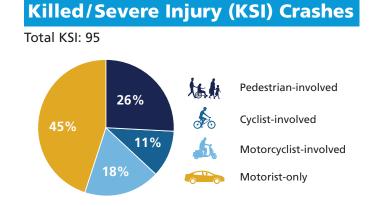


# Safety by the Numbers

5-year Collision Data: 2019-2023

18%	Percent of Station study area
	street miles on the HIN

- 95 Number of people killed or severely injured (KSI)
- <sup>8%</sup> Percent of crashes that resulted in KSI



# **Concord** Focus Station Area Action Plan

Appendix G

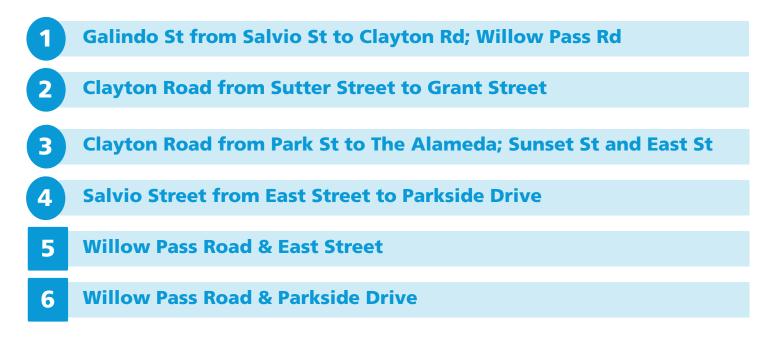


N

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0.25 US Survey Miles Jurisdiction(s) with roads on HIN: City of Concord, Contra Costa County, and Caltrans



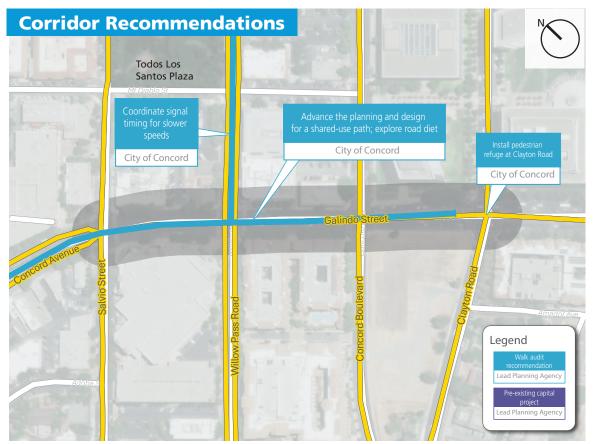
# **Concord** Focus Station Area Action Plan

# Galindo St from Salvio St to Clayton Rd; Willow Pass Rd

# **Corridor Context**

1

- This north-south arterial serves a high volume of vehicle traffic and has a speed limit of 30-35 mph. There are
  long-term plans to construct a shared-use path on the east side of the corridor to provide bicycle access to BART.
- The City identified three intersections on Galindo Street for the walk audit that were on the top ten list for total collisions (Galindo Street at Clayton Street, Concord Boulevard, and Willow Pass Road).
- There is pedestrian activity on nearby Willow Pass Road where there are also has high volumes of fast cars.
- There have been 78 collisions on this corridor from 2019 to 2023. The primary collision factors were traffic signal violations and unsafe speeds.



### **Safety Benefits**

#### FHWA Tier 1 Safety Countermeasure to Remove Severe Conflicts:

- A shared use path that is physically separated from vehicle traffic will provide safety and access benefits for people to bicycle to and from BART.
- Road diets reduce the number and width of vehicle lanes, which can help reduce vehicle speeds and allow for additional pedestrian and bicyclist safety treatments.

#### FHWA Tier 2 Safety Countermeasure to Reduce Vehicle Speeds:

• Coordinated signal timing can manage vehicle speeds, increasing pedestrian safety. It can also create a steady and predictable flow of traffic, minimizing abrupt stops and starts that can lead to rear-end collisions.

