

Countywide Pedestrian Needs Assessment

TAC Meeting
May 26, 2022



CONTRA COSTA
transportation
authority

www.ccta.net > Planning > Countywide Vision Zero



Safe Travel for All

FHWA & Caltrans

Safe Systems Approach



Accommodate
human mistakes



Keep impacts on the
human body
less-than-severe,
medically manageable



Rebalance
shared responsibility
from road users to
roadway designers



Source: FHWA

Tasks - Scoped

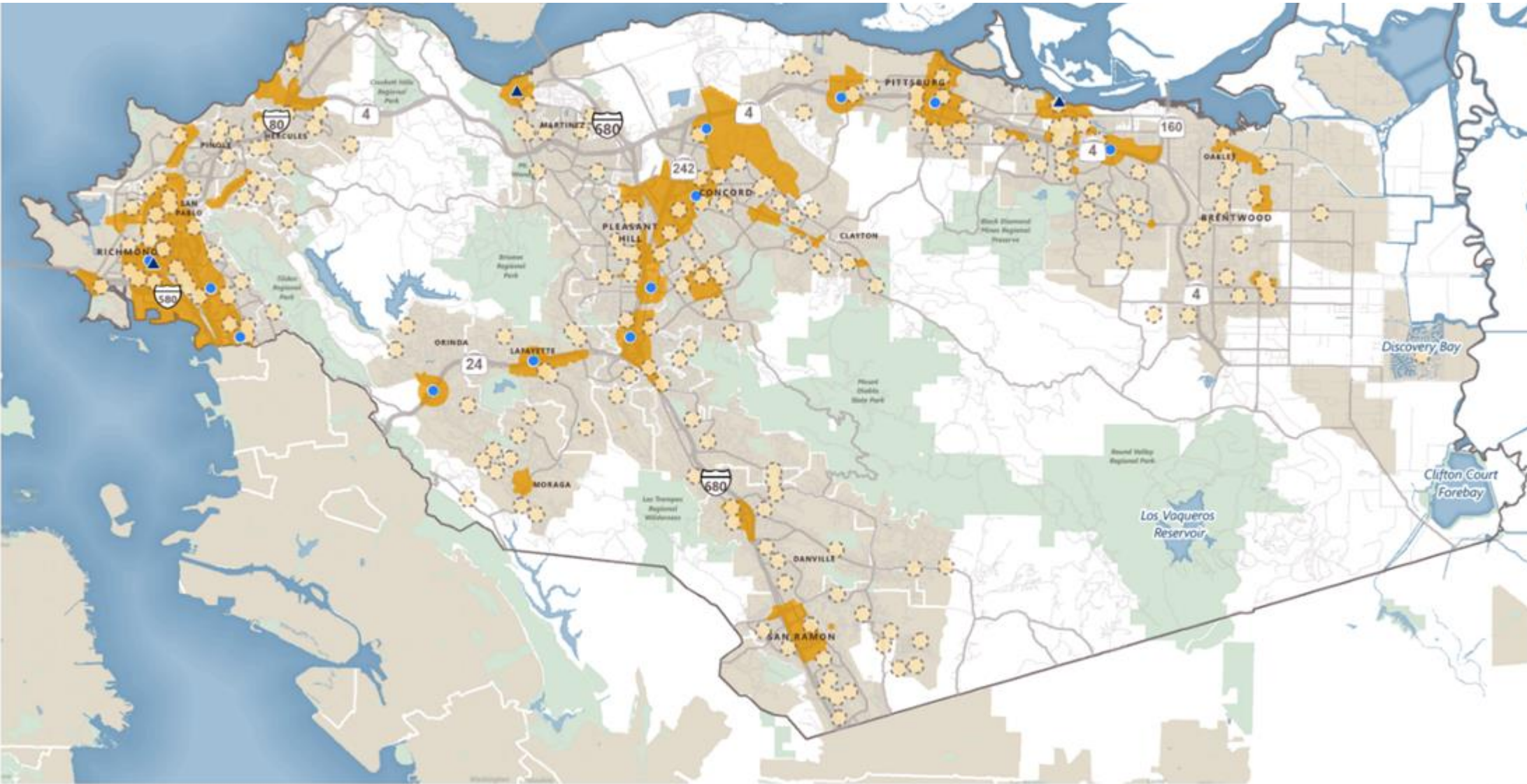
- Inventory some pedestrian infrastructure (i.e., sidewalks, crosswalks) in Countywide Priority Pedestrian Areas (PPAs)
- Identify Priority Project types based on CCTA's past collision analysis and review of local plans
- Understand existing gaps and estimate the level of investment to improve pedestrian safety in Countywide PPAs (in progress)

