

AI Cameras in District 5

CTC Innovation Series - October 2026

Eric Carver, PE – ITS Branch Chief



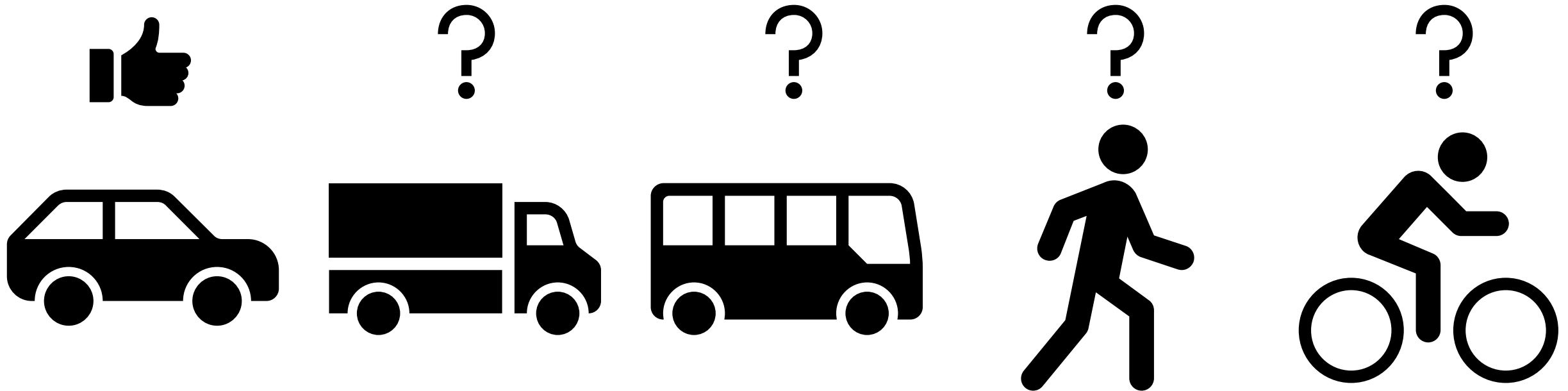
CALTRANS DISTRICT 5 | DIVISION OF TRAFFIC OPERATIONS, ITS



