility/lighting pole in middle of sidewalk on west side of Blackstone Avenue just south of Pine Avenue• Many utility poles and signs take up sidewalk space• Not enough space to walk through area in front of Bail Shark Bail Bonds due to obstructions• Limited ramp space at Blackstone Avenue and Abby Street (southwest corner)	 

Infrastructure	Notes & Observations	Photos
<p>Curb Ramps</p>	<ul style="list-style-type: none"> • Ramp at Blackstone Avenue and Olive Avenue too small/narrow • Some ramps were not aligned with each other • Missing on eastbound CA-180 ramp • Curb ramp needs to be aligned with the crosswalk at Blackstone Avenue and University Avenue • Curb ramp not aligned with crosswalk at Blackstone Avenue and Olive Avenue • Some ramps lacked the detectable warning strips • O'Reilly auto parts: newer building, better design for curb ramps 	 <p>The top photograph shows a street intersection with a narrow curb ramp. Two people are walking on the ramp, and a building with a sign that reads 'CAL-STATE MUFFLER & BRAKE' is visible in the background. The bottom photograph is a close-up of a curb ramp showing a detectable warning strip and a person's legs walking on it.</p>


Infrastructure	Notes & Observations	Photos
Crossing Distance	<ul style="list-style-type: none">• McKinley Avenue and Blackstone Avenue: crosswalk markings are skewed• Some crossings are so wide that drivers cannot see people trying to cross• Dim light at southwest corner of McKinley Avenue and Olive Avenue	


Infrastructure	Notes & Observations	Photos
Crossing Time	<ul style="list-style-type: none">• Too short at Olive Avenue and Blackstone Avenue (noted at southwest corner)• Could use more time to cross• Some lights will take longer than usual or will not provide enough time to cross• Not enough time to cross at Blackstone Avenue/McKinley Avenue• Very short at Olive Avenue and Blackstone Avenue	

Infrastructure	Notes & Observations	Photos
<p>Crosswalk Markings</p>	<ul style="list-style-type: none"> • Crosswalks faded; need more high-visibility crosswalks • Distance between marked crosswalks is very long—may encourage people to “jaywalk” • Crosswalks should be upgraded to high-visibility markings • Only 1 marked crosswalk observed at Harvey Avenue • Numerous unmarked crossings; people have to use them because distance between marked crossings is very long • Many, many, many—at every T and at Clay Avenue and Abby Street, no marked crosswalks across Abby • There needs to be a marked crosswalk at Blackstone Avenue/Hedges Avenue and Blackstone Avenue/University Avenue, Blackstone Avenue/Pine Avenue, Blackstone Avenue/Home Avenue • In the commercial area, there aren’t any marked crossings to help kids get to school • Too many unmarked crosswalks, especially considering how fast drivers are going • Need to mark crossing for children at Clay Avenue and Blackstone Avenue • No marked crossing near McDonald’s • No marked crossing at Weldon Avenue and Blackstone Avenue (northeast and northwest crossing) 	 <p>The top photograph shows a wide street intersection with a sidewalk and a crosswalk. The bottom photograph shows a street intersection with a green fire hydrant and a yellow-painted curb.</p>

Infrastructure	Notes & Observations	Photos
<p>Crosswalk Maintenance</p>	<ul style="list-style-type: none"> • Crosswalks poorly marked and maintained at Blackstone Avenue and Home Avenue • All marked crosswalks encountered need to be repainted • Some marked crosswalks encountered could be greatly improved with minimal effort • Need more marked crosswalks around Susan B. Anthony Elementary School and Fresno City College • Poor pavement quality on Abby Street • The signage and markings near the school need to be improved 	 <p>The top photograph shows a person standing at a crosswalk. The crosswalk has a faded yellow tactile paving area. In the background, there is a building with a 'Coca-Cola' sign and a car. The bottom photograph shows a crosswalk with faded yellow lines on a paved street. A person is standing on the sidewalk next to the crosswalk.</p>

