



**AGENDA  
REGULAR MEETING  
CITY COUNCIL OF THE TOWN OF COLMA**

**Wednesday, January 27, 2021  
STATE OF THE CITY ADDRESS – 6:30 PM  
REGULAR SESSION - 7:00 PM**

*On March 17, 2020, the Governor issued Executive Order N-29-20 suspending certain provisions of the Ralph M. Brown Act in order to allow for local legislative bodies to conduct their meetings completely telephonically or by other electronic means. Pursuant to the Shelter-in-Place Orders issued by the San Mateo County Health Officer on March 16, 2020 and March 31, 2020, the statewide Shelter-in-Place Order issued by the Governor in Executive Order N-33-20 on March 19, 2020, and the CDC's social distancing guidelines which discourage large public gatherings, the Council Chamber will not be open to the public for this Town of Colma City Council Meeting. The purpose of these orders was to provide the safest environment for Council Members, staff and the public while allowing for public participation.*

*Members of the public may view the meeting by attending, via telephone or computer, the Zoom Meeting listed below:*

**Join Zoom Meeting: <https://us02web.zoom.us/j/81289976261>  
Passcode: 074407**

**Meeting ID: 812 8997 6261**

**Passcode: 074407**

**One tap mobile**

**+16699006833,,81289976261#,,,,,0#,,074407# US (San Jose)**

**+13462487799,,81289976261#,,,,,0#,,074407# US (Houston)**

**Dial by your location**

**+1 669 900 6833 US (San Jose)**

**+1 346 248 7799 US (Houston)**

**+1 253 215 8782 US (Tacoma)**

**+1 312 626 6799 US (Chicago)**

**+1 929 205 6099 US (New York)**

**+1 301 715 8592 US (Germantown)**

**Meeting ID: 812 8997 6261**

**Passcode: 074407**

**Find your local number: <https://us02web.zoom.us/u/kco5bgxkcc>**

*Members of the public may provide written comments by email to the City Clerk at [ccorley@colma.ca.gov](mailto:ccorley@colma.ca.gov) before or during the meeting. Emailed comments should include the specific agenda item on which you are commenting or note that your comment concerns an item that is not on the agenda. The length of the emailed comment should be commensurate with the three minutes customarily allowed for verbal comments, which is approximately 250-300 words.*

## STATE OF THE CITY ADDRESS – 6:30 PM

## PLEDGE OF ALLEGIANCE AND ROLL CALL – 7:00 PM

## ADOPTION OF AGENDA

## PRESENTATION

- Laura Walsh, Board of Trustees of the San Mateo County Mosquito and Vector Control District
- Proclamation Against Human Trafficking
- Recognition of Yoshie Hill's Jeopardy Appearance
- Recognition of Maureen O'Connor's 75<sup>th</sup> Birthday

## PUBLIC COMMENTS

Comments on the Consent Calendar and Non-Agenda Items will be heard at this time. Comments on Agenda Items will be heard when the item is called.

## CONSENT CALENDAR

1. Motion to Accept the Minutes from the January 27, 2021 Regular Meeting.
2. Motion to Introduce by Title Only and Waive a Further Reading of an Ordinance Amending Colma Municipal Code Subchapter 5.04 to Exceed the Minimum Building Code Standards for Building Electrification and EV Charging Infrastructure; and Set the Public Hearing Date for February 24, 2021.

## NEW BUSINESS

3. **EL CAMINO REAL BICYCLE & PEDESTRIAN IMPROVEMENT PLAN DRAFT REVIEW**

*Consider:* Motion to Accept the El Camino Real Bicycle and Pedestrian Improvement Plan.

## STUDY SESSION

4. **GENERAL PLAN MOBILITY ELEMENT**

*This item is for discussion only; no action will be taken at this meeting.*

## REPORTS

Mayor/City Council

City Manager

## ADJOURNMENT

The City Council Meeting Agenda Packet and supporting documents are available for review on the Town's website [www.colma.ca.gov](http://www.colma.ca.gov) or at Colma Town Hall, 1198 El Camino Real, Colma, CA. Persons interested in obtaining an agenda via e-mail should call Caitlin Corley, City Clerk at 650-997-8300 or email a request to [ccorley@colma.ca.gov](mailto:ccorley@colma.ca.gov).

### Reasonable Accommodation

Upon request, this publication will be made available in appropriate alternative formats to persons with disabilities, as required by the Americans with Disabilities Act of 1990. Any person with a disability, who requires a modification or accommodation to view the agenda, should direct such a request to Pak Lin, ADA Coordinator, at 650-997-8300 or [pak.lin@colma.ca.gov](mailto:pak.lin@colma.ca.gov). Please allow two business days for your request to be processed.

**MINUTES  
REGULAR MEETING**

City Council of the Town of Colma  
Meeting Held Remotely via Zoom.us  
**Wednesday, January 13, 2021**  
**7:00 PM**

**PLEDGE OF ALLEGIANCE AND ROLL CALL – 7:00PM**

Mayor Diana Colvin called the meeting to order at 7:00 p.m.

Council Present – Mayor Diana Colvin, Vice Mayor Helen Fisicaro, Council Members Raquel Gonzalez, Joanne F. del Rosario, and John Irish Goodwin were all present.

Staff Present – City Manager Brian Dossey, City Attorney Christopher Diaz, Chief of Police John Munsey, Administrative Services Director Pak Lin, Police Commander Sherwin Lum, Director of Public Works Brad Donohue, City Planner Michael Laughlin and City Clerk Caitlin Corley, were in attendance.

The Mayor announced, “Welcome to another of our completely remote Council Meeting. A few notes about tonight’s meeting: We are accepting public comments through email— please email ccorley@colma.ca.gov to submit a public comment. You can also use the chat function to chat directly to our city clerk and she will be able to let us know that you would like to make a comment when your item comes up in the agenda. Thank you.”

**ADOPTION OF THE AGENDA**

Mayor Colvin asked if there were any changes to the agenda; none were requested. She asked for a motion to adopt the agenda.

**Action:** Council Member del Rosario moved to adopt the agenda; the motion was seconded by Council Member Gonzalez and carried by the following vote:

Name	Voting		Present, Not Voting		Absent
	Aye	No	Abstain	Not Participating	
Diana Colvin, Mayor	✓				
Helen Fisicaro	✓				
Raquel Gonzalez	✓				
Joanne F. del Rosario	✓				
John Irish Goodwin	✓				
	5	0			

**PRESENTATION**

Chief of Police John Munsey gave the end of year Police Department report.

Interim Recreation Manager Angelika Abellana presented the Holiday House Decorating Contest Winners:

- Molloy Family - Verano Town Homes

- Manela Family – Hoffman Town Homes
- Moreno Family – Sterling Park Neighborhood
- Rodriguez Family – Overall Most Festive Home
- Wood Lawn Memorial Park – Overall Most Festive Business

**PUBLIC COMMENTS**

Mayor Colvin opened the public comment period at 7:22 p.m. Maureen O’Connor, resident and President of the Colma Historical Association spoke on the subject of a Sister City for the Town. Leila Perreras, Board Member for HIP Housing, presented the annual HIP Housing calendar. The Mayor closed the public comment period at 7:27 p.m.

**CONSENT CALENDAR**

1. Motion to Accept the Minutes from the December 8, 2020 Special Meeting.
2. Motion to Accept the Minutes from the December 9, 2020 Regular Meeting.
3. Motion to Approve the Report of Checks Paid for December 2020.
4. Motion to Accept Informational Report on Recreation Department Programs, Activities, Events, and Trips for the Fourth Quarter of 2020.
5. Motion to Adopt a Resolution Directing Town Staff to Fly Various Commemorative Flags in Lieu of the Town of Colma Flag at the Colma Community Center.
6. Motion to Adopt a Resolution Approving the Amendment to the California Cities Gaming Authority Admitting the City of San Jose to the California Cities Gaming Authority.

**Action:** Council Member Goodwin moved to approve the Consent Calendar item #1 - 6; the motion was seconded by Council Member Gonzalez and carried by the following vote:

Name	Voting		Present, Not Voting		Absent
	Aye	No	Abstain	Not Participating	
Diana Colvin, Mayor	✓				
Helen Fisicaro	✓				
Raquel Gonzalez	✓				
Joanne F. del Rosario	✓				
John Irish Goodwin	✓				
	5	0			

**NEW BUSINESS**

**7. GRAND JURY RESPONSE – SECOND UNITS**

City Planner Michael Laughlin presented the staff report. Mayor Colvin opened the public comment period at 7:41 p.m. and seeing no one come forward to speak, she closed the public comment period. Council discussion followed.

**Action:** Council Member Goodwin moved to approve the Town’s Response to the Grand Jury Report Dated October 28, 2020, Titled “Second Units: Adding New Housing in the Neighborhoods; the motion was seconded by Council Member del Rosario and carried by the following vote:



Name	Voting		Present, Not Voting		Absent
	Aye	No	Abstain	Not Participating	
Diana Colvin, Mayor	✓				
Helen Fiscaro	✓				
Raquel Gonzalez	✓				
Joanne F. del Rosario	✓				
John Irish Goodwin	✓				
	5	0			

## 8. MANAGEMENT ANALYST SALARY SCHEDULE

Administrative Services Director Pak Lin presented the staff report. Mayor Colvin opened the public comment period at 7:52 p.m. and seeing no one come forward to speak, she closed the public comment period. Council discussion followed.

**Action:** Vice Mayor Fiscaro moved to Adopt a Resolution to Add the Management Analyst Position (I, II, and III) to the Colma Salary Schedule and to Offer the Same COLA Provisions as Other Positions; the motion was seconded by Mayor Colvin and carried by the following vote:

Name	Voting		Present, Not Voting		Absent
	Aye	No	Abstain	Not Participating	
Diana Colvin, Mayor	✓				
Helen Fiscaro	✓				
Raquel Gonzalez	✓				
Joanne F. del Rosario	✓				
John Irish Goodwin	✓				
	5	0			

## COUNCIL CALENDARING

The next Regular Meeting will be on Wednesday, January 27, 2021 and will begin at 6:30 p.m. with the State of the City Address.

## REPORTS

City Manager Brian Dossey gave an update on the following topics:

- The Tow received a partial grant from PCE for EV chargers and will have a site visit in the coming weeks.
- The current Mission Road project is nearing completion, but will be delayed slightly because the slurry seal and paving can't begin until after the rainy season.
- San Mateo County is still in the purple and ICU rates are still very low.
- The county's vaccination progress is still only on Phase 1A, but things are changing rapidly.
- The February 10<sup>th</sup> meeting will be a Strategic Plan Workshop and will begin at 5:30 p.m.

## **ADJOURNMENT AND CLOSE IN MEMORY**

The Mayor stated, "Before we close in memory, I'd like to note some good news. Verano residents Ben and Vanessa Parli have welcomed a baby boy on Friday afternoon. Emmett Justin Parli is the newest member of our Colma family. Welcome to Colma, Emmett!"

Mayor Colvin adjourned the meeting at 8: p.m. in memory of Karen Darlene Hadley, daughter of Francis Liston, longtime resident and former Colma City Manager; Theresa M. Garibaldi, longtime member of the Colma Historical Association; Daphne "Roz" Lopez, daughter of resident Lellen Lopez and Dr. Adolph "Floyd" Gonella. Dr. Gonella was born in Colma in 1933 and later went on to become Superintendent of Jefferson Union High School and Ravenswood school Districts, as well as County Superintendent of Schools and Director of the County Health Services Agency.

Respectfully submitted,

Caitlin Corley  
City Clerk



# STAFF REPORT

TO: Mayor and Members of the City Council  
 FROM: Michael P. Laughlin, City Planner, CSG Consultants  
 Jonathan Kwan, Associate Planner, CSG Consultants  
 VIA: Brian Dossey, City Manager  
 MEETING DATE: January 27, 2021  
 SUBJECT: Introduction of Reach Code Ordinance

---

## RECOMMENDATION

Staff recommends that the City Council take the following actions:

(1) Introduce the following ordinance by title only and waive a further reading of the ordinance:

AN ORDINANCE AMENDING COLMA MUNICIPAL CODE SUBCHAPTER 5.04 TO EXCEED THE MINIMUM BUILDING CODE STANDARDS FOR BUILDING ELECTRIFICATION AND EV CHARGING INFRASTRUCTURE

(2) Set the public hearing date for February 24, 2021.

## EXECUTIVE SUMMARY

At the direction of the City Council, staff has prepared an Ordinance which amends the Building Code to exceed State standards by requiring higher levels of building electrification and Electric Vehicle (EV) charging infrastructure for new construction to reduce greenhouse gas (GHG) emissions. The amendments affect commercial and non-commercial properties differently as noted in the staff report.

## FISCAL IMPACT

None. The ordinance would only apply to the construction of new buildings and not remodels or tenant improvements. The Town does not benefit financially directly or indirectly from the codes applied to new construction.

## BACKGROUND

The Town adopted the 2019 California building codes. Unless further amended, these codes will remain in effect for the next three years.

At the October 9, 2019 City Council meeting, the Council directed the City Manager to sign a letter of intent to Peninsula Clean Energy (PCE), agreeing to participate in a model Reach code development process to reduce GHG emissions and help the Town meet climate-related state mandates such as Senate Bill 32 (SB 32).

SB 32 is a state mandate that requires jurisdictions in California, including the Town, to reduce emissions by 40% below 1990 levels (or 51% below 2005 levels) by 2030. According to the 2016 GHG inventory, the majority of the Town's GHG emissions, over 95%, are accounted for in the energy usage and transportation sectors. In order to comply with SB 32, the Town must reduce GHG emissions significantly in those two sectors.

Residents and businesses in the Town receive electricity from Peninsula Clean Energy (PCE) which sells 50 percent renewable energy and 90 percent greenhouse gas (carbon) free electricity at a cost slightly less than PG&E. This creates a significant Reach Code opportunity to reduce future GHG emissions in new buildings by discouraging or eliminating the use of natural gas. This can be accomplished by incentivizing and/or requiring new buildings to use more electric appliances to utilize the clean renewable electricity available rather than natural gas. PCE has a goal to be 100 percent greenhouse gas free in 2021, which would mean all new all-electric buildings and all EVs that are recharged with this electricity would be GHG free by 2021. This maximizes the use of clean and renewable energy currently available and would significantly reduce GHG emissions from the energy usage and transportation sectors.

It is also important to note that as the State and region quickly move toward renewable energy, future regulation will likely require electrification of buildings, particularly through retrofit requirements. Addressing electrification now for new buildings avoids hardships and costs for building owners in the future. The state is already requiring that power providers achieve 100 percent greenhouse gas (carbon) free electricity by 2045 (Senate Bill 100).

## **ANALYSIS**

The proposed Reach codes were developed from PCE's model Reach codes. Staff considered the feasibility, cost-effectiveness, and significant greenhouse gas reductions (providing the greatest environmental benefit) of the Reach codes.

The proposed Reach codes only apply to new construction and do not affect additions and remodels. As the City Council is aware, Colma has very little available land for new developments. There are only two small sites by the BART station available for a few multi-family units, and only one single-family homesite. The proposed Reach codes would only affect the new construction or the complete redevelopment of existing buildings on commercial properties. The Reach codes may not apply to a significant number of new buildings.

### **Electrical Vehicle (EV) Charging Infrastructure**

The proposed Reach code to be adopted by the Town will add new definitions for Electric Vehicle Charging Station, Level 1 EV Ready Space, and Level 2 EV Ready Space.

- Electric Vehicle Charging Station (EVCS) means a parking space that includes installation of electric vehicle supply equipment with a minimum capacity of 30 amperes connected to a circuit serving a Level 2 EV Ready Space. EVCS installation may be used to satisfy a Level 2 EV Ready Space requirement.
- A Level 1 EV Ready Space is parking space served by a complete electric circuit with a minimum of 110/120 volt, 20-ampere capacity including electrical panel capacity,

overprotection device, a minimum 1" diameter raceway that may include multiple circuits as allowed by the California Electrical Code, wiring, and either a) a receptacle labelled "Electric Vehicle Outlet" with at least a ½" font adjacent to the parking space, or b) electric vehicle supply equipment.

- A Level 2 EV Ready Space is a parking space served by a complete electric circuit with 208/240 volt, 40-ampere capacity including electrical panel capacity, overprotection device, a minimum 1" diameter raceway that may include multiple circuits as allowed by the California Electrical Code, wiring, and either a) a receptacle labelled "Electric Vehicle Outlet" with at least a ½" font adjacent to the parking space, or b) electric vehicle supply equipment with a minimum output of 30 amperes.

The 2019 Building Code requirements and the proposed Reach codes regarding EV charging is summarized in the table below:

Use	2019 Building Code EV Charging Requirements	Proposed Colma EV Charging Requirements
Single Family	One Level 2 EV capable parking space.	Require one level 2 EV Ready Parking Space and one Level 1 EV Ready Parking Space.
Multi Family	10% of all units to have a Level 2 EV capable parking space.	Require 15% of all units shall have a level 2 EV Ready Parking Space.
Multi Family (if >50% of units are affordable)	10% of all units to have a Level 2 EV capable parking space. (No change between affordable and market rate.)	10% of all units to have a Level 2 EV capable parking space. (No additional requirement beyond the 2019 code.)
Non-residential	# of Level 2 EV Ready parking spaces based on total number of parking spaces as noted in Section 5.106.5.3 of the California Green Building Standards Code (as noted below).	Require # of Level 2 EV Ready parking spaces based on total number of parking spaces as noted in Section 5.106.5.3 of the California Green Building Standards Code (as noted below). If an EV Ready parking space is required, require a minimum of 1 Level 2 EV Charger to be installed.

Table 5.106.5.3.3:

Total Number of Actual Parking Spaces	Number of Required EV Charging Spaces
0-9	0
10-25	1
26-50	2
51-75	4
76-100	5
101-150	7
151-200	10
201 and over	6 percent of total

In certain cases, an insufficient electrical supply may drastically increase costs of meeting the EV Charging Reach Codes by developers. The proposed ordinance includes a provision to allow for certain projects to be exempt from the EV Charging Reach Codes if circumstances make it infeasible. The burden would be on the applicant to show infeasibility and the Building Official would grant the exemption.

## Electrification Amendments

The proposed amendments will add new definitions for All-Electric Buildings.

The 2019 Building Code requires that a separate electrical circuit be located by water heaters to allow owners to switch over to an electric water heater easily. The proposed Reach code would require the same for all large natural gas appliances in both residential and non-residential, new construction. A dedicated electrical circuit would be required for all large appliances such as water heaters, clothes dryers, cooktops, heat pumps, etc. This would disincentivize natural gas appliances in new construction by eliminating duplicate costs in running gas and electrical lines.

An additional provision to require solar panels on non-residential projects based on the size of the development is included in the ordinance.

A summary of the proposed Reach codes regarding building electrification is below.

Use	2019 Building Code Electrification Requirements	Proposed Amendment
Residential	<ul style="list-style-type: none"> <li>Dedicated 120V, 20-amp circuit with receptacle next to water heaters with breaker space on the panel</li> <li>Solar Ready Zone – sized to offset annual kWh consumption</li> <li>Energy Design Rating (EDR)</li> </ul>	<ul style="list-style-type: none"> <li>Require dedicated circuits for large appliances (water heater, clothes dryers, cooktops, heat pumps, etc.). Natural gas appliances are allowed but still require a dedicated circuit with a minimum 30 amperage requirement with an outlet.</li> <li>Solar Ready Zone – sized to offset annual kWh consumption.</li> <li>Energy Design Rating</li> </ul>
Non-residential	<ul style="list-style-type: none"> <li>Performance Pathway – Compliance Margin</li> <li>Solar ready zone if less than 3 habitable stories</li> </ul>	<ul style="list-style-type: none"> <li>Require dedicated circuits for large appliances (water heater, clothes dryers, cooktops, heat pumps, etc.). Natural gas appliances are allowed but still require a dedicated circuit with a minimum 30 amperage requirement with an outlet.</li> <li>3kW solar photovoltaic system on non-residential buildings with less than 10,000 square feet of gross floor area</li> <li>5kW solar photovoltaic system for non-residential buildings with greater than 10,000 square feet of gross floor area</li> </ul> <p>Exception: as an alternative to the solar photovoltaic system, require a solar thermal system with a minimum 40 square feet collector area</p>

## CEQA

The adoption of the ordinance is not a project under the requirements of the California Environmental Quality Act, together with related State CEQA Guidelines (collectively, “CEQA”) because it has no potential for resulting in a physical change to the environment. In the event that this Ordinance is found to be a project under CEQA, it is subject to the CEQA exemption contained in CEQA Guidelines section 15061(b)(3) because it can be seen with certainty to have no possibility that the action approved may have a significant effect on the environment. CEQA applies only to actions which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA.

In this circumstance, the proposed action would have no or only a de minimis effect on the environment. The Ordinance is also exempt from CEQA under CEQA Guidelines section 15308, because it is a regulatory action for the protection of the environment. The foregoing determination is made by the City Council in its independent judgment.

### **Council Adopted Values**

The adoption of Reach codes to reduce GHG emissions is consistent with the Council value of *vision* and *responsibility*, because it considers public health and safety of the residents and businesses in Town.

### **Sustainability Impact**

Amending the Municipal Code to exceed State standards for EV charging and building electrification is likely to have a positive impact on sustainability due to an overall reduction in GHG emissions if the production of electricity is cleaner than burning of natural gas. In addition, the amendments support California State mandate to reduce GHG emissions by 40% of 1990 levels by 2030.

### **Alternatives**

The City Council has the option of not adopting the ordinance. If the ordinance is not adopted the Town will not adopt Reach codes. This not recommended since the Town is required to significantly reduce GHG emissions by 2030. In addition, the City Council accepted assistance and funding from PCE to prepare reach codes.

### **CONCLUSION**

Staff recommends the City Council introduce the ordinance, waive the first reading, and set a public hearing for the ordinance.

### **ATTACHMENTS**

- A. Ordinance





**ORDINANCE NO. \_\_\_\_\_**

**OF THE CITY COUNCIL OF THE TOWN OF COLMA**

**AN ORDINANCE AMENDING COLMA MUNICIPAL CODE SUBCHAPTER 5.04 TO EXCEED THE MINIMUM BUILDING CODE STANDARDS FOR BUILDING ELECTRIFICATION AND EV CHARGING INFRASTRUCTURE**

The City Council of the Town of Colma does ordain as follows:

---

**ARTICLE 1. FINDINGS, PURPOSE AND AUTHORITY**

The City Council of the Town of Colma finds:

(a) Pursuant to Government Code Section 50022.1 *et seq.*, the Town may adopt by reference the California Building Standards Code, 2019 Edition as provided in Title 24 of the California Code of Regulations.

(b) The City Council adopted an ordinance amending Chapter 5, Subchapter 4 of the Town of Colma Municipal Code, adopting by reference the 2019 edition of the California Building Standards Code (California Code of Regulations, Title 24), consisting of the 2019 California Building Code, the 2019 California Residential Code, the 2019 California Electrical Code, the 2019 California Mechanical Code, the 2019 California Plumbing Code, the 2019 California Fire Code, the 2019 California Energy Code, the 2019 California Green Building Standards Code, the 2019 California Historical Building Code, the 2019 California Existing Building Code and the 2019 California Referenced Standards Code; the 1997 Edition of the Uniform Housing Code; and the 2018 International Property Maintenance Code, together with certain additions, amendments and deletions, on January 8, 2020.

(c) The City Council wishes to further amend portions of the 2019 California Energy Code and 2019 California Green Building Code to reduce greenhouse gas emissions.

(d) The following local climatic, geographic or topographical conditions make it necessary to amend the Codes for all amendments of the California Energy Code and California Green Building Standards Code set forth below:

(1) Energy efficient buildings promote public health and welfare by reducing carbon emissions and providing for more sustainable buildings.

(2) Sea level rise as a result of global warming poses a threat to regional transportation and wastewater infrastructure situated adjacent to the San Francisco Bay and building electrification combined with low carbon power generation will reduce greenhouse gas emissions, which contribute to global warming.

(3) The Town adopted a Climate Action Plan, which includes the goal of reducing carbon emissions from fossil fuels to help curb global warming. Methods include increasing building efficiency, conservation and substituting renewable energy for fossil fuel energy sources.

(e) The changes and modifications made to the Codes are reasonably necessary due to local climactic conditions as set forth in this Ordinance pursuant to California Health & Safety Code Section 17958, 17958.5, 17958.7 and 18941.5.

(f) Pursuant to Public Resources Code Section 25402.1(h)(2), Section 10-106 Locally Adopted Energy Standards of the California Administrative Code, Title 24 of the California Code of Regulations, Part I, and the California Energy Commission's submission and approval process, the City Council also finds that the amendments to the 2019 California Energy Code will save energy and are cost-effective within the Town.

(g) The City Council affirms that such modifications will result in designs that consume no more energy than that permitted under the 2019 California Energy Code.

(h) The Town published notice of a public hearing pursuant to California Government Code Section 6066.

(i) The Town held a public hearing on February 24, 2021, at which time all interested persons had the opportunity to appear and be heard on the matter of adopting the Codes as amended herein.

(j) At least one copy of each of the Codes adopted by reference by this ordinance were available for public inspection at the office of the City Clerk fifteen (15) days preceding the public hearing pursuant to Government Code Section 50022.6.

(k) Any and all other legal prerequisites relating to the adoption of this ordinance have occurred.

---

## **ARTICLE 2. SUBCHAPTER 5.04 AMENDED**

Sections 5.04.120 and 5.04.160 of subchapter 5.04 of the Colma Municipal Code are hereby repealed and restated in their entirety to read as provided herein. All other sections remain unchanged.

---

## **ARTICLE 3. SUBCHAPTER 5.04, DIVISION 2 – COLMA BUILDING CODES**

The following sections are added to subchapter 5.04 of the Colma Municipal Code as "Division 2 – Colma Building Codes."

