

Otis Drive Traffic Calming and Safety Improvements Project



May 22, 2019 – Transportation Commission
June 4, 2019 – City Council

Agenda

- Project goal and objectives
- Existing conditions
- Community input
- Traffic calming and safety tools
- Preliminary improvement concepts



Project Goal: Improve Safety for All Users



Reduce driving speeds;



Improve safety at pedestrian crossings;



Improve bicycle safety;



Improve bus stops and operations; and



Provide green infrastructure and stormwater management best practices

Phased Approach

- Limited initial funding (\$500,000 from the 2017-19 Capital Budget)
 - Short-term:
 - Solicit community input and explore alternatives
 - Develop plans for the corridor
 - Construct initial (and inexpensive) improvements
 - Long-term:
 - Solicit grant funding
 - Complete final design with public input
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Project Schedule

- Workshop #1 – Ideas, Concepts: January 31
 - Transportation Commission (Information): February 27
 - Workshop #2 – Preliminary Recommendations: March 20
 - **Transportation Commission (Concept Approval): May 22**
 - **City Council: June 4**
 - Short-term Design: Fall 2019
 - Short-term Implementation: Spring 2020
-

History



1946

1958

1968



Recent Enhancements

- 2010: “Leading Pedestrian Interval” (LPI) installed at Otis Drive/Willow Street
- 2011: Repaving of Otis Drive, including installation of ADA-compliant curb ramps
- 2015: Added “protected” left-turns (signal arrows) at Otis Drive/Westline Drive
- 2015: Installed accessible pedestrian signal push buttons at Grand/Otis
- 2016: Speed monitoring by community using radars



Vehicular Speeds

1

- Average Speed: 28 mph
- 30% of Vehicles over 30 mph
- 85th Percentile Speed: 33 mph
- Highest speed recorded: 46 mph
- 76% of Vehicles over 25 mph



2

- Average Speed: 28 mph
- 32% of Vehicles over 30 mph
- 85th Percentile Speed: 33 mph
- Highest speed recorded: 75 mph
- 82% of Vehicles over 25 mph



3

- Average Speed: 30 mph
- 43% of Vehicles over 30 mph
- 85th Percentile Speed: 33 mph
- Highest speed recorded: 47 mph
- 96% of Vehicles over 25 mph



Daily speed data collected on Wednesday, 2/15/2017

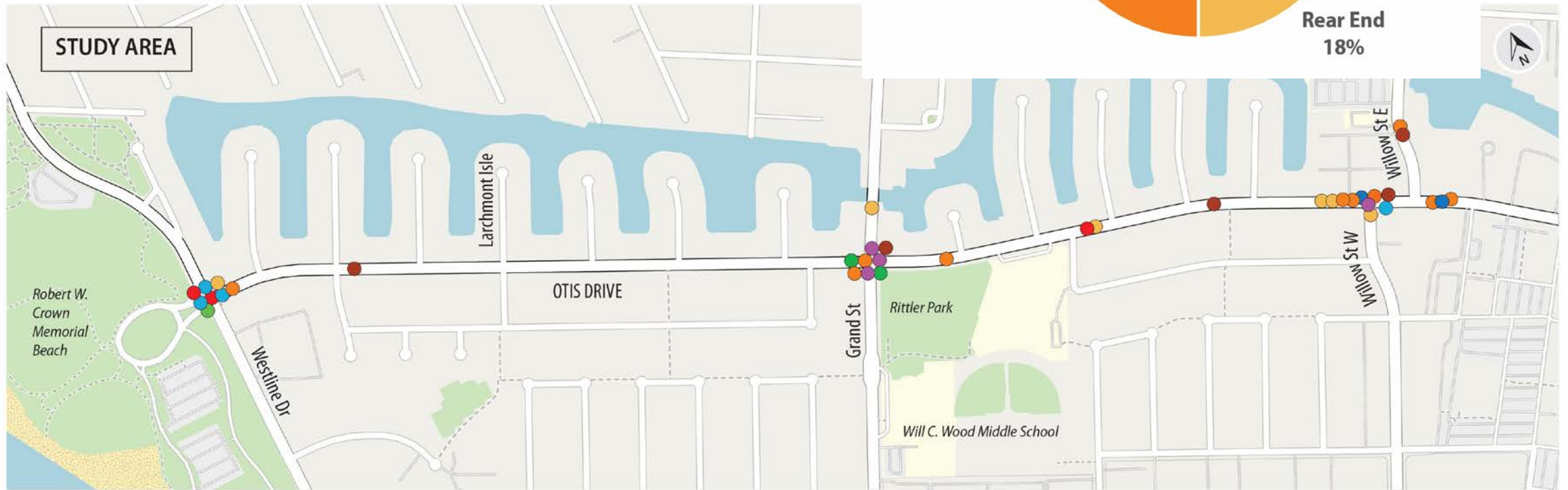
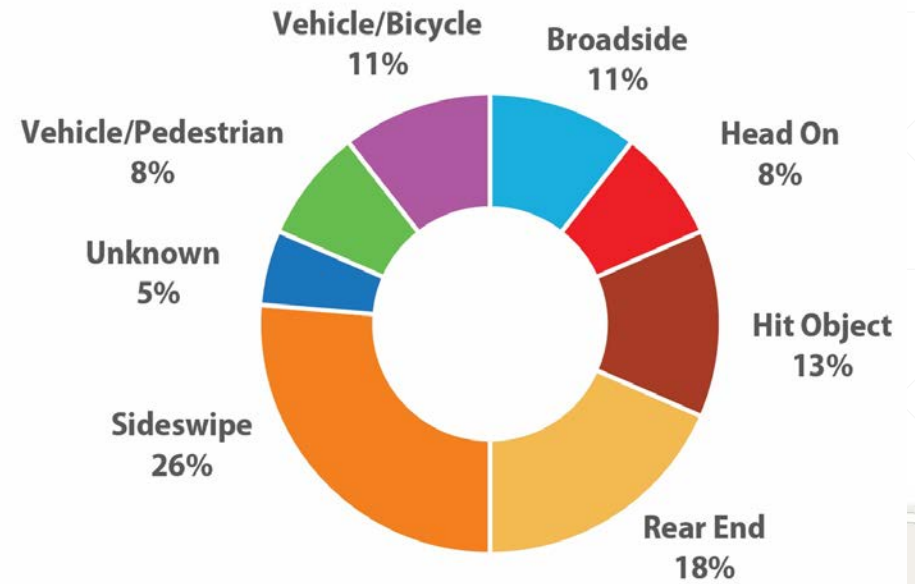
Daily speed data collected on Wednesday, 2/15/2017

AM peak hour speed data collected on Tuesday, 3/1/2016



Types of Collisions

38 Collisions from 2014-2018

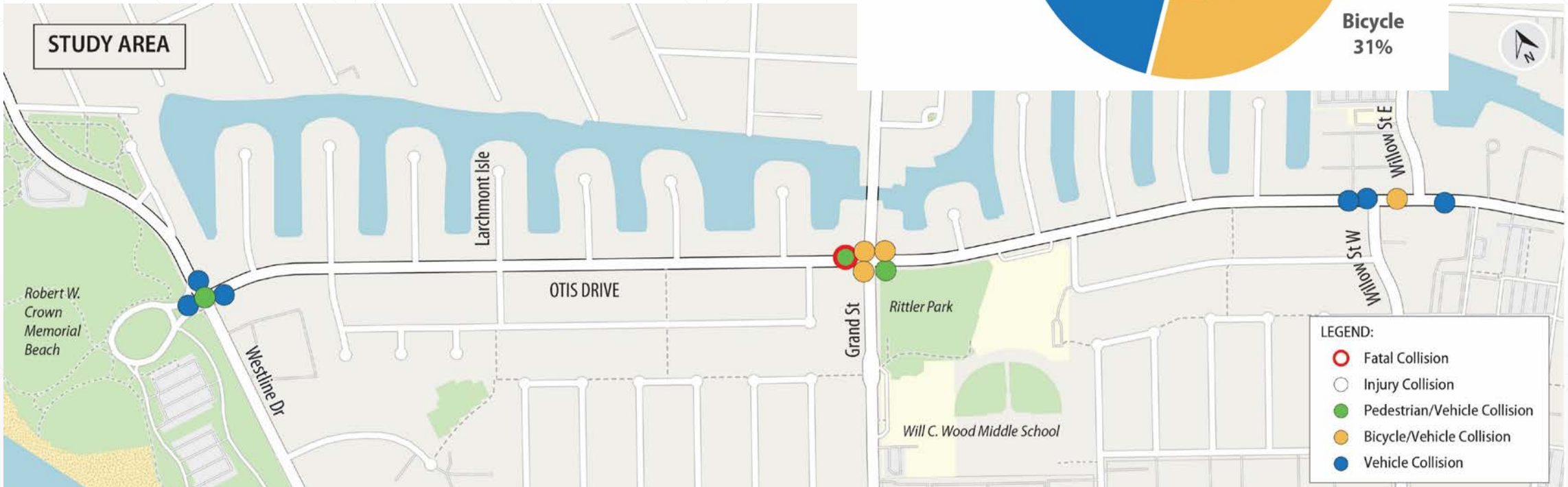
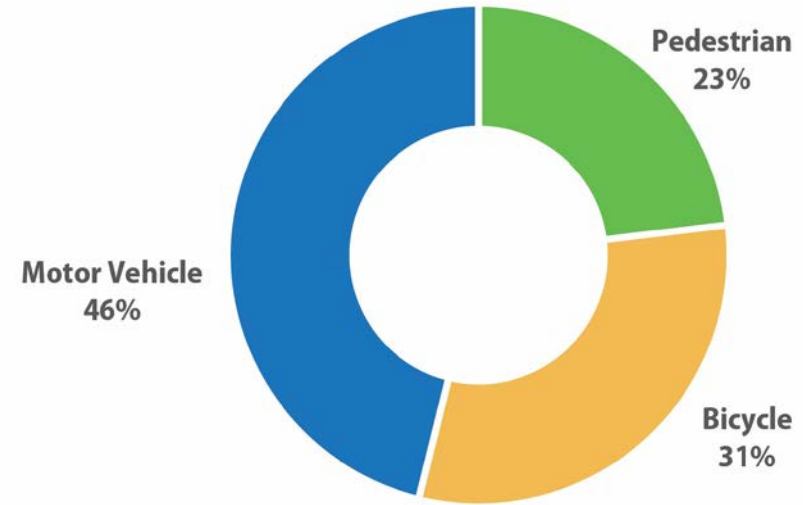