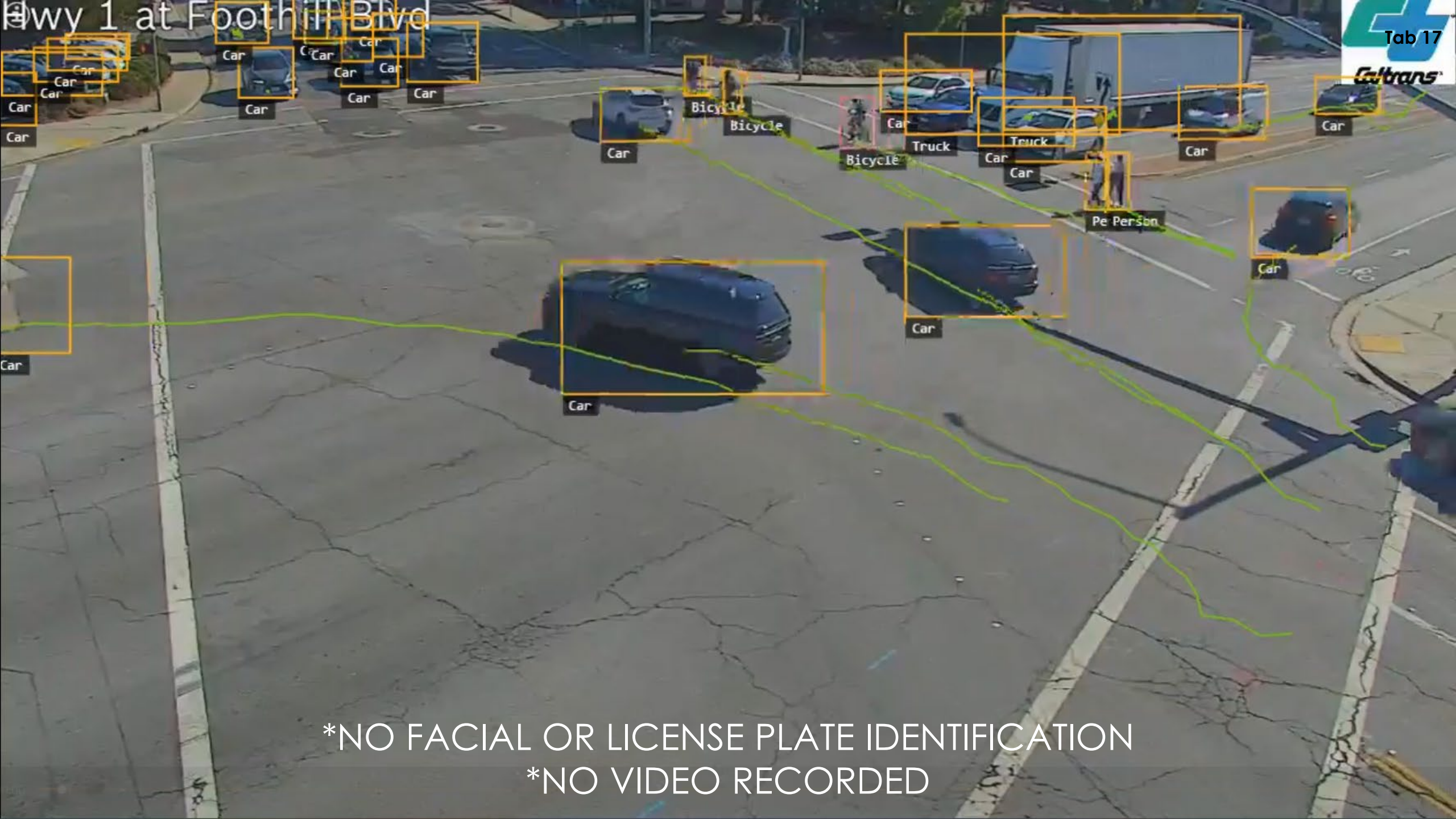
Traditional Detection – Inductive Loops



How do we detect and classify all roadway users?