### *Division 2: Colma Building Codes*

#### **5.04.120 Colma Energy Conservation Code**

(a) The 2019 Edition of the California Energy Code, contained in Part 6 of Title 24 of the California Code of Regulations, with the following changes, additions, and deletions, is adopted by reference as the Colma Energy Conservation Code.

(b) Section 100.0(e)(2)(A) "Scope" of the California Energy Code is amended to state as follows:

Sections applicable to particular buildings. TABLE 100.0-A and this subsection list the provisions of Part 6 that are applicable to different types of buildings covered by Section 100.0(a)

2. Newly constructed buildings.

A. All newly constructed buildings. Sections 110.0 through 110.12 apply to all newly constructed buildings within the scope of Section 100.0(a). In addition, newly constructed buildings shall meet the requirements of Subsections B, C, D, or E, as applicable and shall be an All-Electric Building as defined in Section 100.1(b).

Exception: Natural gas appliances may be used if the natural gas appliance locations are also wired for future electric appliance installation. They shall include the following:

1. A dedicated circuit, phased appropriately for each appliance with a minimum 30 amperage requirement (see manufacturer's recommendations) with an electrical receptacle or junction box that is connected to the electric panel with conductors of adequate capacity, extending to within 3 feet of the appliance and accessible with no obstructions. Appropriately sized conduit may be installed in lieu of conductors.
2. Both ends of the unused conductor or conduit shall be labeled with the words "For Future Electric Appliance" and be electrically isolated.
3. A reserved circuit breaker space shall be installed in the electrical panel adjacent to the circuit breaker for the branch circuit and labeled for each circuit, an example is as follows (i.e. "For Future Electric Range").
4. All electrical components, including conductors, receptacles, junction boxes, or blank covers, related to this section shall be installed in accordance with the California Electrical Code.

(c) Section 100.1(b) "Definitions" of the California Energy Code is amended by adding the following definitions to read as follows:

All-Electric Building or All-Electric Design: A building or building design that has no natural gas or propane plumbing installed within the building, and that uses electricity as the source of energy for its space heating, water heating, cooking appliances, and clothes drying appliances. All Electric Buildings may include solar thermal pool heating.

(d) The first paragraph in Section 110.2 "Mandatory Requirements for Space-Conditioning Equipment" of the California Energy Code is amended to state as follows:

110.2 Certification by Manufacturers. Any space-conditioning equipment listed in this section, meeting the requirements of 100(e)(2)(A), may be installed

only if the manufacturer has certified to the Commission that the equipment complies with all the applicable requirements of this section.

(e) The first paragraph of subsection (a) in Section 110.3 "Mandatory Requirements for Service Water-Heating Systems and Equipment" of the California Energy Code is amended to state as follows:

110.3 Certification by Manufacturers. Any service water-heating system or equipment listed in this section, meeting the requirements of 100(e)(2)(A), may be installed only if the manufacturer has certified to the Commission that the system or equipment complies with all the applicable requirements of this subsection for that system or equipment.

(f) The first paragraph of subsection (a) in Section 110.4 "Mandatory Requirements for Pool and Spa Systems and Equipment" of the California Energy Code is amended to state as follows:

110.4 Certification by Manufacturers. Any pool or spa heating system or equipment, meeting the requirements of 100(e)(2)(A), may be installed only if the manufacturer has certified that the system or equipment has all of the following:

(g) The first paragraph in Section 110.5 "Natural Gas Central Furnaces, Cooking Equipment, Pool and Spa Heaters, and Fireplaces: Pilot Lights Prohibited" of the California Energy Code is amended to state as follows:

110.5 Any natural gas system or equipment, meeting the requirements of 100(e)(2)(A), listed below may be installed only if it does not have a continuously burning pilot light:

(h) The title of Section 110.10 "Mandatory Requirements for Solar Ready Buildings" of the California Energy Code is amended to Section 110.10 "Mandatory Requirements for Solar Ready Buildings and Solar Panel System Requirements for New Buildings."

(i) Item 4 of Section 110.10(a) "Covered occupancies" of the California Energy Code is amended to state as follows:

4. Nonresidential buildings with three habitable stories or fewer, other than healthcare facilities, shall comply with the requirements of Sections 110.10(b) through 110.10(d) and 110.10(f).

(j) Section 110.10(f) "Mandatory Solar Installations" is added to the California Energy Code to state as follows:

Section 110.10(f) Mandatory Solar Installations. Solar Photovoltaic Systems shall be installed as follows:

1. New non-residential buildings with less than 10,000 square feet of gross floor area shall provide a minimum of a 3-kilowatt photovoltaic system.

2. New Non-residential buildings greater than or equal to 10,000 square feet of gross floor area shall provide a minimum of a 5-kilowatt photovoltaic system.

Exception: As an alternative to a photovoltaic system, all non-residential buildings may provide a solar hot water system (solar thermal) with a minimum collector area of 40 square feet.

#### **5.04.160 Colma Green Building Standards Code**

(a) The 2019 Edition of the California Green Building Standards Code, contained in Part 11 of Title 24 of the California Code of Regulations, with the following changes, additions, and deletions, is adopted by reference as the Colma Green Building Standards Code.

(b) Section 202 "Definitions" of the California Green Building Standards Code is amended by adding the following definitions to read as follows:

Level 1 EV Ready Space: A parking space served by a complete electric circuit with a minimum of 110/120 volt, 20-ampere capacity including electrical panel capacity, overprotection device, a minimum 1" diameter raceway that may include multiple circuits as allowed by the California Electrical Code, wiring, and either a) a receptacle labelled "Electric Vehicle Outlet" with at least a ½" font adjacent to the parking space, or b) electric vehicle supply equipment (EVSE).

Level 2 EV Ready Space: A parking space served by a complete electric circuit with 208/240 volt, 40-ampere capacity including electrical panel capacity, overprotection device, a minimum 1" diameter raceway that may include multiple circuits as allowed by the California Electrical Code, wiring, and either a) a receptacle labelled "Electric Vehicle Outlet" with at least a ½" font adjacent to the parking space, or b) electric vehicle supply equipment (EVSE) with a minimum output of 30 amperes.

Electric Vehicle Charging Station (EVCS): A parking space that includes installation of electric vehicle supply equipment (EVSE) with a minimum capacity of 30 amperes connected to a circuit serving a Level 2 EV Ready Space. EVCS installation may be used to satisfy a Level 2 EV Ready Space requirement.

(c) Section 4.106.4.1 through Section 4.106.4.1.1 of the California Green Building Standards Code is amended to state as follows:

4.106.4.1 New one- and two-family dwellings and townhouses with attached private garages. For each dwelling unit, install a Level 2 EV Ready Space and Level 1 EV Ready Space.

Exception: For each dwelling unit with only one parking space, install a Level 2 EV Ready Space.

4.106.4.1.1 Identification. The raceway termination location shall be permanently and visibly marked as "Level 2-EV Ready."

(d) Section 4.106.4.2 “New Multifamily Dwellings” of the California Green Building Standards Code is amended to state as follows:

4.106.4.2 New multifamily dwellings. If residential parking is available, 15% of dwelling unit parking spaces shall be Level 2 EV Ready Spaces. Calculations for the required number of spaces shall be rounded up to the nearest whole number.

Exception: For multifamily housing projects with 50% or greater affordable housing units, 10% of dwelling unit parking spaces shall be Level 2 EV Ready Spaces.

Notes:

1. Load balancing systems may be installed to increase the number of EV chargers or the amperage or voltage beyond the minimum required. Load balancing does not allow installing less electrical panel capacity than would be required without load balancing.

2. Installation of Level 2 EV Ready Spaces above the minimum number required level may offset the minimum number Level 1 EV Ready Spaces required on a 1:1 basis.

3. The requirements apply to multifamily buildings with parking spaces including: a) assigned or leased to individual dwelling units, and b) unassigned residential parking.

4. In order to adhere to accessibility requirements in accordance with California Building Code Chapters 11A and/or 11B, it is recommended that all accessible parking spaces for covered newly constructed multifamily dwellings are provided with Level 1 or Level 2 EV Ready Spaces.

(e) The first paragraph in Section 5.106.5.3.1 “Single charging space requirements” of the California Green Building Standards Code is amended to state as follows:

5.106.5.3.1 Single charging space requirements. When only a single charging space is required per Table 5.106.5.3.3, a Level 2 EV Ready Space is required at the time of construction and be installed in accordance with the California Electrical Code. Construction plans and specifications shall include, but are not limited to the following:

(f) The first paragraph in Section 5.106.5.3.2 “Multiple charging space requirements” of the California Green Building Standards Code is amended to state as follows:

When multiple charging spaces are required per Table 5.106.5.3.3, a minimum of one a Level 2 EV Ready Space is required to be installed at the time of construction. Raceway(s) is/are required to be installed for all remaining parking spaces. A Level 2 EV Ready Space and raceway(s) shall be installed in

accordance with the California Electrical Code. Construction plans and specifications shall include, but are not limited to the following:

(g) Section 5.106.5.3.4 "Identification" of the California Green Building Standards Code is amended as follows:

The raceway termination location shall be permanently and visibly marked as "EV Ready."

(h) Section 4.408 "Construction Waste Reduction, Disposal and Recycling" of the California Green Building Standards Code is amended by deleting Sections 4.408.1 through 4.408.5 and adding a new Section 4.408.1 to state as follows:

4.408.1 All construction and demolition work within the Town of Colma shall be in compliance with sections 5.04.260 through 5.04.350 of the Colma Municipal Code.

(i) Section 5.408 "Construction Waste Reduction, Disposal and Recycling" of the California Green Building Standards Code is amended by deleting Sections 5.408.1 through 5.408.1.4 and adding a new Section 5.408.1 to state as follows:

5.408.1 All construction and demolition work within the Town of Colma shall be in compliance with sections 5.04.260 through 5.04.350 of the Colma Municipal Code.

---

#### **ARTICLE 4. FILING OF ORDINANCE**

The City Clerk is hereby directed to file a copy of this Ordinance with the California Building Standards Commission and the California Energy Commission of the State of California.

---

#### **ARTICLE 5. LIABILITY**

The provisions of the Colma Building Codes shall not be construed as imposing upon the Town of Colma any liability or responsibility for damage to persons or property resulting from defective work, nor shall the Town of Colma, or any official, employee or agent thereof, be held as assuming any such liability or responsibility by reason of the review or inspection authorized by the provisions of the Colma Building Codes of any permits or certificates issued under the Codes.

---

#### **ARTICLE 6. SEVERABILITY**

If any section, subsection, subdivision, paragraph, sentence, clause or phrase added by this ordinance, or any part thereof, is for any reason held to be unconstitutional or invalid or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or effectiveness of the remaining portions of this ordinance or any part thereof. The City Council hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause or phrase thereof irrespective of the fact that any one or more subsections, subdivisions, paragraphs, sentences, clauses or phrases are declared unconstitutional, invalid or ineffective.

---

**ARTICLE 7. CEQA COMPLIANCE**

The adoption of the ordinance is not a project under the requirements of the California Environmental Quality Act, together with related State CEQA Guidelines (collectively, "CEQA") because it has no potential for resulting in a physical change to the environment. In the event that this Ordinance is found to be a project under CEQA, it is subject to the CEQA exemption contained in CEQA Guidelines section 15061(b)(3) because it can be seen with certainty to have no possibility that the action approved may have a significant effect on the environment. CEQA applies only to actions which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA. In this circumstance, the proposed action would have no or only a de minimis effect on the environment. The Ordinance is also exempt from CEQA under CEQA Guidelines section 15308, because it is a regulatory action for the protection of the environment. The foregoing determination is made by the City Council in its independent judgment.

---

**ARTICLE 8. PUBLICATION**

This ordinance including the vote for and against the same shall be posted in the office of the City Clerk and on the three (3) official bulletin boards of the Town of Colma within fifteen (15) days of its passage.

---

**ARTICLE 9. EFFECTIVE DATE**

This ordinance shall take effect thirty (30) days following its adoption by the City Council. Notwithstanding the foregoing, those provisions requiring approval by the California Energy Commission shall take effect upon the granting of such approval.

**Certification of Adoption**

I certify that the foregoing Ordinance No. \_\_\_\_ was duly introduced at a regular meeting of the City Council of the Town of Colma held on February 24, 2021, and adopted at a regular meeting of the City Council of the Town of Colma held on February 24, 2021, by the following vote:

Name	Voting		Present, Not Voting		Absent
	Aye	No	Abstain	Not Participating	
Diana Colvin, Mayor					
Helen Fisicaro					
Raquel Gonzalez					
Joanne F. del Rosario					
John Irish Goodwin					
<i>Voting Tally</i>					

Dated: \_\_\_\_\_



Diana Colvin, Mayor

Attest: \_\_\_\_\_  
Caitlin Corley, City Clerk





# STAFF REPORT

TO: Mayor and Members of the City Council

FROM: Brad Donohue, Public Works Director  
Michael Laughlin AICP, City Planner  
Abdulkader Hashem, Associate Engineer/Project Manager

VIA: Brian Dossey, City Manager

MEETING DATE: January 27, 2021

SUBJECT: El Camino Real Bicycle & Pedestrian Improvement Plan Draft Review

## RECOMMENDATION

Staff recommends that the City Council make a motion to accept the El Camino Real Bicycle and Pedestrian Improvement Plan (the Plan).

## EXECUTIVE SUMMARY

The purpose of this Study Session is to allow the City Council and public to review and comment on the draft El Camino Real Bicycle and Pedestrian Improvement Plan prior to the document being finalized by the consultant. Tonight's study will include an overview of the Plan and its contents.

## FISCAL IMPACT

None. The Plan is conceptual in nature, and the Council's acceptance of the Plan would not commit the Town to any future action. Accordingly, acceptance of the Plan would have no fiscal impact.

## BACKGROUND

The Town was awarded SB 1 State funds from the Road Maintenance & Rehabilitation Account (RMRA) – Sustainable Communities Grant for the El Camino Real Bicycle and Pedestrian Improvement Plan. The Restricted Grant Agreement (RGA) was executed with Caltrans on September 28, 2018 for administrating this plan under Agreement No. 74A1080 which will expire on February 28, 2021.

The objective of the Plan is to develop a strategy that will improve safety and mobility for pedestrians, bicyclists, public transportation hubs and facilities that stretch along El Camino Real

(State Route 82) from Albert M Teglia Boulevard marking the Northern Boundary of the study area then traveling South to Arlington Drive thus marking the Southern Boundary. The Plan addresses existing deficiencies, sets goals and incorporates planning practices to improve and enhance roadway facilities for all modes of transportation.

The Consultant has completed several tasks, including preparation of several cross-section alternatives for the plan area that has been divided into two segments: Segment (A) from Albert M Teglia Boulevard to Mission Road, and Segment (B) from Mission Road to Arlington Drive.

At the April 22, 2020 City Council meeting, the City Council held a study session to affirm elements for each cross-section alternative. Based on the review and discussion that took place, City Council affirmed the most preferred cross-section for each of Segment (A) and Segment (B) so the consultant could develop the full corridor concept design for the El Camino Real bicycle and pedestrian improvement plan.

Since the study session, staff and consultant team has been working to finalize a bicycle and pedestrian improvement plan document with appendices. The draft plan has been developed by the consultant after reviewing and analyzing public response and input. The public contribution regarding the El Camino Real Bicycle and Pedestrian Improvement Plan was collected from various sources: the Plan website survey, community outreach meetings, Technical Advisory Committee (TAC) meetings and a workshop with Caltrans. The Plan is now complete in draft form and made available on Town's website.

## **ANALYSIS**

The following list summarizes components of the Plan:

- **Introduction**
  - The introduction describes the history of El Camino Real and how the Plan aligns with the Grand Boulevard Initiative (GBI) vision and goals for the corridor. It also describes existing challenges and proposed changes to improve the travel experience for all roadway users.
- **Demographics and Disadvantage Communities**
  - The Plan conceptualizes El Camino Real to accommodate everyone regardless of age, ability, economic situation, race, ethnicity, and interest. It identifies the demographic characteristics of the Town and those who use the corridor. Three disadvantaged community areas neighboring the Town of Colma are designated "Communities of Concern" by The Metropolitan Transportation Commission (MTC). The Plan identifies infrastructure improvements that will help better connect these disadvantaged communities to Colma and the neighboring cities.
- **Community Engagement and Local Vision**
  - The community engagement process was designed to achieve a community-driven vision for the El Camino Real, which occurred in three phases during the

development of the study. Community members and stakeholders voted on the goals and values that were developed for the Plan to help set a vision for the El Camino Real corridor in Colma and guide the development of the Plan. They identified the following as the top four goals and values:

- ✓ Safety and Public Health;
- ✓ Connectivity and Access;
- ✓ Mobility and Reliability; and
- ✓ Quality of Experience

- **Issues and Potential Improvements**

- A set of primary issues produced from the community engagement process and analysis of existing conditions were identified to develop potential improvements for the corridor:

- ✓ Reduce vehicle speeds by implementing a road diet;
- ✓ Add Bicycle and Pedestrian facilities;
- ✓ Provide pedestrian-scale lighting; and
- ✓ Improve the Mission Road/El Camino Real Intersection

- **Concept Design (Corridor Design and Illustrations):**

- **Segment (A) Preferred Cross-Section (From Albert M Teglia Boulevard to Mission Road).** The Plan shows and describes a “Road Diet” for Segment (A). The reduced lane portion (two travel lanes in each direction) would provide continuous sidewalks for pedestrian safety and comfort, separated bicycle lanes for bicyclist safety and comfort, parking on both sides to support local businesses, crosswalk enhancements, and preserved median with an opportunity for streetscape enhancements. With the road diet, existing traffic levels on this segment would flow at a Level of Service (LOS) B.
- **Segment (B) Preferred Cross-Section (From Mission Road to Arlington Drive).** The Plan for Segment (B) maintains the two travel lanes in each direction, consistent with the number of travel lanes proposed for Segment (A) to the north and the existing number of travel lanes to the south. The Plan adds bicycle and pedestrian facilities on both sides of the roadway by converting a portion of the existing landscape area within the right-of-way to continuous sidewalks and separated bikeways.

- **Implementation**

- **Construction Costs.** Preparation of the El Camino Real Bicycle and Pedestrian Improvement Plan is a preliminary step in transforming the corridor. Acceptance of the Plan, which is merely conceptual in nature, does not commit the Town to a definite course of action in terms of transforming the corridor. Additional steps will need to be taken before the vision can be realized, including conducting follow-up studies to support Caltrans’ approval and securing funding for construction; the Town Council will additionally need to issue a variety of approvals before

construction of the conceptual project discussed in the Plan (“Conceptual Project”) may commence. Total construction costs of the recommended improvements for El Camino Real through the Town of Colma are estimated to be approximately \$26,400,000. The breakdown of costs is available in Appendix C. There are opportunities to phase this construction, which may increase the overall project cost. The Town’s acceptance of the Plan would not commit it to implement the Plan or to incur additional costs necessary to implement the Plan; again, the Plan is merely conceptual in nature. Acceptance of the Plan would not result in any construction or any activity that could result in a direct, or reasonably foreseeable indirect, potential impact on the environment.

- **Quick-Build.** There are opportunities to build momentum for the Conceptual Project in the near-term through the implementation of “quick-build” improvements which have the added benefits of helping refine the designs before implementation of a permanent project. These improvements would include mostly pavement restriping and temporary barriers. If the City Council is interested in this step, design plans would need to be created, project costs would need to be identified, and Caltrans would need to approve any temporary improvements.
- **Funding.** There are many possible funding options and combinations available to fund the Conceptual Project. In addition to Capital Improvement Program funds, various funding sources that are most relevant to the Plan could be used to fund portions of the Conceptual Project. Since the conceptual improvements on El Camino Real would increase safety, funding may be more readily available for these types of improvements. The following funding sources are the most relevant grants included in the Plan. A list of additional funding sources can be founded in Appendix D:
  - ✓ Caltrans Active Transportation Program (ATP);
  - ✓ Caltrans Highway Safety Improvement Program (HSIP);
  - ✓ One Bay Area Grant (OBAG);
  - ✓ Urban Greening;
  - ✓ City/County Association of Governments (C/CAG) of San Mateo County’s Transportation Development Act (TDA) Article 3;
  - ✓ City/County Association of Governments (C/CAG) of San Mateo County’s Transportation Fund for Clean Air (TFCA); and
  - ✓ San Mateo County Transportation Authority’s Measure A Program
- **Implementation Process.** Since El Camino Real is state-owned roadway, the ultimate design and implementation of improvements along the corridor will require approval from Caltrans. Some additional studies or reports will be required for approval by Caltrans which include:
  - ✓ Network Traffic Analysis;
  - ✓ Caltrans Design Standard Decision Document (DSDD);
  - ✓ Caltrans Intersection Control Evaluation (ICE);
  - ✓ Sight Distance Evaluation;
  - ✓ Transit Corridor Study;

- ✓ Bicycle Volume Projects; and
- ✓ Parking and Access Management Study

### **Council Adopted Values**

The recommendation is consistent with the Council value of *vision*, since the El Camino Real Bicycle and Pedestrian Improvement Plan creates a vision that can be used as a basis for designing public improvements within the study area.

### **Sustainability Impact**

The Plan conceptualizes future improvements to El Camino Real that may have a positive sustainability impact by adding improvements that will encourage bicycle and pedestrian activity (thereby reducing vehicle trips). In addition, green infrastructure improvements will be considered which would improve stormwater quality. The removing of pavement in favor of landscaping will reduce heat generated by existing paved surfaces.

### **The California Environmental Quality Act (CEQA)**

The City Council's acceptance of the Plan does not constitute the approval of a project subject to CEQA. Environmental review of non-exempt projects under CEQA is necessary before approval of a project, and CEQA defines "approval" as "the decision by a public agency [that] commits the agency to a definite course of action in regard to a project intended to be carried out by any person." (State CEQA Guidelines, § 15353, subd. (a).) Here, the City Council's acceptance of the Plan would not commit the Town to proceed with any of the conceptual improvements contemplated within the Plan. As set forth in the Plan itself, the "concept designs presented in [the Plan] are conceptual in nature." By accepting the Plan, the Town is not approving the Conceptual Project contemplated by the Plan and is in no way restricting itself from denying the Conceptual Project.

In the alternative, even if the Council's acceptance of the Plan were to constitute the approval of a project, the project would be exempt from CEQA under the Class 1 exemption set forth in State CEQA Guidelines section 15301. The Class 1 exemption applies to "existing highways and streets, sidewalks, gutters, bicycle and pedestrian trails, and similar facilities (this includes road grading for the purpose of public safety), and other alterations such as the addition of bicycle facilities, including but not limited to bicycle parking, bicycle-share facilities and bicycle lanes, transit improvements such as bus lanes, pedestrian crossings, street trees, and other similar alterations that do not create additional automobile lanes." (State CEQA Guidelines, § 15301(c).) Here, while the Plan does not commit to any specific project, it contemplates a conceptual project that would fall squarely within this exemption as the conceptual project concerns pedestrian and bicycle facilities and does not contemplate any alterations that would create additional automobile lanes.

The project would also be exempt from CEQA under the Class 6 exemption set forth in State CEQA Guidelines section 15306. The Class 6 exemption applies to "basic data collection, research, experimental management, and resource evaluation activities [that] do not result in a serious or major disturbance to an environmental resource. These may be strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved,

adopted, or funded.” (State CEQA Guidelines, § 15306.) Here, the Plan sets forth concept designs for the Conceptual Project, and these concept designs are just that—designs—and they do not result in any impact to any environmental resources. The Town is not taking any action to implement or commit itself to these designs. The Plan is thus tantamount to a study that may potentially lead to future action (i.e., future commitment to the Conceptual Project) that the Town has not yet approved, adopted, or funded. Accordingly, the Plan is exempt from CEQA.

## **CONCLUSION**

City Council is encouraged to participate in the presentation by providing comments and direction to staff and consultant team in order to create the Final El Camino Real Bicycle and Pedestrian Improvement Plan. Staff encourages feedback and discussion on:

- The corridor layout and key design elements;
- Quick-Build option; and
- Funding options.

At the conclusion of the discussion, staff is recommending a Council motion accepting the Plan with or without any incorporated comments, additions or corrections.

## **ATTACHMENTS**

- A. El Camino Real Bicycle and Pedestrian Improvement Plan and Appendices





prepared by

**FEHR PEERS**

January 2021 *DRAFT*

# COLMA EL CAMINO REAL BICYCLE AND PEDESTRIAN IMPROVEMENT PLAN *DRAFT*











# TABLE OF CONTENTS

ACKNOWLEDGEMENTS .....	iv
EXECUTIVE SUMMARY .....	1
INTRODUCTION.....	3
PLANNING CONTEXT .....	7
COMMUNITY ENGAGEMENT .....	27
LOCAL VISION.....	37
IMPLEMENTATION.....	57

# ACKNOWLEDGEMENTS

Developing the Colma Bicycle and Pedestrian Improvement Plan has been a collaborative effort. It would not be as robust or reflective of community needs without the participation of a wide range of stakeholders and community members. Thank you to the elected officials, Town staff, Technical Advisory Committee (TAC), and community members that provided input during this process. Your feedback helped align this Plan with local priorities and existing programs, and it made this a better plan.

