

Fruitridge Road Improvements Project

Stephanie Saiz

City of
SACRAMENTO
Department of Public Works



FRUITRIDGE ROAD
Improvements

Overview

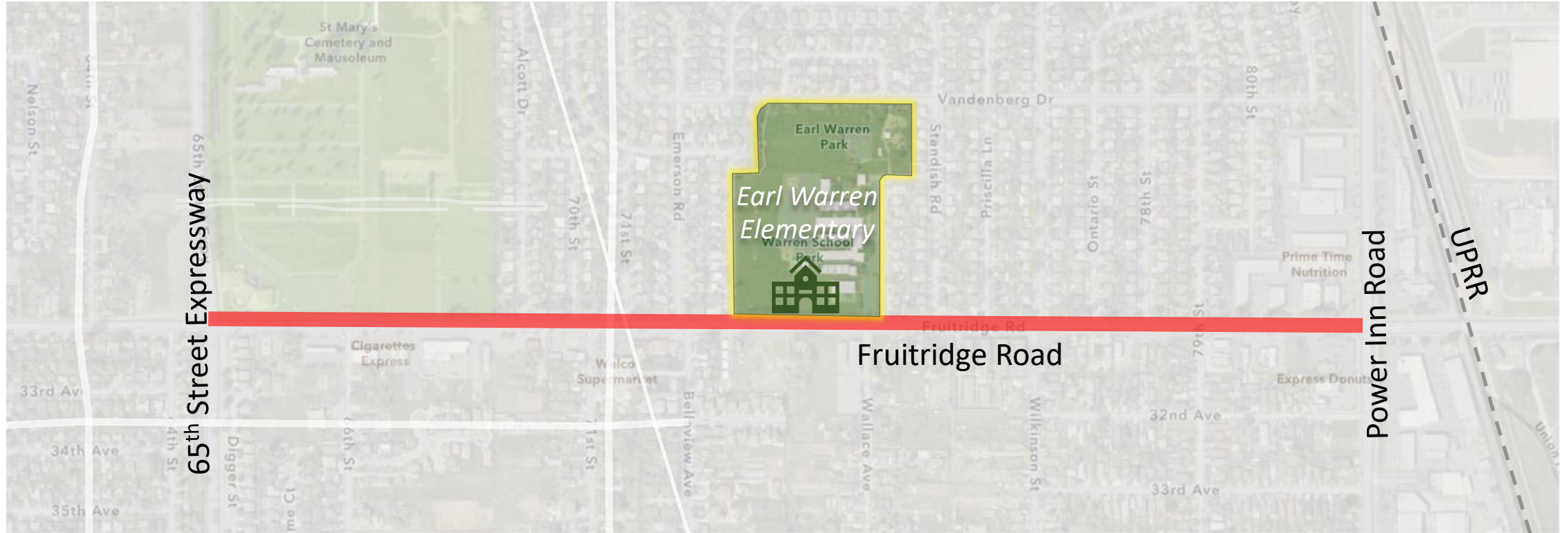
An aerial photograph of a residential street intersection. The street is paved and has several cars parked along the sides. There are houses with various roof colors (brown, grey, blue) and some trees. A parking lot with several cars is visible in the lower half of the image. The overall scene is a typical suburban neighborhood.

- **Project Location**
- **Project Background**
- **Existing Conditions**
- **Proposed Improvements**
- **Schedule and Cost**

Location



Location



Project Purpose

- Fix the pavement
- Calm traffic and improve safety
- Provide safe and comfortable mobility options for all users: pedestrians, bicyclists, transit users, and drivers



Existing Conditions



Poor Pavement Conditions

- Pavement with cracks and base failure

Outdated Signals

- Existing signals are outdated and some date back as far as 1957

Existing Conditions

Fruitridge Road is home to Regional Transit's Route 61



Existing Conditions



Missing bike lanes

Disconnected and narrow bike lane

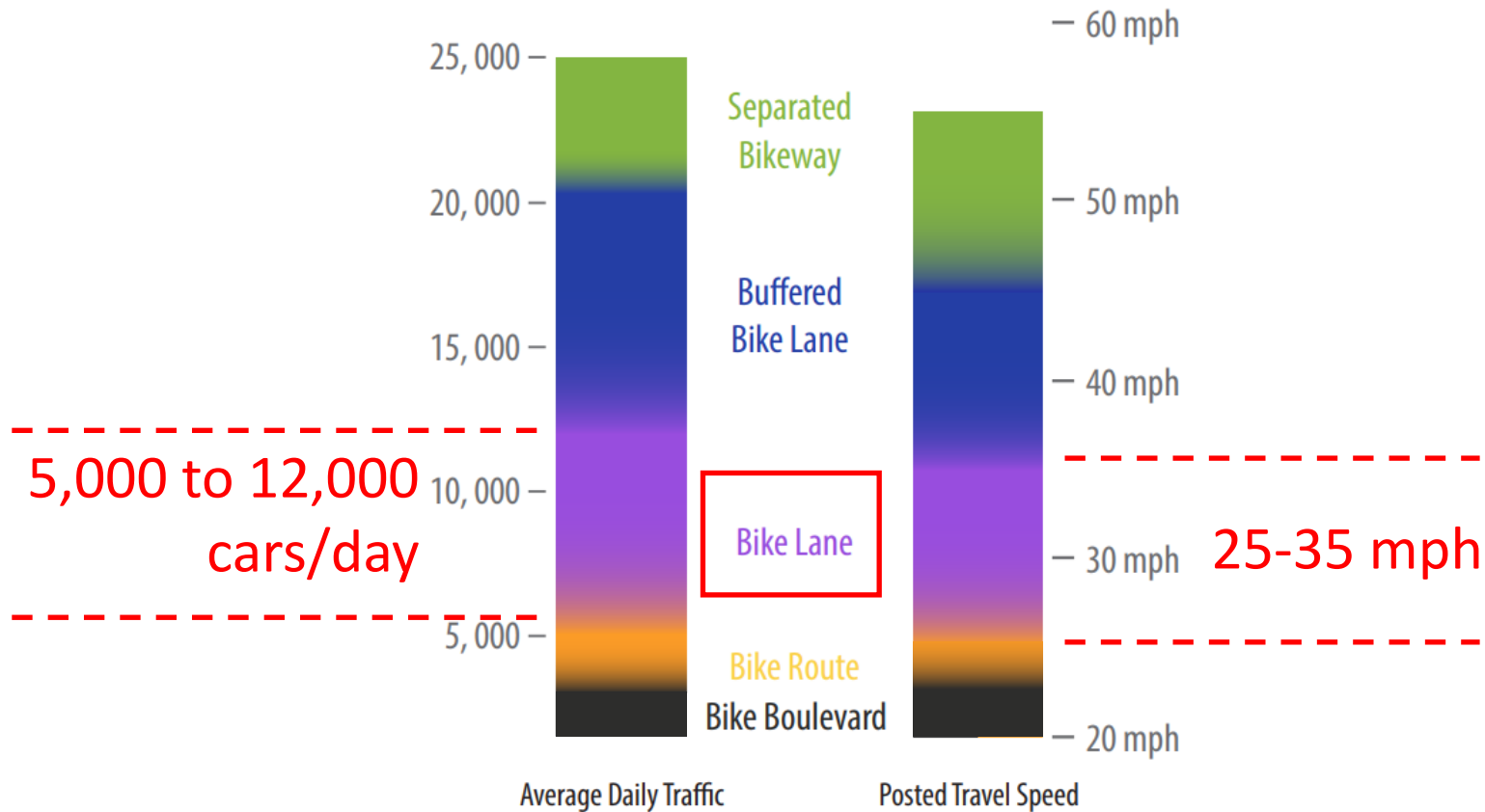
Both vehicle and bike lanes do not meet current City-standard widths.