Source: SWITRS and City of Alameda Records

Injuries & Fatalities

13 injury and fatal collisions from 2014-2018

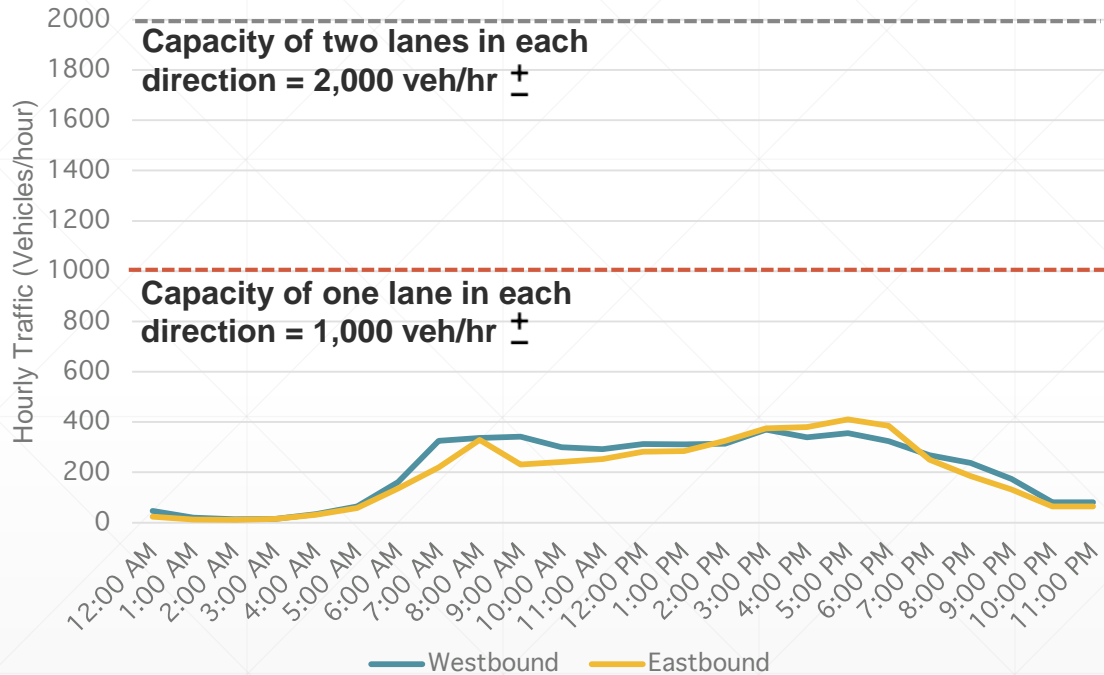
INJURY AND FATAL COLLISIONS BY MODE



Source: SWITRS and City of Alameda Records

Traffic Volumes

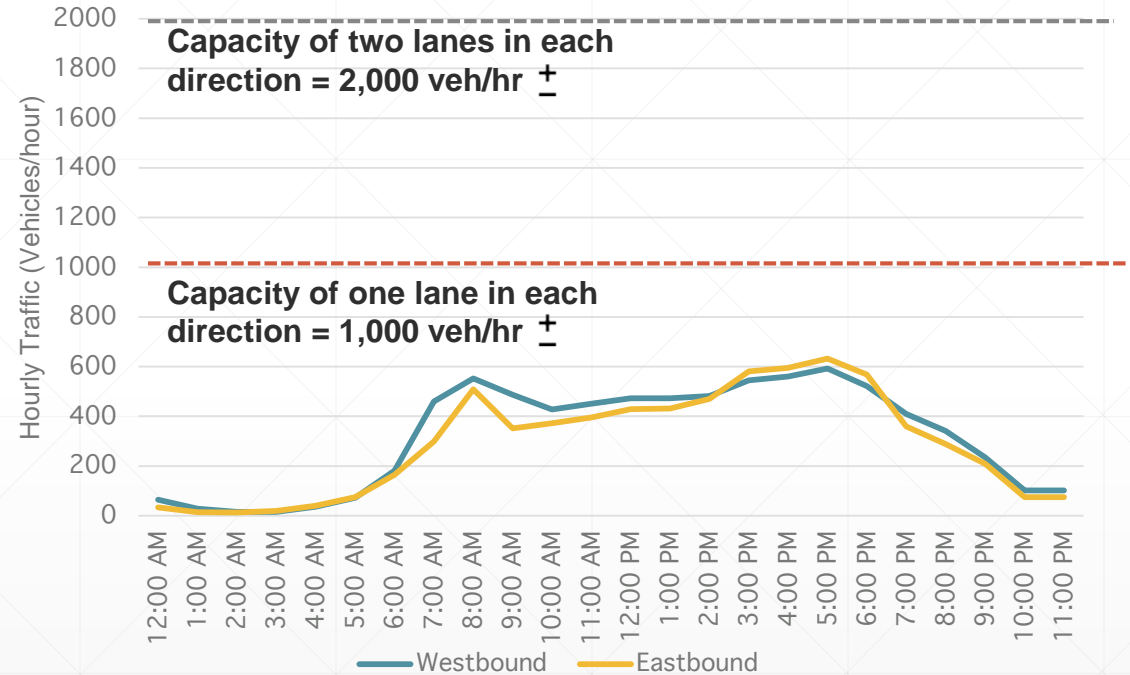
Otis Dr - West of Grand St
(between Larchmont Isle to Windemere Isle)



Otis Dr – West of Grand St

Average Daily Traffic Weekday: 9,800
Weekend: 8,500

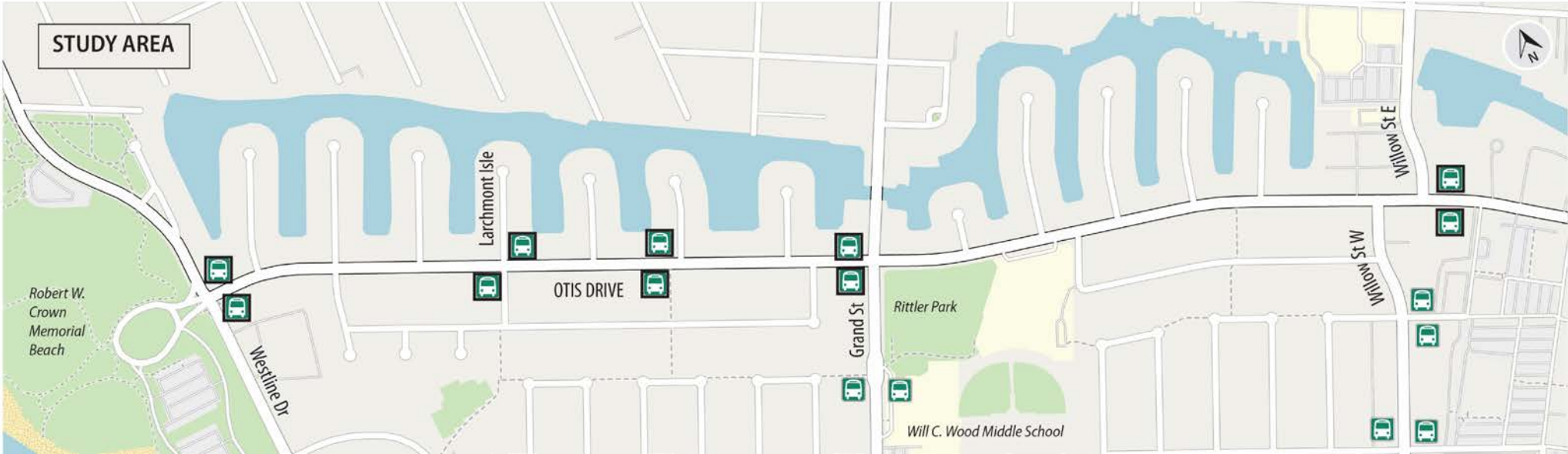
Otis Dr - East of Grand St
(between Sandalwood Isle to Pond Isle)



Otis Dr – East of Grand St

Average Daily Traffic Weekday: 14,600
Weekend: 12,400

Bus Stops



Source: AC Transit, 2017

Community Survey

- Community survey administered by the City of Alameda
- Online survey conducted August 10 to September 19, 2018
- Almost 600 responses received

What to do you find most challenging when using Otis Drive?

1. Traffic speeds
2. Safety of people biking (including yourself or others)
3. Safety of people walking (including yourself or others)
4. Traffic congestion
5. Condition of the Roadway
6. Appearance
7. Noise
8. Finding parking