## City Council

- John Irish Goodwin
- Diana Colvin
- Helen Fisicaro
- Joanne F. Del Rosario
- Raquel “Rae” Gonzalez

## Town of Colma Staff

- Brian Dossey
- Brad Donohue
- Michael Laughlin
- Abdulkader Hashem

## Technical Advisory Committee

- BART
- Caltrans
- City of South San Francisco
- Colma Business Community
- Colma Police Department
- Daly City
- SamTrans
- San Mateo County
- Silicon Valley Bike Coalition
- Town of Colma
- Town of Colma City Council Members

## Consultant Team

- Fehr & Peers
- EnviroIssues

The Bicycle and Pedestrian Improvement Plan was funded by a Sustainable Transportation Planning Grant – Sustainable Communities provided by the California Department of Transportation (Caltrans) with local fund contribution from Town of Colma. The contents of this report reflect the view of the authors, who are responsible for the facts and accuracy of the data presented herein.

THIS PAGE IS INTENTIONALLY LEFT BLANK

# EXECUTIVE SUMMARY

## Why Study El Camino Real in Colma?

Once the peninsula's only highway, El Camino retains the auto-oriented character that first emerged in the 1920's. Today, El Camino Real functions more like a local arterial than a state highway, but it struggles to become a destination corridor due to the vehicular focus of its land use profile and streetscape design. In Colma, the existing challenges include narrow and missing sidewalks, long and infrequent crosswalks, lack of bicycle facilities, and high vehicle speeds.

Colma's current land uses along El Camino Real encourage pass-through trips and create an unwelcoming environment for walking and biking. However, land use changes are planned along the corridor, calling for changes in the transportation network to support more local trips.

Residential neighborhoods, largely located at the north and south ends of the Town, need connections to the jobs and commercial areas in the center of Town. Colma's population and workforce, as well as the those of the neighboring communities, are quite diverse and include low-income communities and people with non-standard work shifts. These communities need high-quality, affordable, and reliable transportation options.



## What are the Study Outcomes?

Colma's El Camino Real Bicycle and Pedestrian Improvement Plan is critical for improving safety, mobility, access, and comfort for people of all ages and abilities. The Plan includes a re-design of El Camino Real with separated bicycle facilities, continuous sidewalks, additional bicycle and pedestrian safety features, new traffic signals, landscaping, and a reconfiguration of the Mission Road ("the Y") intersection. Whether you are a resident of Colma, an employee working in Colma, a visitor to Colma, or simply passing through, the Plan presents a vision for you to travel safely and with comfort and ease, no matter your destination.

The Plan looks at two segments of El Camino Real in Colma, defined based on their distinct existing configurations: Segment A north of Mission Road currently has three lanes in each direction and a wide median; Segment

B south of Mission Road currently has two lanes in each direction and no median.

Given the current free-flow traffic conditions and excess capacity on Segment A, the Plan proposes repurposing a travel lane in each direction to provide a separated bikeway and continuous sidewalks to enhance bicyclist and pedestrian comfort, all with minimal impact to vehicle traffic flow. It also includes streetscape enhancements to improve the comfort and sustainability of the corridor.

For Segment B, the Plan maintains the existing two travel lanes in each direction. This is consistent with the number of travel lanes proposed for Segment A to the north and the existing number of travel lanes to the south. The proposed cross section adds bicycle and pedestrian facilities on both sides of the roadway by converting the existing landscape area to sidewalks and separated bikeways.

Explore the full concept design for the corridor in the Local Vision chapter.



Segment A Proposed Cross Section



Segment B Proposed Cross Section

## What Informed the Design?

The Colma El Camino Real Bicycle and Pedestrian Plan is a collaborative planning effort to produce an actionable, community-based design. The project team employed a variety of tools, venues and platforms to facilitate education and information-sharing, gather input, and publicize the planning effort. Design treatments that address existing concerns on the corridor and align with the community's vision were developed and refined through an iterative design process. Potential cross sections for each Segment were presented and discussed with Caltrans, stakeholders, and community members to define the final design.

Read more about the collaboration in the Community Engagement chapter.

---

Whether you are a resident of Colma, an employee working in Colma, a visitor to Colma, or simply passing through, this Plan presents a vision for you to travel safely and with comfort and ease, no matter your destination.

---









# 01

# INTRODUCTION

## Where and What is El Camino Real?

The El Camino Real or “King’s Highway” was originally a 600-mile road connecting the 21 Spanish missions in California. Today, a portion of it is known as a State Highway (State Highway 82) that extends from Daly City to San Jose. It bisects the Town of Colma and serves as the main travel corridor within and through the Town, connecting to Daly City to the north and South San Francisco to the south. It provides access to the Colma and South San Francisco BART stations and serves SamTrans buses with stops throughout the corridor. The segment of El Camino Real in Colma is a critical route for the diverse residents and employees of the Town, as well as for the neighboring communities.

## Why Study El Camino Real in Colma?

Once the peninsula’s only highway, El Camino retains the auto-oriented character that first emerged in the 1920’s. Today, El Camino Real functions more like a local

arterial than a state highway, but it struggles to become a destination corridor due to the vehicular focus of its land use profile and streetscape design. The Grand Boulevard Initiative (GBI), a collaboration of 19 cities, counties, and local and regional agencies, has been working to transform El Camino Real into a “grand boulevard of meaningful destinations.” While not developed directly through GBI, this Plan aligns with GBI’s vision and goals for the corridor.

With a grant from the Caltrans Sustainable Communities Program, the Town of Colma developed the El Camino Real Bicycle and Pedestrian Improvement Plan, which aims to improve safety and mobility for people who walk and bike along El Camino Real and to increase access to public transportation. The Plan was developed to serve the needs of all users of the corridor, including those of disadvantaged communities. Extensive community and technical stakeholder engagement were undertaken to understand existing issues and opportunities, discuss potential improvements, and ultimately arrive at a preferred set of recommendations that reflect the long-term local vision of the Colma community.

The existing challenges on the El Camino Real corridor in Colma include narrow and missing sidewalks, long and infrequent crosswalks, discontinuous bicycle facilities,

and high travel speeds. The Plan proposes the following changes to improve the travel experience for all roadway users:

- A road diet for the northern segment, from Albert M Teglia Boulevard to Mission Road
- Separated bicycle facilities
- Continuous sidewalks
- Crosswalk enhancements, pedestrian refuges, and curb extensions
- Protected intersections
- New traffic signals
- Bus stop relocations
- Landscaping, trees, and green infrastructure
- Reconfiguration of the Mission Road intersection (“the Y intersection”)

The following sections of the Plan include an overview of project goals, an assessment of existing conditions on the corridor, a summary of community engagement activities, and a full corridor concept with planning-level cost estimates and funding and implementation strategies.



FIGURE 1-1  
El Camino Real in the Town of Colma









# 02

## PLANNING CONTEXT



The Colma El Camino Real Bicycle and Pedestrian Plan is a community-centered effort focused on developing a comprehensive study of bicycle and pedestrian improvements for El Camino Real between Albert M Teglia Boulevard and Arlington Drive. The Plan builds on the previous studies summarized in this section.

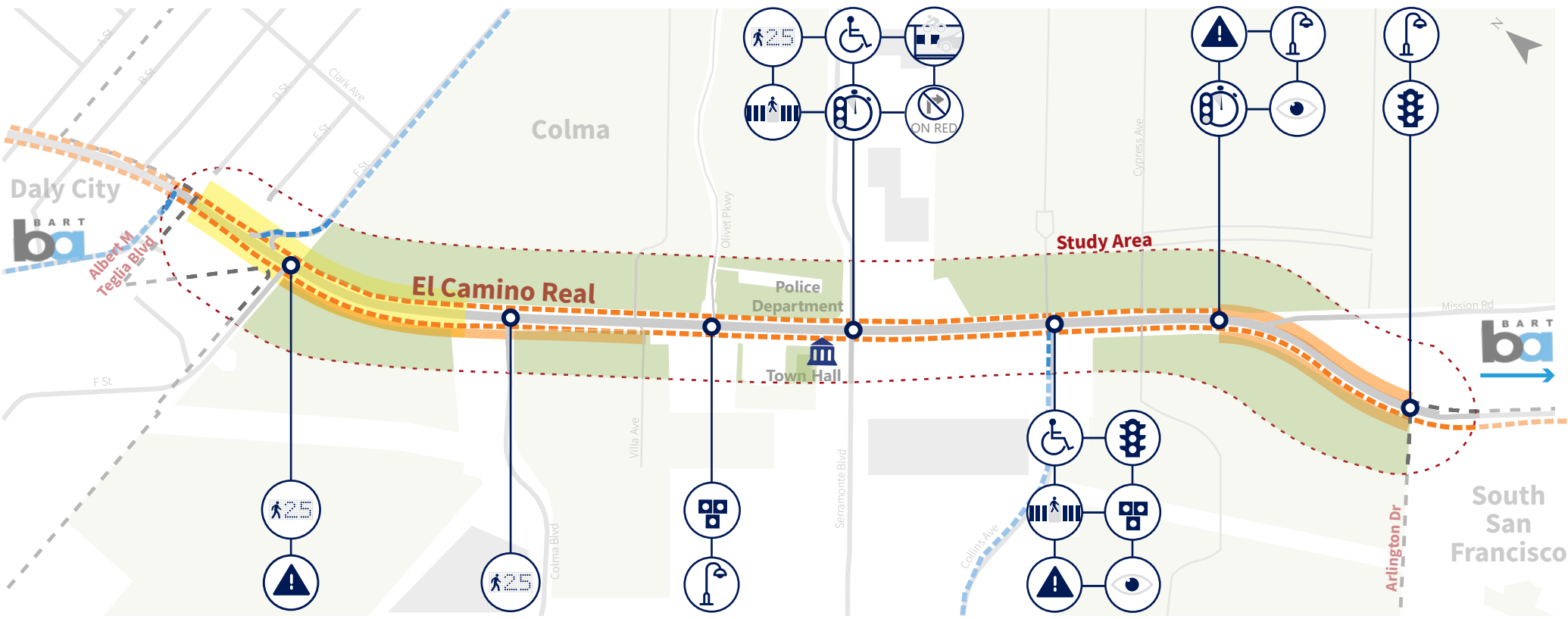
## Previous Plans

The Town of Colma's El Camino Real Bicycle and Pedestrian Improvement Plan builds on multiple planning documents and projects that provide context and serve as a foundation for this Plan. The relevant information and recommendations found in each of these documents is summarized below and in the graphic:

- *Caltrans District 4 Bike Plan* identifies barriers to bicycling in the San Francisco Bay Area and opportunities to enhance bicycle safety and mobility. It calls for Class IV Separated Bicycle Lanes on El Camino Real in Colma and Daly City (north of Collins Avenue).
- *San Mateo Countywide Comprehensive Bicycle and Pedestrian Plan (2012)* provides a policy framework to guide and evaluate implementation of the planning and design of bicycle and pedestrian projects of countywide significance. This plan is

currently in the process of being updated and will include an online map of county-wide bicycle and pedestrian infrastructure. The latest version (at the time of writing) calls for Class IV Separated Bicycle Lanes on the County portion of El Camino Real north of Colma.

- The Town's *Circulation Element* identifies facilities for the safe, efficient, and environmentally responsible movement of people and goods through Colma, ensures these facilities reflect the land uses contemplated by the Land Use Element, and ensures a range of transportation options are available throughout the Town.
- *Colma's Transportation Safety Action Plan – Systemic Safety Analysis Report (SSAR)* provides an initial step to identify primary safety concerns and proposed countermeasures on El Camino Real that need to be further evaluated and addressed in the Plan (e.g. high-risk intersections and segments).
- *Serramonte and Collins Master Plan* presents future improvements of Collins Avenue and Serramonte Boulevard, including a proposed road diet on Serramonte Boulevard between the Serra Center driveway and El Camino Real.
- *Mission Road Bicycle and Pedestrian Improvement Plan* incorporates enhanced bicycle and pedestrian facilities on Mission Road, which would directly connect with facilities on El Camino Real.



### Legend

- - - Study Area
- - - Town of Colma Limits
- High Risk Corridor (as defined in SSAR)
- Missing Sidewalk

### Proposed Bike Facilities

- - - Planned Class III Bike Route
- - - Planned Class IV Separated Bicycle Lane

\*Caltrans D4 Bike Plan plans for Class IV on El Camino Real north of Collins Avenue (as shown on this graphic), while San Mateo County Comprehensive Bicycle and Pedestrian Plan shows a proposed Class II or Class III on El Camino Real between Mission Road and F Street.

### Recommendations

- |   |                                       |                         |                                  |                            |                      |                       |   |                            |                               |                        |
|---|---------------------------------------|-------------------------|----------------------------------|----------------------------|----------------------|-----------------------|---|----------------------------|-------------------------------|------------------------|
|   |                                       |                         |                                  |                            |                      |                       |   |                            |                               |                        |
| Improve High Risk Intersection (as defined in SSAR) | Consider Leading Pedestrian Intervals | Improve Street Lighting | Install Pedestrian Hybrid Beacon | Consider Pedestrian Refuge | Update Signal Timing | Review ADA Compliance | Consider Green Pavement Markings for Bike - Vehicle Conflicts | Prohibit Right Turn On Red | Evaluate Intersection Control | Improve Sight Distance |

**FIGURE 2-1**  
Recommendations Identified in Previous Studies and Planning Documents



---

The Plan addresses the following primary safety and accessibility concerns on El Camino Real:

- Missing or narrow sidewalks and limited safe crossings
- Missing bicycle facilities and connection to the Mission Road bicycle lanes
- Missing safe crossings at El Camino Real/Mission Road “Y” intersection
- High vehicle speeds

---

## Existing Conditions

The study began with an assessment of existing conditions and engagement with the community to determine key needs, issues, and opportunities for the corridor. The existing conditions findings, along with community visioning, were used as the basis for developing design alternatives for the corridor. This chapter provides a snapshot of current conditions for walking, biking, driving, and riding transit on El Camino Real, as well as the land use context and the

characteristics of those who live, work, and travel in Colma. It summarizes the overarching constraints and opportunities that will affect the development of pedestrian and bicycle facilities and the overall network. More details can be found in the Existing Conditions Report in Appendix A.

## LAND USE CONTEXT

Land use types and key destinations along El Camino Real provide important context to understand travel patterns and mode choice for those who use the corridor. The infrastructure related to the land uses (for example, driveways) are important considerations when identifying potential improvements.

The Town of Colma is the smallest town in San Mateo County. It is popularly known as the “City of Souls,” since its primary non-residential land use is cemeteries. The cemeteries line El Camino Real, along with some commercial uses and public institutions near the intersection with Serramonte Boulevard. Residential neighborhoods largely are located at the north and south ends of the Town, including affordable housing near the Colma BART station.

The Town’s land use patterns pose challenges to its transportation network. The cemeteries

attract brief visits made mostly by vehicle, and the automobile dealerships near Serramonte Boulevard and other commercial uses that front El Camino Real tend to use much of their land for parking or vehicle storage, creating an unwelcoming environment for walking and biking. As a result, the corridor is generally used for passing through rather than as a destination.

The Town has identified a limited number of sites adjacent to El Camino Real that may be underutilized, and it commissioned an “Urban Design Study” to review these sites for contextual development opportunities. These sites include the current Kohl’s property and parking lot, a site south of Albert M Teglia Boulevard and sites at the intersection of El Camino Real with Mission Road. In addition, there currently exists several schools a few blocks north in Daly City, El Camino High School near the South San Francisco BART station, a new Veteran’s housing development near the Mission Road intersection, and a planned development on El Camino Real just south of Mission Road. It is critical to provide transportation options that support these land use changes.

The existing and planned land uses in Colma have informed the recommendations of the Plan to create a positive experience for all users of the corridor.



## DEMOGRAPHICS AND DISADVANTAGED COMMUNITIES

The Town of Colma aims to design its streets to accommodate everyone, regardless of age, ability, economic situation, race, ethnicity, and interests. Before proposing any improvements for El Camino Real, it is important to understand the unique demographic characteristics of the Town and those who use the corridor.

### Disadvantaged Communities

Three areas neighboring the Town of Colma are designated “Communities of Concern” by the Metropolitan Transportation Commission (MTC): two in Daly City and one in South San Francisco. While the Town of Colma does not itself contain a Community of Concern, certain segments of its population would be considered disadvantaged or vulnerable based on characteristics that align with the factors considered by MTC. There is also affordable housing around the Colma BART station. The Plan identifies infrastructure improvements that will help better connect these disadvantaged communities to Colma and the neighboring cities.

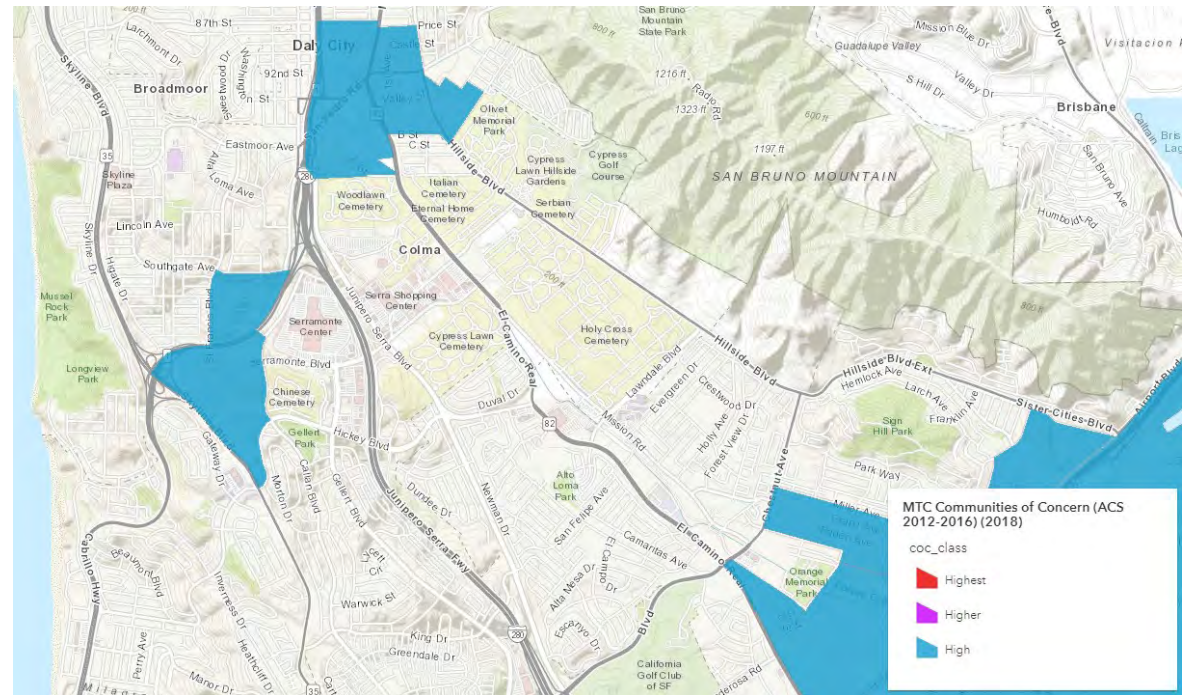


FIGURE 2-2

### Disadvantaged Communities Neighboring Colma

Source: MTC; Retrieved on April 30, 2019 at <http://opendata.mtc.ca.gov/datasets/mtc-communities-of-concern-in-2018-ocs-2012-2016?geometry=-122.557%2C37.664%2C-122.394%2C37.687>

The sections below present key characteristics of Colma’s population and employees, identifying traits that make these specific communities vulnerable.

### Who Lives in Colma?

Colma’s population of around 1,500 residents is quite diverse, with people from a range of ethnic, racial, and linguistic backgrounds. Forty-five percent of Colma’s population is Latino and 31 percent is Asian. Ten percent of Colma residents do not speak English fluently.

Seven and a half percent of residents are below the federal poverty level, slightly more than the percentage for the overall population of San Mateo County. The Town of Colma and a portion of Daly City just north of Colma are identified as low-income communities per AB 1550, with income levels 45 to 80 percent below the County’s median income. This population, in particular, needs high-quality, affordable and reliable transportation options.

#### Local Population

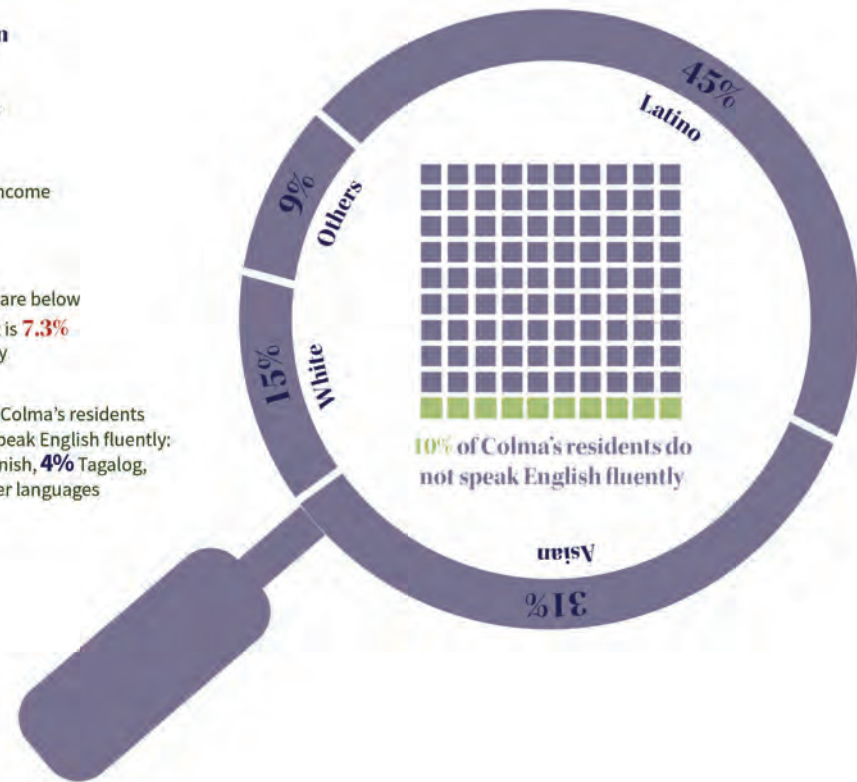
■ 1,540  
Local Population

\$97,500  
Median Household Income

7.5%  
of Colma’s residents are below  
poverty level while it is 7.3%  
for San Mateo County



10% of Colma’s residents  
do not speak English fluently:  
4% Spanish, 4% Tagalog,  
2% other languages

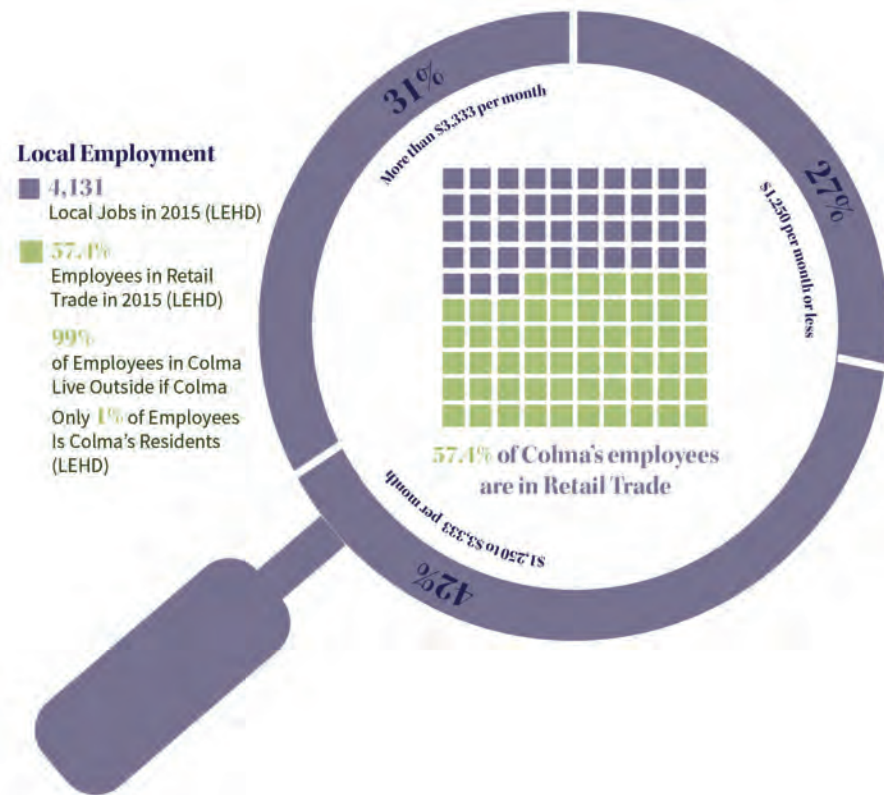


Source:

Population: Healthy Cities San Mateo County, U.S. Census Bureau, 2012-2016 American Community Survey 5-year Estimates  
Income: U.S. Census Bureau, 2013-2018 American Community Survey 5-year Estimates

### Who Works in Colma?

Consistent with the Town’s commercially-focused land use patterns, more people work in Colma than live in Colma, and only one percent of Colma employees live in the Town. Fifty-seven percent of Colma employees are in the retail trade industry, which consists of jobs that often pay low wages and have shifts that start and end outside typical weekday commute hours when high-frequency transit service is provided. Other major employers in Colma include cemeteries, cemetery support uses (such as flower and monument sales) and auto sales and service. The predominant employment type on Mission Road relates to auto repair and service, along with other light-industrial uses. The Town’s largest employer is Lucky Chances Casino, located east of El Camino Real on Hillside Boulevard, which is open 24/7 with full and part-time employees working in shifts. Given that most employees commute from outside of Colma, employees in low wage retail jobs may have limited commute options and flexibility. Providing good transportation connections for employees from neighboring communities can help the Town’s economic vitality.



Source:  
Employment: Longitudinal Employer-Household Dynamics (LEHD) 2015

## How Do People Commute to Work in Colma?

The lack of sidewalks, bikeways and other accommodations for non-driving modes gives people limited commute options. Seventy-one percent of employees drive alone or carpool to work; nineteen percent of employees take transit; and ten percent

choose to walk, bicycle, take a taxi, use a transportation network company (e.g. Uber, Lyft), or use other means of transportation. Improvements to El Camino Real would remove important accessibility barriers on the corridor.