Appropriate Bike Facilities



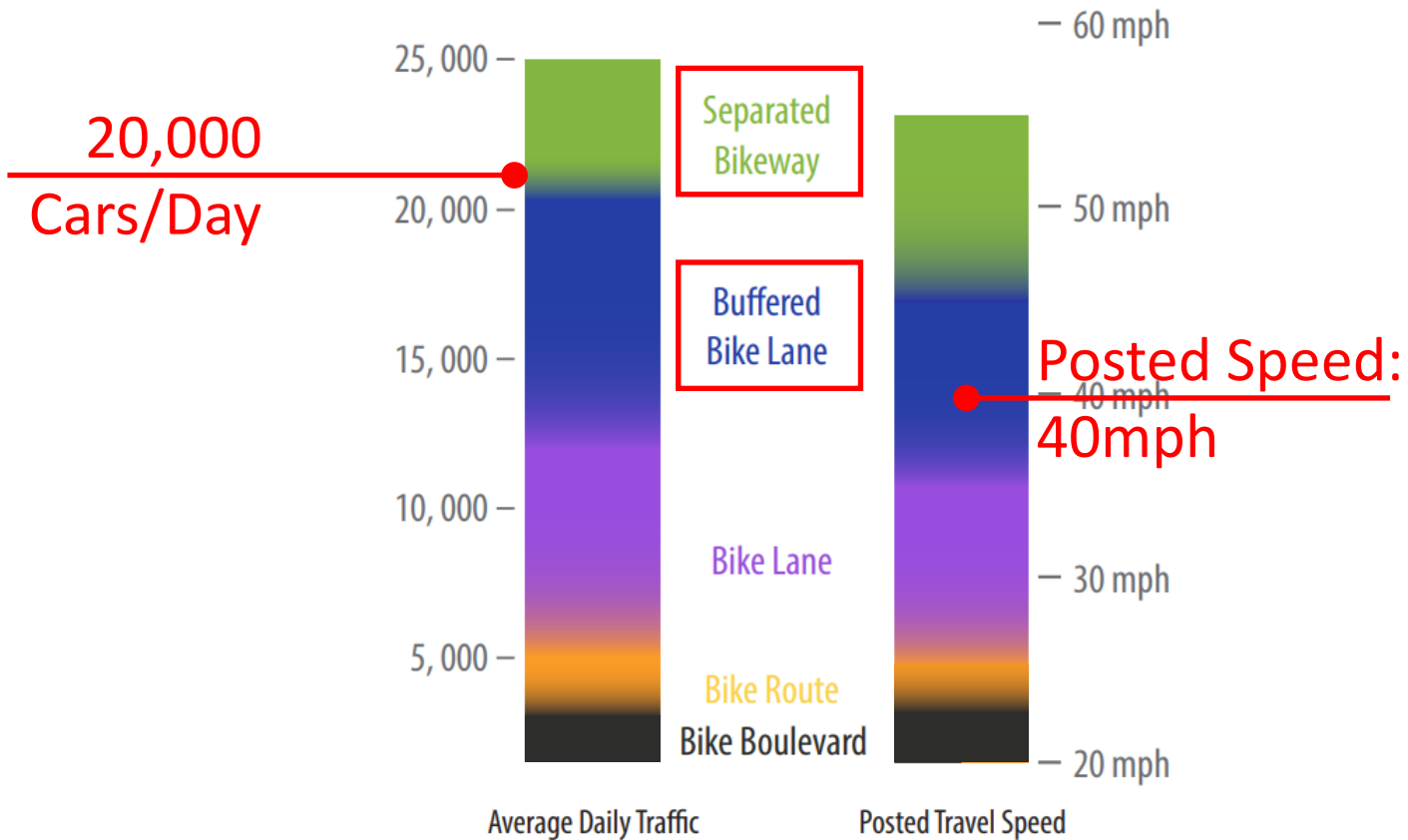
Appropriate Bike Facilities

Sacramento's Bike Master Plan's
Bikeway Facility Selection Guidelines



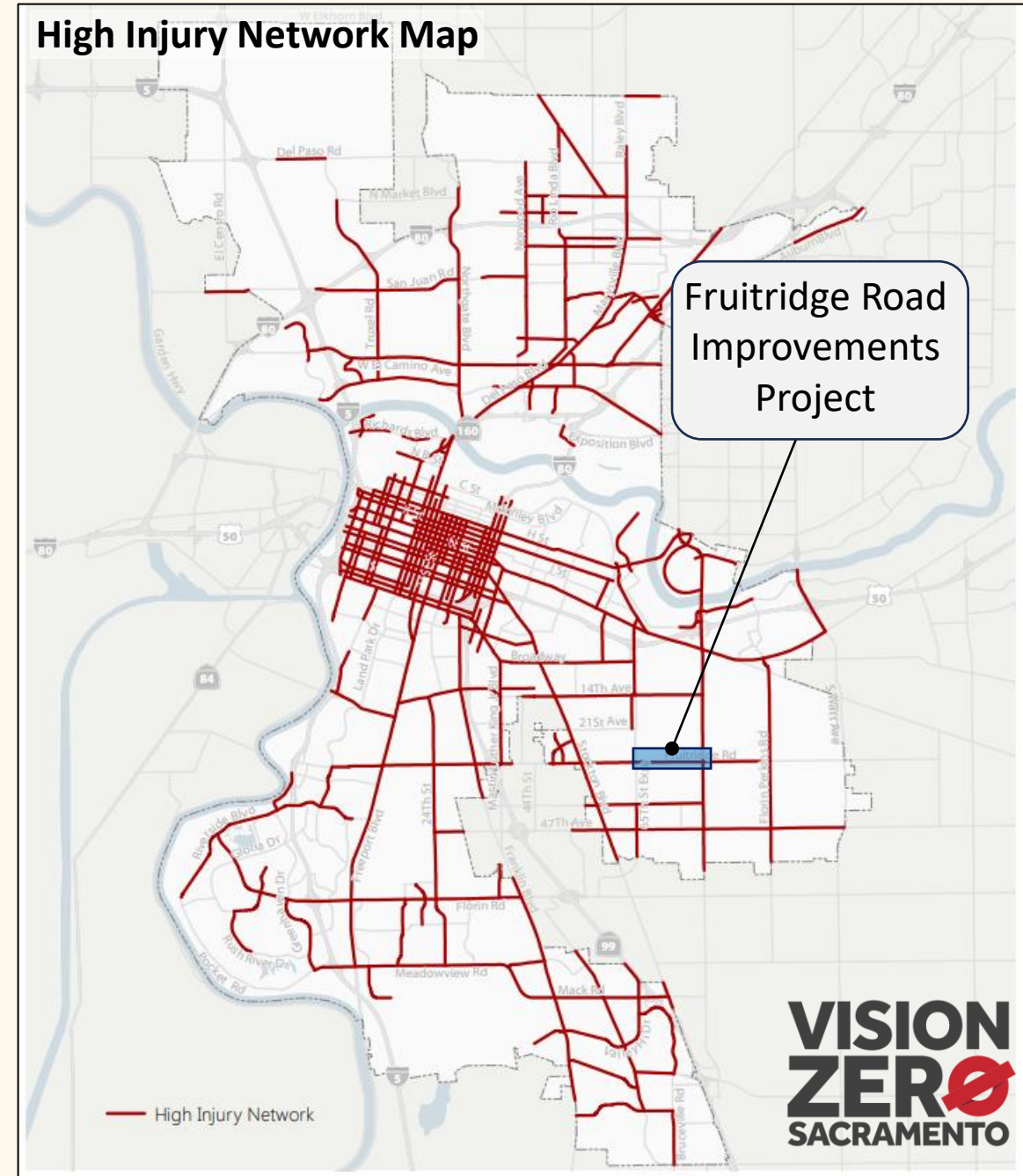
Appropriate Bike Facilities

Bikeway Facility Selection Guidelines



Vision Zero Initiative

- Uses data to identify causes of crashes involving serious injuries and fatalities, as well as identify countermeasures to reduce them.
- 80% of crashes occur on these High Injury Network Streets, which account for just 14% of our roadway network.
- Crash victims who walk are 10 times more likely to be killed or seriously injured in Sacramento than crash victims who drive.



Safety

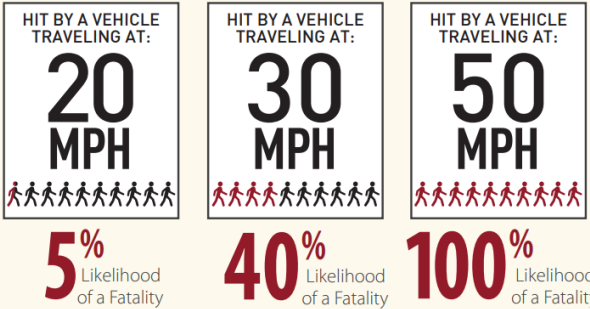


ROAD DIETS
 Reduction in number of travel lanes, often paired with a center turning lane. Road diets can allow for additional space for other uses, including for pedestrians, bike lanes and parking.

EFFICACY: ●●●●

COST: ●●●○

COMPLEXITY: ●●●●



Unsafe speed is the leading cause of crashes. **2/3 of fatal crashes** occur on streets with a posted speed of 40+ mph, which account for just **10% of the City's street network**

OVER 100% OF FATALITIES INVOLVED UNSAFE SPEED

The primary collision factor in a crash is the factor which "best describes the primary or main cause of the collision," according to the reporting officer.¹⁰ When the primary collision factor is cited as "unsafe speed," it means that someone involved in the crash was driving "at a speed greater than is reasonable or prudent" for the conditions.¹¹ By slowing vehicles down, we can increase the time drivers have to react to potentially dangerous situations and we can reduce the severity of injuries by lessening the impact of a crash. The following countermeasures outline potential options for redesigning our roads to discourage unsafe speeds and enforce the speed limits that are in place.

FACTORS

 Primary collision factor was "unsafe speed"
 Crash occurred on an arterial or collector street

MODES


STATS
77
 KSI CRASHES
 Accounts for **10%** of all KSI crashes and **17%** of vehicle KSI crashes

PROFILE 1: UNSAFE SPEED ON NON-LOCAL STREETS


COUNTERMEASURES

STREET NARROWING
 Several countermeasures fall within the Intersection Narrowing toolkit, including curb extensions (bulbouts), lane narrowing and visual narrowing. Curb extensions are raised devices, usually constructed from concrete and/or landscaping, that reduce the corner radius or narrow the roadway in order to reduce speeds of turning vehicles, improve sight lines, and shorten crossing distances. In addition to physically narrowing intersection or lane widths, visual narrowing techniques can help to slow speeds and increase driver attentiveness. Visual narrowing techniques include adding street trees, vertical lighting elements, street furniture, special paving treatments, or roadway markings.

EFFICACY:¹² ●●●○

COST: ●●●○

COMPLEXITY: ●●○○

ROAD DIETS
 Reduction in number of travel lanes, often paired with a center turning lane. Road diets can allow for additional space for other uses, including for pedestrians, bike lanes and parking.

EFFICACY: ●●●●

COST: ●●●○

COMPLEXITY: ●●●●

SIGNAL SYNC, SLOW GREEN WAVE
 Signals can be synchronized to give a progressive green band for cars traveling at a specified speed, resulting in vehicles traveling faster than the specified speed having to stop more frequently.

EFFICACY: ●○○○

COST: ●○○○

COMPLEXITY: ●○○○

Automated Speed Enforcement
 Automated speed detection devices can identify speeding violations and provide citations. California is currently considering legislation to allow this type of enforcement and the City of Sacramento plans to support this effort.

Safety



ROAD DIETS
Reduction in number of travel lanes, often paired with a center turning lane. Road diets can allow for additional space for other uses, including for pedestrians, bike lanes and parking.

EFFICACY: ●●●●

COST: ●●●○

COMPLEXITY: ●●●●

PEDESTRIAN REFUGE ISLANDS/ MEDIANS
Curbed sections in the center of the roadway that are physically separated from vehicular traffic. Raised medians or refuge islands shorten crossing distances across large, multi-lane roadways.

EFFICACY: ●●●●

COST: ●●●○

COMPLEXITY: ●○○○

BUFFERED BIKE LANES
A buffered bike lane is comprised of a painted buffer between a Class II bicycle lane and the vehicles lanes, intended to reduce motor vehicle encroachment into the bike lane and increase bicyclist comfort and safety.

EFFICACY: ●○○○

COST: ●●●○

COMPLEXITY: ●●●○

SEPARATED BIKEWAYS
(cycle tracks)
Bikeways, separated from vehicle traffic by a physical barrier, usually bollards, landscaping, parked cars, or through elevated separation.

EFFICACY: ●●●○

COST: ●●●●

COMPLEXITY: ●●●●

SACRAMENTO COUNTY OFFICE OF TRANSPORTATION

35

MODES

STATS

70

KSI CRASHES

» Accounts for 30% of pedestrian KSI crashes

**PROFILE 8:
60+ YEAR OLD PEDESTRIANS**

COUNTERMEASURES

EXTEND PEDESTRIAN CROSSING TIME, PEDESTRIAN DETECTION
Extending pedestrian crossing intervals helps people who may need additional time crossing the street. In addition, the City may install sensors that detect when pedestrians are present in a crossing and automatically increase crossing time when necessary.

EFFICACY: ●●●○

COST: ●●○○

COMPLEXITY: ●○○○

PEDESTRIAN REFUGE ISLANDS/ MEDIANS
Curbed sections in the center of the roadway that are physically separated from vehicular traffic. Raised medians or refuge islands shorten crossing distances across large, multi-lane roadways.

EFFICACY: ●●●●

COST: ●●●○

COMPLEXITY: ●○○○

RAISED CROSSWALKS, SPEED TABLES
Pedestrian crossings that are elevated to the level of the sidewalk, with ramps on each vehicle approach.