Infrastructure	Notes & Observations	Photos
Bulb Outs / Curb Extensions	<ul style="list-style-type: none">• Need more bulb outs near bus stops so buses aren't impeding traffic	

Infrastructure	Notes & Observations	Photos
Pedestrian Signals & Countdown Timers	<ul style="list-style-type: none"> • Did not encounter any timers • Would like to see prioritized for installation at high traffic locations • Had to manually push buttons to cross (Blackstone Avenue/McKinley Avenue) 	
Pedestrian-Level Lighting	<ul style="list-style-type: none"> • Only tall street lights present • No pedestrian-scale lighting 	
Pedestrian Warning Signage or Markings	<ul style="list-style-type: none"> • Could use more traffic signs around Fresno City College • Few. Need more school signs as well 	

Infrastructure	Notes & Observations	Photos
Pedestrian Safety Island	<ul style="list-style-type: none">Existing medians are very narrow, some median noses impede into the crosswalk and push pedestrians into trafficExtend existing median at Abby Street/Olive Avenue to create safety island	 A photograph of a street intersection. The view is from a low angle on the road, looking down a lane towards a crosswalk. The crosswalk has white painted lines. A narrow concrete median separates the lanes. In the background, there are traffic lights, a utility pole, and some commercial buildings under a clear blue sky. A silver car is visible in the distance.
Posted Speed Limit	<ul style="list-style-type: none">Speed limits could be slower around Fresno City College	

Infrastructure	Notes & Observations	Photos
Number of Travel Lanes	<ul style="list-style-type: none"> Too many— encourages speeding Now that Blackstone Avenue is not a highway, the third lane can be used for different modes of transportation: bike lanes, bus lanes, wider sidewalks 	

Behavior	Notes & Observations
Driver Behavior	<ul style="list-style-type: none"> Fast traffic Observed only one speeder during walk Observed drivers speeding near the college Drivers were speeding when they couldn't see our walking groups Felt like drivers were going 45-50 MPH Drivers frequently failed to yield at freeway off-ramp We observed a wheelchair user crossing the street and nobody stopped to let the person cross Drivers not paying to attention and not looking out for people in some areas, e.g. under the freeway Some distracted drivers Some drivers not obeying signals Drivers revving engines Drivers don't slow down
Pedestrian Behavior	<ul style="list-style-type: none"> Observed people jaywalk north of McDonald's (Olive Avenue & Blackstone Avenue) In some parts, observed people crossing unsafely People having to veer into traffic due to an obstruction Saw only 1 other person walking but was told that many kids and parents cross in the morning and afternoon Wheelchair user crossing all lanes midblock Couple of pedestrians don't use sidewalks Observed people not pushing the buttons before crossing the street
Perceptions & Comfort	Notes & Observations
Did you feel safe from traffic during the walk?	<ul style="list-style-type: none"> For the most part No, constantly avoiding obstruction; veering into traffic No, crossings provoked anxiety; traffic is fast and determined Cars go too fast No because of lack of marked crosswalks to cross

	<ul style="list-style-type: none"> • Yes, especially at the freeway on/off ramp
Did you feel safe from crime during the walk?	<ul style="list-style-type: none"> • Night time conditions may feel differently • Graffiti everywhere • Yes, but it was broad daylight and I was in a large group • Yes, but we were in a big group
Were there any other barriers that made you feel unsafe during the walk? (Aggressive dogs, littering, blight, etc.)	<ul style="list-style-type: none"> • Vacant buildings • Blight! • Graffiti everywhere • Vacant lot at Belmont Avenue & Abby Street • Bad sidewalks, blight, abandoned buildings, weeds, broken glass, palm fronds piled onto sidewalks • Blight, litter, weeds, tree limbs, graffiti