Pedestrian Priority Areas (PPAs)



designated by
Contra Costa
Countywide
Bicycle &
Pedestrian
Plan

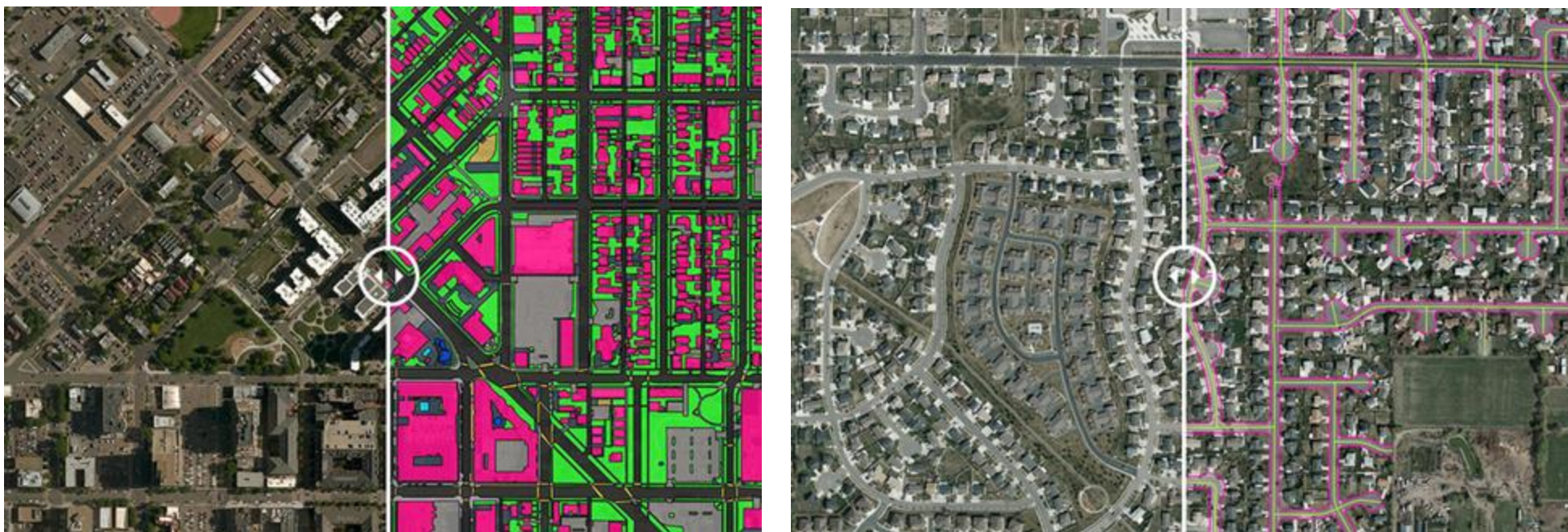
July 2018



PPAs include areas within walking distance of schools, major transit stops & locations with the highest concentrations of collisions involving pedestrians.

Ecopia Tech Data Collection

- Artificial Intelligence analyzed aerial imagery to identify sidewalks and crosswalks
- ADA-compliant status of curb ramps could be included as part of future assessment



Pedestrian Priority Project Types

- Sidewalk Gaps
- Uncontrolled Crossings*
- Signalized Intersections*
- Corridor Speed Management*
- Lighting

** Separate strategies were identified for locations on two-lane (one in each direction) vs. multi-lane (two or more in each direction) roadways.*

Sidewalk Gaps

- Most pedestrian collisions in Pedestrian Priority Areas occur where sidewalks are present, but **severe-injury and deadly collisions are twice as likely where sidewalk gaps exist.**
- Installing sidewalks provides a vehicle- and grade-separated, continuous facility for pedestrians to walk or wheelchairs to roll (more visibly) along a corridor.

** Gap analysis focused on missing sidewalks, rather than effective width (potential future effort)*






Example: Camino Pablo, Moraga

Sidewalk Gaps

Asphalt or dowel-in-place curb (not recommended long-term) and shoulder striping provide interim walkways at lower cost.



Potential Engineering Menu		
New Sidewalk	Widen Sidewalk	ADA-compliant Curb Ramps
		