EFFICACY: ●●●●

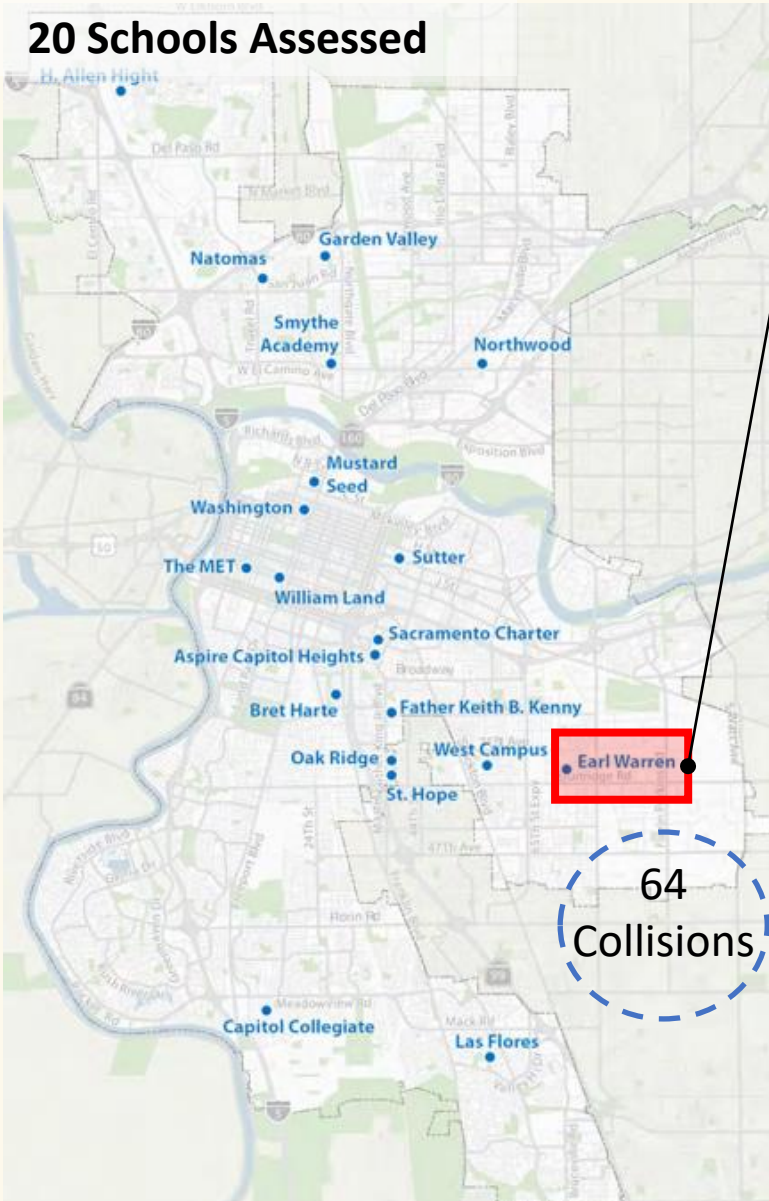
COST: ●●●○

COMPLEXITY: ●○○○

Pedestrian Refuge Island

Vision Zero School Safety Study

20 Schools Assessed



Earl Warren
Elementary School

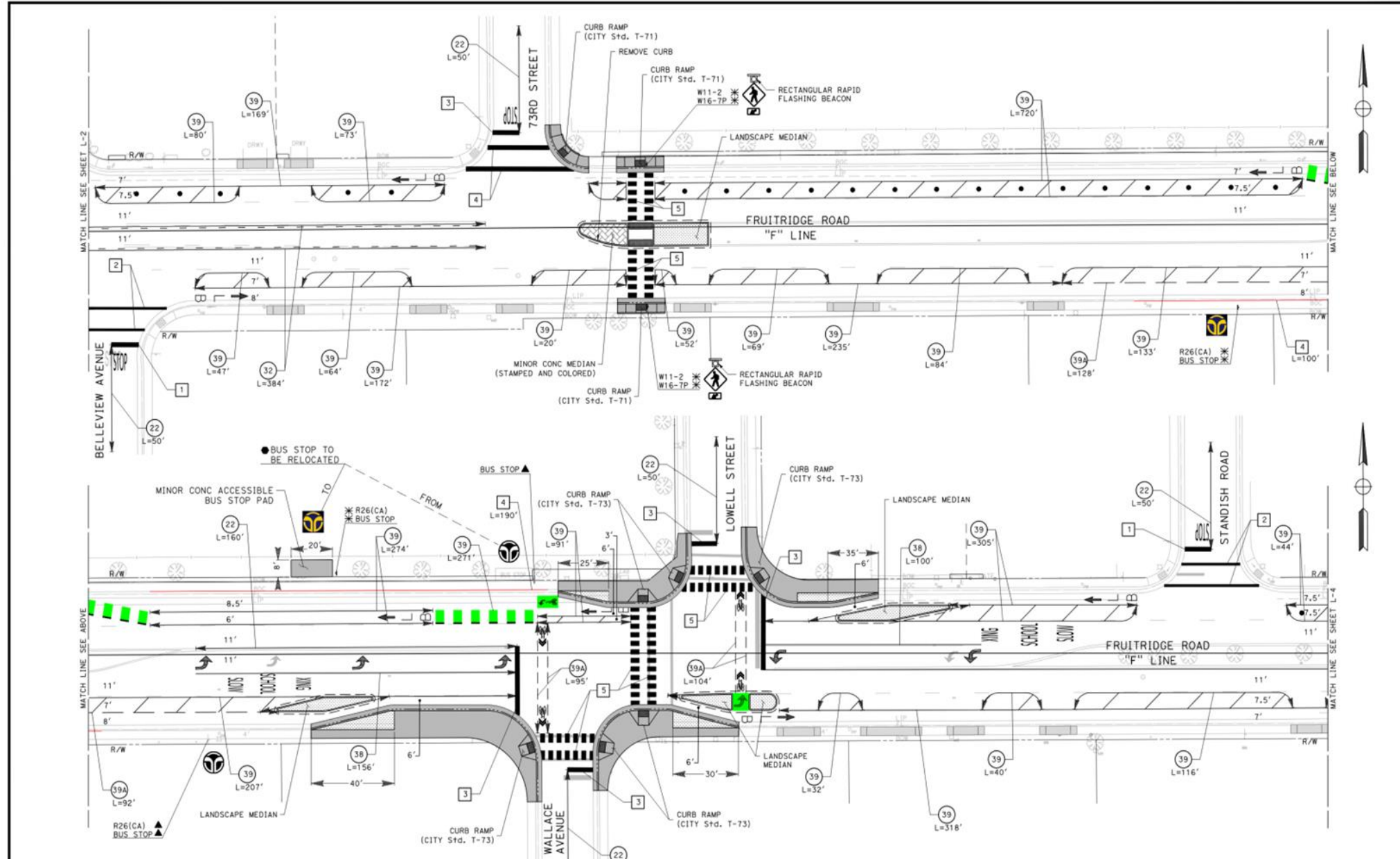
Drivers were seen not
yielding to pedestrians when
making right turns.



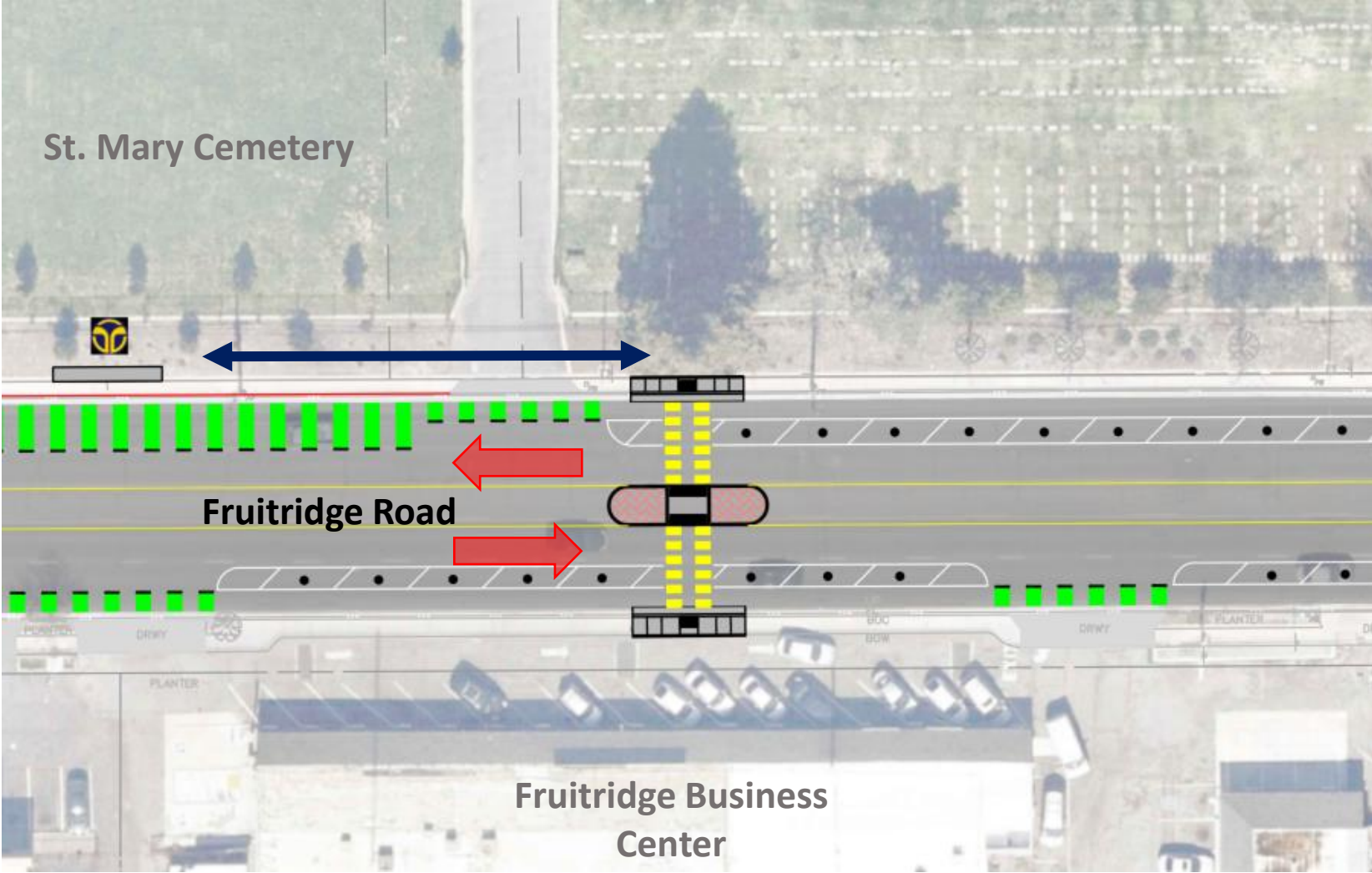
There is limited curb space on
the corner of Lowell Street for
students waiting to use the
crosswalk