#### Estimated Cost

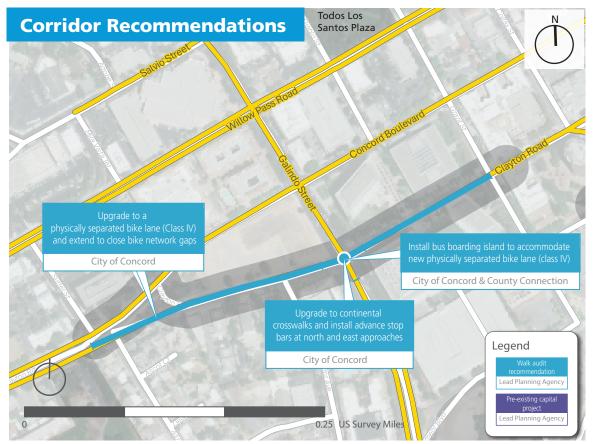


Focus Station Area Action Plan

# **Clayton Road from Sutter Street to Grant Street**

### **Corridor Context**

- Clayton Road is a one-way arterial with five travel lanes that runs adjacent to many office buildings in downtown Concord. A buffered bike lane is provided between Sutter and Grant Streets and is not yet connected into the surrounding bike network. Current best practice is to provide a higher degree of physical separation from vehicle traffic and to close gaps in the bike network.
- Multiple survey respondents reported safety concerns on Clayton Road, citing fast cars and lack of bicycle facilities.
- There were 42 collisions reported on this corridor from 2019 to 2023, with one resulting in a fatality. Over 50% of collisions were broadside collisions.



### **Safety Benefits**

#### FHWA Tier 1 Safety Countermeasure to Remove Severe Conflicts:

 Physically separated bicycle lanes will provide more separation between bicyclist and vehicles to reduce chance for severe conflicts.

#### FHWA Tier 4 Safety Countermeasure to Increase Attentiveness and Awareness:

- High-visibility crosswalks and advance stop bars increase the visibility of pedestrians at marked crosswalks.
- Advance stop bars improve visibility of crossing pedestrians by increasing the distance between stopped motorists and crossing pedestrians.

#### Estimated Cost



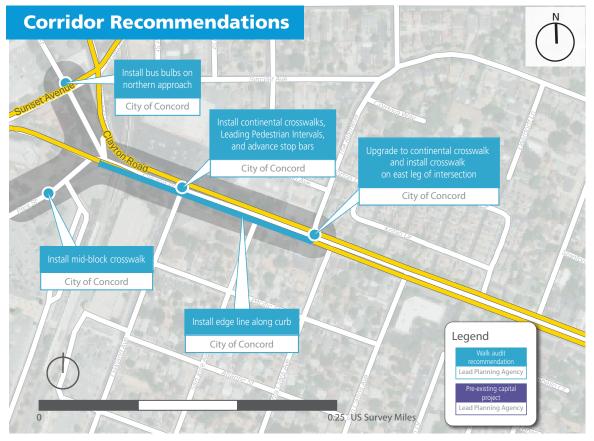
Focus Station Area Action Plan

# Clayton Road from Park St to The Alameda; Sunset St and East St

# **Corridor Context**

3

- Clayton Road has 4 travel lanes and is divided by a median east of Park Street and the BART station. It intersects three different streets at the BART station including Park Street, East Street, and Port Chicago Highway, prioritizing high volumes of cars and providing limited pedestrian crossings.
- Multiple survey respondents reported safety concerns on Clayton Road, citing speeding and lack of bicycle facilities.
- There were 22 collisions reported on this corridor from 2019 to 2023, with one resulting in a severe injury. The top cause for collisions were traffic signal violations, followed by unsafe speeds.