Hwy 1 at Foothill Blvd



*NO FACIAL OR LICENSE PLATE IDENTIFICATION
*NO VIDEO RECORDED

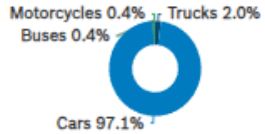
Summary Vehicles Vulnerable Road Users

Classifies Motorized Traffic by Type

Overview

Counts by vehicle class

46,794 vehicles



Speed (mph) by vehicle class

All	20.4
Trucks	19.9
Cars	20.4
Buses	19.0
Motorcycles	19.9

Stopped by vehicle class

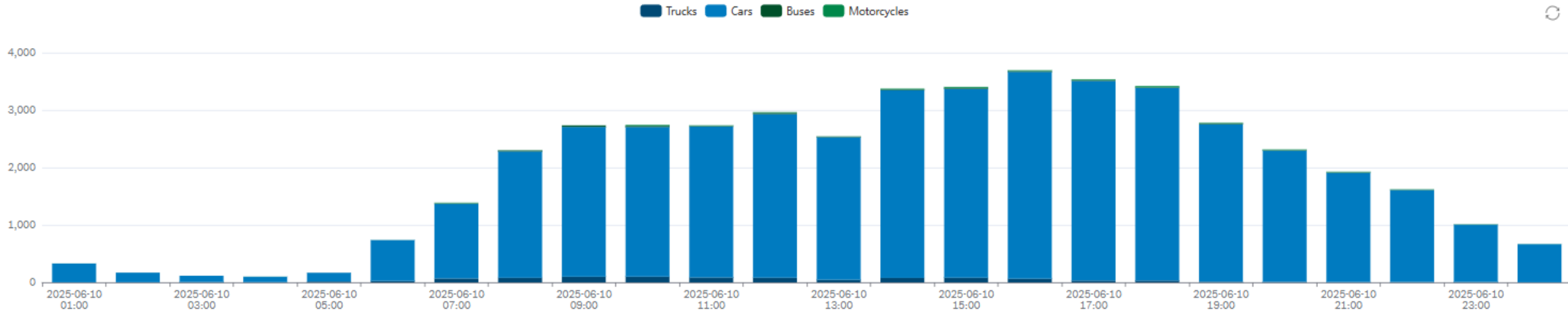
92 vehicles



By Zone By Class Alarm Events Data Events