Proposed Improvements

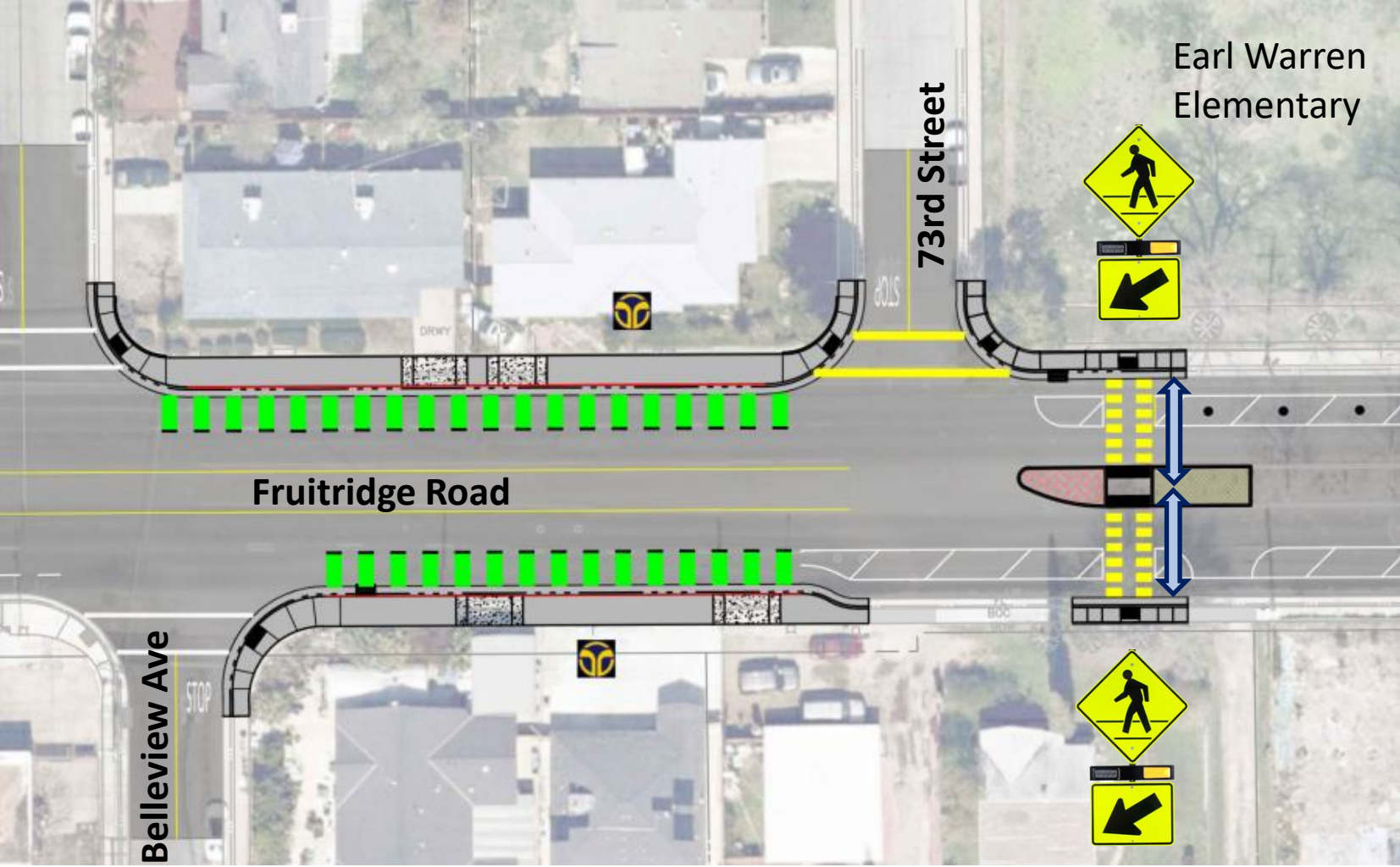


Proposed Improvements



Lane Reduction

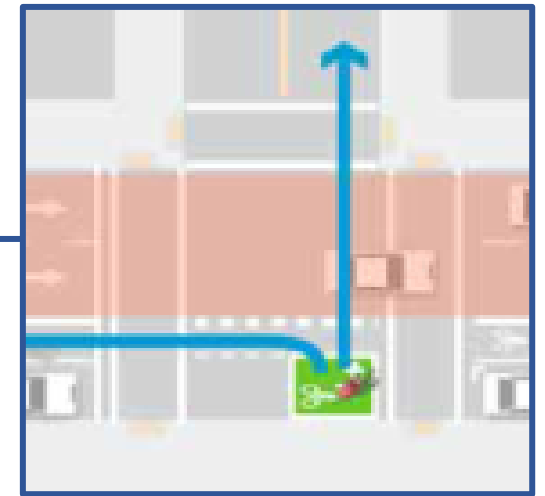
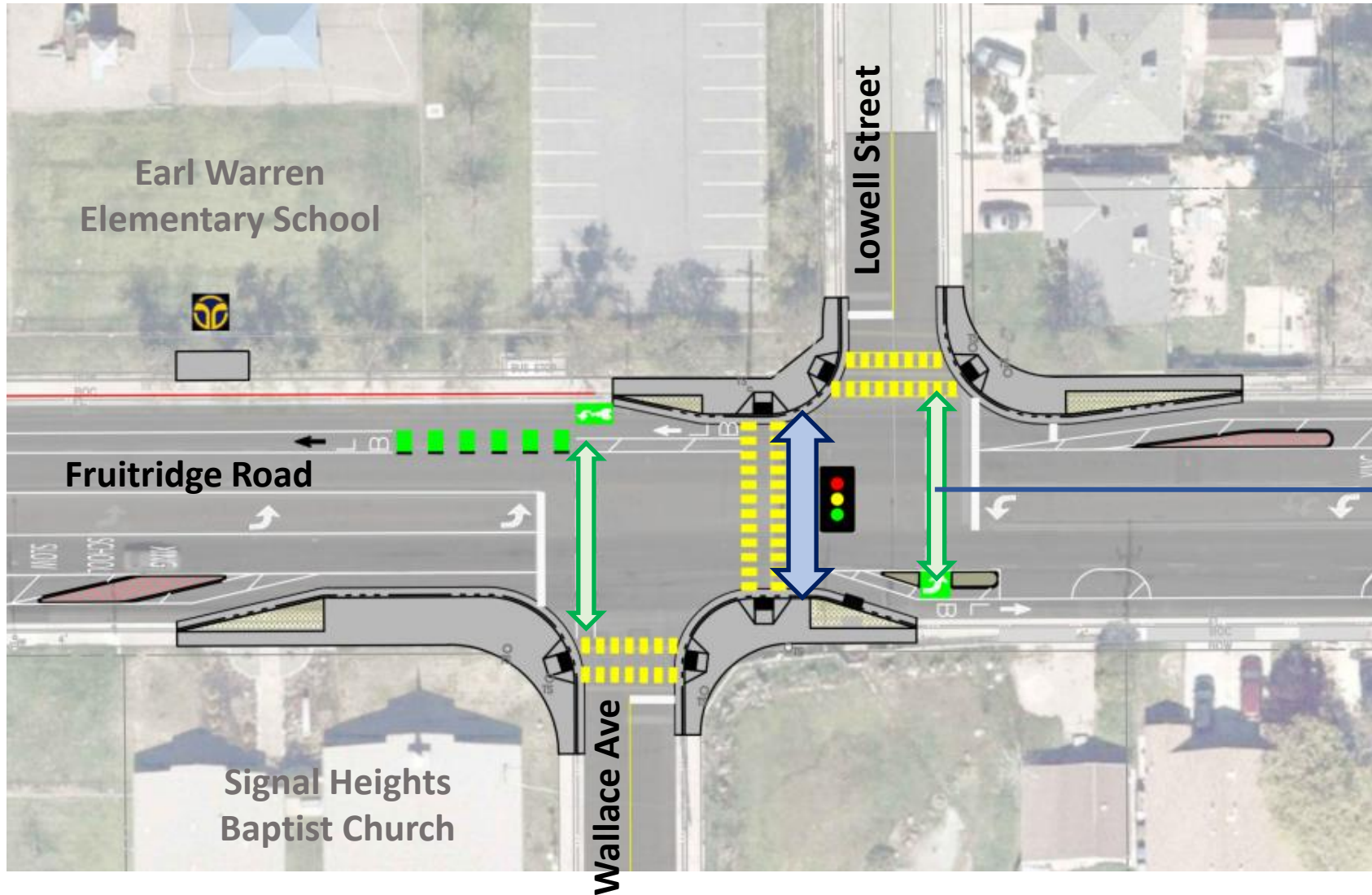
Proposed Improvements