## **TRANSPORTATION CONTEXT**

In the Town of Colma, El Camino Real has two distinct configurations: three lanes in each direction with a wide median north of Mission Road, and two lanes in each direction south of Mission Road. The Plan looks separately at the two segments of El Camino Real in Colma, dividing the 1.2-mile corridor into Segment A from Albert M Teglia Boulevard to Mission Road (0.85 miles) and Segment B from Mission Road to Arlington Drive (0.35 miles).



**71%**  
drive to work



**19%**  
take transit



**10%**  
use other modes

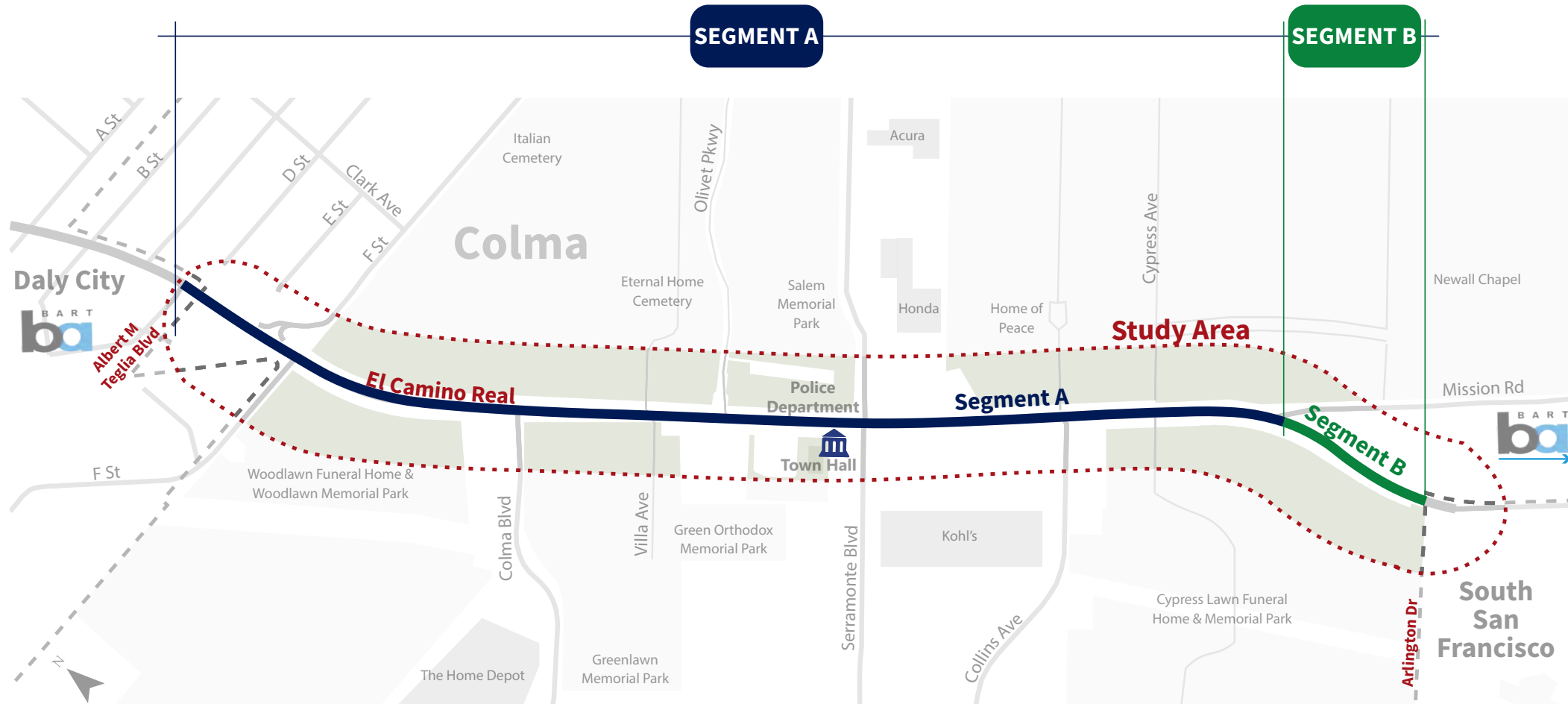


FIGURE 2-3  
Colma El Camino Real Segments



The existing cross section of **Segment A** generally has three vehicle travel lanes in each direction, discontinuous parking and sidewalks on both sides of the street, and a wide median with a concrete box culvert underneath. Some sections of Segment A do not have a sidewalk or parking on the west side, where there is instead an open culvert. Where present, the sidewalk is six to eight feet with landscaping along the side.

The existing cross section of **Segment B** has two vehicle travel lanes in each direction with no parking, median or sidewalks. The area adjacent to the roadway includes uneven terrain with landscape, trees, and bushes.

Both Segment A and Segment B currently experience fairly low traffic volumes throughout the day, meaning vehicles can travel freely along the corridor with a high level of comfort and at high speeds above the 35 to 40 miles-per-hour speed limit. These free-flow roadway conditions, combined with the corridor’s missing sidewalks, infrequent pedestrian crossings, and lack of bicycle facilities, make El Camino Real a stressful roadway for pedestrians and bicyclists and provide an exciting opportunity to explore the reallocation of space on the corridor.

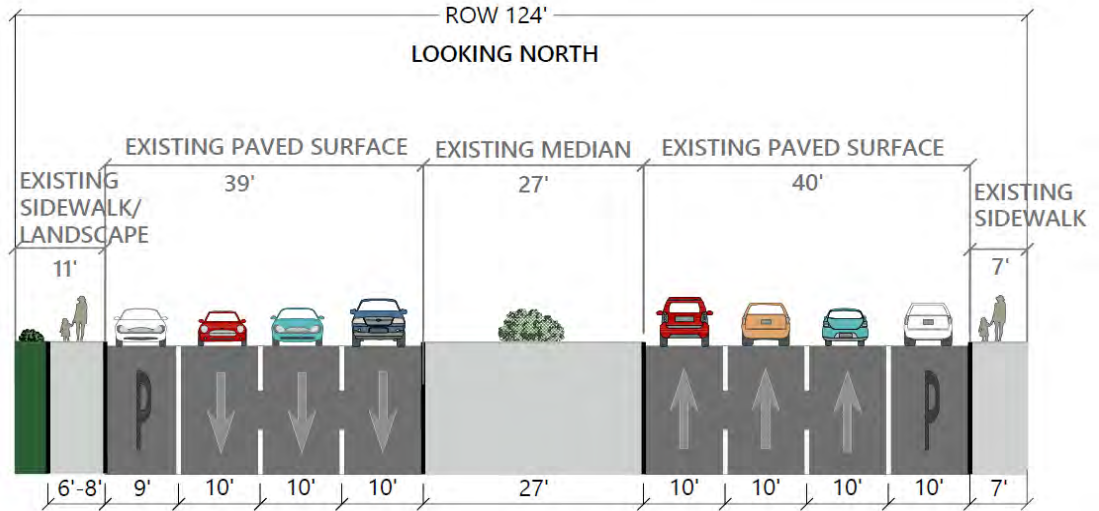


FIGURE 2-4  
Segment A Existing Cross Section

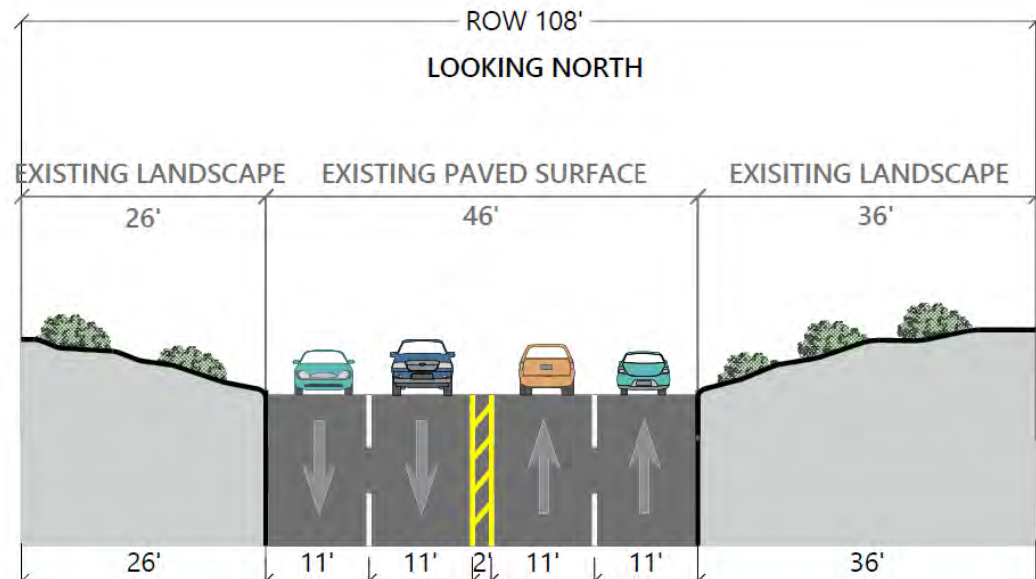


FIGURE 2-5  
Segment B Existing Cross Section

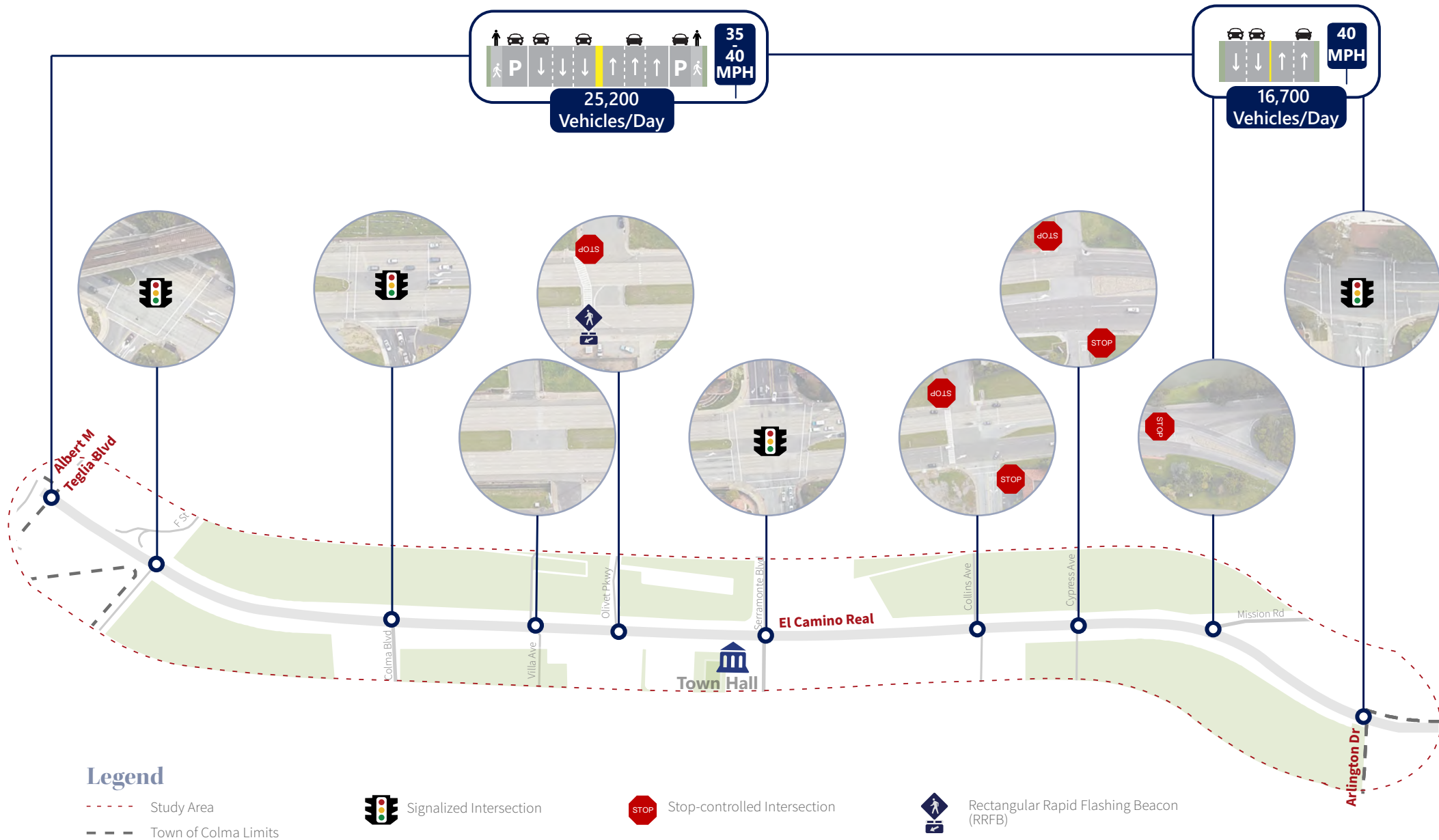


FIGURE 2-6  
Existing Daily Volumes and Intersection Controls on El Camino Real

## Pedestrian Facilities

Walking is the oldest form of human transportation. It is accessible to everyone and friendly to the environment. In its current state, El Camino Real is unwelcoming to pedestrians. The corridor has no sidewalks on the west side from F Street to Villa Avenue (Greek Cemetery entrance) and no sidewalks on either side from Mission Road to Arlington Drive. When provided, sidewalks are generally narrow and lack ADA ramps, resting places, or shade. These conditions discourage people from traveling through the Town on foot and result in low pedestrian volumes on El Camino Real, despite the bus stops and businesses along the corridor. Improvements to make El Camino Real more pedestrian-friendly would improve quality of life for Colma residents and visitors, as well as provide health benefits and contribute to the economic development of the Town.





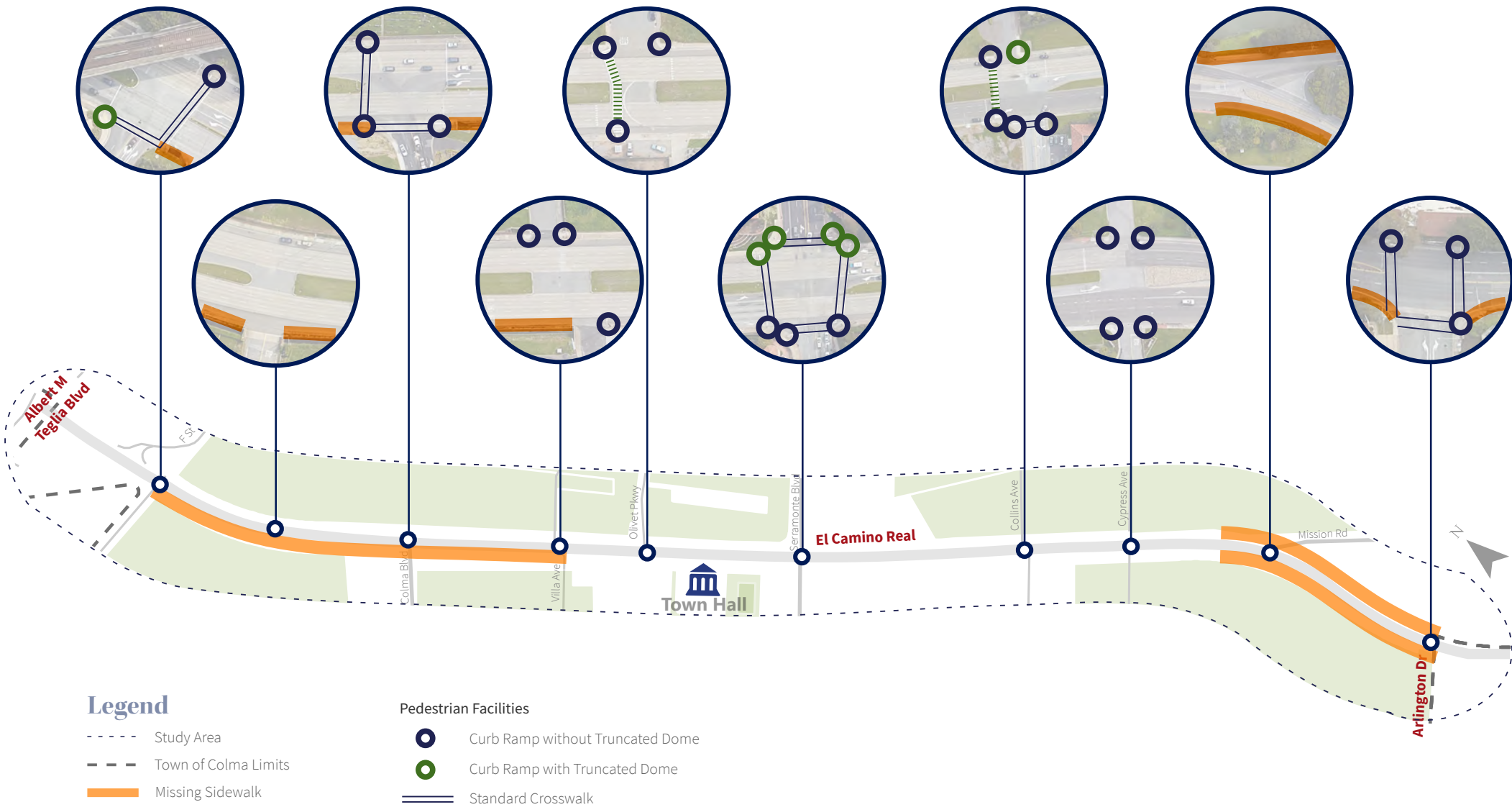


FIGURE 2-7  
Existing Pedestrian Facilities on El Camino Real

## Bicycle Facilities

Biking is another accessible and environmentally friendly form of transportation that helps promote a healthy lifestyle. Currently, there are no existing bicycle facilities on El Camino Real to support biking along the corridor, and existing bicycle volumes are very low. However, there is high potential for bicycle trips on El Camino Real. Colma employees come from nearby communities, with 20 percent of commute trips to Colma being less than two miles - a very bikeable distance. Similarly, eight percent of trips traveling through Colma on El Camino Real are two miles or less. With the implementation of bicycle facilities on El Camino Real, the Town could help make it more feasible and attractive to take these short trips by bicycle.

---

Town, County, and State transportation plans call for bicycle facilities on El Camino Real as a main active transportation connection through multiple jurisdictions. Bicycle facilities on El Camino Real would connect to the regional transit system at the two adjacent BART stations (Colma and South San Francisco), connect to the Mission Road bicycle lanes to the south, and connect to the Centennial Trail towards San Bruno.

---

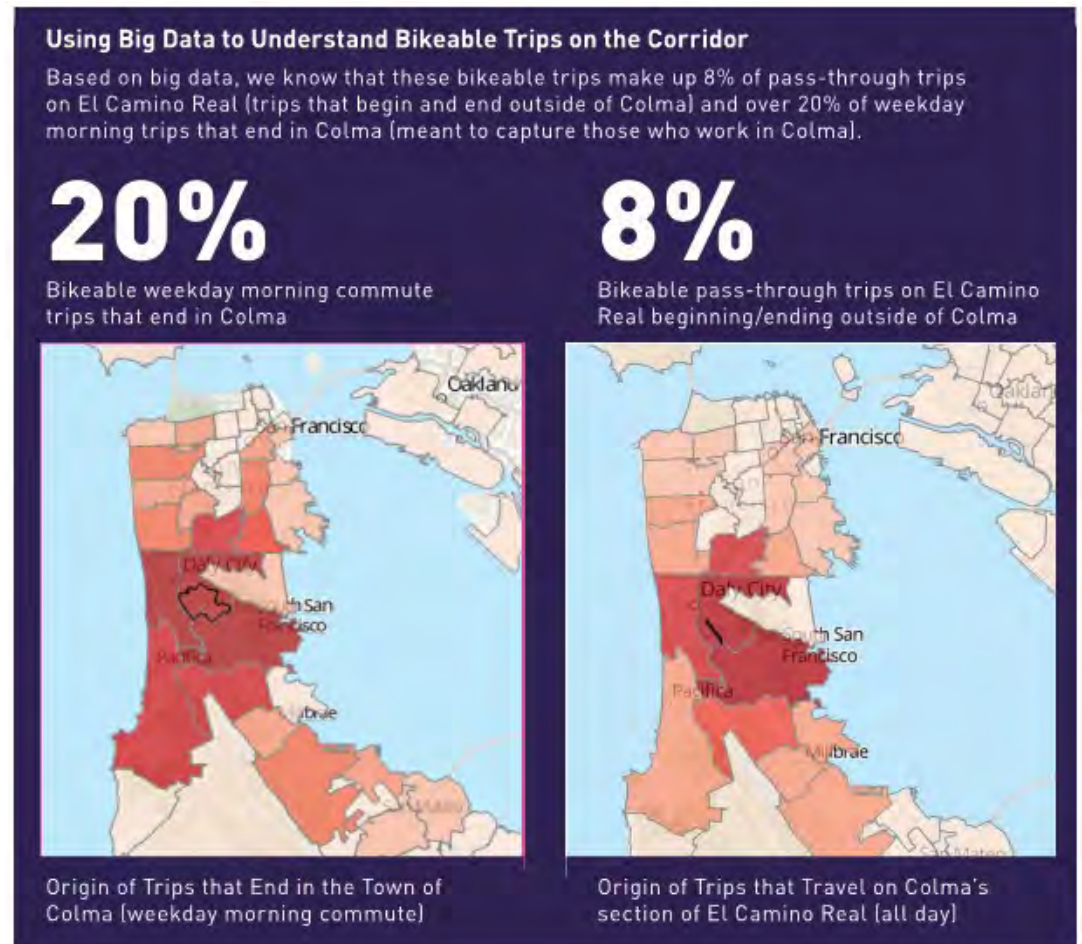
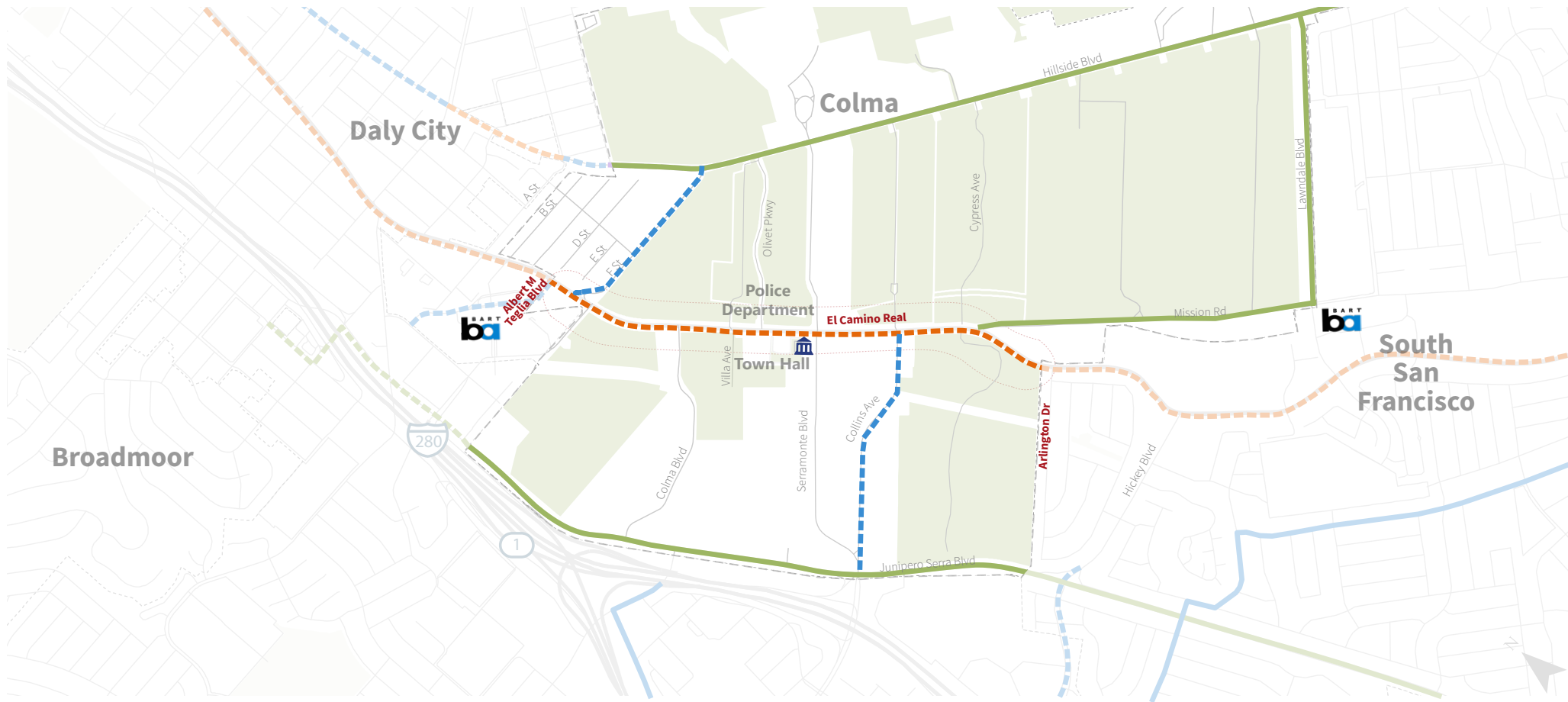


FIGURE 2-8  
Understanding Bikeable Trips on the Corridor



**Legend**

- - - - - Study Area
- - - - - Town of Colma Limits
- - - - - City Limits

**Existing Bike Facilities**

- Class II Bicycle Lane
- Class III Bicycle Route
- - - Class IV Separated Bicycle Lane

**Proposed Bike Facilities**

- - - Class II Bicycle Lane
- - - Class III Bicycle Route
- - - Class IV Separated Bicycle Lane

\*Caltrans D4 Bike Plan plans for Class IV on El Camino Real north of Collins Avenue (as shown on this graphic), while San Mateo County Comprehensive Bicycle and Pedestrian Plan shows a proposed Class II or Class III on El Camino Real between Mission Road and F Street.