Community Workshop #1



Community Workshop #1

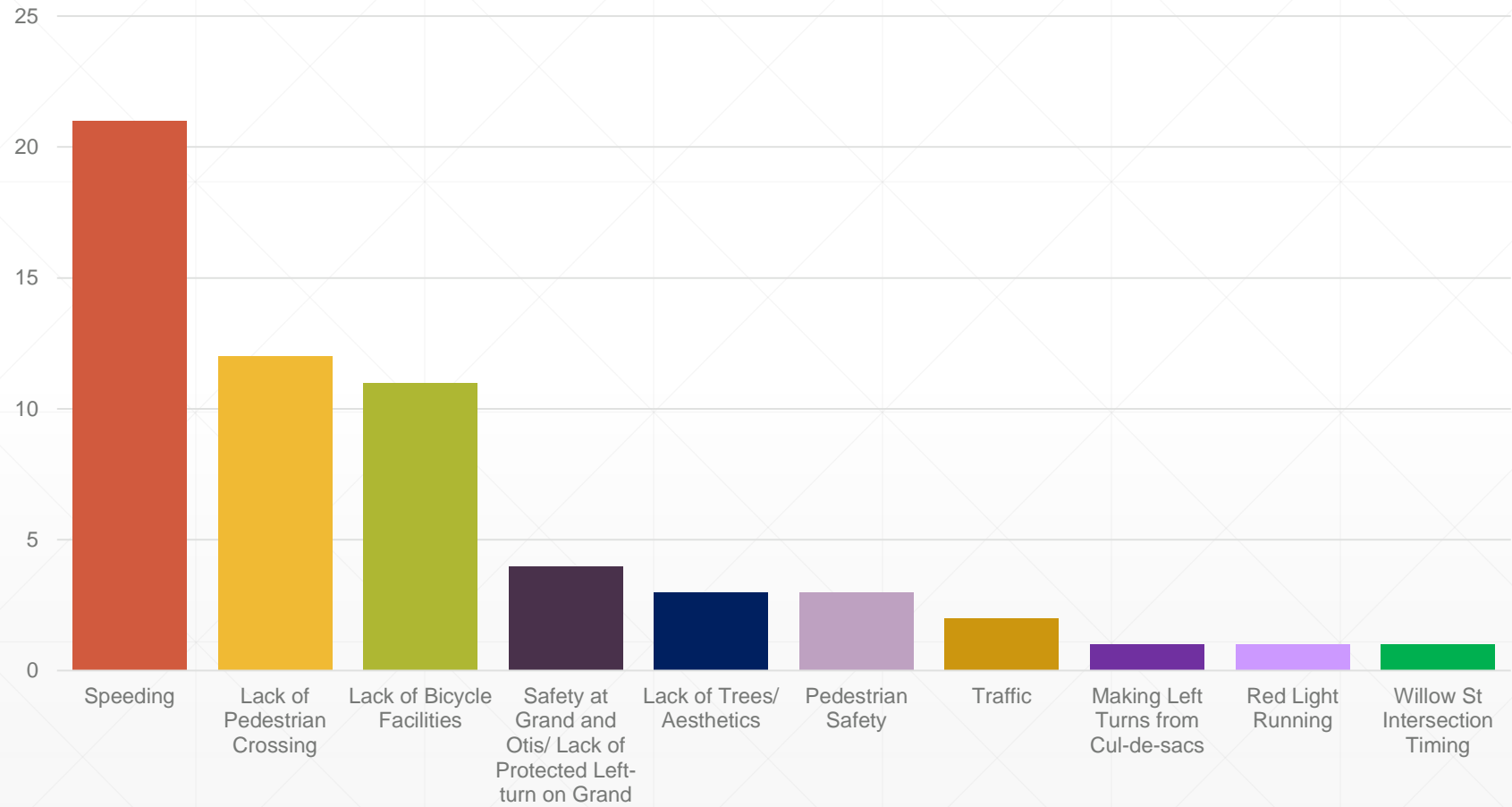


Community Workshop #1



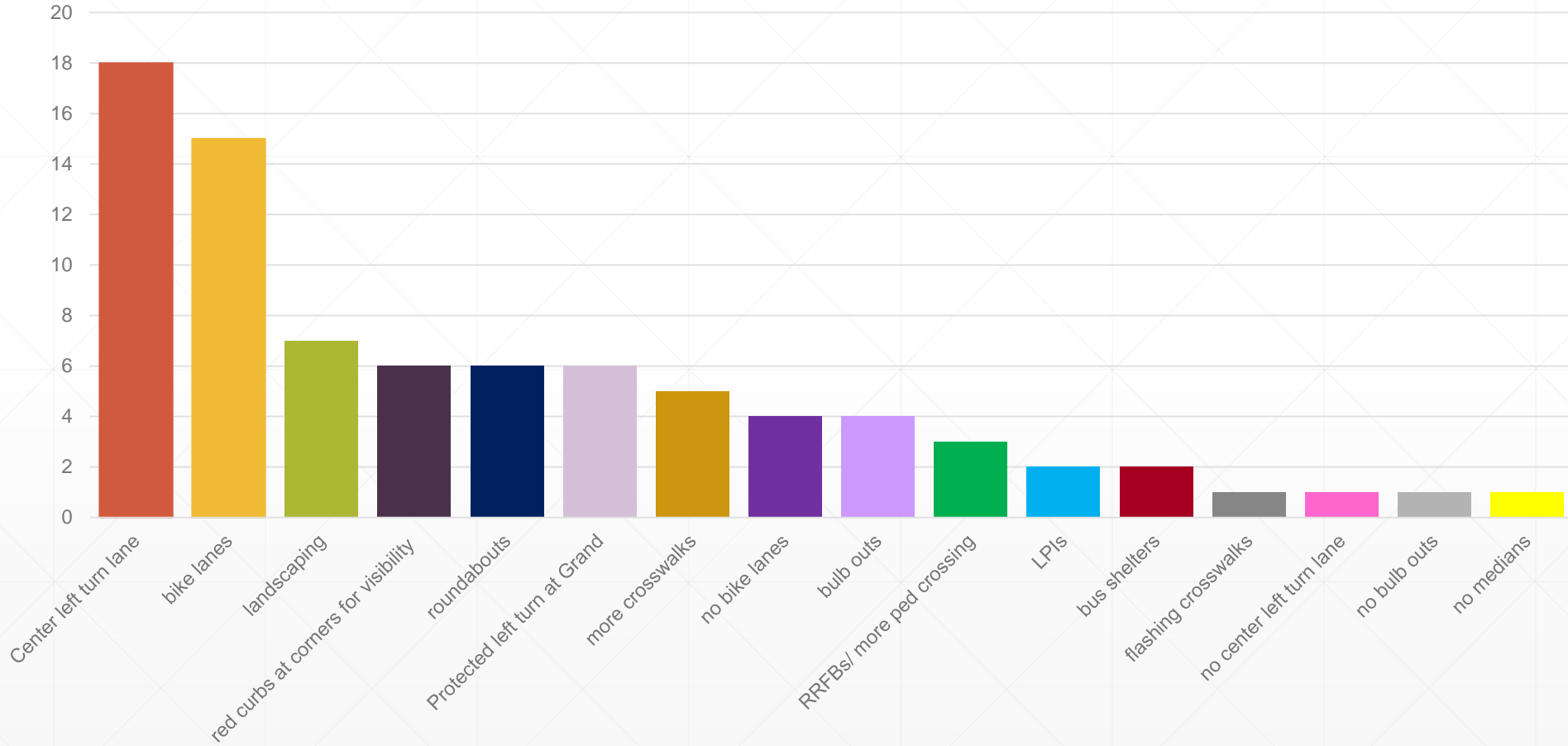
Community Workshop #1

Key Issues Affecting Otis Drive



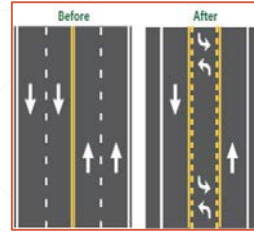
Community Workshop #1

Measures to Implement



Traffic Calming & Safety Tools

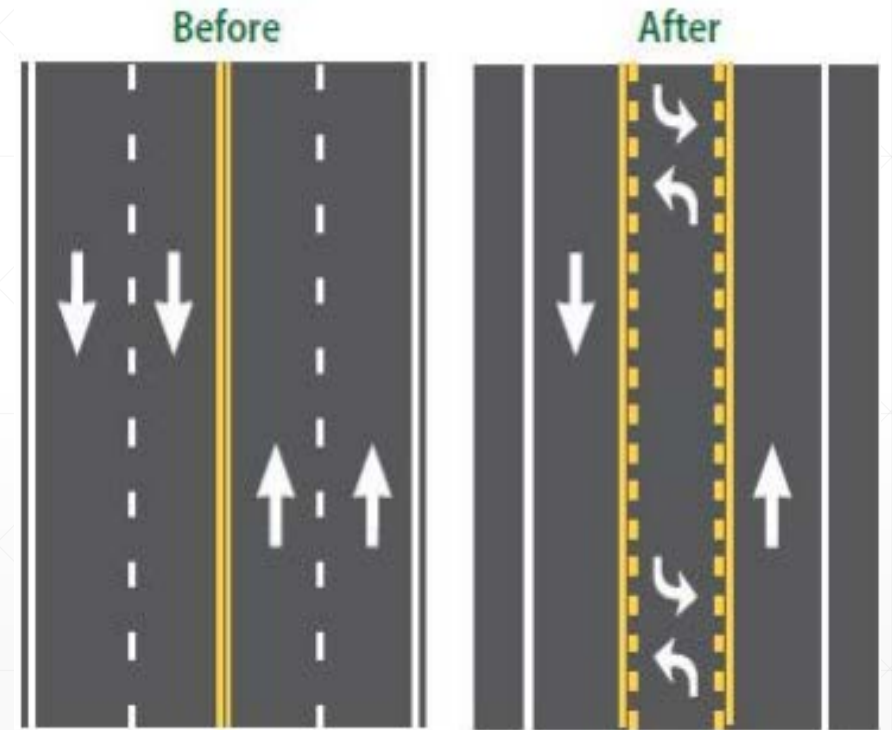
- Physical measures to improve safety
- Encourage more responsible travel speeds
- Improve visibility and safety of pedestrian crossings
- Increase pedestrian and bicycle comfort



Advantages of a 3-Lane Street

According to the Federal Highway Administration:

- Reduces collisions by at least 19%
- Decreases speeds by at least 3 mph
- Results in less severe collisions
- Provides fewer vehicle lanes to cross
- Enables better visibility for pedestrians
- Allows space for bicyclists
- Provides smoother travel flow

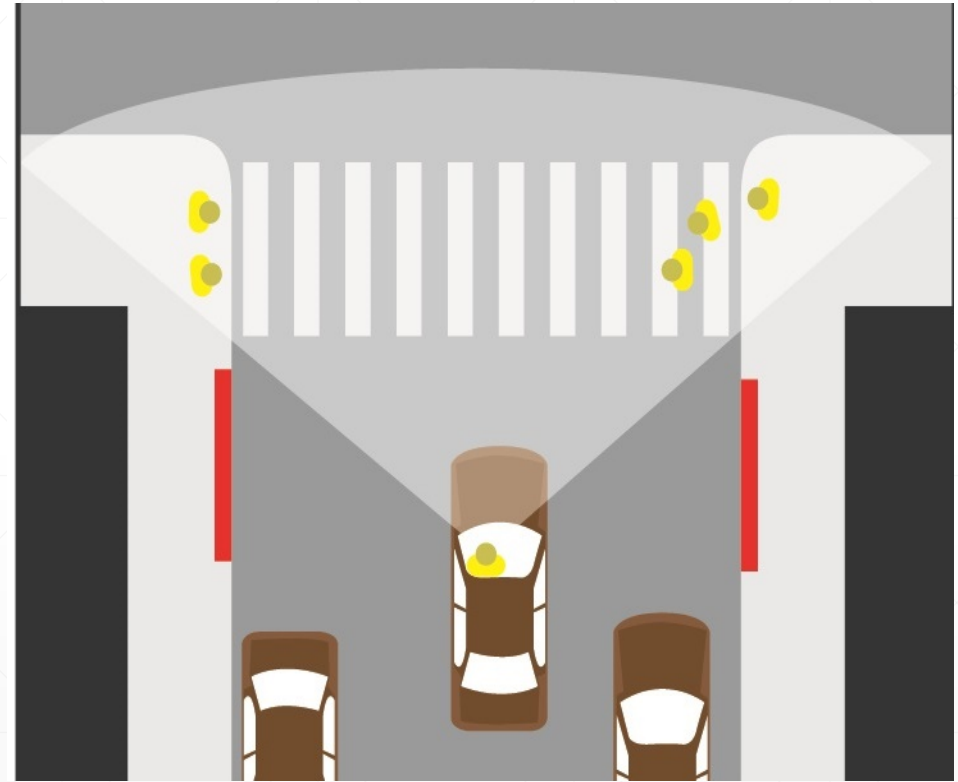
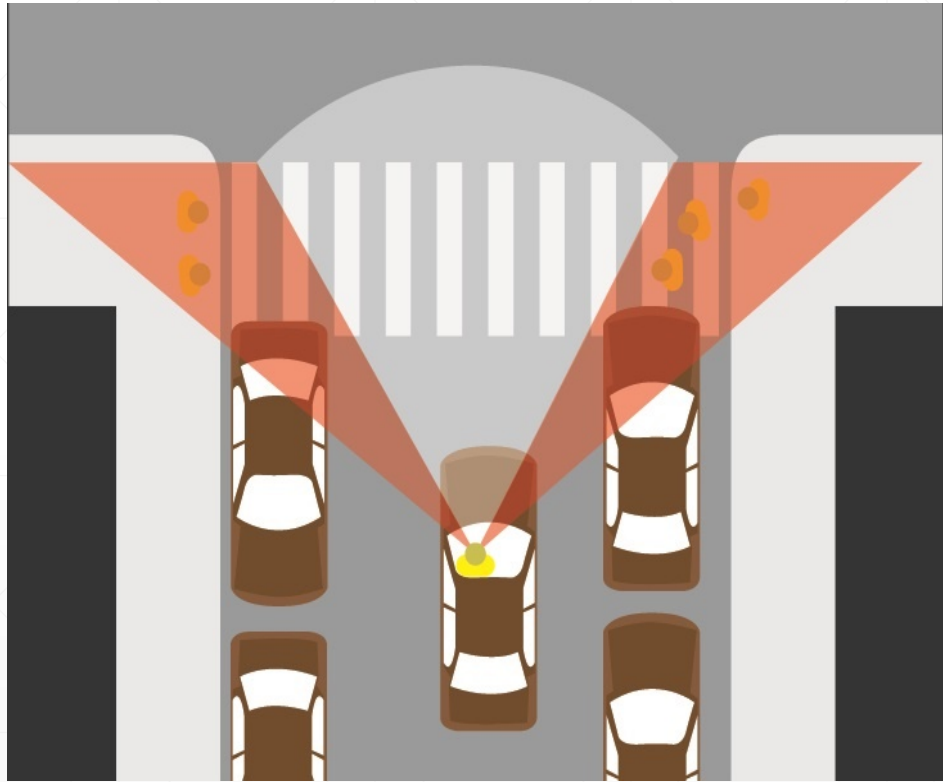