# **Safety Benefits**

#### FHWA Tier 1 Safety Countermeasure to Remove Severe Conflicts:

 Bus bulbs reduce pedestrian crossing distance and minimize conflicts caused by buses pulling into and out of the travel lane.

#### FHWA Tier 2 Safety Countermeasure to Reduce Vehicle Speeds:

• Edge lines reduce the width of the travel lane, encouraging slower speeds.

#### FHWA Tier 3 Safety Countermeasure to Manage Conflicts in Time:

 Leading Pedestrian Intervals (LPIs) allow pedestrians to begin crossing before vehicles are given the green signal.

#### FHWA Tier 4 Safety Countermeasure to Increase Attentiveness and Awareness:

- High-visibility crosswalks increase the visibility of pedestrians at marked crosswalks.
- Advance stop bars improve visibility of crossing pedestrians by increasing the distance between stopped motorists and crossing pedestrians.

#### Estimated Cost



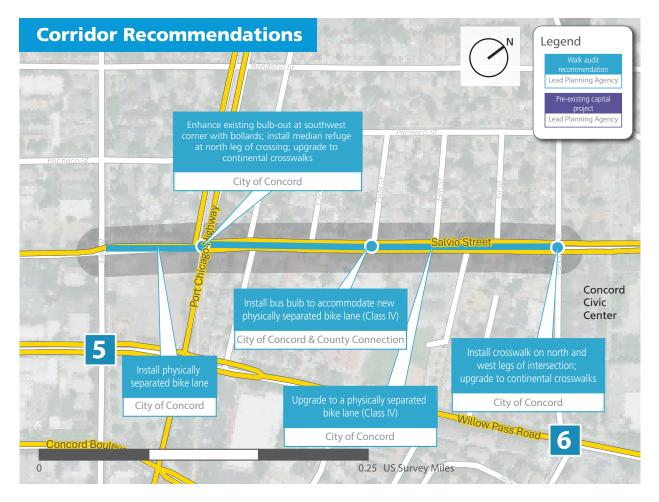
Focus Station Area Action Plan

# Salvio Street from East Street to Parkside Drive

# **Corridor Context**

4

- Salvio Street is an east-west collector that serves as a multimodal corridor connecting Concord's Civic Center, Todos Santos Plaza and nearby residential neighborhoods. There is currently a buffered bike lane in this section.
- Reducing vehicles on this corridor is important because it is adjacent to Crossroads High School and residential communities.
- There were 14 recorded collisions on this corridor, and most of them were related to traffic signal violations.



# **Safety Benefits**

FHWA Tier 1 Safety Countermeasure to Remove Severe Conflicts:

- Physically separated bicycle lanes will provide physical barrier between bicyclist and vehicles to reduce chance for severe conflicts.
- A pedestrian refuge reduces exposure and allows pedestrians to focus on crossing one direction of traffic at a time.
- Bulb-outs reduce the distance pedestrians need to cross, decreasing the time they are exposed to traffic.

#### FHWA Tier 4 Safety Countermeasure to Increase Attentiveness and Awareness:

- High-visibility crosswalks make crossing pedestrians more visible to drivers.
- Bulb-outs improve sight lines between pedestrians and drivers,