**FIGURE 2-9**  
Existing and Planned Bicycle Facilities on El Camino Real



## Transit Facilities

Public transit plays a vital role in providing economic and social benefits, especially for disadvantaged communities. The Colma and South San Francisco BART stations at the north and south end of the Study Area serve as transfer locations between BART and local bus and shuttle routes. Five of the SamTrans multi-city bus lines stop at the Colma BART station, and three of these stop along El Camino Real as well (ECR, 120, 130). Route ECR is a particularly important route connecting riders across all of San Mateo County along El Camino Real, generally running every 20 minutes. Routes 120 and 130 connect riders between Daly City, South San Francisco, and San Francisco International Airport, and they run southbound on El Camino Real between Albert M Teglia Boulevard and F Street generally every 30 minutes. Buses along El Camino Real in Colma currently travel in the same lane as cars and pull into the parking lane to pick up passengers at curbside bus stops. The pedestrian and bicycle improvements recommended in the Plan provide important transit access improvements. A complementary study could be conducted with SamTrans to comprehensively address transit services and facilities along the corridor.





FIGURE 2-10  
Existing Transit Facilities on El Camino Real

## Parking

The design and management of parking supply affects the livability and walkability of Colma. Understanding parking supply and demand on the corridor provides insight into where parking is crucial and where the space may be repurposed, so the final design can be developed to meet the community needs.

On-street parking currently is permitted and free on both sides of El Camino Real in Colma, with the exception of a few locations where there is no parking lane: the west side from F Street to Colma Boulevard, the east side from Cypress Avenue to Mission Road, and both sides from Mission Road to Arlington Drive. On-street parking utilization on El Camino Real is generally low at all times of the day, except for north of F Street, near the Colma BART station, and extending north and south from Serramonte Boulevard, near the commercial area. Most parked vehicles concentrate on both sides of El Camino Real from Albert M Teglia Boulevard to F Street and from Serramonte Boulevard to Collins Avenue.

Current levels of on-street parking utilization support the Town's *Land Use and Urban Design Strategy* to maintain on-street parking in commercial areas ("Pedestrian

Public Realm Focus" areas) and explore opportunities to enhance pedestrian and bicycle facilities in lower-utilized areas ("Boulevard" areas). This strategic replacement of parking would help the Town encourage people to walk and bike to work, shop, and connect to transit.

## Safety

Collision data help us understand transportation safety patterns on El Camino Real. *The Colma Systemic Safety Analysis Report (SSAR)* provides insight into collision trends on the corridor from 2011 to 2016. According to the report, El Camino Real is the third highest collision corridor in the Town with 18 percent of total collisions. The most common collision types on the corridor are broadside and sideswipe. The most common travel violations on the corridor are improper turning (18%), failure to yield to another motorist who had the right of way (18%), unsafe speed (14%), and driving or bicycling under the influence of alcohol or drugs (14%). While no corridor-specific data are provided in the Colma SSAR about bicycle and pedestrian collisions, the report finds that seven percent of reported collisions Town-wide involved pedestrians or bicyclists.

All of the bicycle and pedestrian collisions resulted in some level of injury, with one fatal pedestrian collision reported.

The results of the *Colma SSAR* have been incorporated into the Plan to provide infrastructure improvements that enhance all users' experience on the corridor.

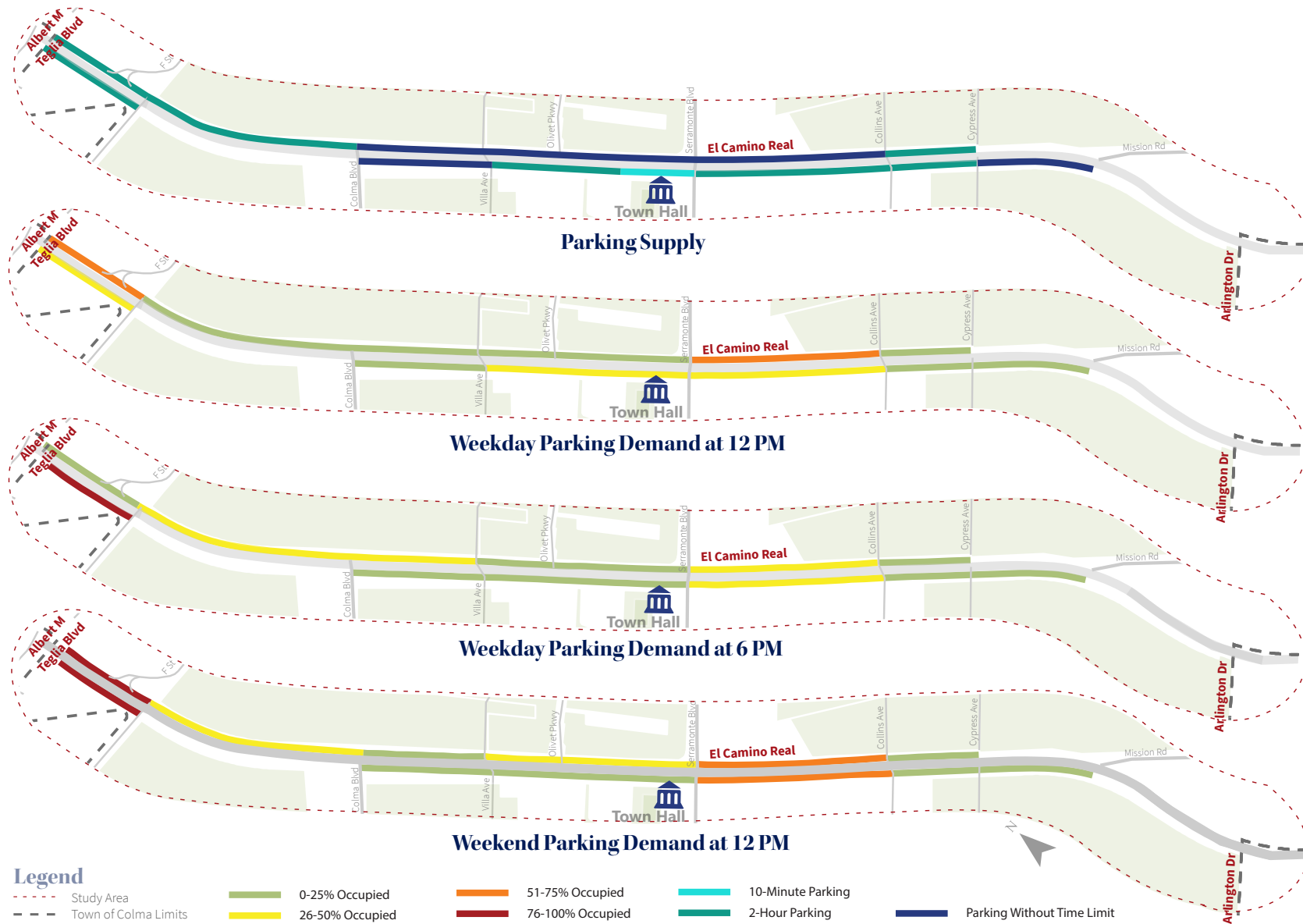


FIGURE 2-11  
Existing Parking Demand on El Camino Real





Parking Level 1

No Food/Drink

All Trains

No Smoking

F Street

Taxi/Bus

Information

Green Bicycle and Pedestrian Improvement Plan

Informational poster on a tripod stand, featuring text and graphics related to the improvement plan.

Informational poster on a tripod stand, titled 'Green Bicycle and Pedestrian Improvement Plan' and detailing survey questions for alternatives B.1, B.2, and B.3.

DO YOU PREFER ALTERNATIVE B.1 - BIKE LANE AND SIDEWALK?  
PLEASE STICKER HERE TO VOTE

DO YOU PREFER ALTERNATIVE B.2 - SHARED USE PATH?  
PLEASE STICKER HERE TO VOTE

DO YOU PREFER ALTERNATIVE B.3?  
PLEASE STICKER HERE TO VOTE







# 03

## COMMUNITY ENGAGEMENT



The Colma El Camino Real Bicycle and Pedestrian Plan is a collaborative planning effort to produce an actionable, community-based design. The goal is to create a corridor that welcomes and serves the people who live, work, and travel along it. The project team employed a variety of tools, venues and platforms to facilitate education and information-sharing, gather input, and publicize the planning effort throughout the study process.

### Community Engagement Phases

Community engagement occurred in three phases, paralleling the development of the study. In Phase 1, large-format maps allowed participants to explore the study area, describe their experiences, and identify issues and possible solutions at a zoomed-in scale. In Phase 2, participants used storyboards to comment on and vote for alternative cross sections. In Phase 3, the community experienced the preferred alternative by navigating through a full-scale design of the corridor and 3D renderings on the project website [ColmaElCaminoReal.Org](http://ColmaElCaminoReal.Org)

---

**Phase 1 (August-September 2019):** Introduce the project, gather input on relative importance of the project goals, and gather input on current constraints and opportunities along the corridor.

**Phase 2 (February-March 2020):** Present cross section alternatives, gather input on the design elements, and determine stakeholders' preferred alternative.

**Phase 3 (October 2020):** Present preferred alternative design concept, demonstrate key design features at full-scale, and collect feedback on the preferred alternative design.

---

## Engagement Tools

The community engagement process was designed to achieve a community-driven vision for El Camino Real. For each phase, the project team engaged with the community through a series of resident-focused and business-focused activities, as well as through organized meetings with a Technical Advisory Committee (TAC), Caltrans and City Council. The project team combined traditional community meetings (e.g., Town Hall meetings and open houses) and non-traditional events (e.g., pop-ups at Colma BART station) to encourage broad participation from residents, employees, business owners, visitors, and others. Online tools (e.g. project website, email, Livewire, social media) were another important feature of the engagement strategy, and these proved especially effective under the shelter-in-place requirements of the COVID-19 pandemic.

## The Effect of COVID-19 on Community Engagement

Unexpectedly, in March 2019, the spread of COVID-19 led to a shelter-in-place order that impacted the last two phases of community engagement. The project team adapted and found creative ways to continue engaging the community, despite the physical distancing requirements. The team focused on online engagement through the project website, changed to emailed outreach instead of flyers and pop-up events, and hosted online meetings to answer questions from the community. The project team built a stronger online presence with more interactive tools, including videos and 3D images, so that people could experience the space virtually.

---

## How We Reached the Community and Stakeholders

- Community engagement events
    - Four community meetings
    - Two pop-up events
    - Online engagement
  - Three TAC meetings
  - One Caltrans meeting and continuous coordination
  - Three City Council meetings
- 

## During Outreach we...

received over **300** comments and reached an estimated **650** people based on views of the online engagement and people talked to in person.



**660**



# Community Engagement Events

## COMMUNITY MEETINGS

The project team hosted four community meetings, including two public meetings, one open house, and one virtual open house during the COVID-19 pandemic. The public meetings started with a presentation from the project team, followed by a discussion with the community to gather their thoughts and perspectives, and ended with an opportunity for the community to vote on preferred options and provide additional written comments. Open houses followed a looser structure, allowing community members to review project information at their own speed, while the project team served as a resource to answer questions. Similar to at the public meetings, community members could provide written feedback and vote on their preferred approach through the project website ([ColmaElCaminoReal.Org](http://ColmaElCaminoReal.Org)).

---

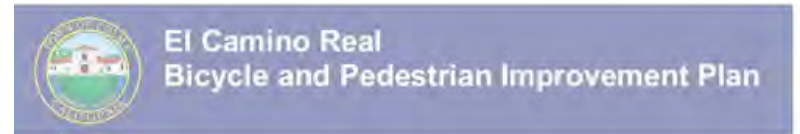
September 12, 2019: Town Hall Public Meeting (midday)

September 12, 2019: Town Hall Open House (evening)

March 5, 2020: Town Hall Public Meeting

October 6, 2020: Virtual Open House

---



The Town of Colma received a grant from the Caltrans Sustainable Communities Program to improve safety and mobility for people who walk and bike along El Camino Real, and to increase access to public transportation.

Improvements to the corridor will enhance safety, encourage the use of sustainable transportation, and provide better connectivity to BART stations and bus stops to improve overall quality of life.

The El Camino Real corridor we are studying extends within the Town of Colma, approximately between the Colma BART station and Arlington Drive.



**We want to hear about your experience traveling in the Town of Colma.**

- What's it like to walk and bike along El Camino Real?
- What improvements would you like to see?
- Are there barriers that prevent you from walking or biking on El Camino?

Visit our website to learn more and provide your input through an interactive map and survey:

**ColmaElCamino.org**



SCAN ME

FIGURE 3-1  
Example Outreach Flyer

# Map Your Feedback

Tell us about your experience traveling in the Town of Colma.

- What's it like to walk and bike along El Camino Real?
- What improvements would you like to see?
- Are there barriers that prevent you from walking or biking on El Camino?



FIGURE 3-2  
Example Outreach Board



## POP-UP EVENTS

The project team set up “pop-up” booths at the Colma BART station to raise awareness about the Plan and get additional feedback from people who may not attend traditional meetings or open houses. “Pop-up” events allowed the outreach team to meet community members at a place and time that was convenient and comfortable for them.

The fact that the conversations happened adjacent to the study corridor helped facilitate conversation and prompt ideas. At the “pop-up” events, participants identified issues and opportunity areas on maps, identified the types of improvements they wanted to see installed throughout the corridor, and shared their reactions to the draft design alternatives. Approximately 220 people were reached through the pop-up events.

## ONLINE ENGAGEMENT

The project website enabled communication between the community and the project team throughout the Plan development process. The website provided general information about the project, presented the latest information about the Plan, and included an open comment form to provide feedback and contact the team at any time. For each phase of community engagement, community members could go the website and access an online survey that mimicked the materials used for the in-person community meetings and pop-up events, bringing the in-person experience online. The online tools were particularly instrumental during Phase 3, when shelter-in-place restrictions precluded in-person engagement.

Overall, over **450** people visited the website and over **130** comments were collected through the website.

September 12, 2019: Colma BART Pop-up  
 March 5, 2020: Colma BART Pop-up



FIGURE 3-3  
 Example Online Input

## TAC Meetings

A Technical Advisory Committee (TAC) helped guide the planning process and provided feedback on key deliverables throughout the study.

The following agencies were represented on the TAC:

- BART
- Caltrans
- City of South San Francisco
- Colma Business Community
- Colma Police Department
- Daly City
- SamTrans
- San Mateo County
- Silicon Valley Bike Coalition
- Town Council Members
- Town of Colma

The TAC convened three times throughout the study, aligned with the three phases of community engagement.

---

TAC Meeting 1: September 20, 2019

TAC Meeting 2: February 20, 2020

TAC Meeting 3: October 6, 2020

---



## Caltrans Coordination

As a state-owned facility, improvements on El Camino Real will require final approval from Caltrans. Caltrans was a critical partner throughout the Plan development process, attending every TAC meeting and providing input on the cross-section alternatives and final concept design. Caltrans hosted a design review meeting on August 11, 2020 with key reviewers from the agency to discuss the consistency of the corridor concept design with agency goals and general design guidelines, as well as necessary next steps prior to implementation.

## City Council

City Council members played an important role in the Plan development process, serving as decision-makers representing the interests of the Colma community. The project team presented to the City Council three times throughout the project to update Council members on the Plan progress and community input, as well as to hear Council members' comments, concerns, and preferences so they could be incorporated.

---

City Council Meeting 1: October 23, 2019

City Council Meeting 2: April 22, 2020

City Council Meeting 3: January 27, 2021

---



Parking Level 1

No Food / Drink

All Trains

No Smoking



### What Improvements Do You Want (What Matters Most?)

- BIKE LANES
- BIKEWAYS
- IMPROVED ACCESSIBILITY (E.G. CURB RAMP)
- IMPROVED PEDESTRIAN BIKE CROSSINGS
- LIGHTING
- SMALL PUBLIC SPACES SUCH AS POCKET PARKS OR PLAZAS
- LANDSCAPING AND STREET TREES
- TRAFFIC CALMING TO REDUCE SPEEDING
- ON-STREET PARKING
- MORE RELIABLE PUBLIC TRANSPORT
- OTHER, PLEASE SPECIFY

Cypress Ave

Mission Rd

Arlington Dr

South San Francisco

Study Area

*Challenging for the 40' along 18th Avenue, but also more infrastructure needed*

BART









# 04

## LOCAL VISION



The vision for the Colma El Camino Real Bicycle and Pedestrian Improvement Plan is to help make the Town of Colma a place where bicycling and walking are safe, comfortable, and convenient forms of transportation and recreation for people of all ages and abilities. This vision reflects the priorities of the Colma community and stakeholders as identified through the community engagement process. The Town of Colma will use the Plan as a framework to improve the community’s health, mobility, livability, economy, and environment.

## Goals and Values

At the onset of the Plan development process, goals and values were developed for the Plan to help set a vision for the El Camino Real corridor in Colma and guide the development of the Plan. These goals and values are informed by Town priorities and consistent with the Town’s grant funding application. They also are aligned with the Grand Boulevard Initiative’s (GBI) Guiding Principles and reflect street design best practices in California. Potential ways to accomplish each goal and how these align with GBI’s Guiding Principles are presented in Appendix A.

### GOALS AND VALUES



#### SAFETY AND PUBLIC HEALTH

Creating safe conditions reduces the severity and frequency of collisions for all modes, as well as promotes physical activity by enhancing the experience of walking and biking.



#### SUSTAINABILITY

Reducing vehicle use by making walking, biking, and riding transit more accessible improves congestion and environmental impacts.



#### ECONOMIC DEVELOPMENT

Developing solutions that encourage economic growth and equitable economic opportunities for all neighborhoods and corridor users.



#### COST EFFICIENCY

Prioritizing cost-effective solutions that align with potential funding sources and minimize project complexity.



#### CONNECTIVITY AND ACCESS

Reducing gaps in the transportation network for all modes, including improving pedestrian sidewalks and crossings, bicycle paths, and transit access.



#### MOBILITY AND RELIABILITY

Reducing travel times along the corridor for all modes, including increasing transit reliability and public parking.



#### QUALITY OF EXPERIENCE

Creating an integrated environment for pedestrians and bicyclists with improved pathways, vibrant public spaces, and better landscaping.

## Community Priorities

Colma community members and stakeholders voiced their preferences for the goals and values they wanted to prioritize for the Plan. They identified the following as the top four goals and values:

1. Safety and Public Health
2. Connectivity and Access
3. Mobility and Reliability
4. Quality of Experience

Community members and stakeholders also voted on their desired improvements for the corridor. The top three community-desired improvements – sidewalks, bicycle lanes, and improved pedestrian/ bicycle crossings – align with Safety and Public Health as the top goal for this Plan.

“El Camino Real makes up only 0.5-1% of the street network in San Mateo and Santa Clara Counties, yet 5-15% of collisions involving people walking and biking take place there. The street is a community hub of destinations including new homes and offices, shops, schools, and transit, yet it is a wide multilane road with fast-moving cars and lengthy crosswalks. I believe in the vision of the Grand Boulevard Initiative (GBI) for a people-friendly El Camino Real with a focus on increasing access to destinations and improving quality of life. Focusing on making the street safer for those walking and biking will help achieve this vision.”

-Community Member

### What Improvements Do You Want On El Camino Real

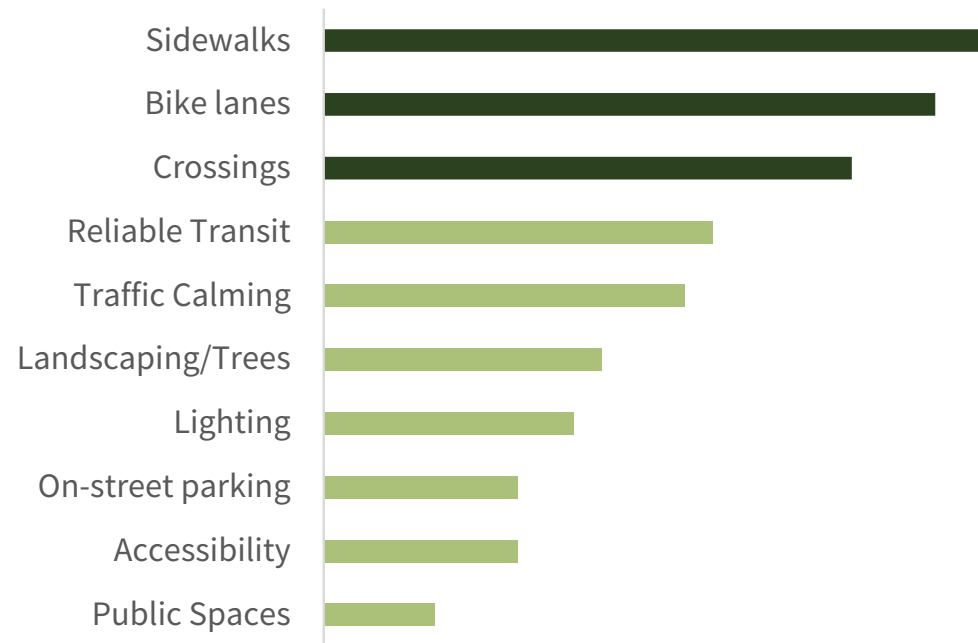


FIGURE 4-1  
Community-Desired Improvements on El Camino Real

## Issues and Potential Improvements

Input from the community and an analysis of existing conditions on the corridor produced a set of primary issues for the Plan to tackle. It also led to the identification of potential improvements to address those issues, aligned with best practices and the local context.

### KEY ISSUES AND POTENTIAL IMPROVEMENTS:

- **Reduce vehicle speeds by implementing a road diet:** Most community members felt that people drive too fast on El Camino Real and voiced the need for a road diet and additional traffic signals at key intersections, such as Collins Avenue. A road diet reallocates street space to more equitably and more effectively serve all users. It improves the safety and comfort of pedestrians and bicyclists by reducing vehicle speeds, and it reduces the potential for collisions.
- **Add bicycle and pedestrian facilities:** Several community members indicated they have no choice but to use their cars

due to the lack of bicycle and pedestrian facilities on El Camino Real. There was consensus that the Plan should include sidewalks through the entire corridor, more frequent and safe crossing opportunities, more trees to provide greening and shade, and separated bicycle lanes.

- **Provide pedestrian-scale lighting:** Some community members were concerned about visibility when walking, biking, or driving along El Camino Real. Providing pedestrian-scale lighting, especially at intersection and crosswalks, would enhance road users' visibility when dark.
- **Improve the Mission Road/El Camino Real intersection (“the Y intersection”):** Many shared that this intersection is particularly challenging for pedestrians and bicyclists, as there are no sidewalks, crosswalks, or bicycle facilities. There were also concerns about the difficulty of making left turns from El Camino Real onto Mission Road, particularly due to the high speeds of vehicles traveling along El Camino Real. By squaring up the Mission Road/El Camino Real intersection, it becomes a traditional T-intersection rather than the existing Y-intersection, making it

easier to navigate for all users. This design improves visibility, shortens crossing distances, and reduces speeds of turning vehicles. In addition, installing a traffic signal at the Mission Road/El Camino Real intersection would allow the addition of marked crosswalks on all sides of the intersection and allow vehicles to turn left both in and out of Mission Road.

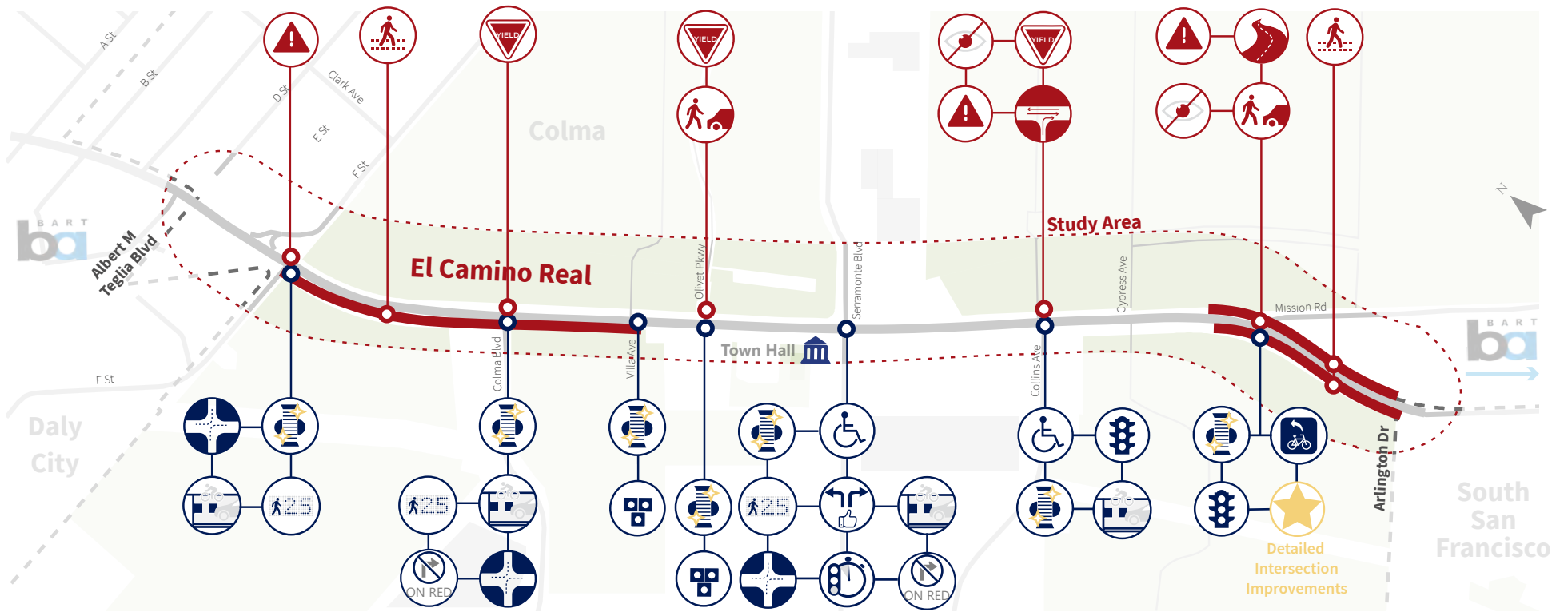
---

### Bicycle and Pedestrian Plan Vision

“El Camino Real will achieve its full potential for [people] to work, live, shop, and play, creating links between communities that promote walking and transit and an improved and meaningful quality of life.”