Buffered Bicycle Lanes



Cost: \$

Improved Sight Lines



Cost: \$

High-Visibility Crosswalks w/Beacons



Cost: \$\$

Turn Lane & Traffic Signal Enhancements



Cost: \$\$\$

Bulb-outs



Cost: \$\$

Low-cost Bulb-outs



Cost: \$

Modern Roundabouts



Cost: \$\$\$

Street Trees



Melaleuca
Quinquenervia



Hymenosporum
Flavum



Metrosideros
Excelsa

Cost: \$

Street Trees



Corymbia Ficifolia

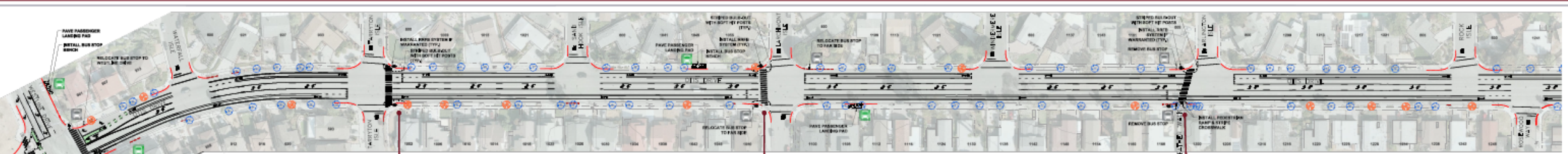


Lophostemon Confertus

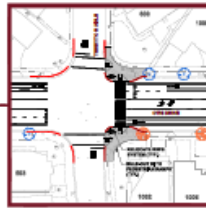
Cost: \$

Community Workshop #2

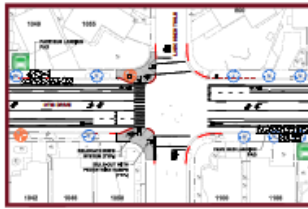




LONG-TERM IMPROVEMENTS
WESTLINE DRIVE AND OTIS DRIVE



LONG-TERM IMPROVEMENTS
TARLETON ISLE AND OTIS DRIVE

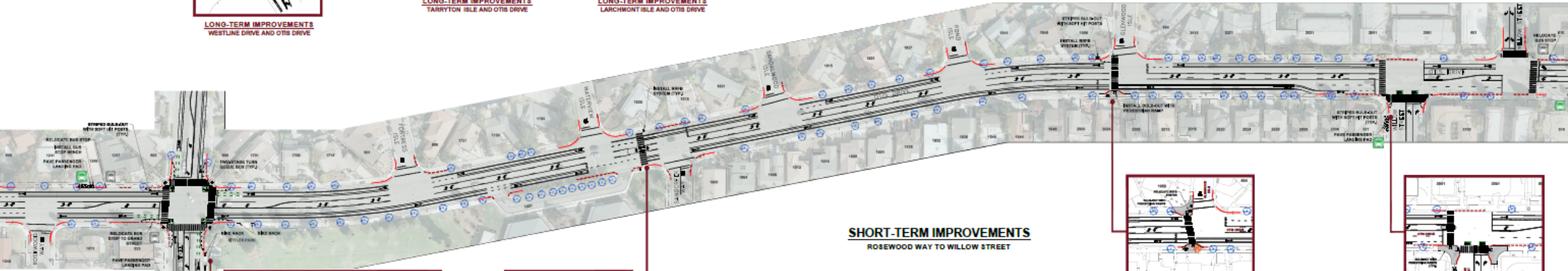


LONG-TERM IMPROVEMENTS
LARCHMONT ISLE AND OTIS DRIVE

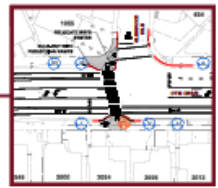
SHORT-TERM IMPROVEMENTS
WESTLINE DRIVE TO ROSEWOOD WAY



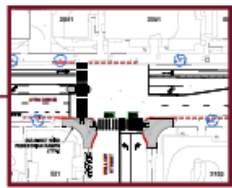
LONG-TERM IMPROVEMENTS
ARLINGTON ISLE AND OTIS DRIVE



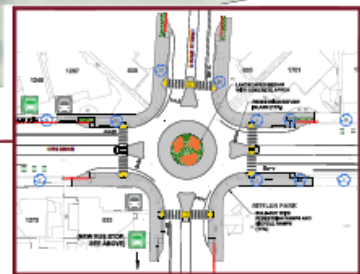
SHORT-TERM IMPROVEMENTS
ROSEWOOD WAY TO WILLOW STREET



LONG-TERM IMPROVEMENTS
GLENWOOD ISLE AND OTIS DRIVE



LONG-TERM IMPROVEMENTS
WILLOW STREET AND OTIS DRIVE



LONG-TERM IMPROVEMENTS
GRAND STREET AND OTIS DRIVE



LONG-TERM IMPROVEMENTS
WATERWHEEL ISLE AND OTIS DRIVE

OTIS DRIVE TRAFFIC CALMING AND SAFETY IMPROVEMENTS PROJECT

PRELIMINARY - 5/10/2019

- LEGEND:**
- EXISTING TREE
 - PROPOSED TREE
 - EXISTING RED CURB
 - PROPOSED RED CURB
 - PROPOSED BUS STOP LOCATION OR TO BUS STOP TO REMAIN
 - BUS STOP TO BE RELOCATED OR REMOVED