Counts by class

Total: 46,794



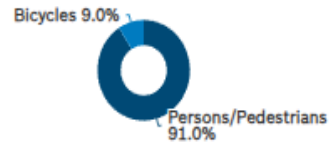
Summary Vehicles Vulnerable Road Users

Captures Pedestrian and Bicycle Activity

Overview

Counts by VRU class

3,454 VRUs

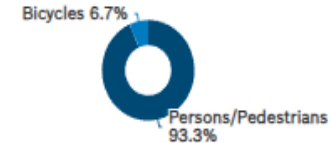


Speed (mph) by VRU class

All	4.1
Persons/Pedestrians	3.2
Bicycles	13.7

Stopped by VRU class

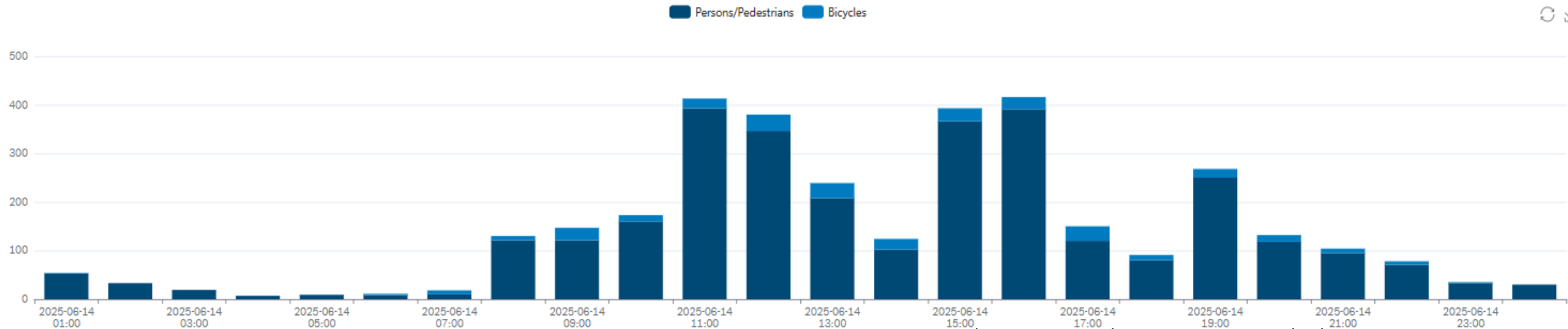
45 VRUs



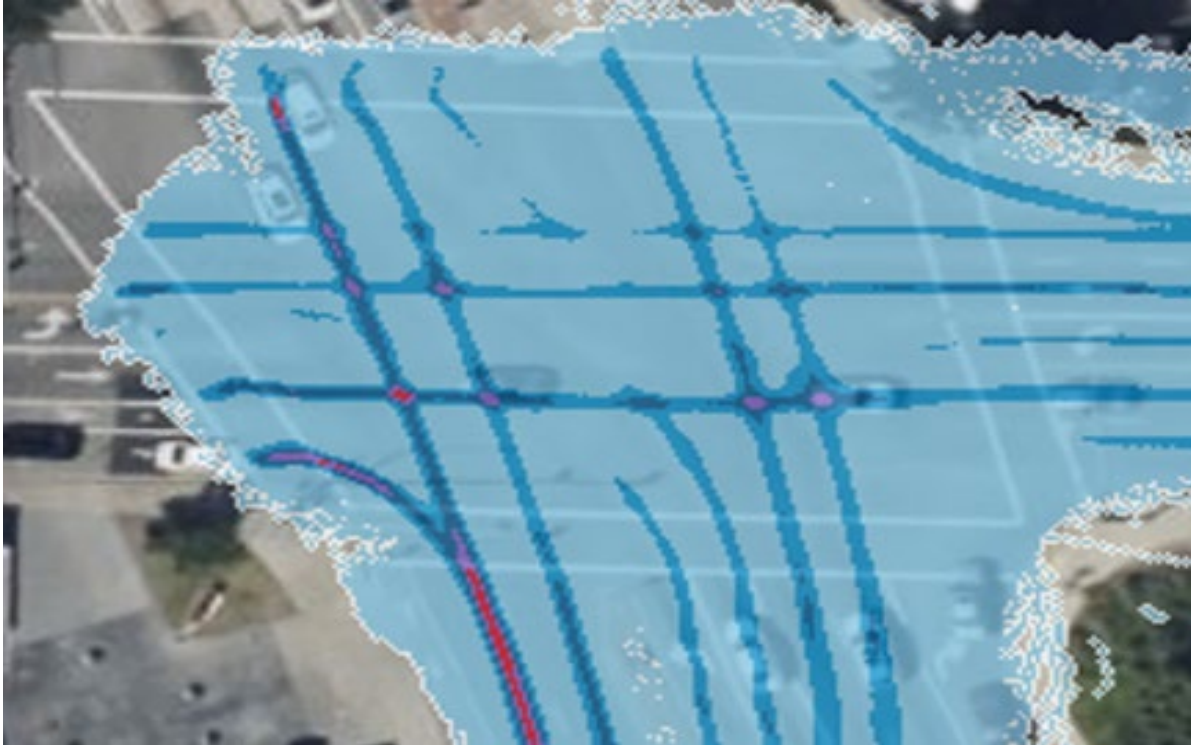
By Zone By Class Alarm Events Data Events