– *Community Member*

---



**Corridor Issues**

- No Bicycle Facility
- Speeding

**Intersection Issues**

- High-Risk Intersection
- Failure to Yield to Pedestrians
- Wide Travel Lanes
- Poor Visibility
- Missing Sidewalk
- Conflict with Major Street
- Unsafe Crossing

**Corridor Improvements**

- Provide Bicycle Facilities
- Provide Trees
- Install Speed Feedback Signs
- Provide Sidewalks Where Missing & Increase Number of Pedestrian Crossings
- Implement Road Diet
- Provide Pedestrian-Scale Lighting
- Provide Public Space Around Bus Stops

**Intersection Improvements**

- Add Pavement Marking Delineation
- Green Pavement Markings for Bike-Vehicle Conflicts
- Install Pedestrian Hybrid Beacon
- Reduce Numbers of Left-Turn Lanes
- Prohibit Right Turn On Red
- Provide Protection for Bicycle Turning Movement
- Install Traffic Signal
- Implement Leading Pedestrian Interval
- Add/Enhance Crosswalk
- Update Signal Timing
- Review ADA Compliance






FIGURE 4-2  
Issues and Potential Improvements on El Camino Real



### Existing Conditions



### Intersection Issues

-  Speeding
-  Poor visibility
-  Missing sidewalk
-  Difficulty in making left turns from southbound El Camino Real to Mission Road
-  No bicycle facility

### Potential Improvements







-  Square-up intersection to improve sight lines and shorten crossing distance, reduce turning radii and speeds of turning vehicles.
-  Install traffic signal
-  Allow left turn
-  Add high-visibility crosswalks

FIGURE 4-3  
Potential Improvements at Mission Road/El Camino Real Intersection







## Concept Design

The community engagement process and existing conditions assessment produced a concept design for El Camino Real that incorporates the opportunities identified for the corridor and helps Colma realize its vision for an El Camino Real that is safe, comfortable, and convenient for all users. The concept design includes separated bikeways and continuous sidewalks throughout the corridor, as well as crosswalk enhancements at intersections and new pedestrian crossings. A lane reduction, or road diet, on Segment A addresses concerns about speeding, while the number of travel lanes is maintained on Segment B to provide continuity throughout the corridor with two lanes per direction. Parking is maintained where it currently exists on the corridor to support local business.

The concept designs presented in this report are conceptual in nature, and further work is required to finalize the improvements before they are implemented. For example, the design and location of bus stops will require additional coordination with Caltrans and SamTrans. Future studies that would be pursued prior to implementation are identified in the last section of the Plan.



## SEGMENT A PREFERRED CROSS SECTION (FROM ALBERT M TEGLIA BOULEVARD TO MISSION ROAD)

Given the free-flow traffic conditions and excess capacity on El Camino Real north of Mission Road today, Segment A presents an opportunity to repurpose a travel lane in each direction to provide a separated bikeway and continuous sidewalk to enhance bicyclist and pedestrian comfort. It also presents an opportunity for streetscape enhancements, all with minimal impact to vehicle traffic flow.

- Six-lane cross section encourages speeding
- Missing sidewalks in some sections of the corridor
- No bicycle facilities
- Parking on both sides
- Wide median

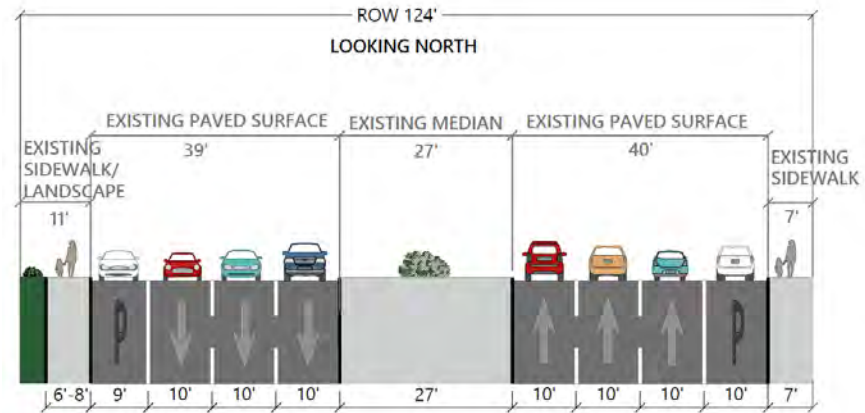


FIGURE 4-4  
Segment A Existing Cross Section

- Road diet to address speeding issues
- Continuous sidewalks for pedestrian safety and comfort
- Separated bicycle lanes for bicyclist safety and comfort
- Parking on both sides to support local businesses
- Preserved median to minimize costs

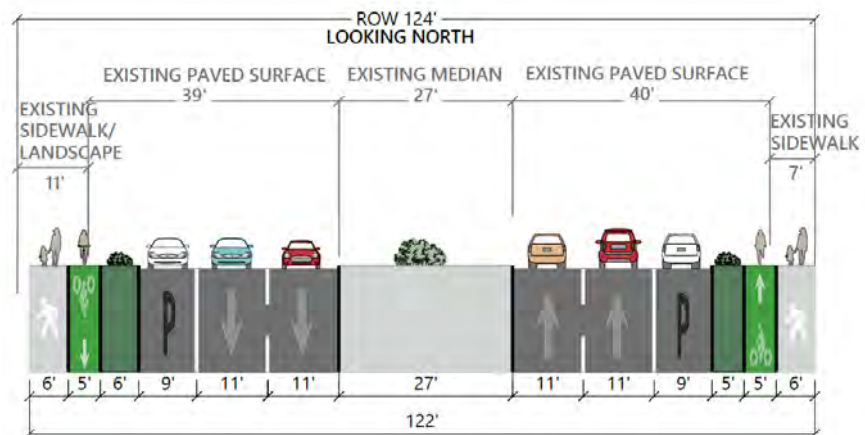


FIGURE 4-5  
Segment A Preferred Cross Section







## SEGMENT B PREFERRED CROSS SECTION (FROM MISSION ROAD TO ARLINGTON DRIVE)

The preferred cross section for Segment B maintains the existing two lanes per direction, consistent with the number of travel lane proposed for Segment A to the north and the existing number of travel lanes to the south. The cross section also adds bicycle and pedestrian facilities on both sides of the roadway by converting a portion of the existing landscape area to sidewalks and separated bikeways.

- Four-lane cross section
- No sidewalks
- No bicycle facilities
- Hardened centerline separates traffic in opposite directions
- Uneven terrain with landscape adjacent to roadway

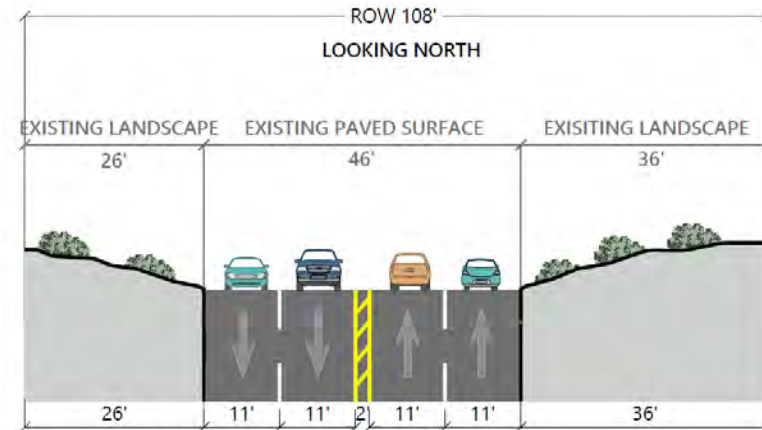


FIGURE 4-6  
Segment B Existing Cross Section

- Four-lane cross section for consistency with proposed Segment A cross section and existing configuration south of Arlington Drive
- Continuous sidewalks for pedestrian safety and comfort
- Separated bikeways for bicyclist safety and comfort

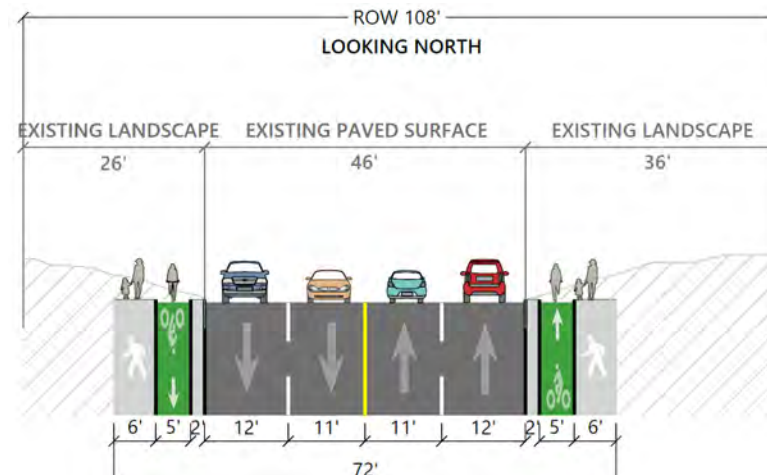


FIGURE 4-7  
Segment B Preferred Cross Section

## ALTERNATIVE DESIGNS












Several other design alternatives are feasible within the available curb-to-curb width of the corridor and could address the safety, connectivity and mobility challenges for those who walk and bike there. These alternatives (included in Appendix B) were presented at the community engagement events and to the City Council). Based on community input and design considerations, the alternatives were not pursued further during this study.

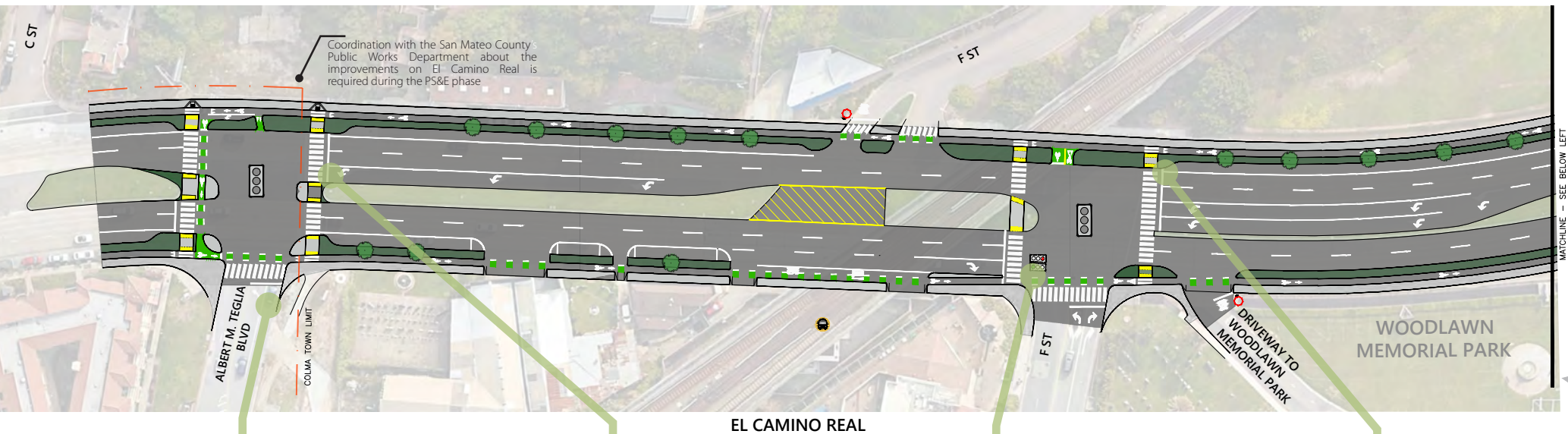


## CORRIDOR CONCEPT DESIGN

A full corridor design for Segment A and Segment B was developed and refined based on the preferences shared by the stakeholders and community, including through the third and final phase of outreach. Call-out boxes help describe the key design elements.

### LEGEND

 Sidewalk	 Opportunity Area (e.g. Green Infrastructure)	 Painted Truck Apron	 Existing Signal	 Proposed Bus Stop	 Existing Bus Stop to Remain
 Landscape		 Proposed Pedestrian Hybrid Beacon (PHB)	 Proposed New Signal	 Removed Bus Stop	 Existing Stop Sign



### NO RIGHT TURN ON RED

No right turn on red prohibits drivers from making a right turn when they have a red light. This helps reduce conflicts between right-turning vehicles and bicyclists or pedestrians moving through the intersection. No right turn on red is recommended from side streets onto El Camino Real at every signalized intersection throughout the corridor.

### HIGH-VISIBILITY CROSSWALK

High-visibility crosswalks are designed with longitudinal marking and use high-visibility material instead of regular paint. They are more visible to approaching drivers than standard crosswalks, improving safety for pedestrians crossing the street.

### SEPARATE BICYCLE SIGNAL PHASE

Separate bicycle phases at a signalized intersection give people biking a green light while right-turning vehicles have a red arrow signal. By removing the conflict with right-turning vehicles, especially at locations with a high volume of right-turning vehicles, they make it safer for people to bicycle through an intersection.

### CURB EXTENSION

Curbs extensions widen the sidewalk or extend the landscaping at an intersection or mid-block crossing. They increase pedestrian safety by shortening the distance for pedestrians to cross the roadway, make pedestrians more visible to drivers, and reduce the speed of turning vehicles.



"Boarding islands are an extremely good idea! Please be sure to provide signs warning cyclists about potential mixing with pedestrians in these areas."

"I love the idea of bus boarding islands! they're really needed all along the ECR and I think it would be great if Colma set the bar for the rest of the county"

"Yes, please use the bus island design where ever possible! Seems like this would be better than mixing buses and people biking."



**SEPARATED BIKEWAY**  
 Separated bikeways physically separate bicyclists from vehicle traffic using grade separation, landscaping, physical barriers or flexible posts. They provide a safer and more comfortable bicycling experience.

**CONTINUOUS SIDEWALK**  
 Continuous sidewalks fill the gaps between existing sidewalks, increasing access and connectivity for people walking throughout the corridor.

**BUS BOARDING ISLAND**  
 Bus boarding islands are platforms where pedestrians wait for and board the bus. They allow for the bikeway to be separate from the bus path of travel requiring buses to stop in the travel lane to pick up and drop off passengers. Bus-boarding islands eliminate potential conflicts between bicycles and buses at stops and maintain the continuity of a separated bikeway. They can improve transit service reliability and increase vehicle delay.

"Bike only signals make cyclists feel appreciated."

"Reducing pedestrian travel distance (aka narrowing the road) is life-saving and should be done everywhere possible."

"Hurrah!"



MATCHLINE - SEE FIGURE 1

**PEDESTRIAN HYBRID BEACON**  
 Pedestrian Hybrid Beacons are traffic control devices that notify oncoming vehicles to stop with a series of red and yellow lights when a pedestrian wants to cross the street. They are used at unsignalized crosswalks to help pedestrians safely cross the street, particularly on multi-lane or higher-speed roadways.

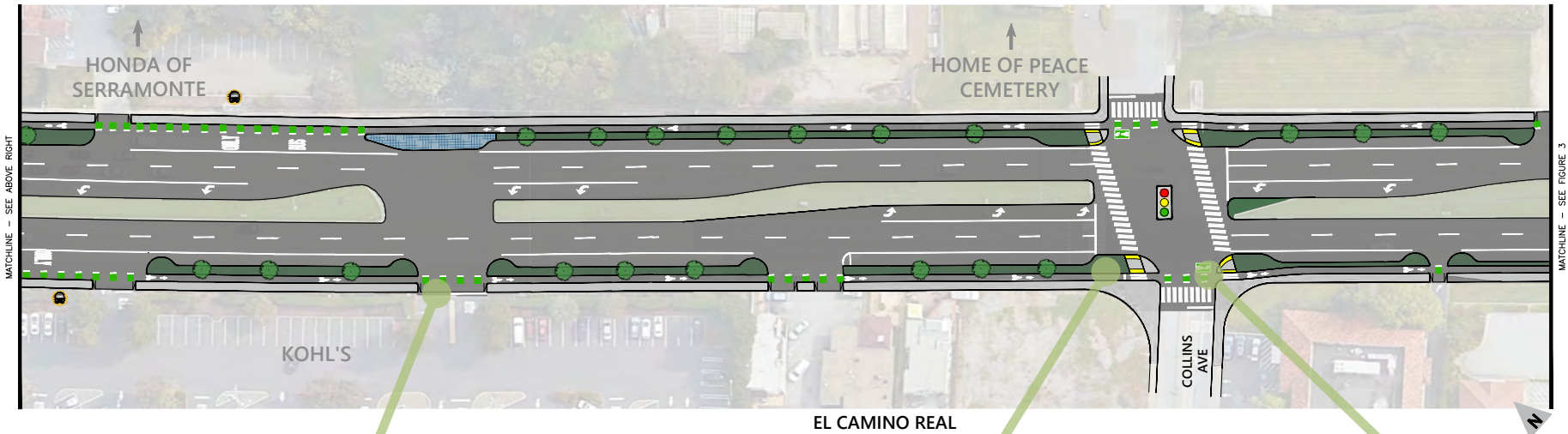
**PARKING-SEPARATED BIKEWAY**  
 Parking-separated bikeways physically separate bicyclists from vehicle traffic using on-street parking and a landscaping strip or flexible posts. People exiting parked vehicles can access the sidewalk through regular breaks in the landscaping strip. Parking-separated bikeways provide a safer and more comfortable bicycling experience.

**PROTECTED INTERSECTION**  
 Protected intersections clarify movements through an intersection using corner islands, curb extensions, and colored paint. They create dedicated space for drivers, pedestrians, and bicyclists, helping manage interactions. They tighten the turn for vehicles and square them up to the crosswalk, thereby reducing vehicle turn speeds and increasing visibility of pedestrians and bicyclists. Protected intersections also reduce pedestrian exposure and increase pedestrian safety by shortening the roadway distance pedestrians need to cross.

**ADVANCE STOP BAR**  
 Advance stop bars are located 5 to 10 feet before crosswalks to provide extra space between vehicles stopped at a crosswalk and pedestrians crossing the street. They make it easier for drivers to see pedestrians in the crosswalk and help drivers yield to them, thereby increasing pedestrian safety.

"Love the separated bike path. This will make it so much easier to ride between where I live in South City and the stores up at Serramonte."

"I like this curb extension to help people cross the street more easily and so drivers see the people when they want to cross."



**GREEN CONFLICT STRIPING**  
 Green striping through conflict zones is dashed green paint that highlights a bicycle lane at locations where interactions may occur between drivers and bicyclists. Green striping increases bicyclist safety by increasing the visibility of bicyclists at conflict points like driveways or intersections.

**CURB EXTENSION**  
 Curb extensions widen the sidewalk or extend the landscaping at an intersection or mid-block crossing. They increase pedestrian safety by shortening the distance for pedestrians to cross the roadway, make pedestrians more visible to drivers, and reduce the speed of turning vehicles.

**TWO-STAGE BICYCLE TURN BOX**  
 Two-stage bicycle turn boxes are queuing areas designated for bicyclists waiting to turn left without utilizing the vehicular left-turn lane. They give bicyclists a safe and comfortable place to wait away from vehicular traffic and through bicyclists, facilitating their left turns across multiple traffic lanes at signalized intersections.

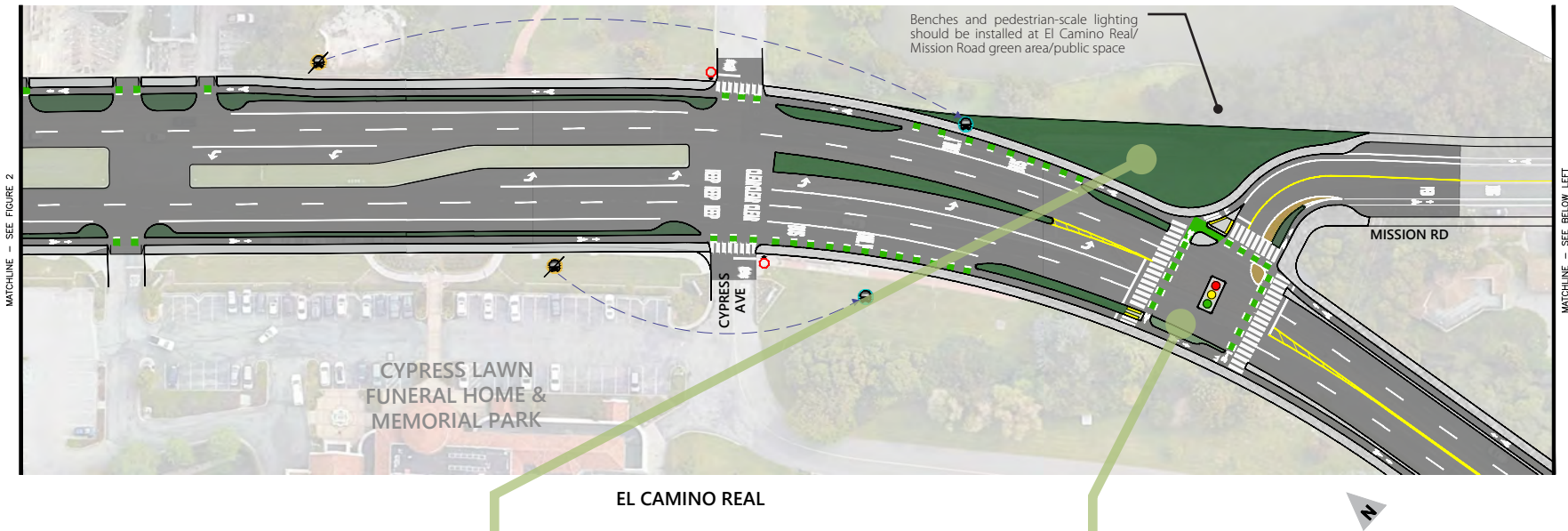


"Love that you can make a left on ECR without having to do a U turn in a median"

"This seems like a great improvement for everyone, especially for people who walk or bike in this area. Right now it is so dangerous at this intersection!"

"The crosswalks will finally allow access to Mission Road residents to the ECR southbound bus stop."

"This is greatly needed, important. It will make this intersection so much more safe."



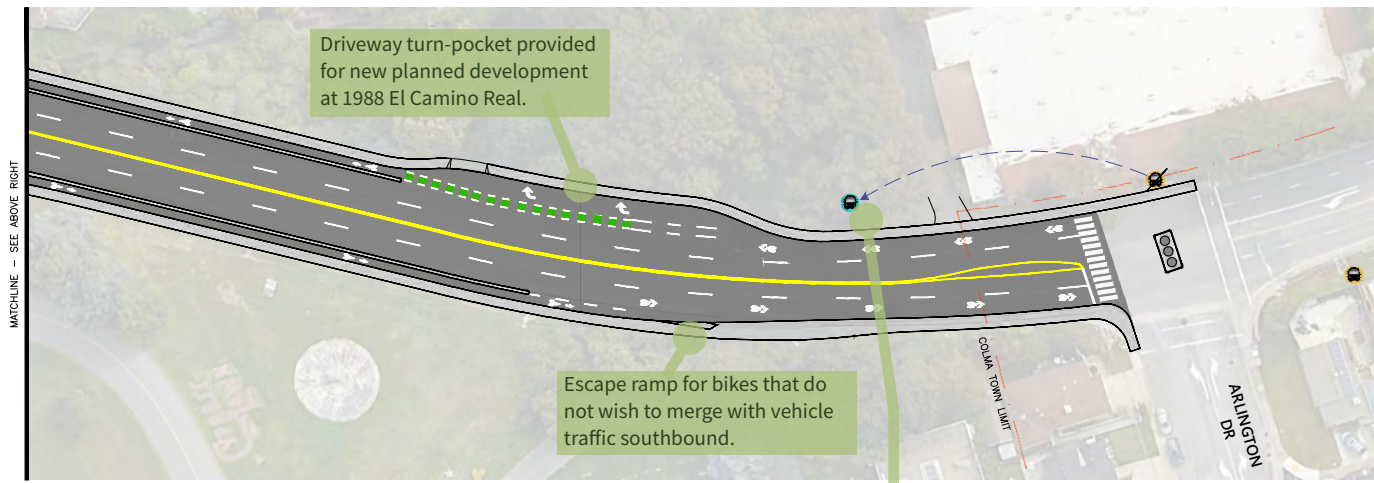
**PROTECTED CORNER**  
Protected corners physically separate bicycles from vehicles approaching the intersection and create a protected queuing area for bicycles waiting to turn. By tightening the turn for vehicles and squaring them up to the crosswalk, protected corners help reduce vehicle turn speeds and increase visibility of pedestrians and bicyclists moving through the intersection.

**MISSION ROAD INTERSECTION RECONFIGURATION**  
The Mission Road intersection reconfiguration includes realignment to a 90-degree angle, a new signal, and various pedestrian and bicycle enhancements. These changes help improve visibility, reduce speeds, and increase safety and connectivity for all users.