Upgraded Pedestrian Crossings near School

Pedestrian Refuge Islands, Rectangular Rapid Flashing Beacons

Proposed Improvements

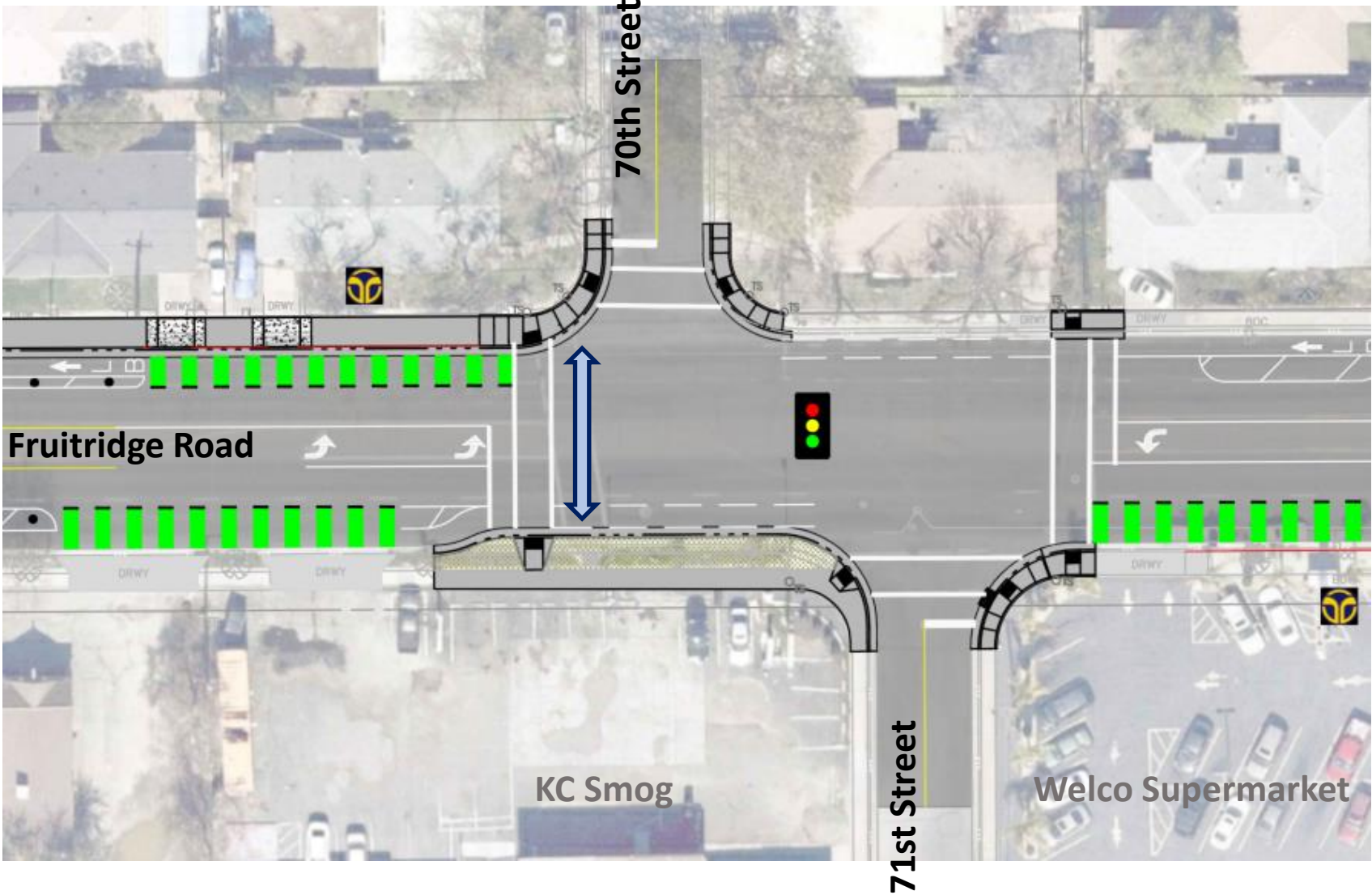


Two-Stage Turn Box

Improved Bike / Ped Access to School

Curb Extensions, Two Stage Turn Box

Proposed Improvements



Shortened Pedestrian Crossings
Curb Extensions

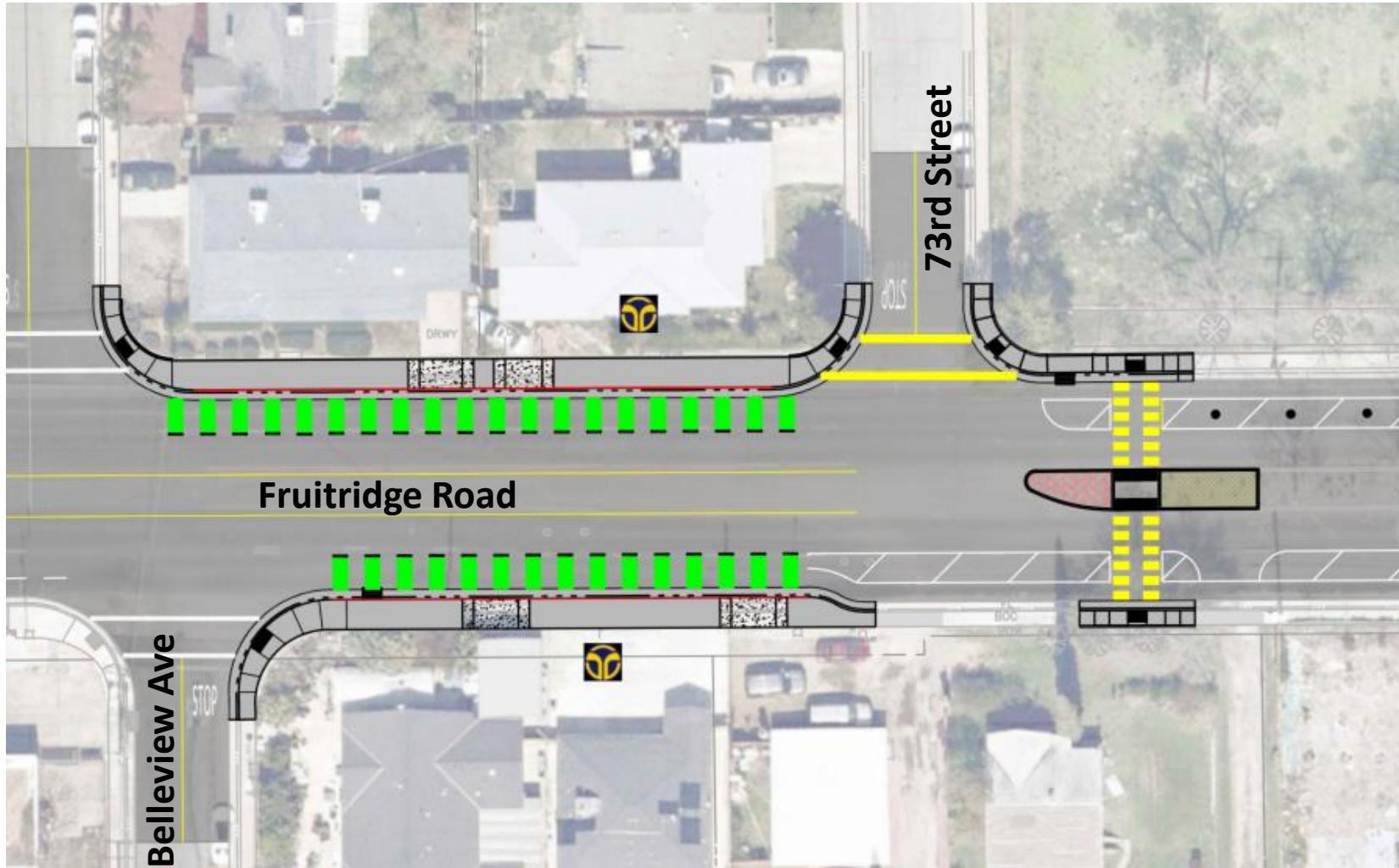
Proposed Improvements



Bus Stop Upgrades

Pads for Benches/Shelters, ADA Pads in Landscape Strip

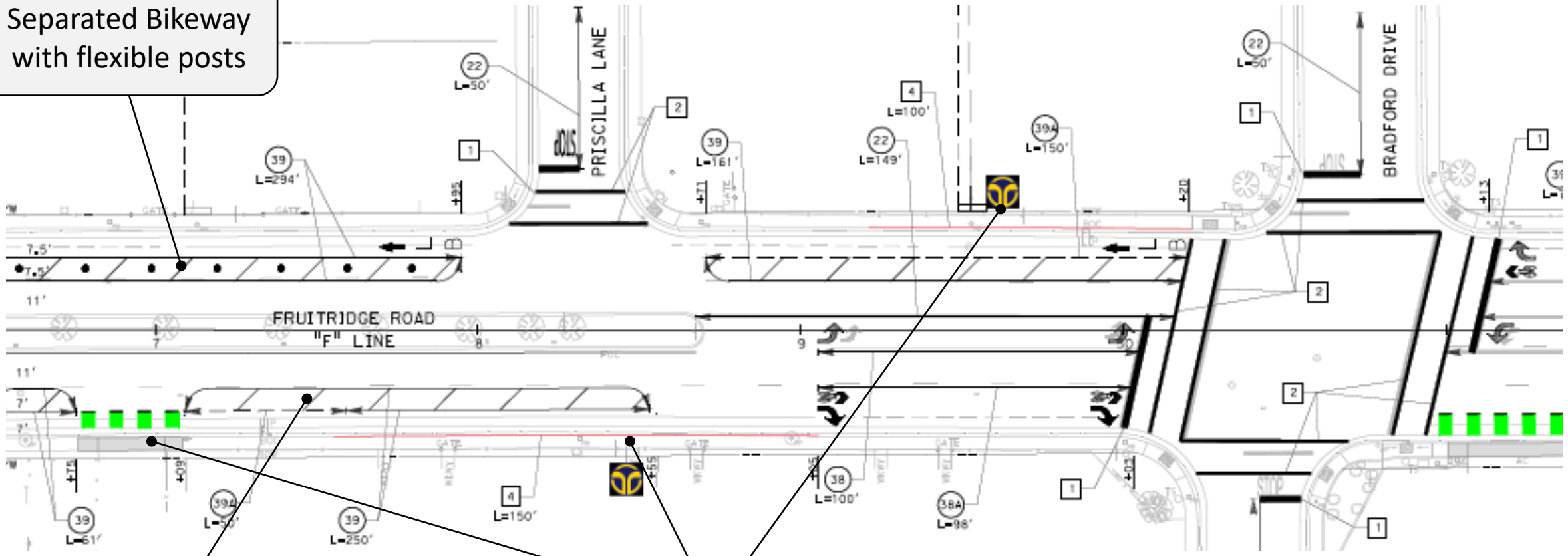
Proposed Improvements



Improved Access to Bus Stops
Widened Sidewalks to Eliminate "Pinch Points" at Poles

Why Buffered Bike Lanes & Separated Bikeways?

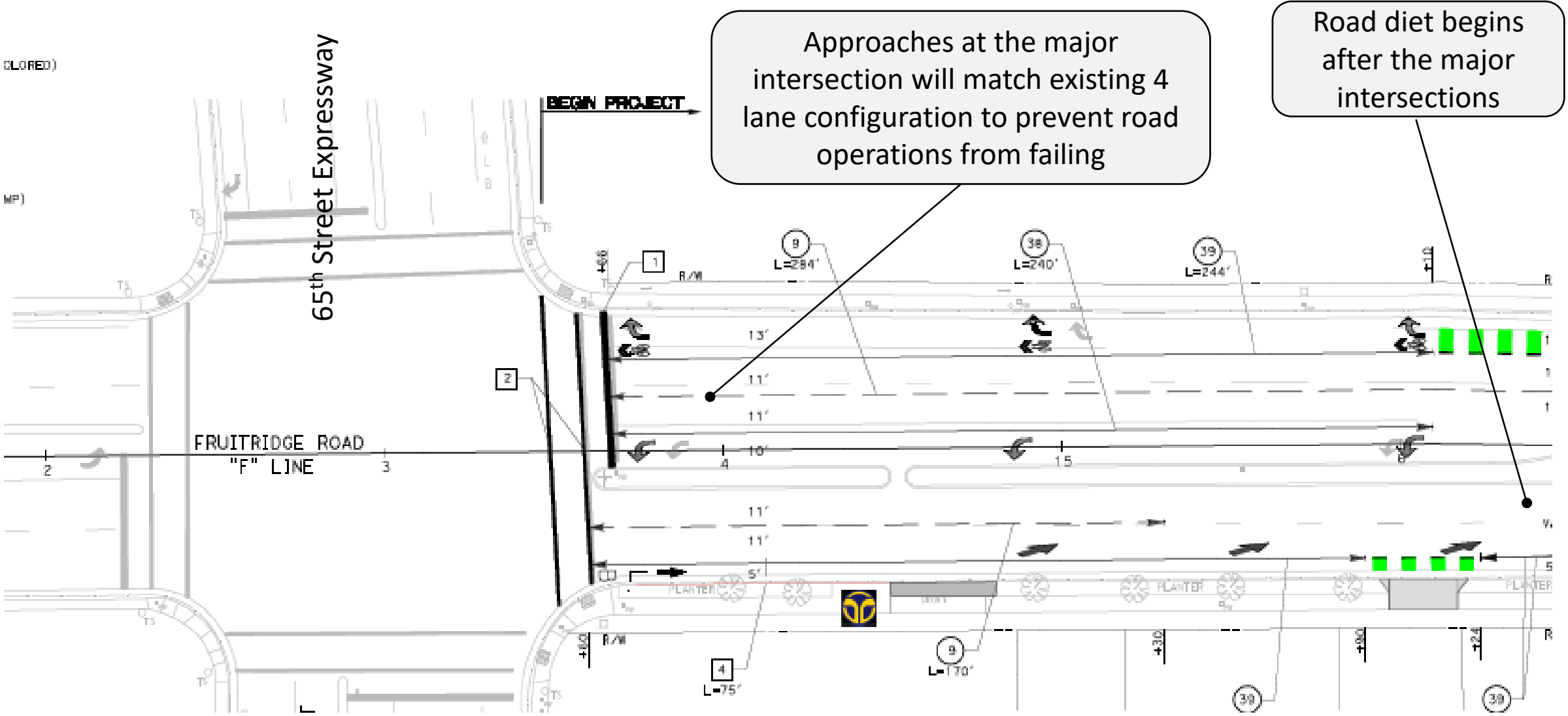
Separated Bikeway
with flexible posts



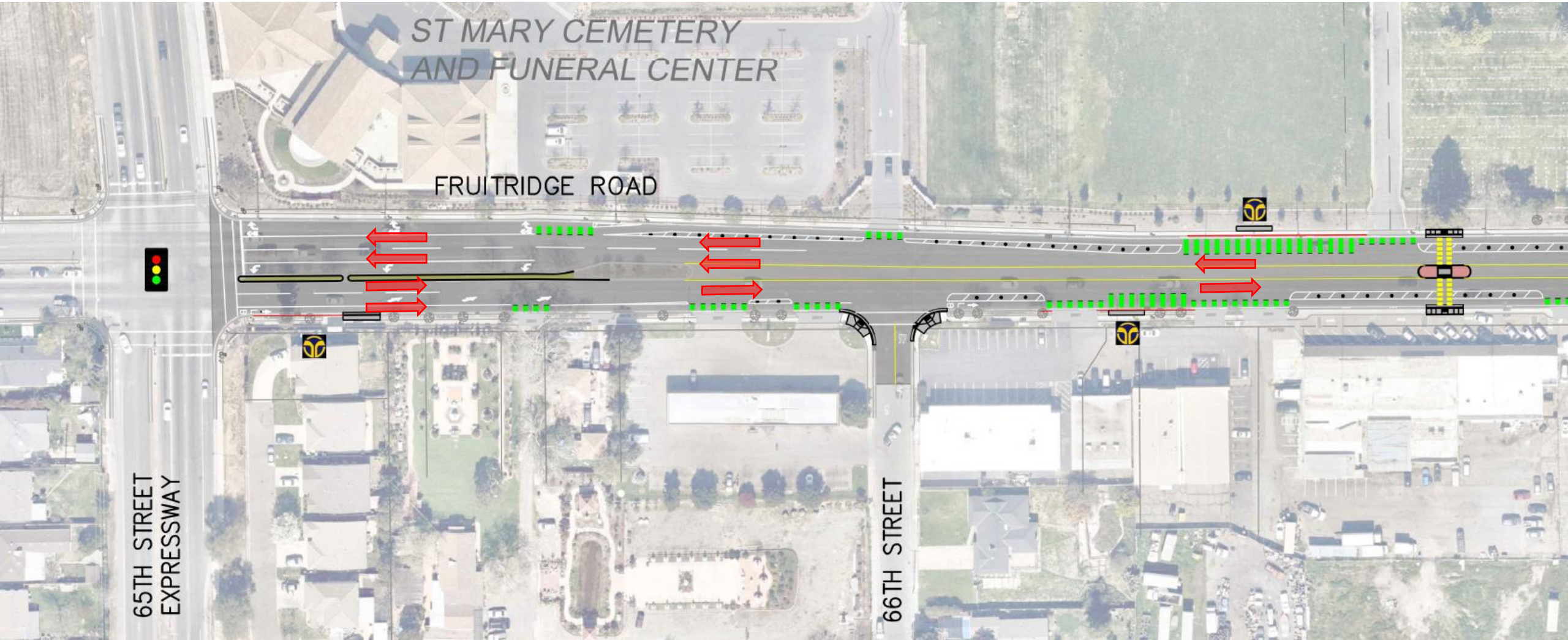
Buffered Bikeway

Conflict
points

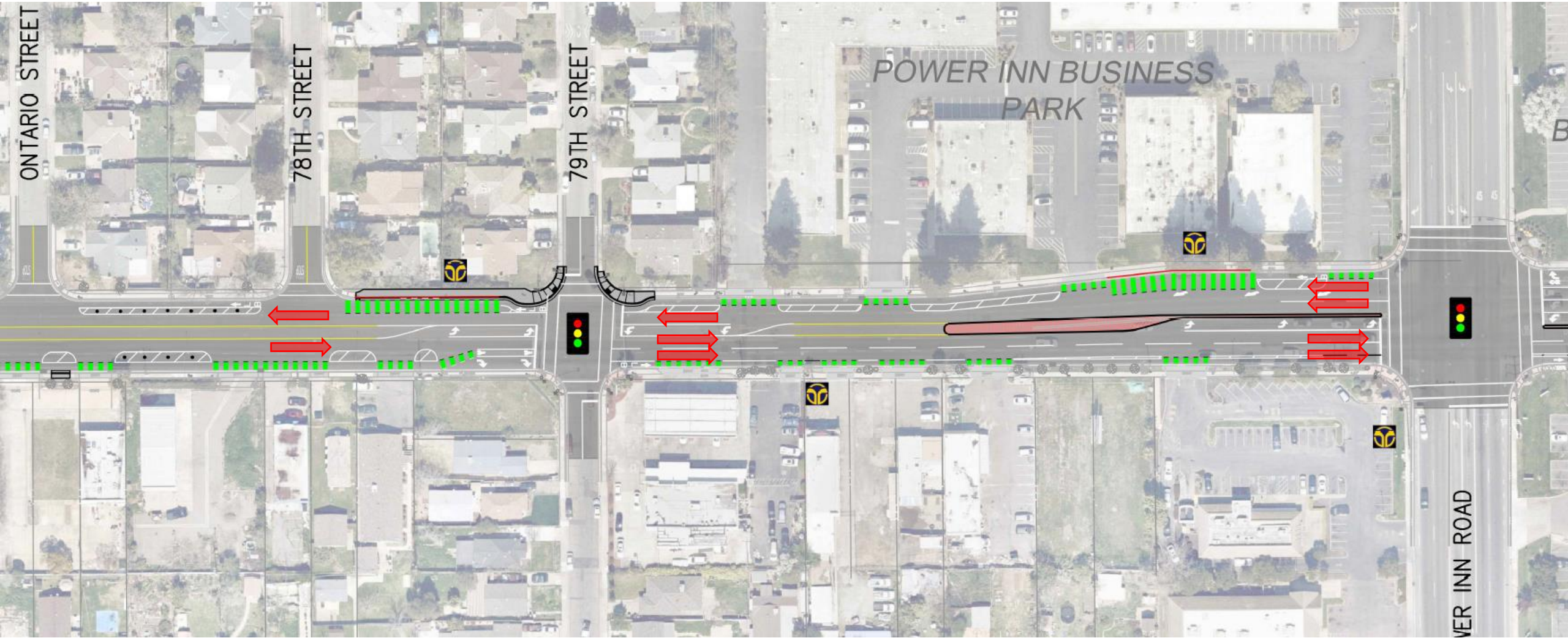
How Will The Road Diet Work?