Community Workshop #2



Community Workshop #2



4-Lane to 3-Lane Conversion











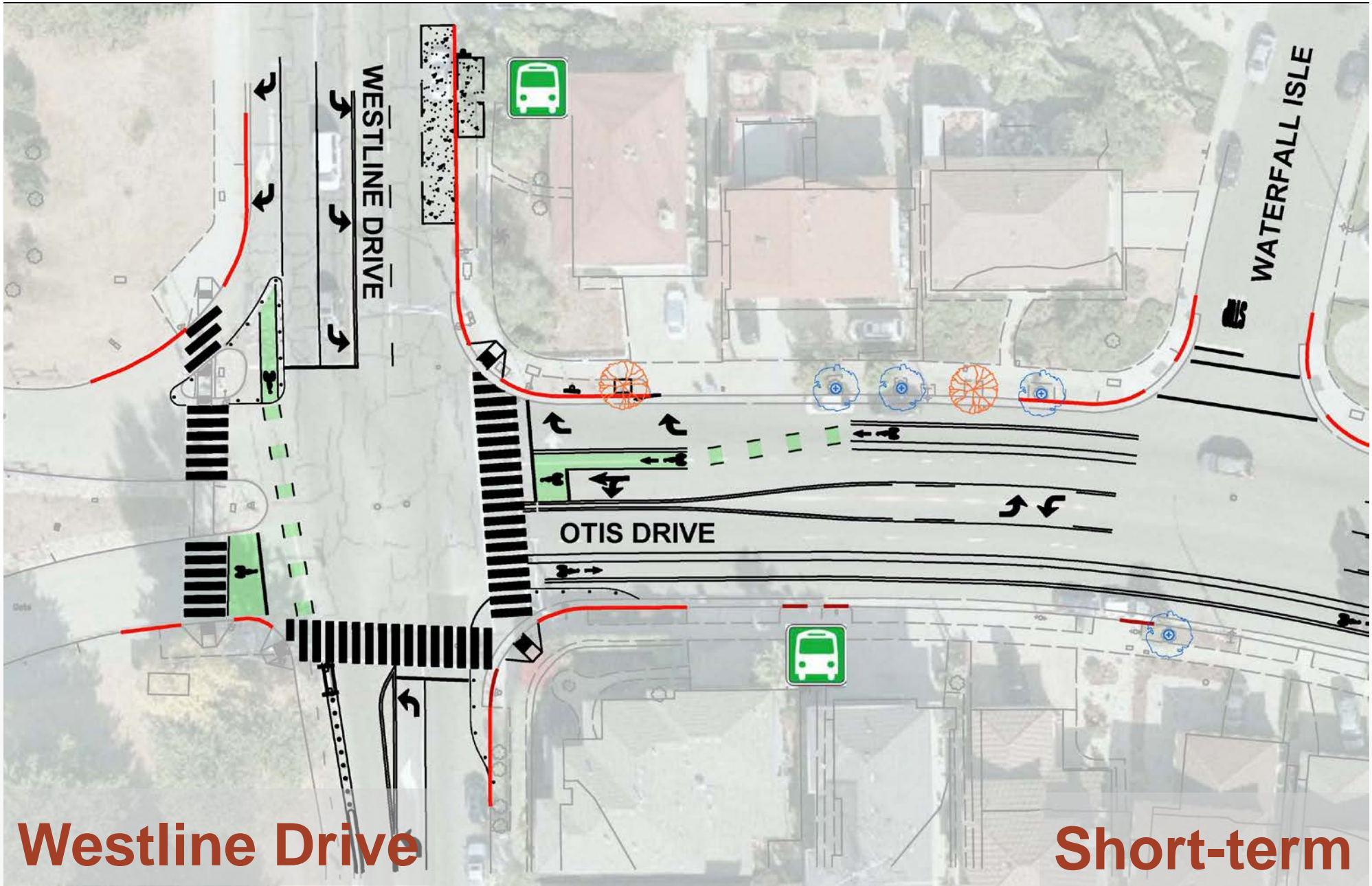
WESTLINE DRIVE

WATERFALL ISLE

OTIS DRIVE

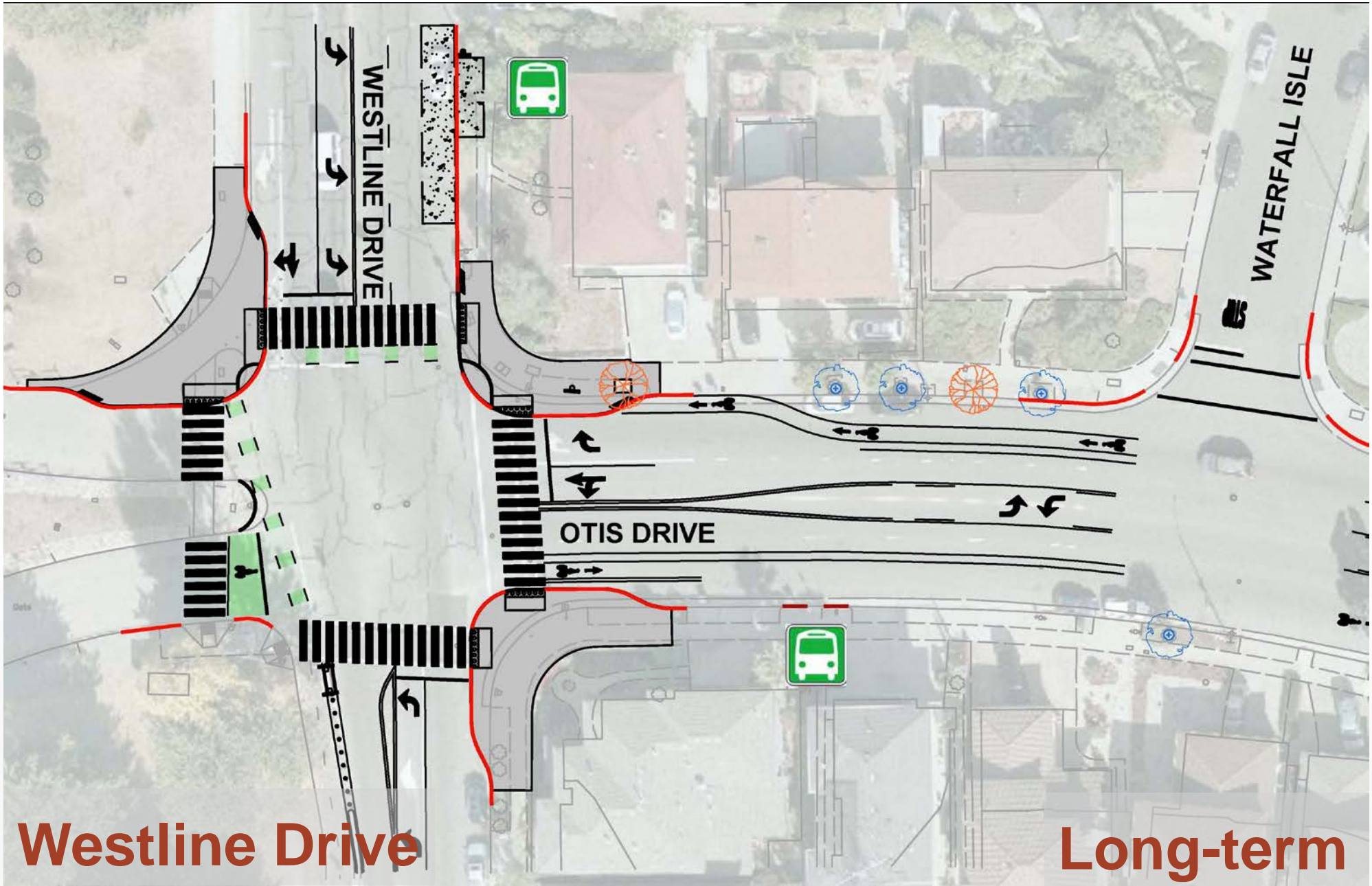
Westline Drive

Existing



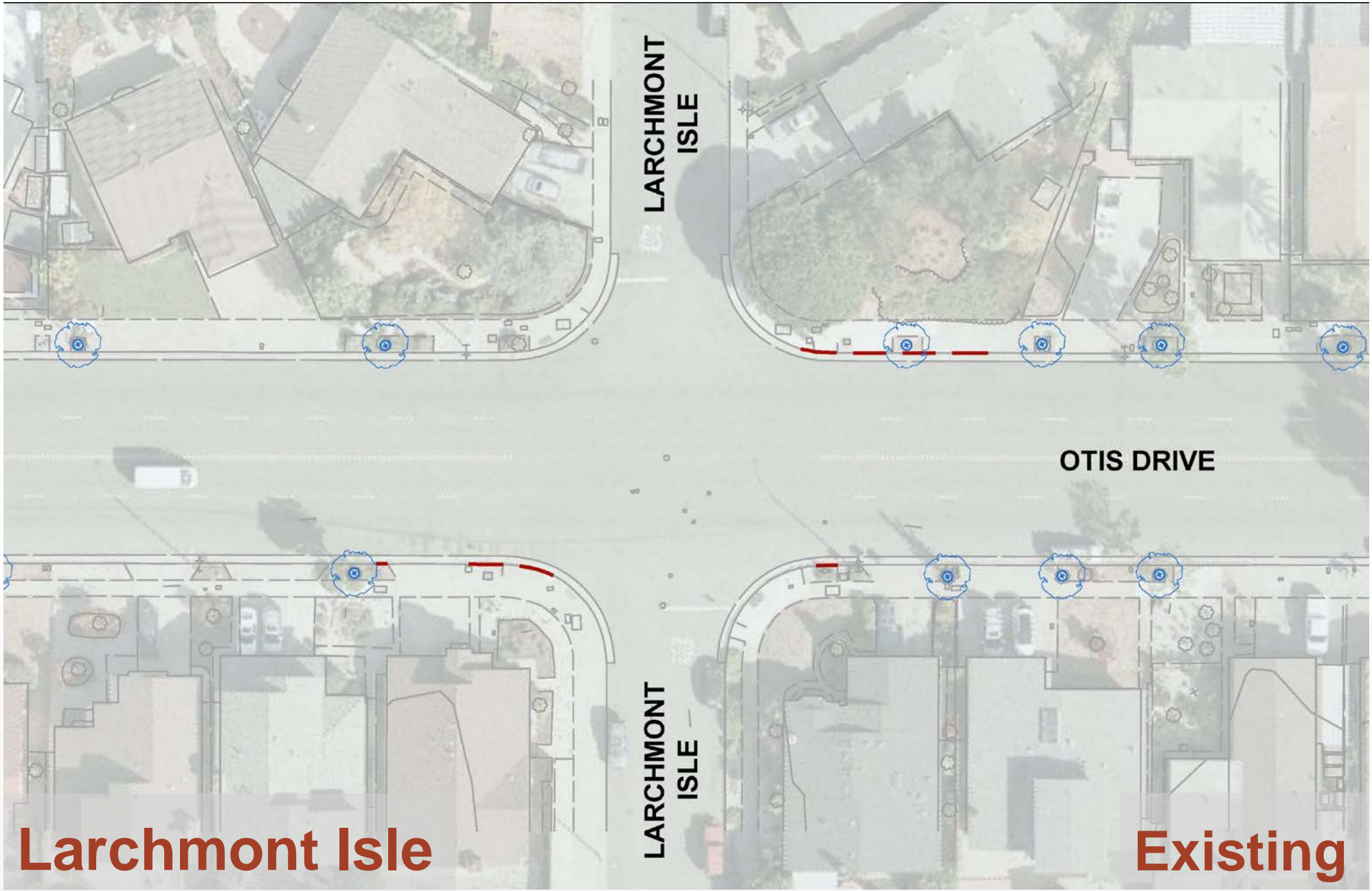