Additional notes	
<p>What areas are working? Why?</p> <ul style="list-style-type: none"> • In front of City College bus stops • Sidewalk in front of O'Reilly's • I believe for the most part it's good; just need to add more crosswalks, widen sidewalks, remove or detour obstructions, and repair or update old sidewalks • O'Reilly's on the west side of Blackstone Avenue did an excellent job with their pedestrian sidewalks. The sidewalk continues through the parking lot entrance ramp. The railroad crossing on Blackstone Avenue, south of McKinley Avenue, has a better pedestrian walkway on the west side of the street • Wide sidewalks beneath freeway • Lovely sidewalk in front of Harley Davidson store on Abby Street • Concrete sidewalk was constructed across alley on Abby Street side of alley that runs between Blackstone Avenue at Abby south of Olive Avenue/south of Patterson Avenue • Graffiti truck was out, cleaning up graffiti • The areas with wide sidewalks 	

Additional notes

What areas need improvement? Why?

- Cover tree wells
- Trim trees
- Repair lifted sidewalks
- Slow freeway off-ramp traffic
- Add bike lanes to encourage cyclists off sidewalk
- Improve the barrier to the canal on Blackstone Avenue (south of Olive Avenue)
- Railroad crossing
- No sidewalks in industrial zone
- Too many obstacles on sidewalk, narrow sidewalks
- Canal open
- Existing bus stops too narrow
- Walkways are very narrow, obstructed, and unmaintained; very outdated
- There are various obstructions on the sidewalk (light posts, bushes, etc.). People that are disabled and wheelchair bound cannot pass without veering into traffic. East side of street, near railroad track, has gravel and no sidewalk.
- Sidewalks uneven and unsafe; yellow grades on sloping curbs are not wide enough; wider ramp areas where street turns into curbs very unsafe
- Better signs and painting for one-way streets because pedestrians are used to 2-way traffic and will not look for certain driver behaviors, especially turning left from left hand lane
- There are no marked crosswalks at T-intersections
- Badly created sidewalks in places: Barrier fences moved back out of public right of way but sidewalks never filled in
- Would like to see crossing guards made available
- To help all and others to have a better Fresno and to help kids feel safe, we need better lighting in all areas and more markings
- Maintenance of street cleanliness; cars need to slow down! Bus stops have no shade; no rest zones; turns are dangerous
- The unmarked crossings

For those items that need improvement, what are your next steps?

- Meet with public works and City Council
- At the moment, all I can do is voice my opinion!
- Contact the designated party responsible for such improvements; negotiate what would be simplest solutions to these issues
- We need data re how many pedestrians cross Blackstone Avenue and Abby Street—morning and evening especially—THEN prioritize creation of high-visibility crosswalks and install them
- Enforce speed limits
- Homeless camp at night in the area. Provide sanitary facilities? City trash trucks appear every morning to clean up trash, mess
- Organize the community and City to work together

Appendix 2. Blackstone Pedestrian Safety Assessment Checklist

Street Name: _____		Side of Street: _____			Cross Street: _____
Infrastructure	Symbol	Needs Improvement	Adequate	High Quality	Notes & Observations
Sidewalk Width					
Sidewalk Maintenance					
Sidewalk Obstructions					
Curb Ramps					
Crossing Distance					
Crossing Time					
Marked Crosswalks— High-Visibility?					
Unmarked Crossings					
Crosswalk Maintenance					

- Resident or business program could solve this issue
- Existing partners, programs, or services can be tapped to make improvements
- △ Policy change or new funding may be required to implement changes
- * Informational item—no specific action required at this time

Adapted from the Walking Audit Survey Tool of the Walkable and Livable Communities Institute, www.walklive.org and Re+Walk Lummi-Mackenzie/Gooseberry Point, www.feetfirst.info/research