Traffic - How Will This Work?



Traffic - How Will This Work?

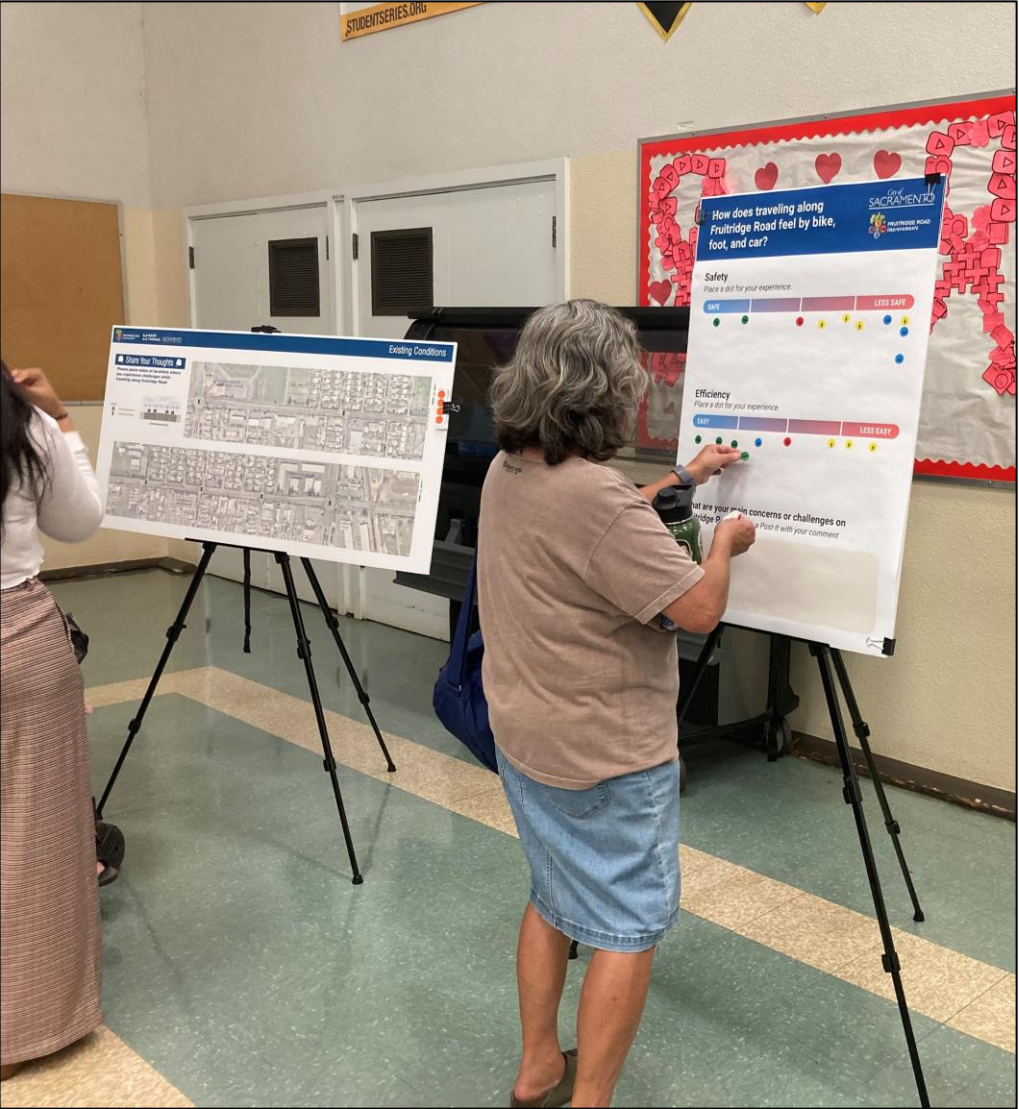


Traffic and Safety Outcomes



- Anticipated speed reductions of **5 to 10 mph**
- Anticipating about a **12% reduction in traffic**, mostly during commute hours
- Neighborhood traffic counts were conducted as baseline for post project evaluation

Outreach



Safety

Place a dot for your experience.



Efficiency

Place a dot for your experience.



Community Outreach Event at Earl Warren Elementary School on August 24th, 2024

Outreach

Resident Responses:

- Good response to the road diet
- Residents felt there was a need for safety along the corridor and liked the idea of slowing vehicles down since there is a lot of speeding and sideshows that occur



Action Plan based on Outreach:

- The initial design concepts include flexible posts for separated bikeways but in speaking to some of the residents they would like something more robust and aesthetic
 - Possibilities for this include adding aesthetics in things like bulb outs or concrete for buffers. The street is constrained in terms of ROW so there isn't space to add landscape
- Evaluate more robust pedestrian crossing flashing devices to improve visibility, including placement in median and potential mast arm configuration

Schedule

PHASE	DATE
Currently Performing Preliminary Engineering & Environmental Clearance (PA&ED)	Current
Complete PA&ED, Begin Final Design	Early 2024
Complete Final Design	Late 2024
Construction	2025*

**Dependent on grant success*

Funding and Budget

PHASE	TOTAL	FUNDING	NOTES
Engineering	\$980,000	Local Funding: \$660,000 <u>Federal Funding: \$320,000</u> Total: \$980,000 ✓	
Construction Total	\$9,600,000	Local Funds: \$500,000 <u>Federal Funds: \$2,570,000</u> Total: ~\$3,070,000	<i>\$6,530,000 funding needed</i> Will pursue ATP or SACOG funds for remaining construction funds needed
Total Project Costs	\$10.58 Million		

****Project is being tailored to be competitive for grant funds***

Project Highlights

An aerial photograph of a city street intersection. The image shows a grid of streets with residential buildings, trees, and a parking lot. The text is overlaid on the image.

- Implementing a road diet with Buffered Bike Lanes / Separated Bikeways
- Improving pedestrian crossings with high visibility crosswalks, pedestrian refuge islands, curb extensions, and rectangular rapid flashing beacons
- Upgrading Bus Stop Amenities
- Upgrading Curb Ramps



Thank You

Stephanie Saiz

City of
SACRAMENTO
Department of Public Works

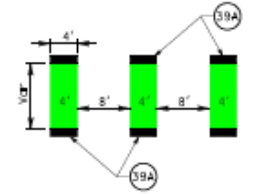


FRUITRIDGE ROAD
Improvements

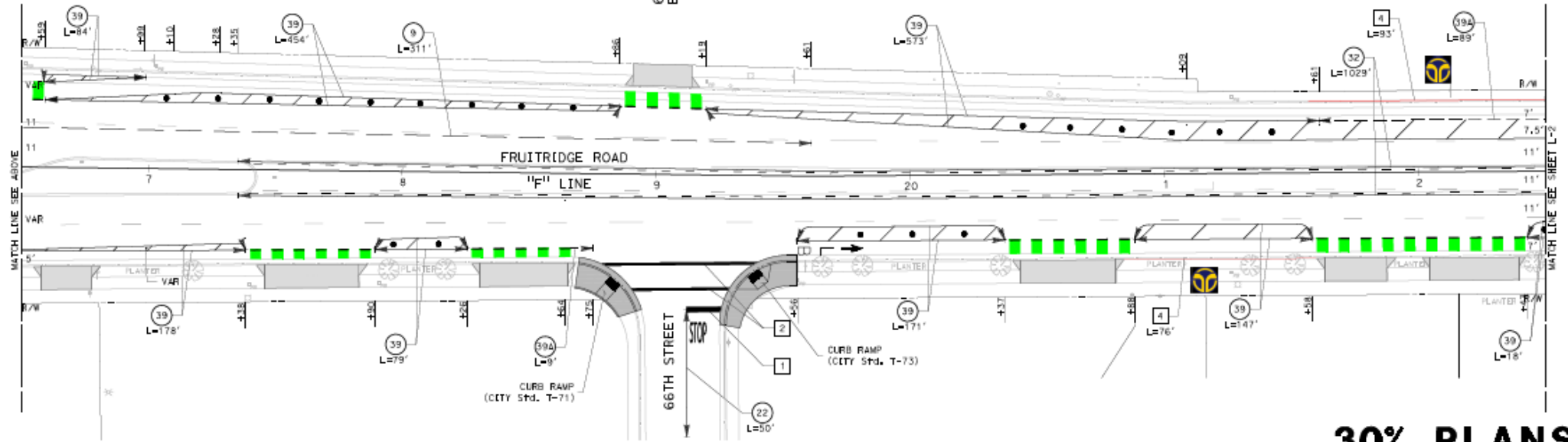
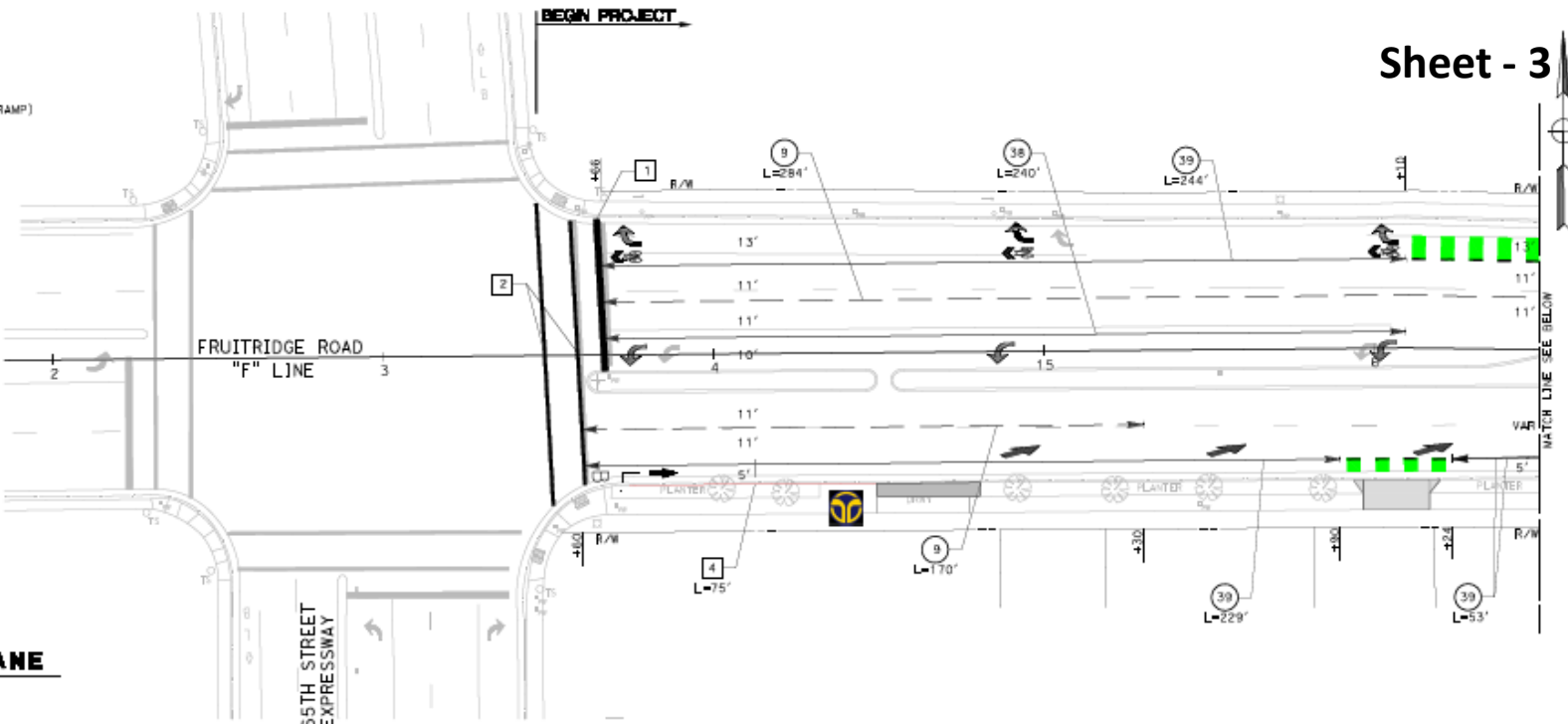
- (No.) MUTCD STRIPING DETAIL NUMBER
L= LENGTH
- (No.) EXIST MUTCD STRIPING DETAIL NUMBER
- BIKE LANE MARKING AND ARROW
- SHARED ROADWAY BICYCLE MARKING
- TYPE IV MARKING
- TYPE VI MARKING
- EXISTING ROADSIDE SIGN
- ROADSIDE SIGN (ONE-POST)
- BIKEWAY GREEN CONFLICT AREA
- MINOR CONC MEDIAN (STAMPED AND COLORED)
- LANDSCAPE
- DECOMPOSED GRANITE
- EXISTING DRIVEWAY
- MINOR CONC (SIDEWALK AND CURB RAMP)
- DELIMITER (K-71)
- REMOVE ROADSIDE SIGN
- RELOCATE ROADSIDE SIGN
- ROADSIDE SIGN TO REMAIN
- INSTALL ROADSIDE SIGN
- EXISTING BUS STOP - TO REMAIN OR BE RELOCATED. SEE PLANS FOR LOCATIONS. FINAL LOCATION OF BUS STOPS TO BE COORDINATED WITH RT
- EXISTING BUS STOP - TO BE RELOCATED OR REMOVED. SEE PLANS FOR LOCATIONS
- INSTALL ROADSIDE SIGN