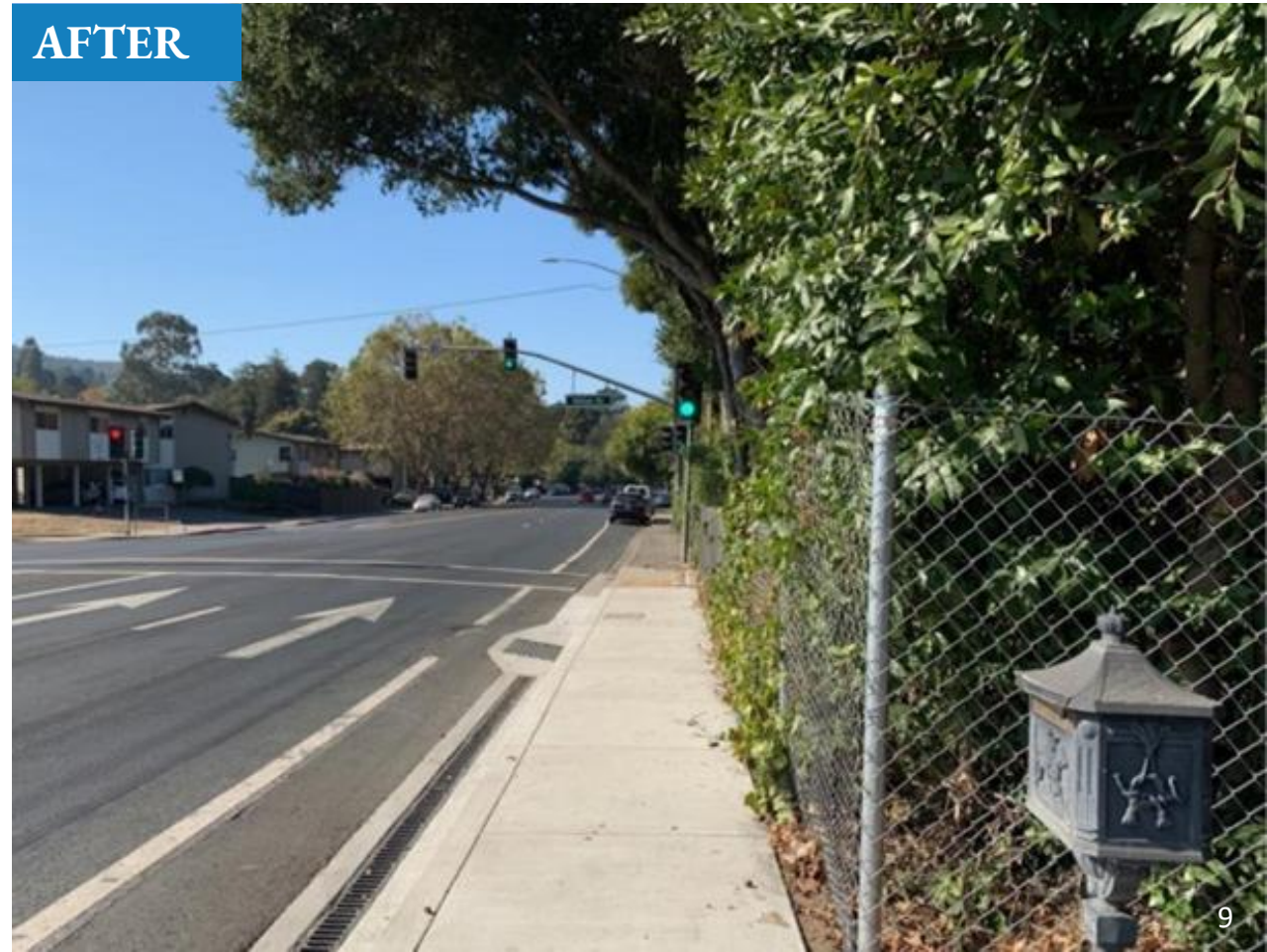
Lower Cost: Project Proposal	
Asphalt curb (per mile, one side)	\$240,000
Shoulder Stripe (per mile, one side)	\$10,000
Near Term Package Total	\$250,000

Higher Cost: Project Proposal	
Sidewalks (per mile, one side)	\$1,800,000
Long-Term Package Total	\$1,800,000



Sidewalk Gap Project Example

San Pablo Dam Road, El Sobrante (unincorporated)



Number of Locations to Improve



Project Type	Total Number	% Needing Improvement	Total Number to Improve
Sidewalk Gaps (miles)	1,820	75%	1,365
Multi-Lane Uncontrolled Crossings	220	75%	165
Two-Lane Uncontrolled Crossings	500	75%	375
Multi-Lane Signalized Intersections	1,400	75%	1,050
Two-Lane Signalized Intersections	400	75%	300
Multi-Lane Corridor Speed Management (miles)	120	100%	120
Two-Lane Corridor Speed Management (miles)	20	100%	20
Lighting (Crossing Locations)	2,540	50%	1,260

Countywide Cost Estimates

Project Type	Total Number to Improve	Percent Lower Cost	Lower Cost Estimate	Percent Higher Cost	Higher Cost Estimate	Countywide Total Cost Estimate
Sidewalk Gaps (per mile)	1,365	50%	\$250,000	50%	\$1,800,000	\$1,399,125,000
Multi-Lane Uncontrolled Crossings	165	75%	\$70,000	25%	\$300,000	\$21,037,500
Two-Lane Uncontrolled Crossings	375	75%	\$23,000	25%	\$150,000	\$20,531,250
Multi-Lane Signalized Intersections	1,050	50%	\$55,000	50%	\$955,000	\$530,250,000
Two-Lane Signalized Intersections	302	50%	\$50,000	50%	\$605,000	\$98,250,000
Multi-Lane Corridor Speed Management (per mile)	119	75%	\$700,000	25%	\$7,500,000	\$288,000,000
Two-Lane Corridor Speed Management (per mile)	20	75%	\$550,000	25%	\$2,150,000	\$19,000,000
Lighting	1,260	100%	\$40,000	n/a	n/a	\$50,400,000
					Total: \$2,426,593,750	



Questions?