Counts by class

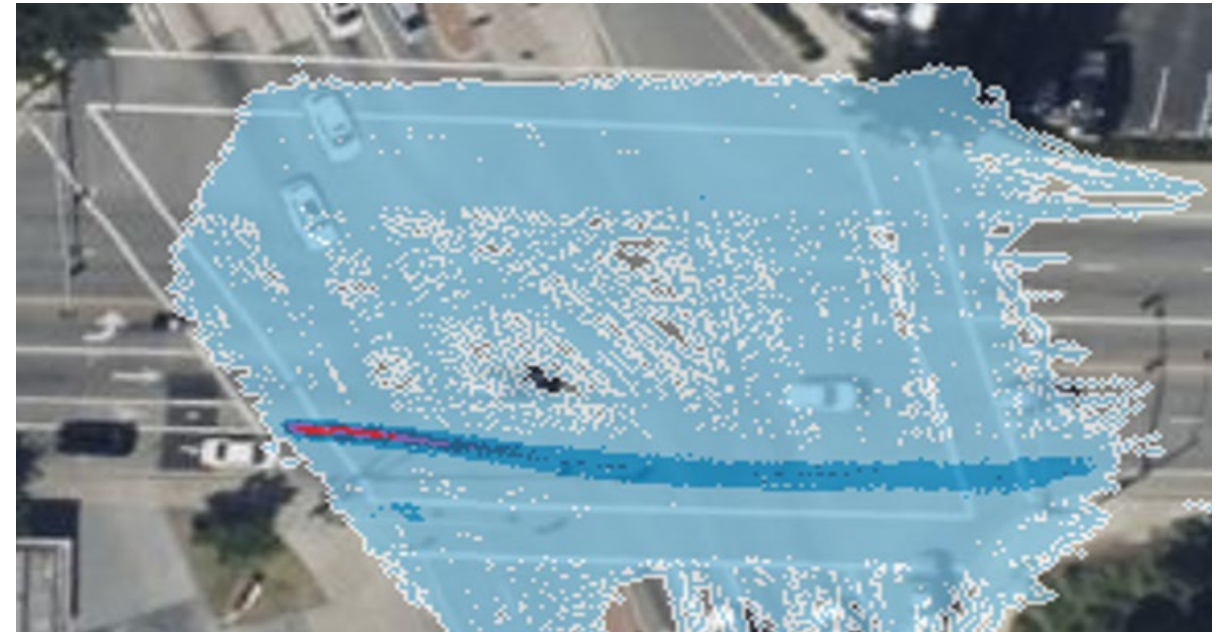
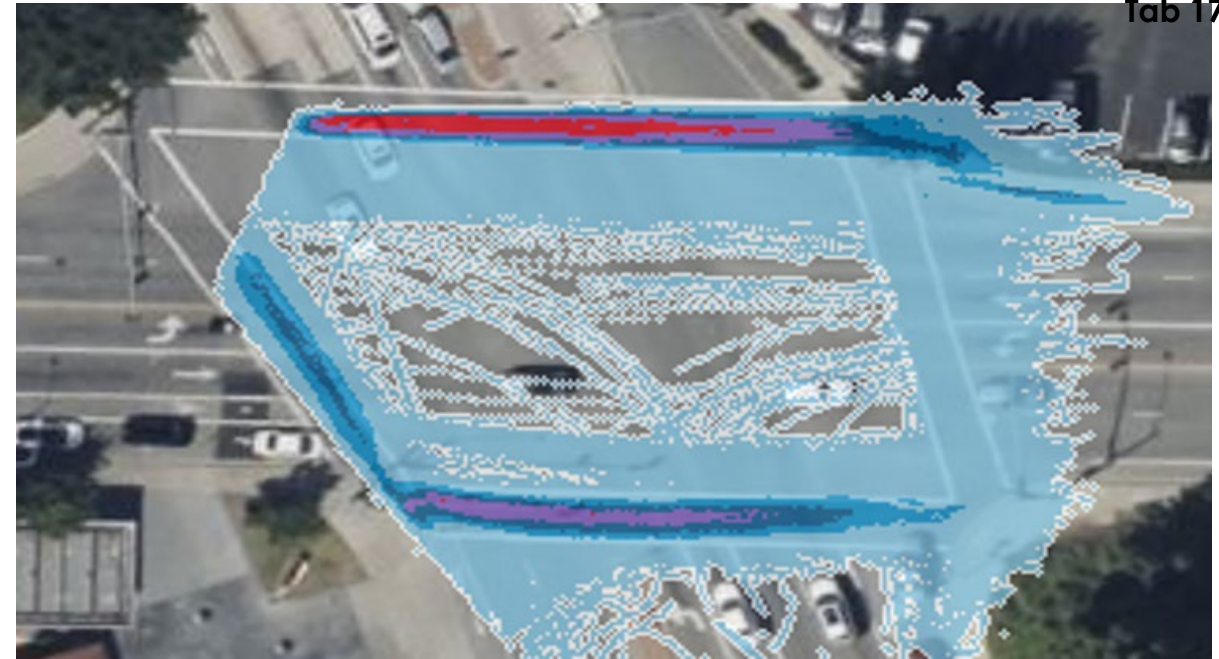
Total: 3,454



Heatmaps for Each Type of Roadway User



Shows how different roadway users move through an intersection



Intersection Operational Improvements

BEFORE



*Not Caltrans employees pictured above

AFTER

CHART			TABLE			INTERSECTION		
						North - On Ramp		
						In: 0	Total: 0	Out: 0
						Right: 0	Thru: 0	Left: 0
						↶	↓	↷
						West - E Main St		
						In: 0	Left: 2909	↗
						Total: 0	Thru: 4364	→
						Out: 0	Right: 541	↘
						East - E Main St		
						↖	Right: 1686	
						←	Thru: 6441	
						↙	Left: 66	
						South - Nicholson Ave		
						↶	↑	↷
						Left: 3764	Thru: 353	Right: 2765
						In: 0	Total: 0	Out: 0
						Start and End Dates		
						08/16/2026 11:29 – 08/17/2026 11:29		
						Granularity		
						Hour ▾		
						Quantity		
						Counts ▾		
						☐ Filter by		

Thank You

Eric Carver, PE

Caltrans District 5, Division of Traffic Operations

ITS Maintenance & Operations Branch Chief

Email: eric.carver@dot.ca.gov

Cell: 805-748-5485