CONSTRUCTION NOTES:

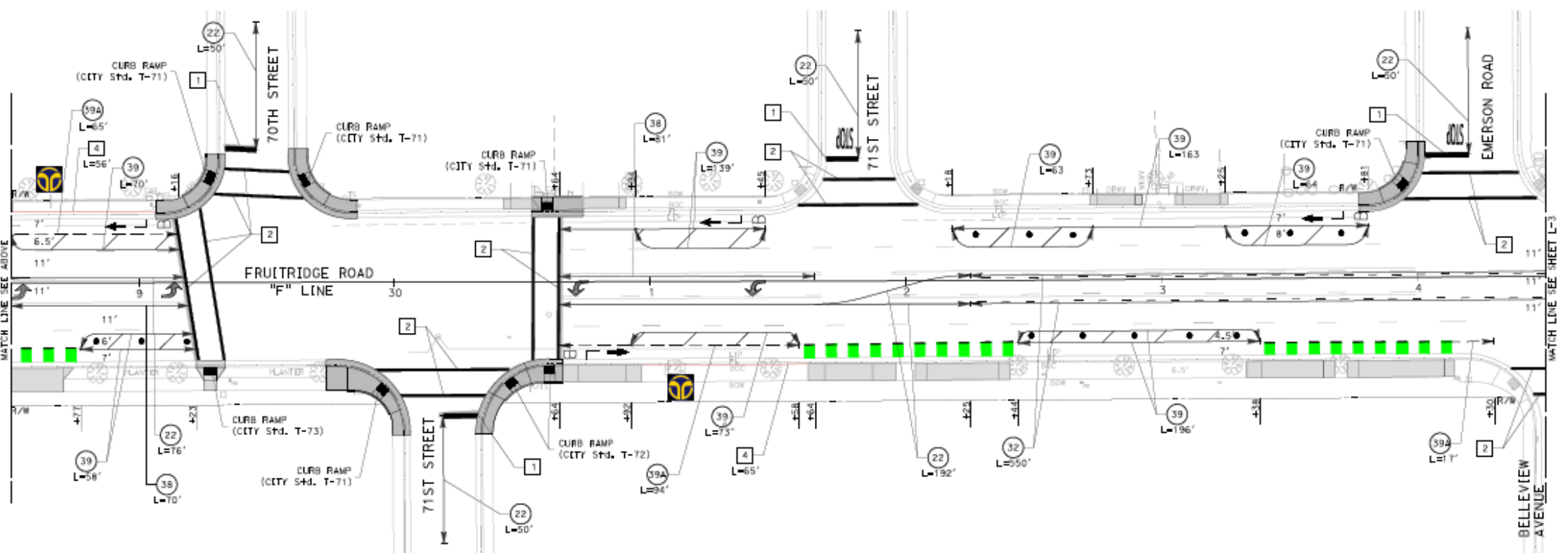
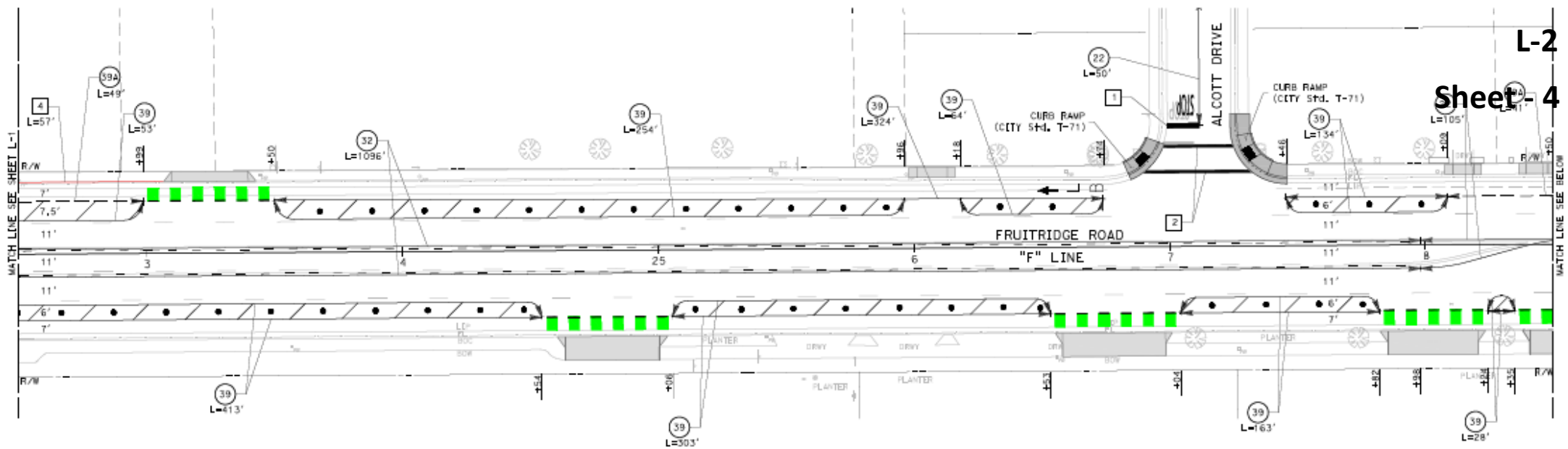
- 1 INSTALL 24" WHITE THERMOPLASTIC LIMIT LINE
- 2 INSTALL 12" WHITE THERMOPLASTIC CROSSWALK
- 3 INSTALL 24" YELLOW THERMOPLASTIC CROSSWALK
- 4 INSTALL RED PAINTED CURB, LENGTH AS SHOWN ON PLANS
- 5 INSTALL TRIPLE FOUR CROSSWALK PER CITY OF SAC STD DWG NO. T-185