Westline Drive

Short-term



Westline Drive

Long-term



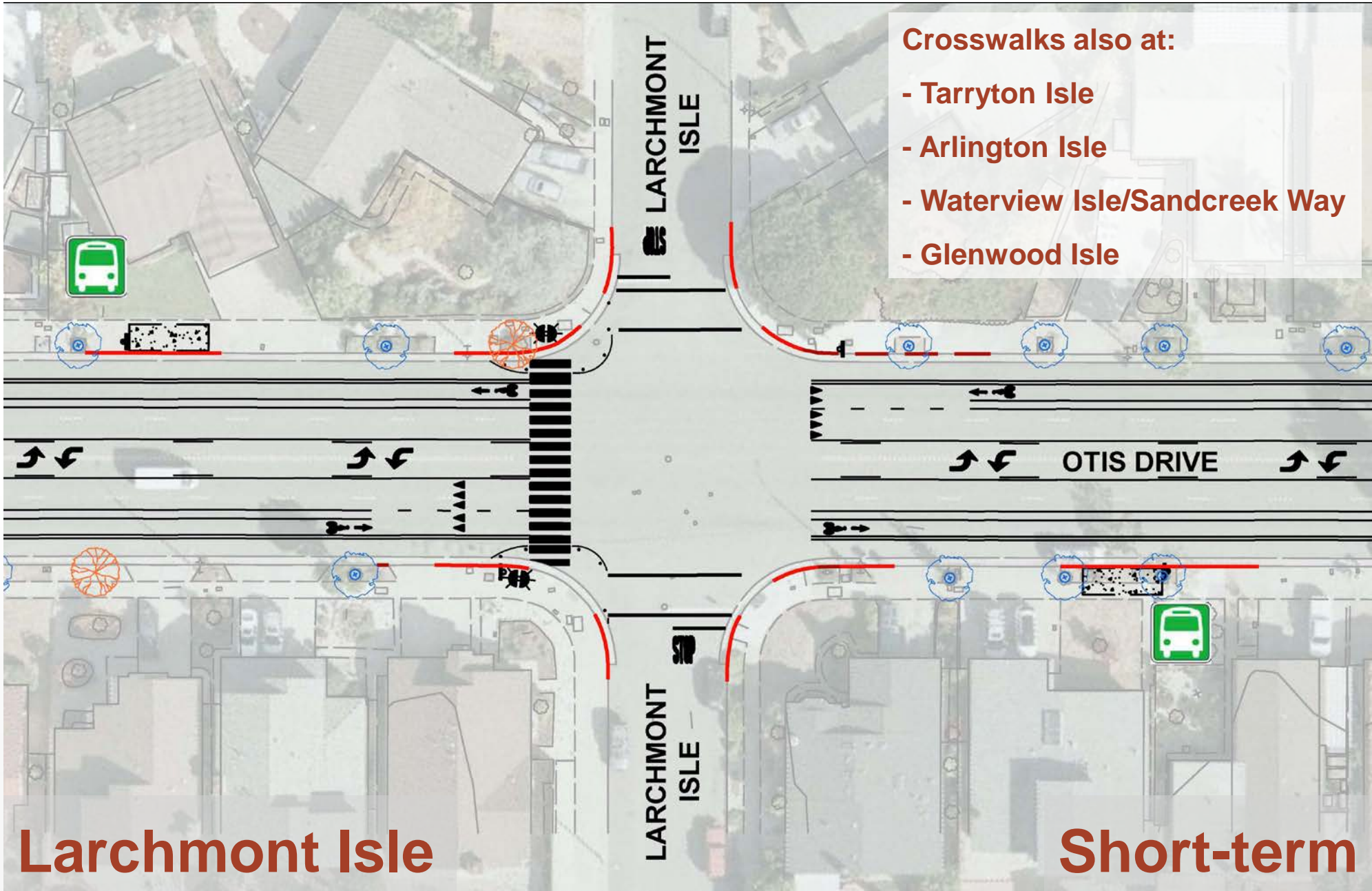
Larchmont Isle

LARCHMONT
ISLE

LARCHMONT
ISLE

OTIS DRIVE

Existing

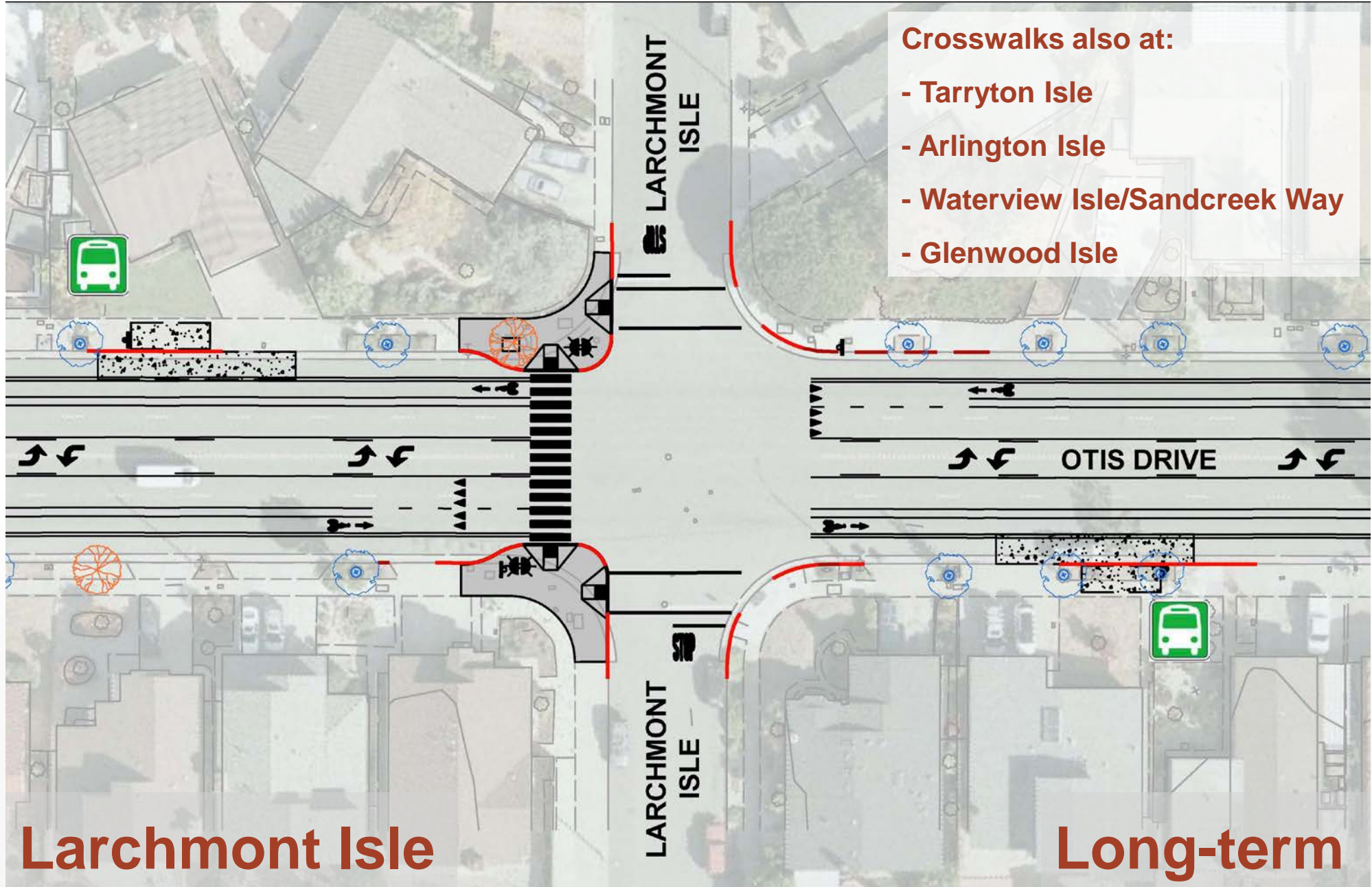


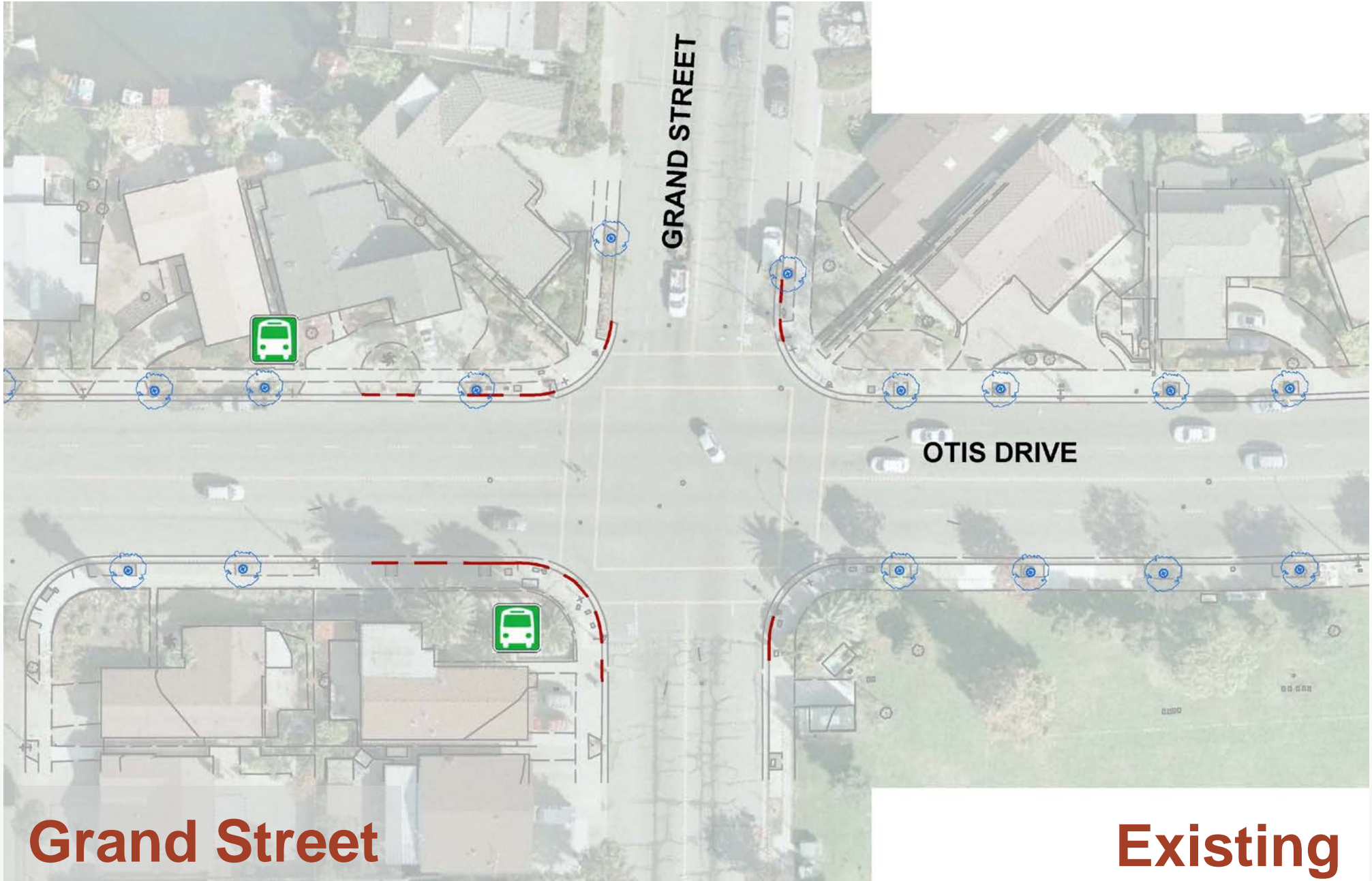
Crosswalks also at:

- Tarryton Isle
- Arlington Isle
- Waterview Isle/Sandcreek Way
- Glenwood Isle

Larchmont Isle

Short-term



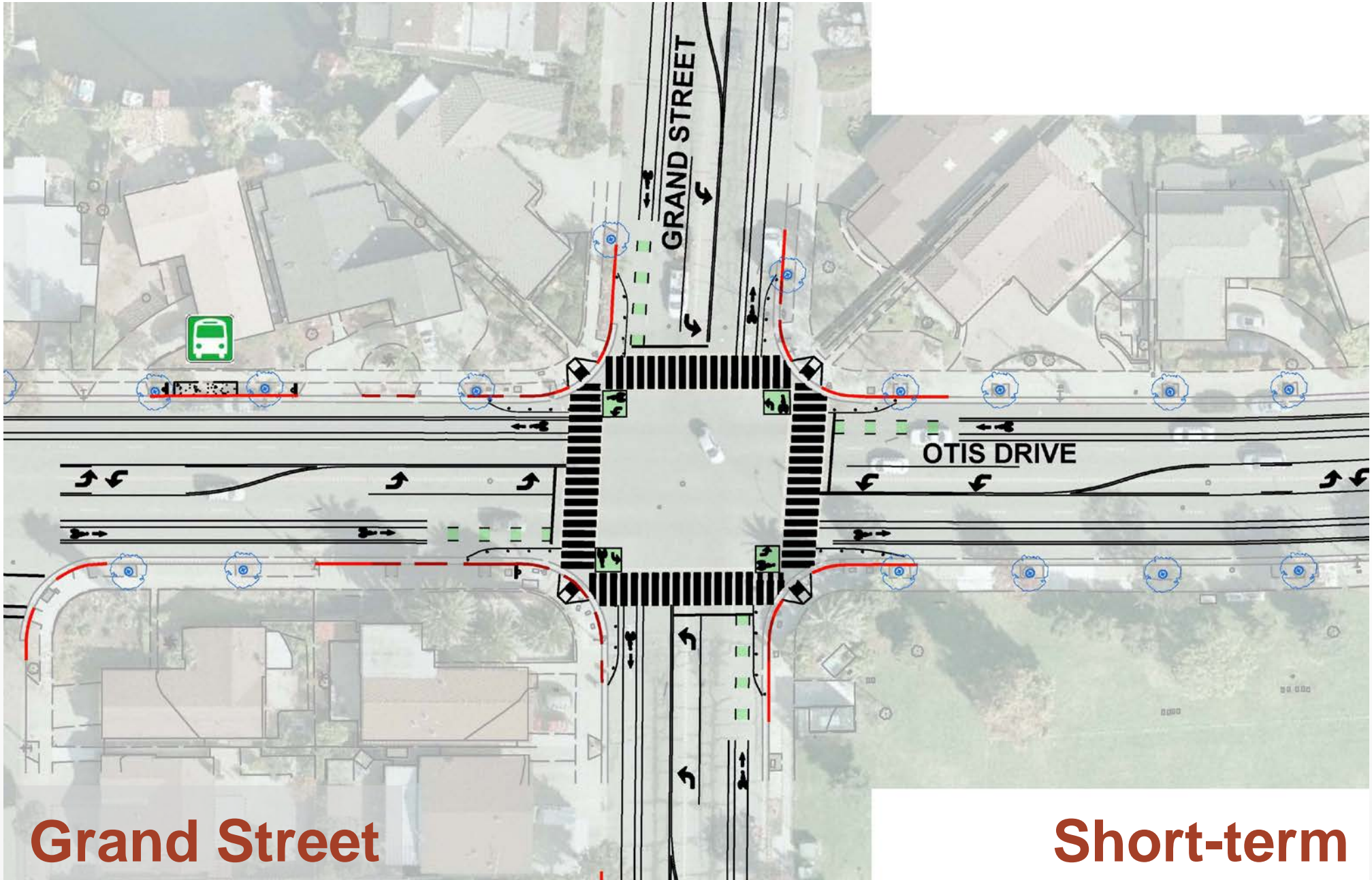


GRAND STREET

OTIS DRIVE

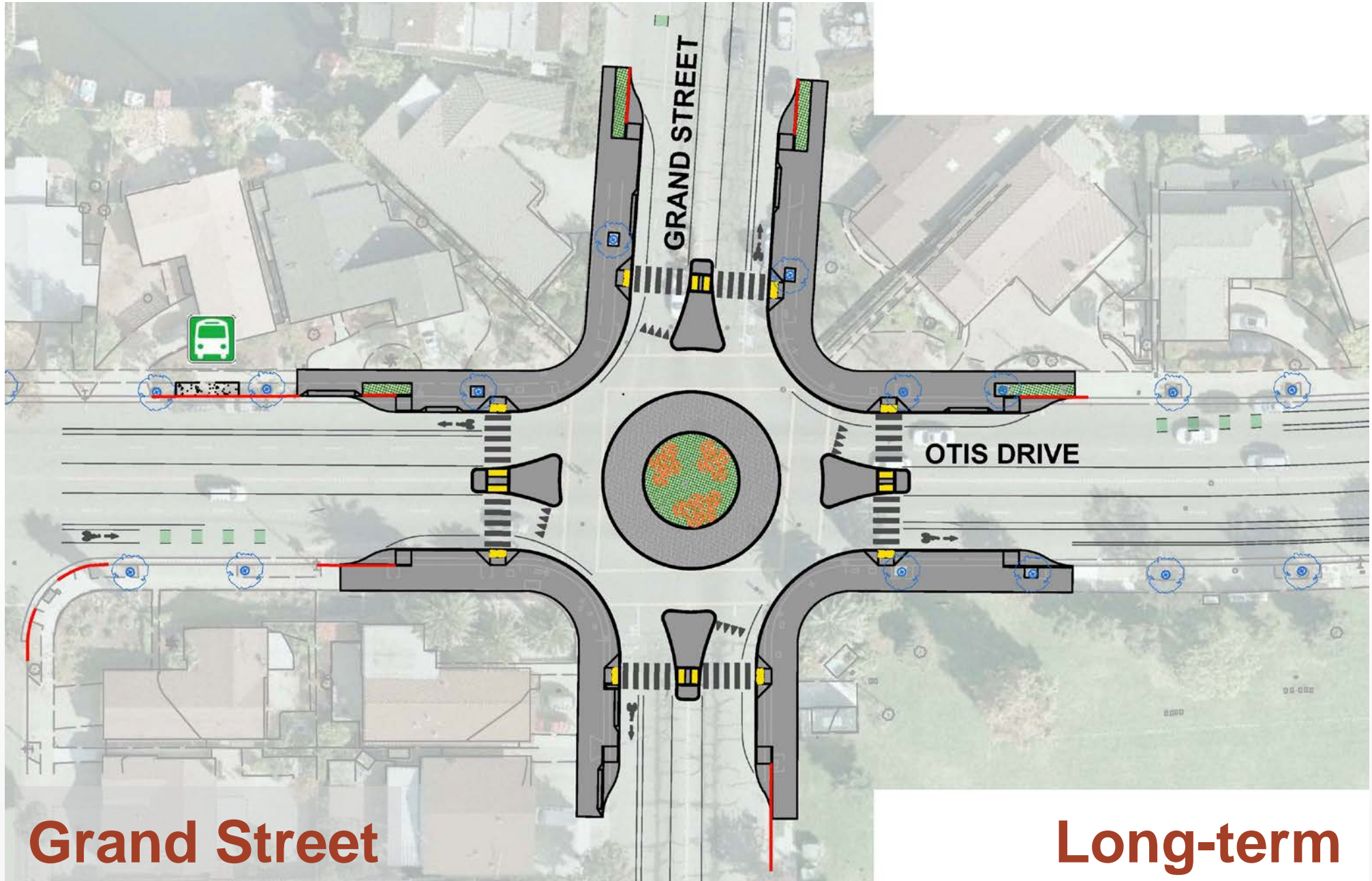
Grand Street

Existing



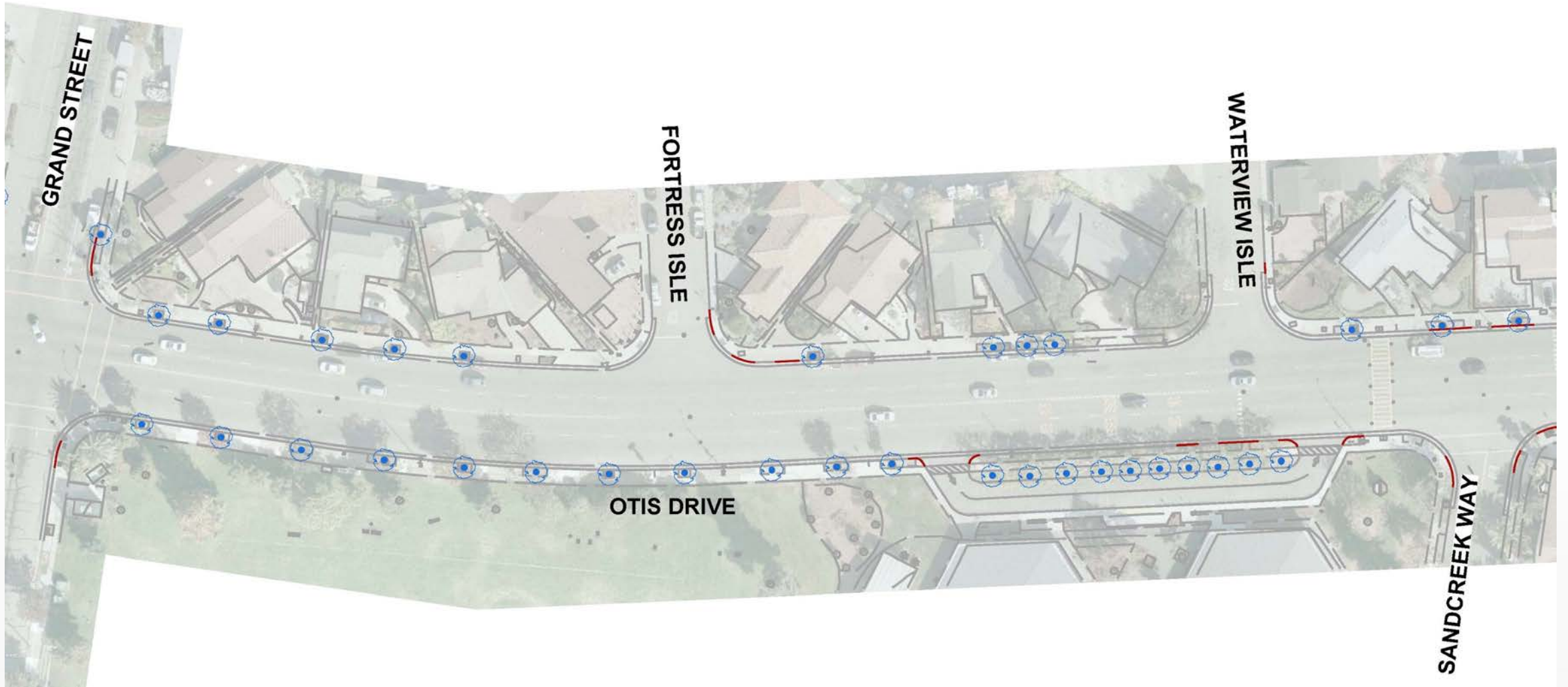
Grand Street

Short-term



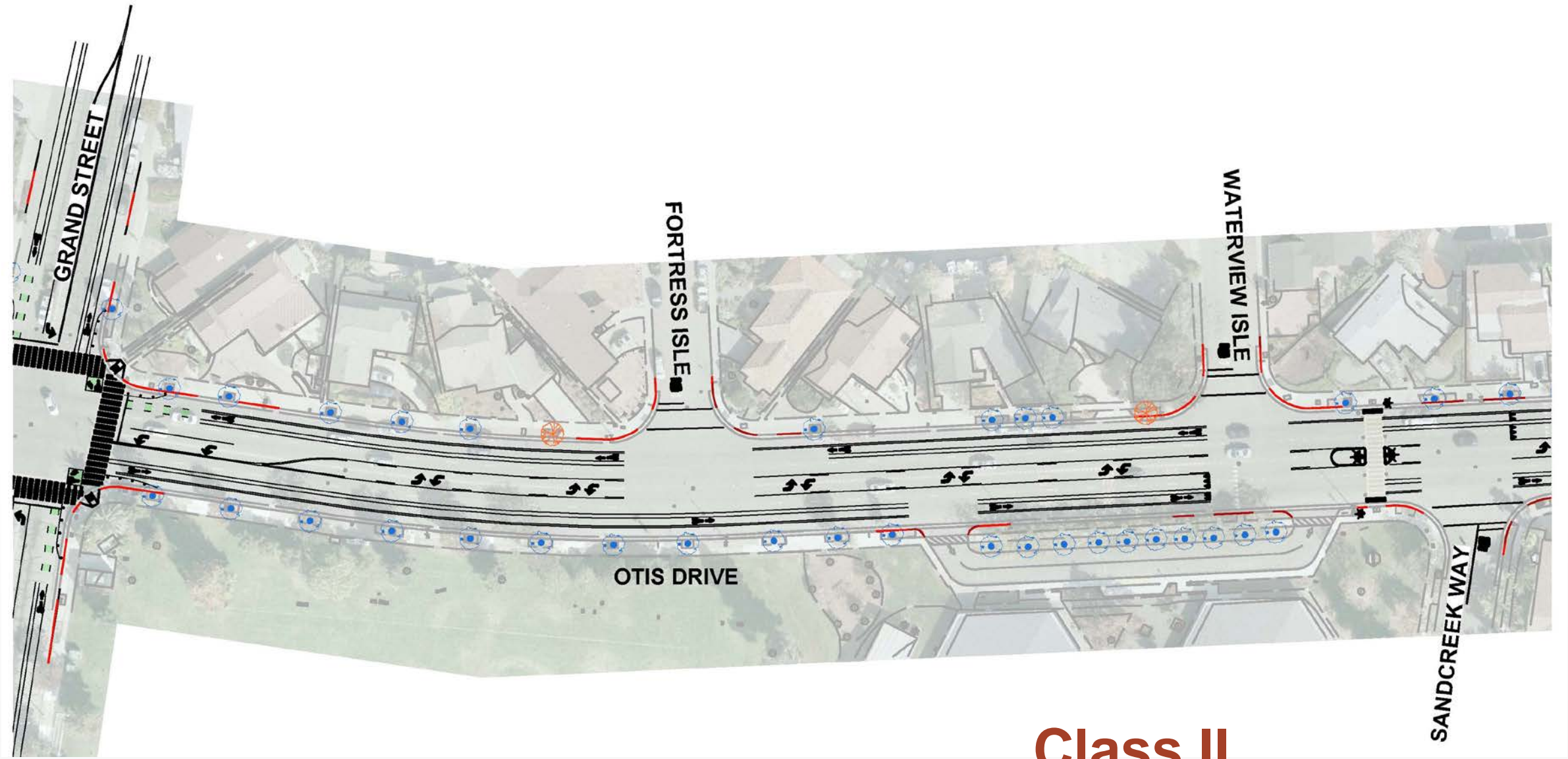
Grand Street

Long-term



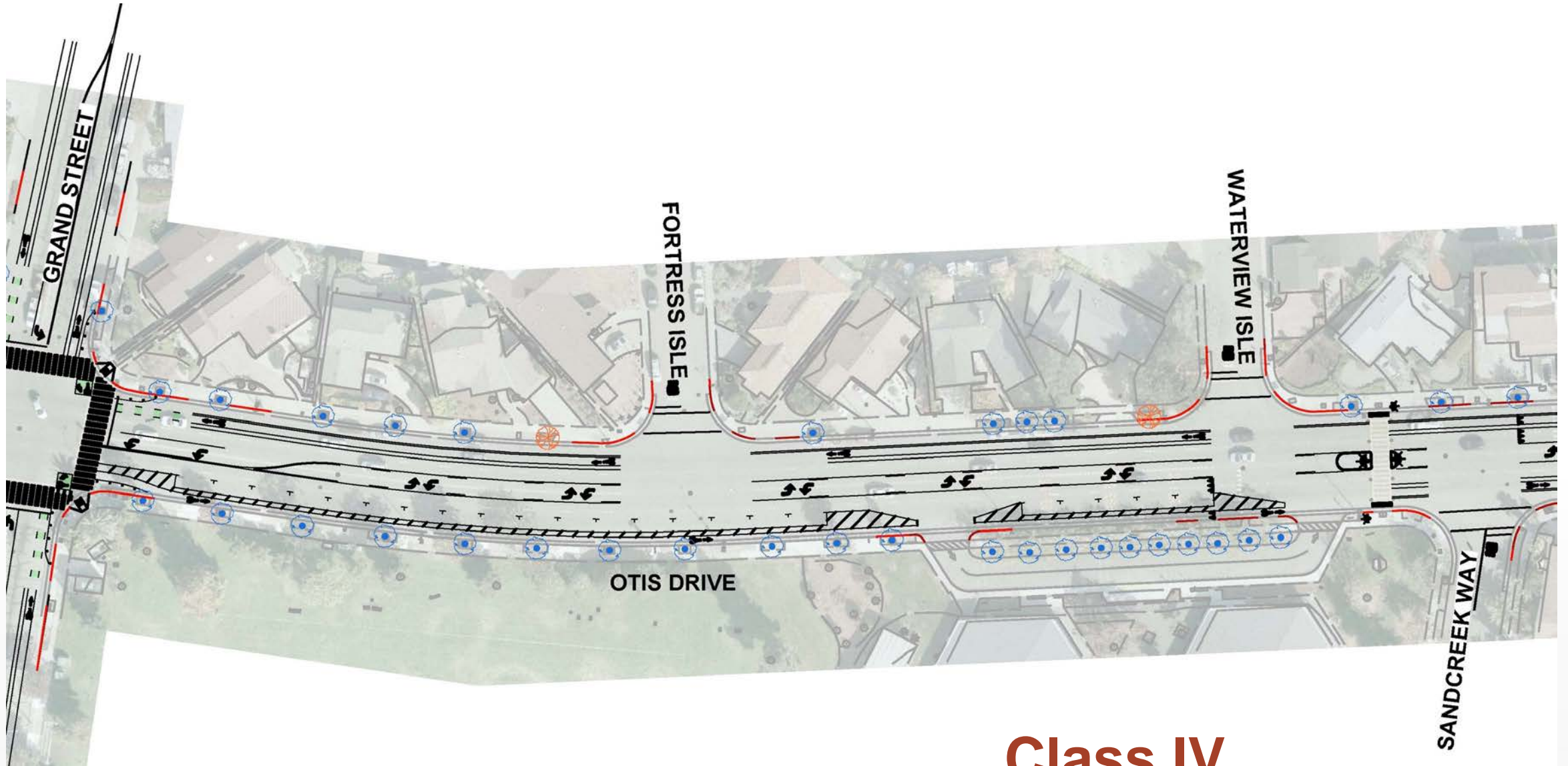
Ritter Park Frontage

Existing



Ritter Park Frontage

**Class II
Buffered Bike Lane**

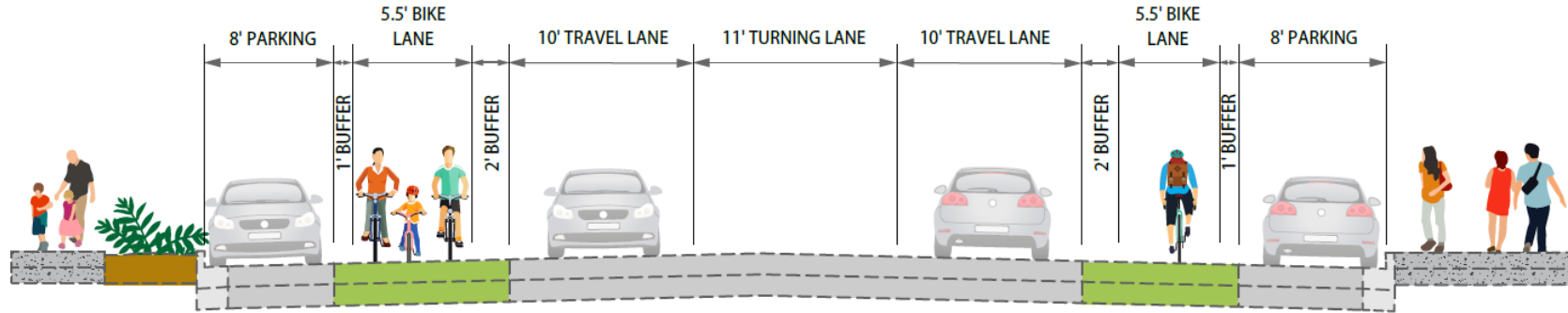


Ritter Park Frontage

**Class IV
Protected Bike Lane**

CLASS II WITH BUFFER OPTION

(LOOKING EASTBOUND)