"Yes. Major barrier for me biking on El Camino is all of the car traffic."

"Great solution. I think sidewalk can be easily shared since pedestrian and bike activity will be light. Love that there will be a pedestrian and bike connection between Colma and this neighborhood."



EL CAMINO REAL

**FAR-SIDE BUS STOP**  
Far-side bus stops are located immediately after an intersection, allowing the bus to pass through the intersection before stopping to pick up and drop off passengers. They can improve transit service reliability and increase pedestrian visibility and safety by encouraging existing pedestrians to pass behind the bus to cross the street.



# 05

## IMPLEMENTATION





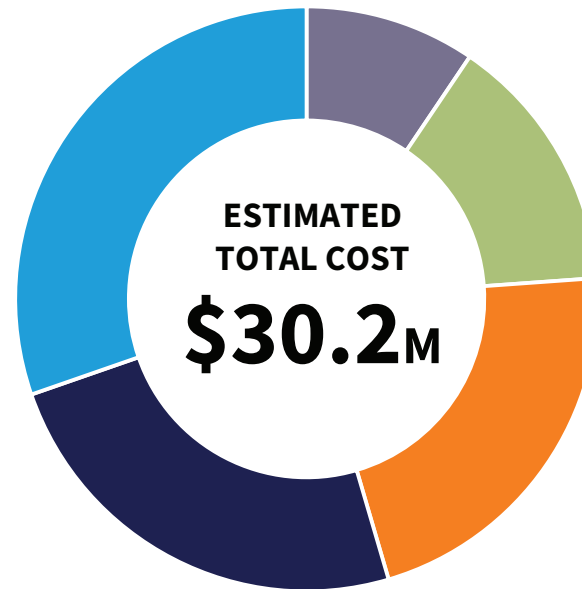
The creation of the Colma El Camino Real Bicycle and Pedestrian Improvement Plan is an important first step in transforming the corridor. Additional steps will need to be taken before the vision can be fully realized, including conducting follow-on studies to support Caltrans approval and securing funding for construction. There are opportunities to continue the momentum of the project in the near-term as well, through the implementation of “quick-build” improvements, which have the added benefit of helping refine the designs before implementation of a full and permanent project.





## Cost Estimates

The cost of the recommended improvements for El Camino Real through the Town of Colma are estimated to be approximately \$30,200,000. This includes the cost of demolishing elements of the existing roadway, installing drainage and utilities, installing new roadway features like sidewalks, installing new traffic features like bikeways and crosswalk striping, installing new signals and lighting, and installing new landscaping, stormwater swales, and, where feasible, trees. This estimate does not include costs related to modification of the culvert/bridge at the northern end of Segment B, which may be substantial; a full survey and additional structural studies will be required. Detailed cost estimates can be found in Appendix C.



**\$2.8M** MOBILIZATION/ TRAFFIC CONTROL

**\$3.7M** DEMOLITION

**\$5.8M** STREET IMPROVEMENTS

**\$8.7M** SIGNALS, LANDSCAPE & LIGHTING

**\$9.2M** SOFT COSTS (CONTINGENCY, DESIGN, CONSTRUCTION MANAGEMENT, PERMITTING)

## Potential Funding Sources

Implementing the Town of Colma's local vision for El Camino Real will require funding from various sources to support follow-on studies and construction. The funding sources listed below are the most relevant to the Plan and thus recommended for the Town to pursue. Additional funding sources can be found in Appendix D.

### CALIFORNIA AND FEDERAL FUNDING PROGRAMS

**Caltrans Active Transportation Program (ATP):** ATP is a statewide and regional grant funding source for pedestrian and bicycle projects. It is notoriously competitive, although the El Camino Real corridor in Colma may be a strong contender for funding due to its overlapping goals of increasing travel by active modes, increasing safety and mobility for active modes, reducing GHG, and benefiting disadvantaged communities. The ATP application is open approximately every two years, with the last grant cycle in September 2020.

**Caltrans Highway Safety Improvement Program (HSIP):** HSIP provides funding to jurisdictions to help them address documented safety concerns through engineering projects. The primary metric for funding is a cost-benefit ratio that looks at the project's injury prevention benefits and implementation costs. This grant is primarily used to fund specific safety countermeasures, so project definition requires documented safety benefits for given collision types. Thus, this grant may be a good fit for individual elements of this Plan, particularly those previously identified in the *Colma Systemic Safety Analysis Report (SSAR)*, such as the new traffic signal at Collins Avenue or the Pedestrian Hybrid Beacon (PHB) at Eternal Home Parkway. The HSIP application is open approximately every two years, with the last grant cycle in October 2020.

**One Bay Area Grant (OBAG):** The OBAG program is one of the primary mechanisms through which Metropolitan Transportation Commission (MTC) implements the vision laid out in Plan Bay Area 2040. As a part of OBAG funding, priority is given to projects either fully or partially within a MTC designated Priority Development Area (PDA) or providing access within 0.5 miles of a PDA.

PDA's are designated locations for strategic regional growth. The section of El Camino Real in Colma is within a designated PDA. The second round of OBAG funding was adopted in late 2015, funding projects through 2022. The program follows approximately a five-year cycle.

**Urban Greening:** The Urban Greening program supports the development of green infrastructure projects that reduce GHG emissions and provide multiple benefits. Eligible projects must sequester and store carbon by planting trees or reduce commute vehicle miles traveled by constructing bicycle paths, bicycle lanes or pedestrian facilities that provide safe routes for travel between residences, workplaces, commercial centers, and schools. Urban Greening (round 2) called for projects in March 2018, and the latest Urban Greening (round 3) called for projects in March 2019. Urban Greening did not call for projects in 2020.

## SAN MATEO COUNTY FUNDING PROGRAMS

### **City/County Association of Governments (C/CAG) of San Mateo County's Transportation Development Act (TDA)**

**Article 3:** The goal of the TDA Article 3 Pedestrian and Bicycle Program is to fund projects that encourage and improve bicycling and walking conditions in San Mateo County. Bicycling and walking are sustainable forms of transportation and contribute to the overall goals of the TDA Article 3 to reduce commute corridor congestion, make regional connections, enhance safety, and meet local mobility needs. The program is funded every two to three years.

### **City/County Association of Governments (C/CAG) of San Mateo County's**

**Transportation Fund for Clean Air (TFCA):** The TFCA provides funding for arterial traffic management utilizing advanced technology and traffic calming projects, including quick build bicycle and/or pedestrian improvement projects.

**San Mateo County Transportation Authority's Measure A Program:** The goal of the Measure A Pedestrian and Bicycle Program is to fund projects that improve bicycling and walking accessibility and safety in San Mateo County, helping to encourage more residents to participate in active transportation. Historically, the call for projects has occurred biennially.



# Implementation Process

## CALTRANS AND LOCAL REQUIREMENTS

The ultimate design and implementation of improvements along El Camino Real will require approval from Caltrans through the oversight process, since El Camino Real is a state-owned roadway. Different types of proposed improvements will require different levels of documentation, additional study, and review to receive approval. The table below summarizes the additional studies that may be required for approval by Caltrans.

Study or Report	Specific Locations and Purpose Required by Caltrans
Network Traffic Analysis	Corridor-wide to evaluate impacts to overall delay of the roadway capacity changes, access modifications, and signal timing changes that are needed to support the recommended design changes. Examples include: <ul style="list-style-type: none"> <li>• Road diet between Albert M Teglia Boulevard and Mission Road</li> <li>• New signals at Collins Avenue and Mission Road</li> <li>• New Pedestrian Hybrid Beacon at Eternal Home Parkway</li> <li>• New signalized crosswalks and Leading Pedestrian Intervals</li> <li>• No Right Turn on Red restrictions</li> <li>• Bus-Boarding Island with In-Lane Stopping (may require simulation modeling if selected)</li> <li>• Separate Bicycle Signal Phasing (e.g. F Street)</li> </ul>
Caltrans Design Standard Decision Document (DSDD)	Corridor-wide to document justification for design variances from the Highway Design Manual. Specific improvements include: <ul style="list-style-type: none"> <li>• Lane Widths &lt; 11'</li> <li>• Net reduction in shoulder width</li> </ul>
Caltrans Intersection Control Evaluation (ICE)	For all study intersections where a major change to intersection configuration or traffic control is proposed. Locations include: <ul style="list-style-type: none"> <li>• Signalization at Collins Avenue</li> <li>• Reconfiguration/signalization at Mission Road</li> </ul>
Sight Distance Evaluation	Corridor-wide for Caltrans approval of parking prohibitions near driveways and intersections.
Crashes Prediction Study	Corridor-wide to evaluate the impacts of road diet.



Overall, a network traffic analysis is recommended as the most immediate next step to capture the effect of the full project build-out on traffic flow on El Camino Real and intersecting streets in Colma, as well as in the neighboring communities, South San Francisco and Daly City. The traffic analysis should be scoped in coordination with Caltrans to identify appropriate analysis scenarios, likely including evaluation of No Build and Project scenarios for both present day and a future horizon year. Caltrans also should provide input on suitable analysis techniques; while most improvements can be analyzed using macroscopic software such as Synchro, changes such as in-lane stopping for buses may require microsimulation modeling tools such as Vissim to more accurately identify effects.

Many of the improvements included in the Plan are consistent with the Caltrans Strategic Management Plan (2015-2020), which strives to fully integrate bicycles into all aspects of the California transportation system and are not subject to the Caltrans Design Standard Decision process.

Study or Report	Specific Locations and Purpose
Transit Corridor Study	<p style="text-align: center;"><b>Additional Recommended Studies</b></p> <p>Corridor-wide to assess the effects of the project on transit travel time and reliability. Analysis should consider:</p> <ul style="list-style-type: none"> <li>• Options for bus stop design (in-lane vs. pull-out)</li> <li>• Bus stop relocations proposed in this Plan</li> <li>• Transit signal priority options</li> <li>• Optimized traffic signal timing and progression</li> <li>• Other bus stop enhancements (e.g. provision of bus stop shelters and benches)</li> </ul>
Bicycle Volume Projections	Corridor-wide for grant applications and to understand benefits of project to increase bicycle volumes
Parking and Access Management Study	<p>Corridor-wide to work with impacted businesses along El Camino Real to identify strategies to address potential loss of on-street parking and access, especially for those that have limited off-street parking.</p> <p>Potential strategies include:</p> <ul style="list-style-type: none"> <li>• Inventory of off-street parking supply (public and private surface parking lots, parking structures, etc.) and daily utilization patterns to identify shared parking opportunities based on complementary use patterns</li> <li>• Off-site employee parking</li> <li>• Restriping for compact parking on side streets (angled parking)</li> <li>• Short-term limits for parking to encourage turnover</li> <li>• Residential permit parking</li> <li>• Designated loading/unloading zones at nearby locations (curbside management)</li> </ul>

## CONSIDERATIONS FOR NEXT STEPS IN THE DESIGN PROCESS

During the final stage of outreach for this Plan, we received comments from the community and stakeholders about the concept design. The following should be considered as the design is further refined.

**Funeral processions:** Funeral processions could at times slow traffic on El Camino Real and occupy a full travel lane. In addition, funeral processions can stack onto El Camino Real while being directed into the cemetery. A "typical design" call-out on the full concept design at the southbound approach to the Villa Avenue intersection shows a potential design modification that could be applied at cemetery entrances throughout the corridor.

**Serramonte Boulevard intersection:** Most large trucks would be able to navigate the intersection of El Camino Real and Serramonte Boulevard, based on initial analysis. However, some exceptionally large trucks could have trouble turning past the proposed corner islands and tighter corner radii. Additional truck turning studies should be conducted in a subsequent engineering stage of the design process.

**Bikeway width:** A wider bikeway than the 5-foot one proposed in the concept design would allow bicyclists to more easily pass one another. This could be achieved by reducing the landscape strip in Segment A during a subsequent design step.

**Signal separation for bicycles:** Signal separation for bicycles at all intersections along the corridor, particularly at major intersections with higher volumes of turning vehicles, would support bicyclist safety and convenience. This improvement could be studied in the context of overall traffic operations on the corridor.

**Bus boarding islands:** Bus-boarding islands are the preferred bus stop design along the corridor because they improve bus speeds and reliability, as well as improve bicycle safety by eliminating potential conflicts between bicycles and buses. Both bus boarding islands and in-lane bus stops are shown as options in the concept design.

**Pedestrian crossings across the bikeway:** Locations for pedestrians to cross the bikeway safely, reducing conflicts between the two roadway users, will be designated in subsequent design steps.

**Hardened centerline:** The existing "hardened centerline" on Segment B is not maintained in the proposed concept design. It could be added to align with community feedback that the hardened centerline makes drivers feel safer by discouraging head-on collisions.

**Dual left-turn lanes:** The removal of dual left-turn lanes would provide space for improved pedestrian crossings and a larger median. The opportunity to remove one or more of the dual left-turn lanes at intersections along the corridor could be evaluated as part of the traffic operations analysis.

**Median landscape:** The addition of trees and green infrastructure to the existing median in Segment A would help slow traffic and move the corridor closer to its sustainability goals. This could be evaluated during a subsequent design step.

**Adjacent Jurisdiction Coordination:** The Town should continue coordination with adjacent jurisdictions, including County of San Mateo, Daly City, and South San Francisco, to ensure network connectivity aligned with the Countywide Bicycle and Pedestrian Plan and connectivity to major destinations at both ends of the corridor (e.g., BART).

## MAINTAINING MOMENTUM WITH EARLY PHASING STRATEGIES

There are many strategies the Town could use to maintain momentum from the efforts of this Plan. These include ‘early phasing’ strategies like coordination with development projects, coordination with Caltrans’ pavement rehabilitation projects, and implementation of quick-build and pilot projects.

### Development Project Coordination

The Town could coordinate with new development projects that overlap with the study area to ensure that site plans consider installation or in-lieu payment of Plan elements. This strategy can help implement parts of the Plan while the Town develops a strategy for the full implementation.

### Caltrans Coordination: Pavement Rehabilitation Project

The State Highway Operation and Protection Program (SHOPP) is a “fix-it-first” program that Caltrans uses to fund repair and preservation on State highways, with four key assets including pavement, bridges, culverts, and Transportation Management Systems (TMS). SHOPP projects provide opportunities to address other State priorities, such as the implementation of Complete Streets elements, including pedestrian and bicycle facilities identified by Caltrans or local jurisdictions through various planning efforts. For pavement projects, opportunities may include quick-build elements that are consistent with this study such as separated bikeways, crosswalk enhancements, and other low-cost measures. When SHOPP projects are scoped and developed, Caltrans coordinates with the local jurisdiction and stakeholders to identify opportunities for Complete Streets improvements.

### Quick-Build and Pilot Projects

While full implementation of the Plan is considered a long-term vision, there are strategies that the Town can consider for putting projects in the ground sooner. Quick-build construction strategies, such as those that use a “paint and plastic” approach, can be a useful way to install temporary versions of improvements as part of a pilot program or a phased approach to construction. These would have the added benefit of allowing the Town to test portions of the design prior to full implementation.

Candidate quick build treatments include those with minimal construction barriers such as crosswalk enhancements or stretches of the separated bikeways where parking is already prohibited. Specific quick-build strategies are included in Appendix E, an excerpt from the Lessons Learned & Best Practices memo prepared for the *Grand Boulevard Initiative’s Creating Safe and Healthy Corridor Communities* project.

For additional information and to stay informed about ongoing efforts to improve El Camino Real in Colma, visit the Town’s project website at <https://www.colma.ca.gov/el-camino-real-bicycle-and-pedestrian-improvement-plan/>.





COLMA EL CAMINO REAL BICYCLE AND  
PEDESTRIAN IMPROVEMENT PLAN

# APPENDICIES





- A. EXISTING CONDITIONS (WITH APPENDICES)**
- B. CROSS SECTION ALTERNATIVES**
- C. COST ESTIMATES TABLE**
- D. FUNDING SOURCES**
- E. QUICK-BUILD OPTIONS – EXCERPT FROM THE GBI MEMO**



**APPENDIX A**  
**EXISTING CONDITIONS MEMO**



# Memorandum

Date: December 2, 2019

To: Abdulkader Hashem, Town of Colma

From: Bob Grandy and Ingrid Ballús Armet, Fehr & Peers

**Subject: Colma El Camino Real Bicycle and Pedestrian Improvement Plan – Existing Conditions**

*SF19-1035*

---

The purpose of this memo is to describe existing conditions and previously completed transportation plans for the Colma El Camino Real study area, defined as the stretch of El Camino Real between Albert M Teglia Boulevard and Arlington Drive. The first section of this memo describes the planning context of this study, including a brief summary of relevant plans and projects that have been completed or are in process. Existing conditions are then broken down into the Town's demographics and transportation infrastructure, including operations and safety performance of the corridor. Lastly, the goals and vision for the Colma EL Camino Real Bicycle and Pedestrian Improvement Plan (the "Plan") are introduced.

## Executive Summary

El Camino Real is a State Highway (State Highway 82) that bisects the Town of Colma and serves as the main corridor to travel through the Town between Daly City and South San Francisco. It provides access to Colma BART station and South San Francisco BART station, in addition to a number of Samtrans bus stops along the corridor. The existing transportation conditions along the El Camino Real study area are as follows:





- El Camino Real has three lanes in each direction for much of the study area, narrowing to two lanes in each direction south of Mission Road
- The corridor operates under capacity and a large percentage of vehicles travel above the speed limit
- There are significant sidewalk gaps on the west side of El Camino Real from F Street to Villa Avenue and on both sides of El Camino Real from Mission Road to Arlington Drive
- There are no existing bicycle facilities
- On-street parking is under-utilized, with less than 50 percent occupancy throughout, except for north of F Street, near Colma BART station, and from Serramonte Boulevard to Collins Avenue, near the commercial area

Based on improvements identified in previous transportation plans and studies as well as the existing conditions analysis presented in this memo, the *El Camino Real Bicycle and Pedestrian Improvement Plan* ("the Plan") may include the following:

- A road diet (i.e. removal of one or more vehicle travel lanes in each direction)
- Bicycle facilities on El Camino Real
- Sidewalk expansions, and addition where currently missing
- Traffic calming measures to address high vehicle speeds and increase bicycle and pedestrian safety and comfort
- Removal of on-street parking in segments non-adjacent to commercial areas with low-utilization rates
- Reconfiguration of the Mission Road intersection ("the Y intersection")
- Addition of signal control or restriction of left-turn movements, particularly at driveways and unsignalized intersections
- Additional bicycle and pedestrian safety improvements, such as prohibiting right turns on red, adding leading pedestrian intervals, or adding pedestrian refuges and curb extensions
- Mid-block crosswalks with PHBs
- Adding street lighting



The Colma El Camino Real study area serves not only the diverse residents and employees of Colma, but also the neighboring communities who travel through the Town. The Plan should serve the needs of all users of the corridor, including those of disadvantaged communities. Disadvantaged communities for the Plan are defined as the MTC Communities of Concern in Daly City and in South San Francisco, immediately to the north and south of Colma, respectively, and segments of the Colma population particularly vulnerable and/or traditionally less engaged in public processes: low-income residents, minorities (Asian and Hispanic), and those who do not speak English fluently. Over half of Colma employees are in the retail trade industry, jobs that often pay low wages and have shifts that start and end outside typical weekday commute hours when high-frequency transit service is provided. Given that most employees commute from outside Colma, employees in low-wage retail jobs may have limited commute options and flexibility.

There are seven defined goals and values for the Plan, which are informed by Town priorities and aligned with the Grand Boulevard Initiative Guiding Principles and will help frame and guide the plan-development process.

## Planning Context

Transportation plans that address the study area include the *Caltrans District 4 Bike Plan for the San Francisco Bay Area*, the *San Mateo Countywide Comprehensive Bicycle and Pedestrian Plan*, and the *Town of Colma General Plan's Circulation Element*. The *Caltrans District 4 Bike Plan* identifies barriers to bicycling in the San Francisco Bay Area and opportunities to enhance bicycle safety and mobility. The *San Mateo Countywide Comprehensive Bicycle and Pedestrian Plan* provides a policy framework to guide and evaluate implementation of the planning and design of bicycle and pedestrian projects of countywide significance. The *Circulation Element* identifies facilities for the safe, efficient, and environmentally responsible movement of people and goods through the Town, ensure these facilities reflect the land uses contemplated by the Land Use Element, and ensure a range of transportation options are available throughout the Town.

Recently completed or ongoing transportation projects along or adjacent to the corridor include *Colma's Transportation Safety Action Plan – Final Systemic Safety Analysis Report (SSAR)*, *Serramonte and Collins Master Plan*, and *Mission Road Bicycle and Pedestrian Improvements plan*. The *Colma SSAR* provides an initial step to identifying main safety issues on El Camino Real that



need to be further evaluated and addressed in the *El Camino Real Bicycle and Pedestrian Improvement Plan* (e.g. high risk intersections and segments). The *Serramonte and Collins Master Plan* presents future bicycle facilities on Collins Avenue and Serramonte Boulevard. The *Mission Road Bicycle and Pedestrian Improvements* plan incorporates safer bicycle and pedestrian facilities on Mission Road, which would directly connect with facilities on El Camino Real.

The **Previous Studies and Planning Documents** graphic presents the information and recommendations from the above planning documents and projects that apply to the Colma El Camino Real study area. Improvements that are identified in those reports include:

- Adding bicycle facilities on El Camino Real
- Adding sidewalks along El Camino Real where missing
- Reconfiguring and potentially signaling the intersection of Mission Road and El Camino Real to improve safety, including bicycle and pedestrian connectivity, and to permit left turns from Mission Road onto El Camino Real
- Adding signal control or restrict left-turn movements, particularly at driveways and unsignalized intersections
- Implementing bicycle and pedestrian safety improvements, such as prohibiting right turns on red, adding leading pedestrian intervals, or adding pedestrian refuges
- Adding traffic signal on Collins Avenue and El Camino Real intersection
- Installing PHBs at uncontrolled marked crossings
- Adding street lighting

Additionally, the *Land Use and Urban Design Strategy* identifies street typologies for different sections of El Camino Real, as follows:

- "Pedestrian Public Realm Focus" from Albert M Teglia Boulevard to F Street and from Serramonte Boulevard to Cypress Avenue: streetscape should include high-visibility crosswalks, median refuges, corner bulb-outs, and sidewalk widening to encourage pedestrian activity and enhance the public realm at a human scale; include parallel on-street parking where feasible.



- "Boulevard" from F Street to Serramonte Boulevard and south of Cypress Avenue: prioritize planted areas between sidewalk and roadway (instead of wider sidewalks) to enhance pedestrian safety and comfort; on-street parking is a low priority.

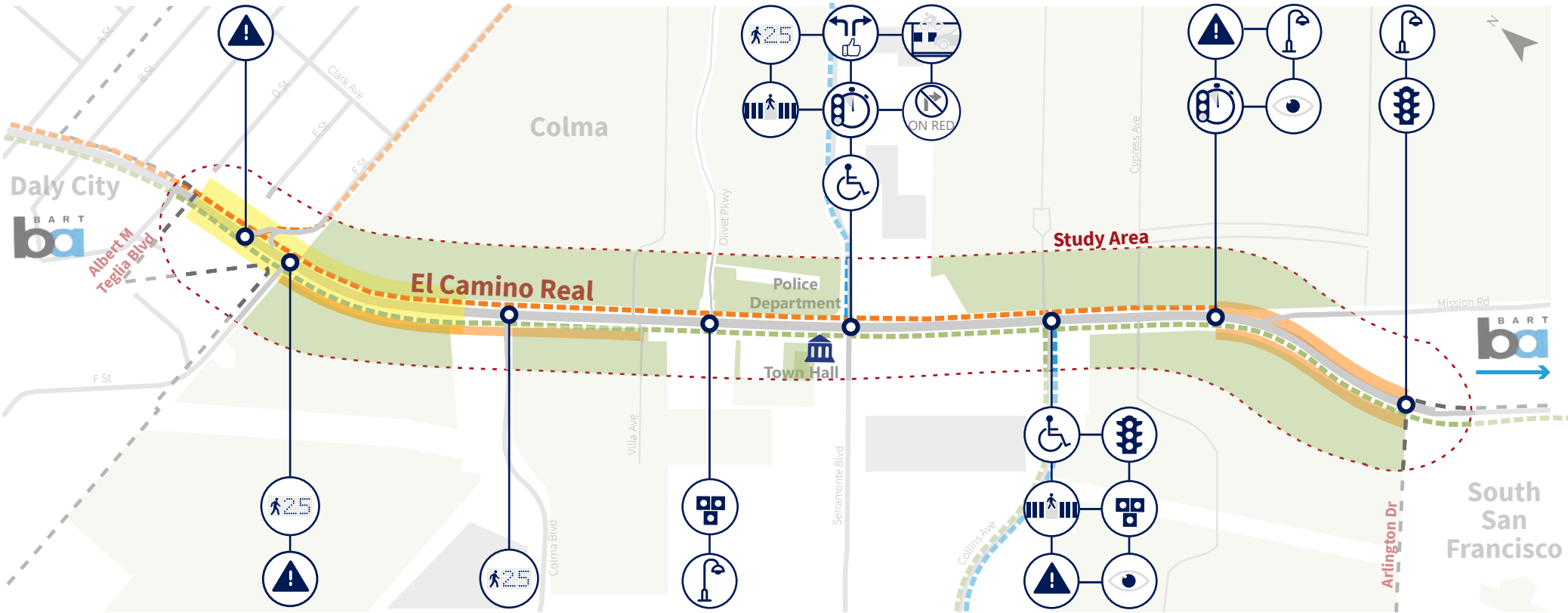




# Recommendations Identified in Previous Studies and Planning Documents

The El Camino Real Bicycle and Pedestrian Improvement Plan builds on previous studies and planning documents that assessed existing conditions and proposed potential improvements along the El Camino Real corridor through the Town of Colma.