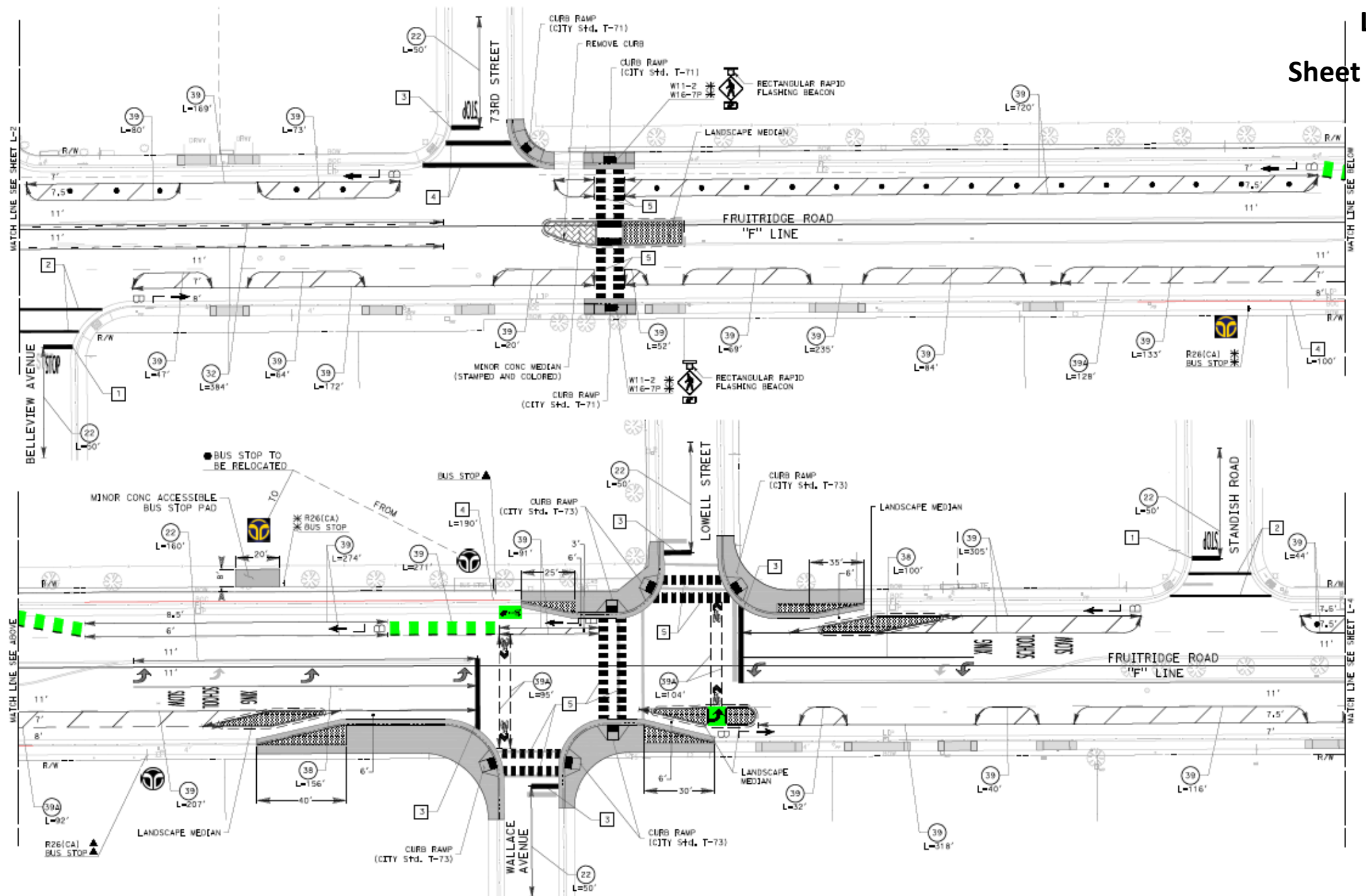


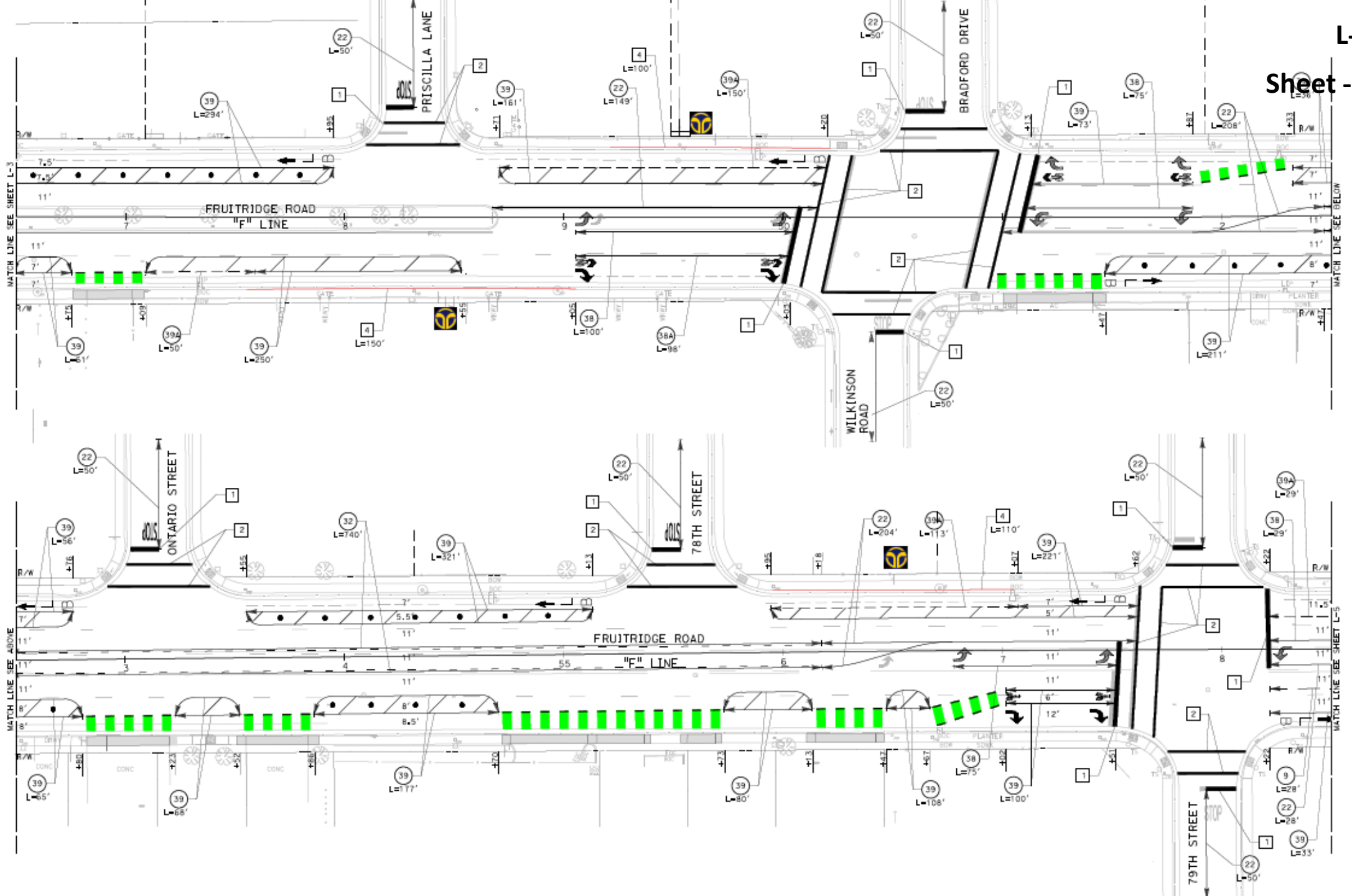
COLORED BIKE LANE
NO SCALE

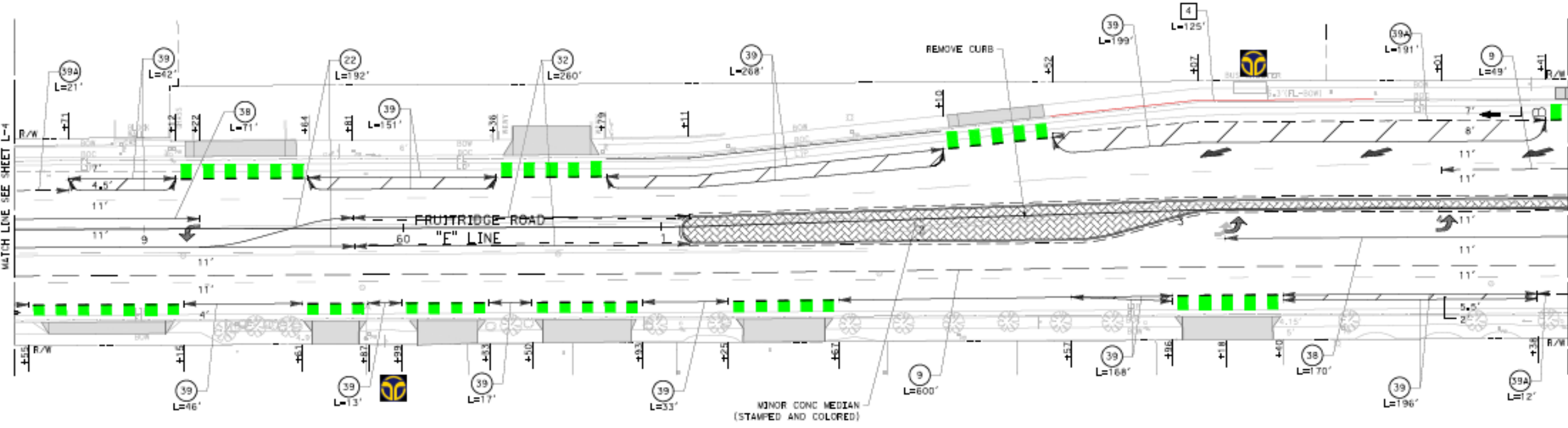


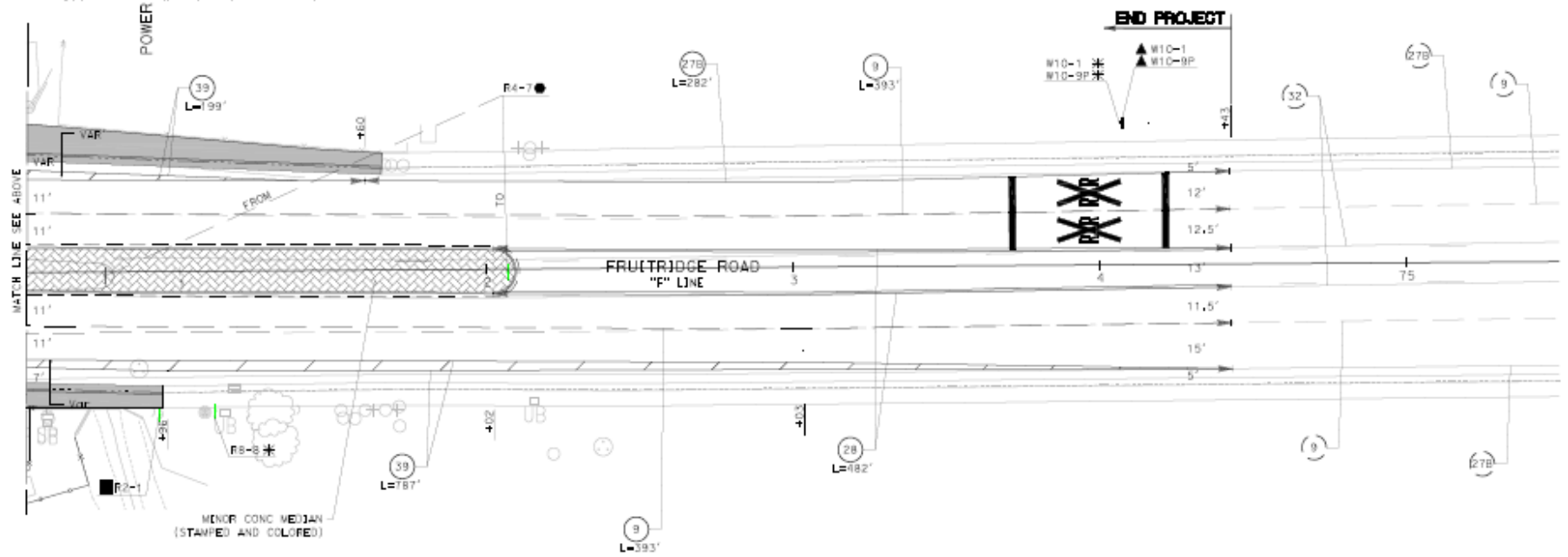
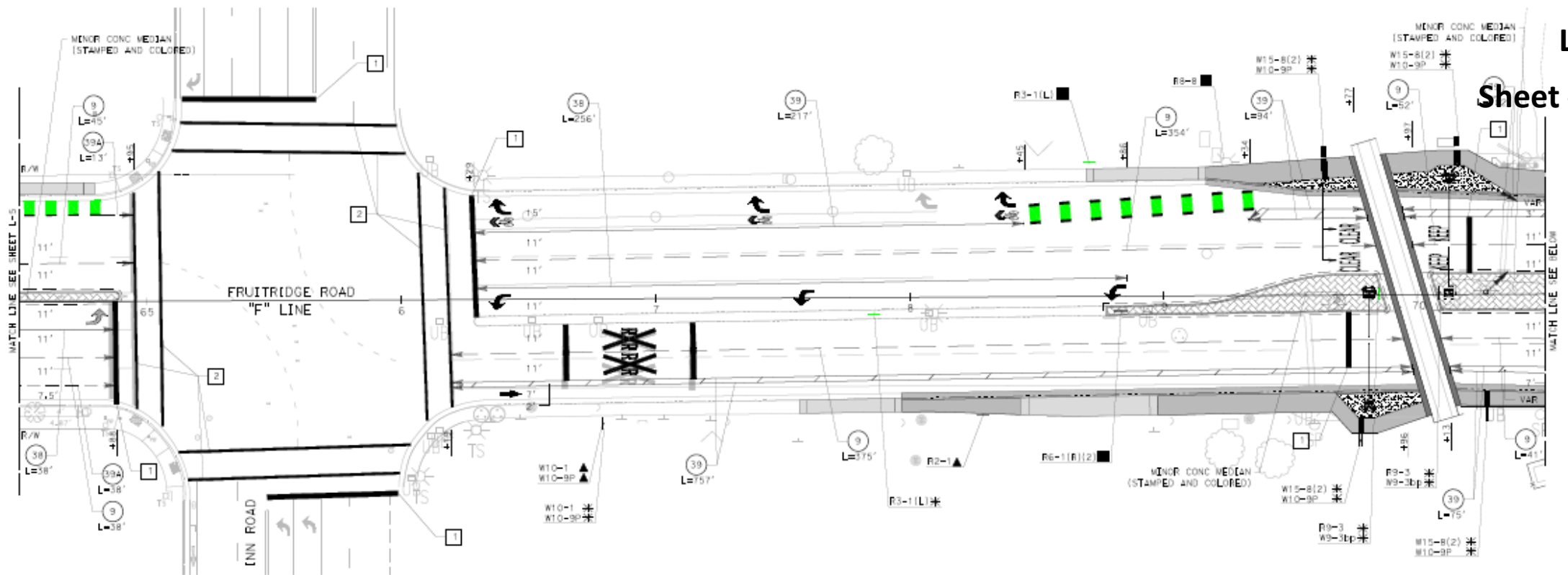
30% PLANS











Traffic Operations



Traffic Speed

- Today, travel by car down the corridor typically takes 2 to 3 minutes until you get to one of the major intersections
- After road diet, anticipate speed reductions of 5 to 10 mph, with an additional 1 minute of travel by car

Traffic Volume

- Anticipating about a 12% reduction in traffic, mostly during commute hours
- Neighborhood traffic counts were conducted as baseline for post project evaluation