Infrastructure	Symbol	Needs Improvement	Adequate	High Quality	Notes & Observations
Bulb Outs / Curb Extensions					
Pedestrian Countdown Timers					
Automatic Pedestrian Recall (no push-button needed for Walk signal)					
Leading Pedestrian Interval (Walk signal starts before green light)					
Pedestrian Crossing Beacons (RRFB, PHB)					
Pedestrian-Level Lighting					
Pedestrian Warning Signage or Markings					
Pedestrian Safety Island					
Posted Speed Limit					
Vehicle Travel Lane Width					
Number of Travel Lanes					

- Resident or business program could solve this issue
- Existing partners, programs, or services can be tapped to make improvements
- △ Policy change or new funding may be required to implement changes
- * Informational item—no specific action required at this time

Adapted from the Walking Audit Survey Tool of the Walkable and Livable Communities Institute, www.walklive.org and Re+Walk Lummi-Mackenzie/Gooseberry Point, www.feetfirst.info/research

Behaviors	Symbol	Yes	No	Notes & Observations
Drivers Speeding				
Drivers Failing to Yield				
Distracted Driving				
Drivers Disobeying Signs/Signals				
Other Driver Behavior?				
Pedestrians Crossing Unsafely				
Distracted Walking				
Other Pedestrian Behavior?				
Perceptions & Comfort	Symbol	Yes	No	Notes & Observations
Did you feel safe from traffic during the walk?				
Did you feel safe from crime during the walk?				
Were there any other barriers that made you feel unsafe during the walk? (Aggressive dogs, littering, blight, etc.)				

- Resident or business program could solve this issue
- Existing partners, programs, or services can be tapped to make improvements
- △ Policy change or new funding may be required to implement changes
- * Informational item—no specific action required at this time

Adapted from the Walking Audit Survey Tool of the Walkable and Livable Communities Institute, www.walklive.org and Re+Walk Lummi-Mackenzie/Gooseberry Point, www.feetfirst.info/research

Additional notes

What areas are working? Why?

What areas need improvement? Why?

For those items that need improvement, what are your next steps?

- Resident or business program could solve this issue
- Existing partners, programs, or services can be tapped to make improvements
- △ Policy change or new funding may be required to implement changes
- * Informational item—no specific action required at this time

Appendix 3. Small Group Action Planning Recommendations

Ventura/Kings Canyon Corridor

- Top Priorities
 - Ensure sidewalk continuity and prioritizing filling sidewalk gaps through Active Transportation Program funding
 - Prioritize sidewalk repair and maintenance
 - Install additional pedestrian crossings with accompanying signals/beacons at midblock locations
 - Upgrade to high-visibility crosswalk markings upon repaving
 - Install lighting, including pedestrian-scale lighting through Active Transportation Program funding
 - Work with the school district to restore missing crossing at Chestnut Avenue/Balch Avenue near Mario G. Olmos Elementary School;
 - Retrofit driveways in relation to BRT stops through Property Business Improvement District(s)
- Other Recommendations
 - Facilitate additional mixed-use development to improve sidewalk/streetscape environment
 - Install curb extensions/bulb outs at intersections
 - Adjust pedestrian signal timing to provide sufficient crossing time
 - Install pedestrian countdown signals where absent
 - Install bike lanes
 - Install bike racks
 - Raised sidewalk/sunken drainage canals through general maintenance funding
 - Additional safety education for drivers
 - Install additional high-visibility signage
 - Work more closely together with the City
 - Promote the FresGO app using multi-lingual postcards available from City
 - Convert on street parking to back-in angle or diagonal parking

Blackstone Avenue Corridor

- Top Priorities
 - Add pedestrian crossings and signals
 - Upgrade to high visibility crosswalks
 - Install pedestrian countdown timers on signals
 - Address insufficient crossing time
- Other Recommendations
 - Shields Avenue and Blackstone Avenue: Remove free right turn
 - Bus station at Manchester revamped
 - Bulb out at bus stations
 - Infrastructure for people walking and biking near BRT hubs

- Pedestrian crossing on Blackstone Avenue
- High visibility crosswalks
- Pedestrian signals
- Lighting
- Pedestrian countdown timers when new signals are installed or signals are upgraded