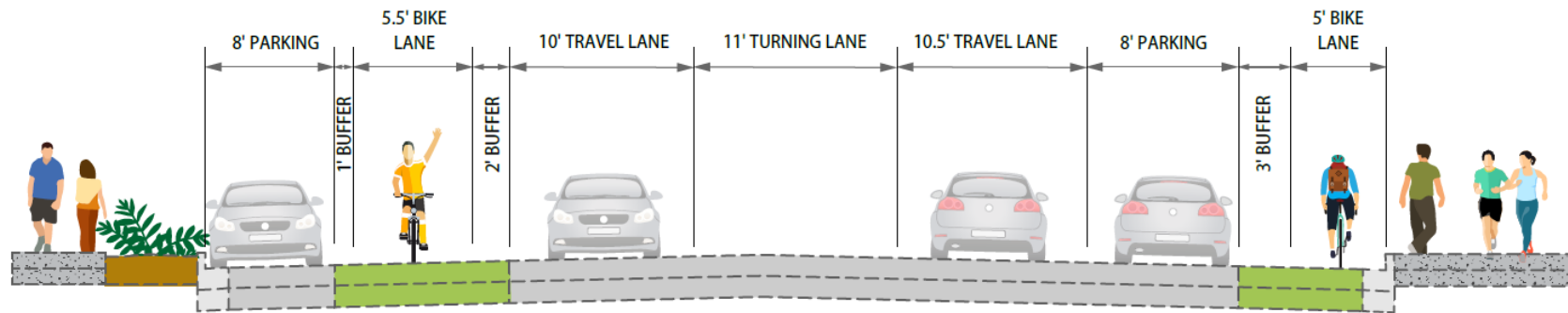


SECTION A-A

Ritter Park Frontage

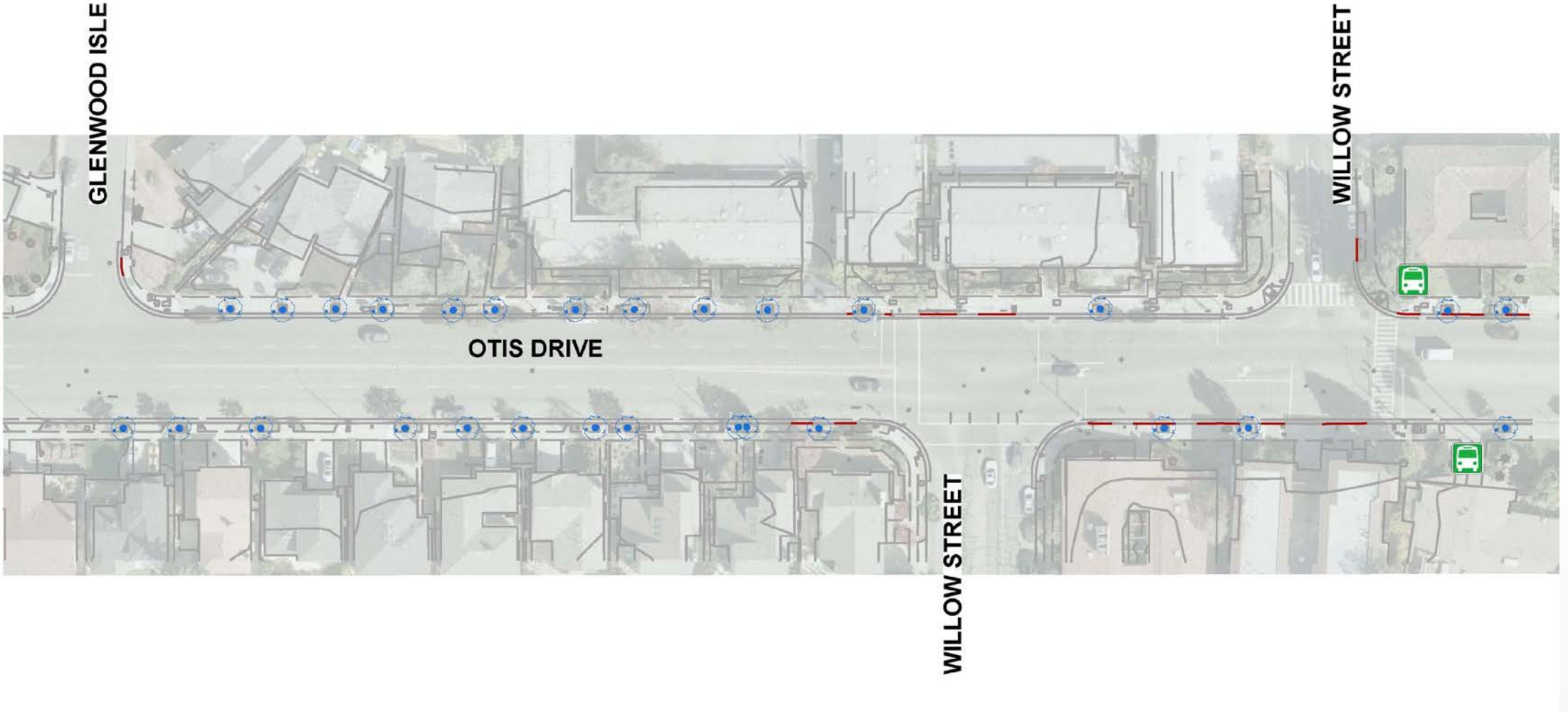
EASTBOUND CLASS IV OPTION

(LOOKING EASTBOUND)



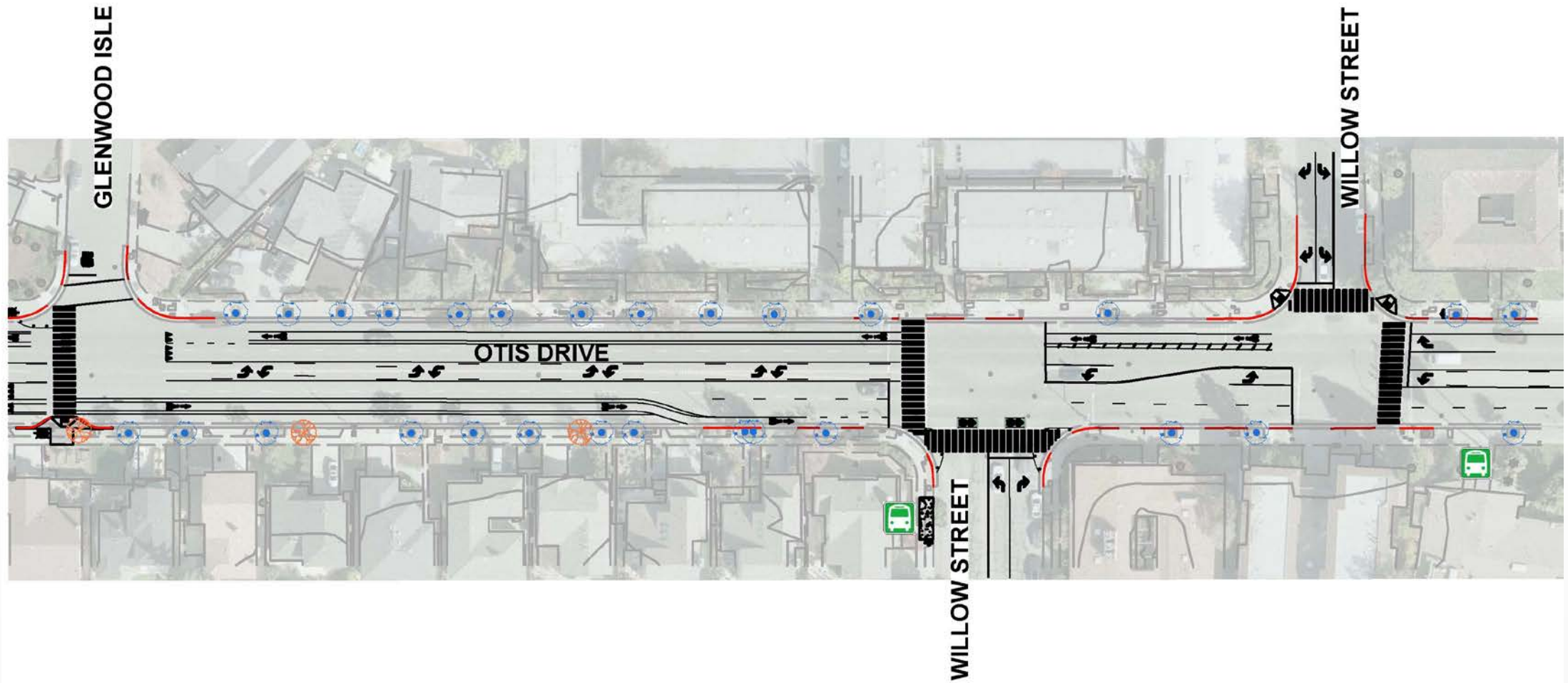
SECTION B-B

Ritter Park Frontage



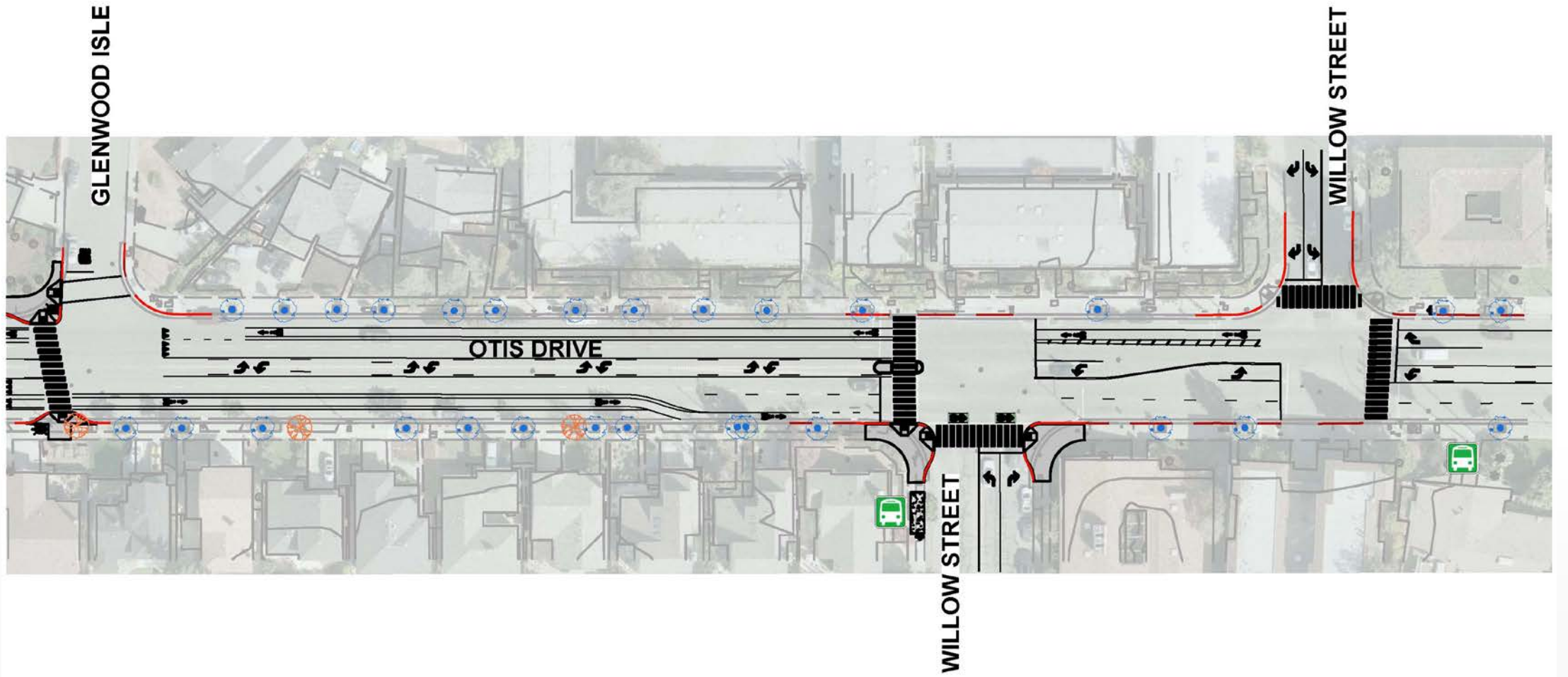
Willow Street

Existing



Willow Street

Short-term



Willow Street

Long-term

Next Steps

- City Council: Tuesday, June 4
 - Short-term Design: Fall 2019
 - Short-term Implementation: Spring 2020
-

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May 22, 2019 – Transportation Commission
June 4, 2019 – City Council