#### Estimated Cost

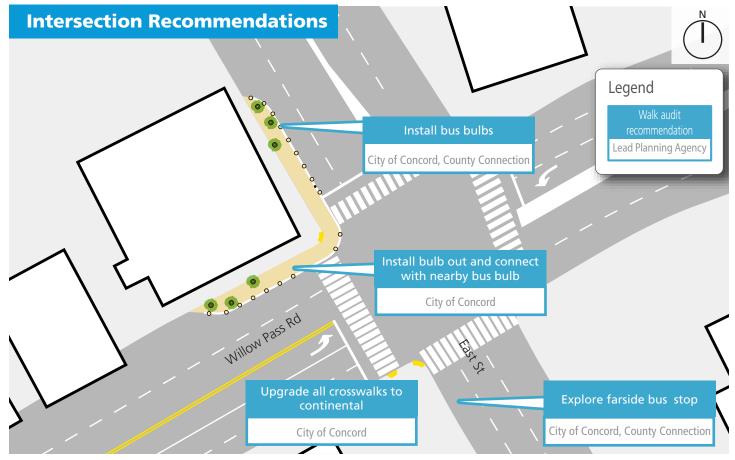


Focus Station Area Action Plan

# 5 Willow Pass Road & East Street

#### **Intersection Context**

- Willow Pass Road is considered a high volume street with 30-35 mph speed limits in the downtown district, where there is high pedestrian activity.
- The intersection of Willow Pass Road and East Street is adjacent to the future Concord Village Project, which will be a five story building with 230 residential units. Improving safety at this location will be important with an increase in pedestrian activity.
- There were 11 collisions recorded at this intersection, with traffic signal violation as the most common cause.



# **Safety Benefits**

#### FHWA Tier 1 Safety Countermeasure to Remove Severe Conflicts:

Bus bulbs reduce pedestrian crossing distance and exposure to conflicts with vehicles.

#### FHWA Tier 2 Safety Countermeasure to Reduce Vehicle Speeds:

• Bus bulbs reduce the width of the roadway and encourage drivers to reduce speed.

#### FHWA Tier 4 Safety Countermeasure to Increase Attentiveness and Awareness:

 High-visibility continental crosswalks make crossing pedestrians more visible to drivers.

#### Estimated Cost

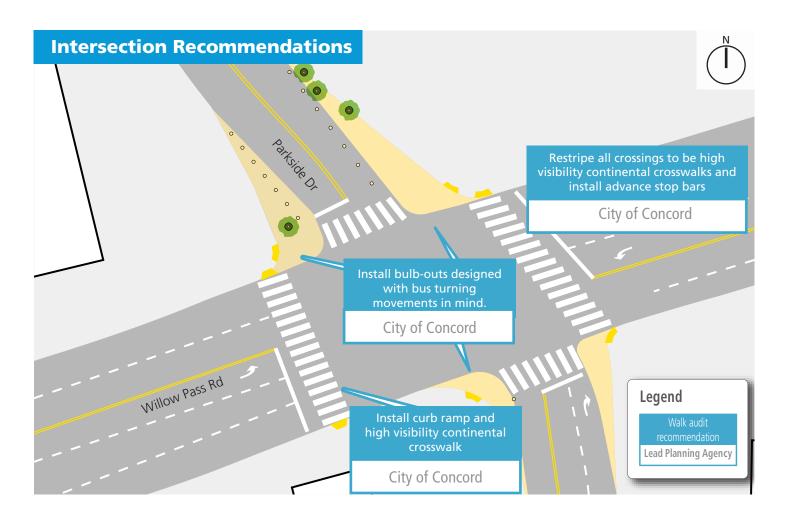


Focus Station Area Action Plan

# 6 Willow Pass Road & Parkside Drive

### **Intersection Context**

- Willow Pass Road is a primary gateway to Concord Civic Center, which includes City Hall and the library. Willow Pass Road and Parkside Drive is an intersection of a 4-lane arterial and a 2-lane local street.
- There were five collisions recorded at this intersection, one of which was a fatal collision involving a pedestrian. The primary collision factors were unsafe speeds, pedestrian violations, and improper turning.



# **Safety Benefits**

FHWA Tier 2 Safety Countermeasure to Reduce Vehicle Speeds:

 Bulb-outs reduce the turn radii and vehicle turning speed by forcing vehicles to make sharper turns.

#### FHWA Tier 4 Safety Countermeasure to Increase Attentiveness and Awareness:

- High-visibility crosswalks make crossing pedestrians more visible to drivers.
- Advance stop bars improve visibility of crossing pedestians and increase distance between crossing pedestrians and stopped motorists.

#### Estimated Cost