This map illustrates the streetscape and safety recommendations identified in two recent studies, the Serramonte and Collins Master Plan and the Systemic Safety Analysis Report (SSAR), and the Town of Colma General Plan's Circulation Element, as well as the bicycle facilities proposed in the San Mateo County Comprehensive Bicycle and Pedestrian Plan (adopted September 8, 2011) and Caltrans District 4 Bike Plan (2018).



## Legend

- - - Study Area
- - - Town of Colma Limits
- High Risk Corridor (as defined in SSAR)
- Missing Sidewalk

### Proposed Bike Facilities\*

- - - Class I Bike Path
- - - Class II Bike Lane
- - - Class III Bike Route

\*Caltrans D4 Bike Plan plans for Class IV on El Camino Real north of Collins Avenue, while San Mateo County Comprehensive Bicycle and Pedestrian Plan plans for Class II (as shown on this graphic)

## Recommendations



Improve High Risk Intersection (as defined in SSAR)



Consider Leading Pedestrian Intervals



Improve Street Lighting



Install Pedestrian Hybrid Beacon



Consider Pedestrian Refuge



Modify Turn Lane



Update Signal Timing



Review ADA Compliance



Consider Green Pavement Markings for Bike - Vehicle Conflicts



Prohibit Right Turn On Red



Evaluate Intersection Control



Improve Sight Distance



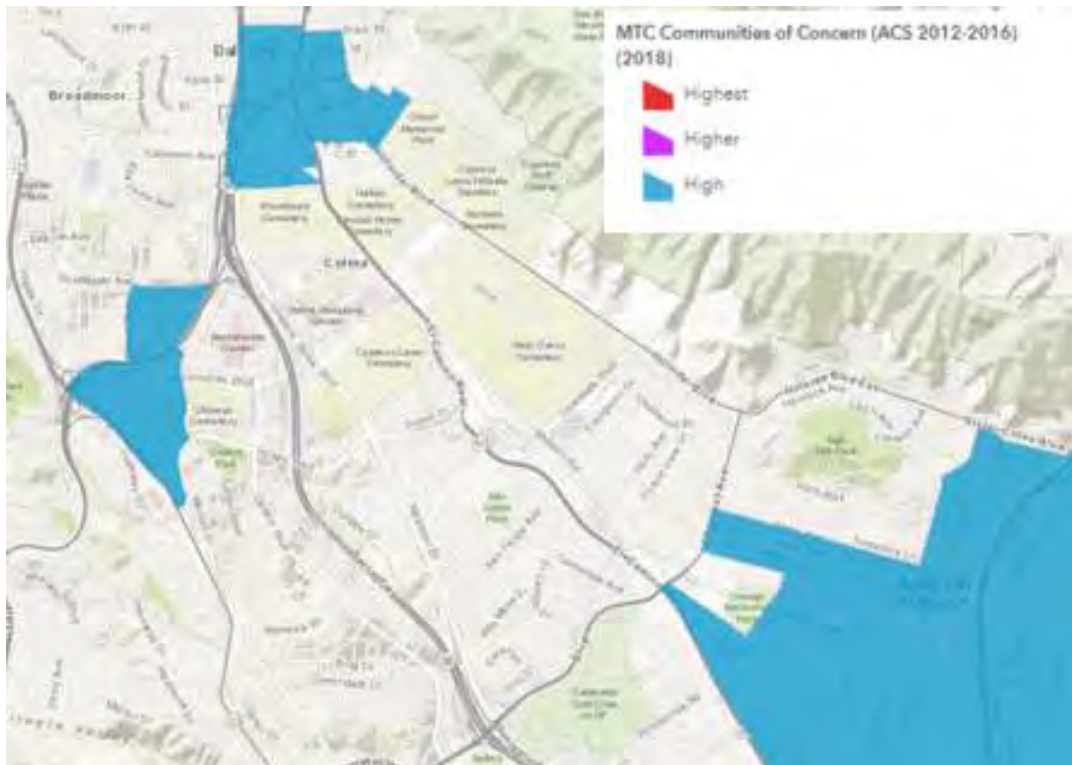
# Existing Conditions

## Demographics and Disadvantaged Communities

The Town of Colma is the smallest town in San Mateo County, with under 3,000 people. However, Colma employs over 4,000 people, mostly of whom reside outside Colma. The Colma El Camino Real study area serves as a connection to the regional transit system and main corridor for residents, employees, and neighboring communities to travel through the Town.

### Disadvantaged Communities

The Plan must include and address the needs of disadvantaged communities. Three areas neighboring the Town are designated as “communities of concern” by the Metropolitan Transportation Commission (MTC): two in Daly City and one in South San Francisco.



Source: MTC; Retrieved on April 30, 2019 at <http://opendata.mtc.ca.gov/datasets/mtc-communities-of-concern-in-2018-acs-2012-2016?geometry=-122.557%2C37.664%2C-122.394%2C37.687>

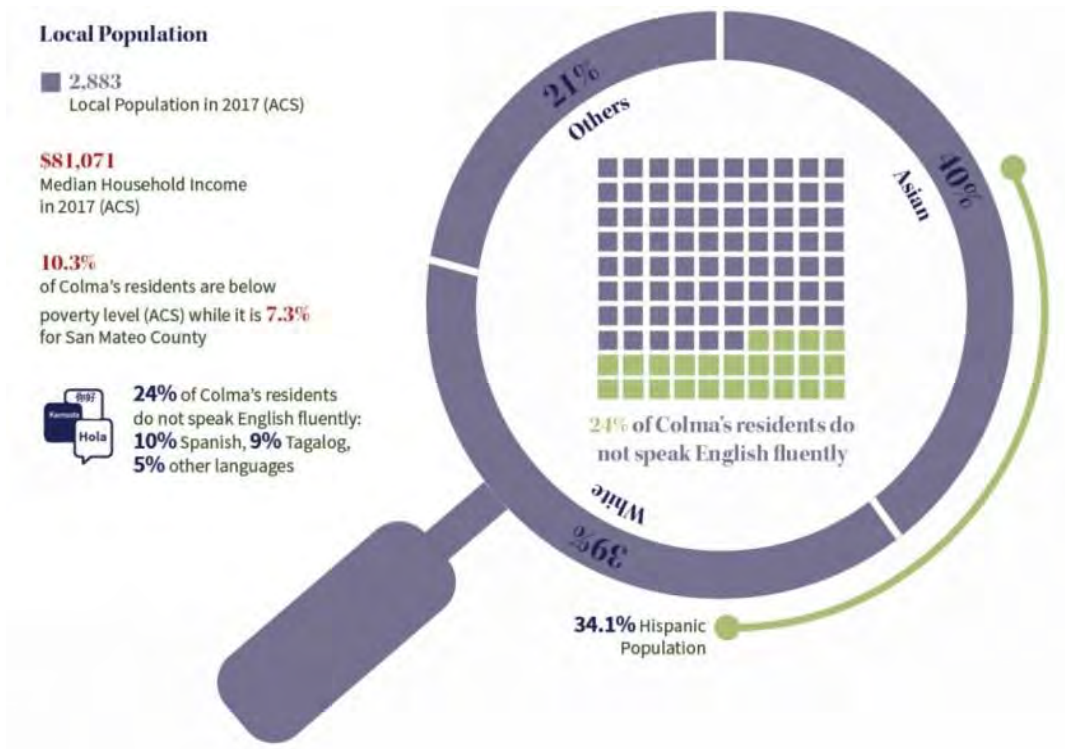


The definition of communities of concern is intended to capture a diverse cross-section of populations and communities that could be considered disadvantaged or vulnerable in terms of both current conditions and potential impacts of future growth. The definition of communities of concern includes all census tracts that have a concentration of both minority and low-income households at specified thresholds of significance, or that have a concentration of three or more of six additional factors if they also have a concentration of low-income households. Among the additional factors is level of English proficiency.

While the Town of Colma is not defined as a Community of Concern itself, certain segments of the population can still be considered disadvantaged or vulnerable based on characteristics that align with the factors considered by MTC. The sections below present overall characteristics of Colma's population and employees, identifying traits that make these specific communities vulnerable.

### Who Lives in Colma?

Colma's population is quite diverse, with people from a range of ethnic, racial, and linguistic backgrounds.



Source: American Community Survey (ACS) 2017.

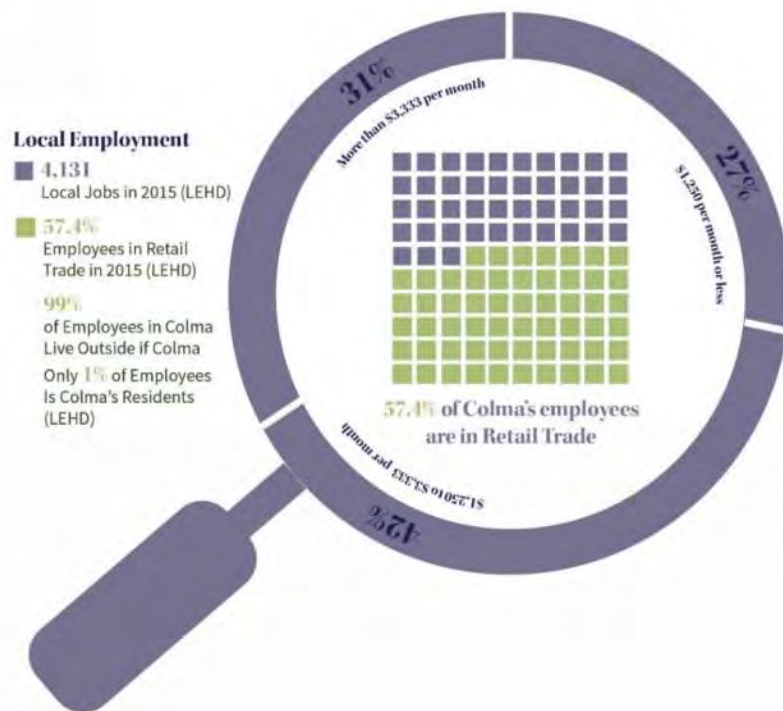


Forty percent of Colma's population is a racial minority, Asian, and 34 percent is Hispanic. Additionally, 24 percent of Colma residents do not speak English fluently and ten percent of the residents are below the federal poverty level, which is approximately three percent more than San Mateo County's. The Town of Colma and the area in Daily City north of Colma are identified as a low-income community per AB 1550, with income levels 45 to 80 percent below the County's median income<sup>1</sup>.

### Who Works in Colma?

More people work in Colma than live in Colma and only one percent of Colma employees live in the Town. Fifty-seven percent of Colma employees are in the retail trade industry, jobs that often pay low wages and have shifts that start and end outside typical weekday commute hours when high-frequency transit service is provided.

Given that most employees commute from outside Colma, employees in low wage retail jobs may have limited commute options and flexibility. Thus, providing good transportation connections for employees from neighboring communities is crucial for the Town's economic vitality.



Source: Longitudinal Employer-Household Dynamics (LEHD) 2015.

<sup>1</sup> Low-income communities and households are defined as the census tracts and households, respectively, that are either at or below 80 percent of the statewide median income, or at or below the threshold designated as low-income by the California Department of Housing and Community Development's (HCD) 2016 State Income Limits. More information at: <https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/communityinvestments.htm>





Seventy-one percent of employees drive alone or carpool to work; nineteen percent of employees take transit; and ten percent choose to walk, bike, taxi, use transportation network company (TNC) or other means of transportation. The existing transportation network does not support different types of transportation modes.

### How Do People Commute to Work in Colma?



## Transportation Context

El Camino Real is a State Highway (State Highway 82) that bisects the Town of Colma. In Colma, El Camino has three lanes in each direction for much of the study area, narrowing to two lanes in each direction south of Mission Road. It serves as a connection between the Colma BART station at the north end of Town and the South San Francisco BART station at the south end of Town. Land uses along El Camino Real in Colma are mostly cemeteries, with some commercial areas (i.e. car dealerships and shopping centers) and public institutions along Serramonte Boulevard, and residential neighborhoods in the north end of the Town.

### Existing Network

This section summarizes the existing transportation infrastructure along the study area, from Albert M Teglia Boulevard to Arlington Drive, as shown in the **Existing Daily Volumes and Intersection Controls** graphic. Signalized intersections along El Camino Real include F Street, Colma Boulevard, Serramonte Boulevard, and Arlington Drive. All other intersections are side-street stop-controlled. **Appendix A** includes intersection turning-movement counts for the Colma El Camino Real study area.

The existing cross section of El Camino Real from Albert M Teglia Boulevard to Mission Road has three vehicle travel lanes in each direction, parking on both sides, and a wide concrete median. On this segment of El Camino Real, the average weekday traffic is 25,200 vehicles. According to the 6<sup>th</sup> Edition HCM Manual, this volume on a 35 mile-per-hour (MPH) facility aligns with Level of Service (LOS) A conditions, which indicates that the corridor currently operates largely under



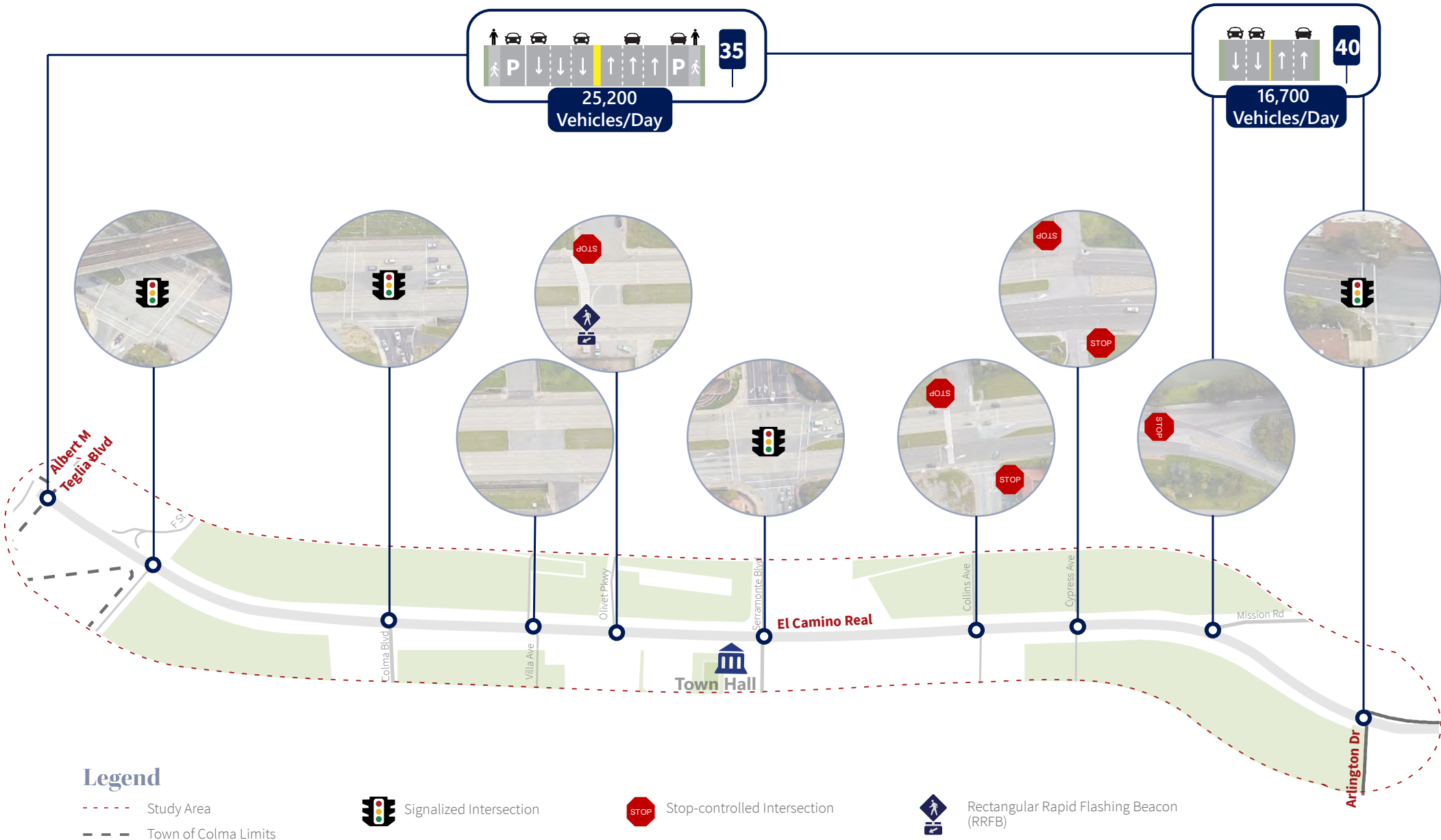
capacity and vehicles travel with free movement and likely at a high speed. This is evidenced by the fact that 15-20 percent of vehicles were recorded traveling above the speed limit. Thus, this segment should be considered for a road diet. Removing one lane in each direction (i.e. narrowing the road to four lanes), would still allow for traffic to flow at LOS B and would provide additional space for sidewalk widening (or addition in segments where it's currently missing), bike lanes, and other safety improvements and traffic calming measures.

The existing cross section of El Camino Real from Mission Road to Arlington Drive has four travel lanes without sidewalks or parking. With an average weekday traffic of 16,700 vehicles and four travel lanes, this segment currently operates largely under capacity and vehicles travel with a high degree of freedom to select speed (LOS B). In fact, speed data shows that over 40 percent of vehicles travel over the 40 MPH speed limit. Additionally, the lack of sidewalks along the segment and the complex configuration of the Mission Road intersection make it extremely uncomfortable and unsafe for pedestrians to cross and/or walk along this segment of El Camino Real. The existing lane configuration and traffic controls from Mission Road to Arlington Drive do not support bike lane connections on Mission Road nor pedestrian connections existing bus stops and residential areas at the Arlington Drive intersection or the South San Francisco BART station. Thus, segment should be considered for a road diet so that the road can better support all modes. Removing one lane in each direction (i.e. narrowing the road to two vehicle lanes), would still allow for traffic to flow at LOS D, which is consistent with the Town's LOS standards (LOS D or better) outlined in the General Plan, and would provide additional space for sidewalks, bike lanes, or other safety improvements and traffic calming measures.

In general, El Camino Real in Colma is a good candidate for a road diet and infrastructure improvements that can enhance bicycle and pedestrian safety throughout the corridor, including sidewalk expansion, bicycle facilities implementation, and traffic calming considerations.



# Existing Daily Volumes and Intersection Controls





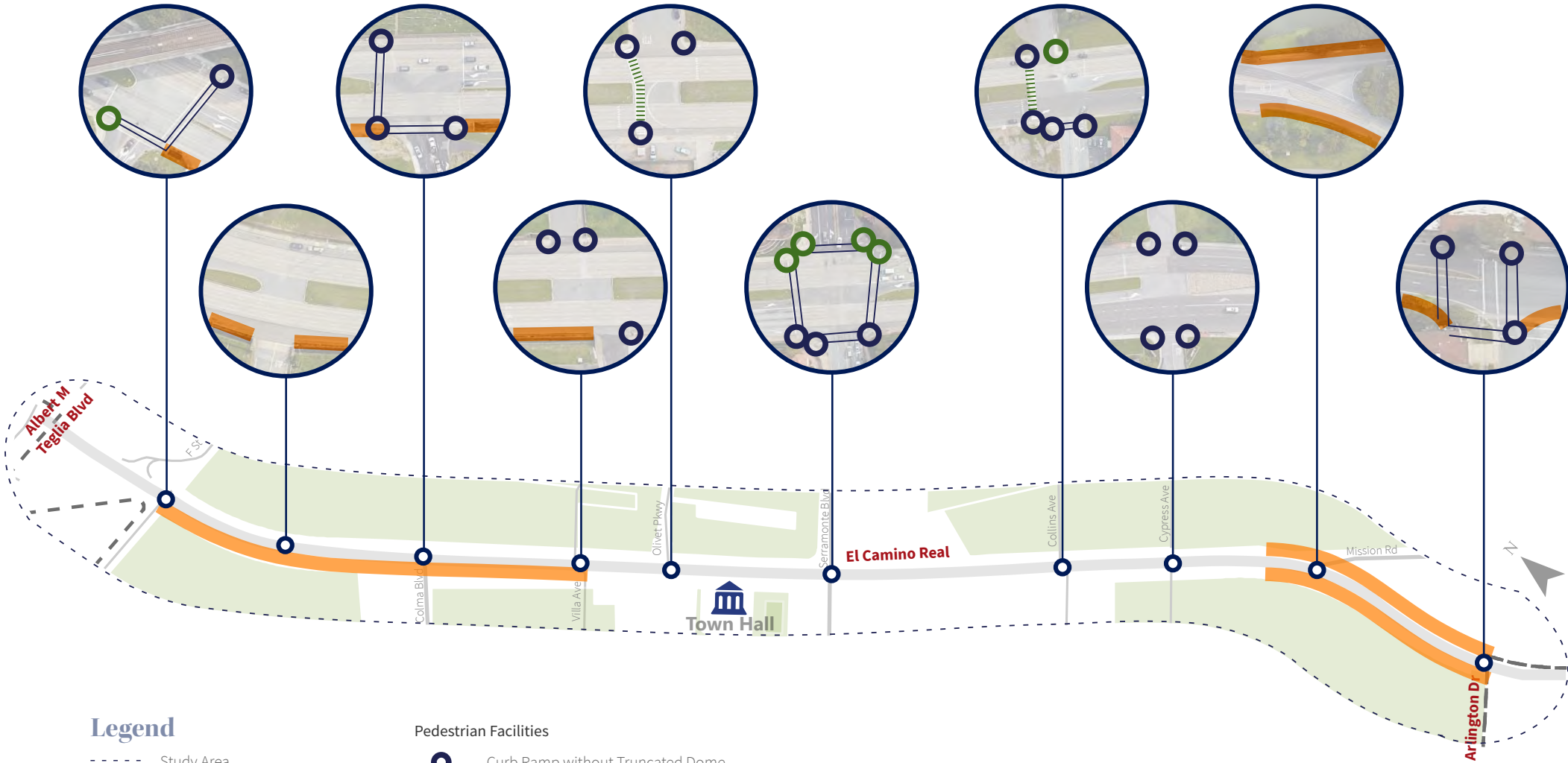
Pedestrian infrastructure along the corridor, as shown in the **Pedestrian Facilities** graphic, includes curb ramps (with and without truncated domes), standard crosswalks, high-visibility crosswalk, pedestrian countdown signals, and rectangular rapid flashing beacon (RRFB). Four of the ten studied intersections are signalized, including F Street, Colma Boulevard, Serramonte Boulevard, and Arlington Drive. A Rectangular Rapid Flashing Beacon (RRFB) is installed at Olivet Parkway. The other five intersections are uncontrolled crossings across El Camino Real. Most street corners include curb ramps. However, only six of these ramps include truncated domes. Marked crosswalks are located at about half of the intersections along the corridor. With the exception of the high-visibility crosswalks with RRFB at Olivet Parkway and Collins Avenue, all crosswalks use a standard, white paint crosswalk design without interior striping. There are significant sidewalk gaps on the west side of El Camino Real from F Street to Villa Avenue and on both sides of El Camino Real from Mission Road to Arlington Drive. Although there are several bus stops and businesses along the corridor, the sidewalk gaps discourage the residents to travel through the Town on foot.

Pedestrian counts are presented in **Appendix A** as part of multimodal intersection turning-movement counts for the Colma El Camino Real study area. Due to the proximity to Colma BART station, there are a lot of pedestrians crossing at F Street and Albert M Teglia Boulevard. At F Street, during midday, the volume was at the highest with 76 pedestrians observed from 12PM to 2PM. At Albert M Teglia Boulevard, the volume was at the highest during the afternoon with 66 pedestrians observed from 4PM to 6PM. In addition, being adjacent to commercial areas put Serramonte Boulevard in high demand for pedestrian crossings, with the highest demand (47) observed during the weekend midday peak (12PM to 2PM). In contrast, due to the lack of marked crossings, lack of sidewalk, presence of high-speed vehicles, and a complex configuration, the pedestrian volumes at Mission Road was the lowest with 2 pedestrians crossing during the weekend midday peak period and 4 pedestrians crossing in the weekday afternoon peak period.





# Pedestrian Facilities



## Legend

- - - - - Study Area
- - - - - Town of Colma Limits
- — — — — Missing Sidewalk

## Pedestrian Facilities

- Curb Ramp without Truncated Dome
- Curb Ramp with Truncated Dome
- == Standard Crosswalk
- - - - - High-Visibility Crosswalk



There are no existing bicycle facilities on El Camino Real to support cycling along this corridor; therefore, bicycle volumes were low for all studied intersections (see **Appendix A** for counts). There were more bicyclists during the weekend midday peak period (17 bicyclist observed between 12PM and 2PM) than in the weekday morning (13 bicyclists observed between 7AM and 9AM) or the afternoon (4 bicyclist observed between 4PM and 6PM) peak periods. However, as seen in the **Bicycle Facilities** graphic, Town, County, and State transportation plans call for bicycle facilities on El Camino Real as a main active transportation connection through multiple jurisdictions. Bicycle facilities on El Camino Real would connect to the regional transit system at the two BART stations: Colma and South San Francisco. They would act as the main connection to the south with Mission Road's bike lanes and the Centennial Trail to San Bruno. Bicycle facilities on El Camino Real would also connect to proposed facilities along this corridor in South San Francisco and the entire San Francisco Peninsula.



# Bicycle Facilities



## Legend

- Study Area
- Town of Colma Limits
- City Limits

### Existing Bike Facilities

- Class I Bike Path
- Class II Bike Lane
- Class III Bike Route

### Proposed Bike Facilities\*

- Class I Bike Path
- Class II Bike Lane
- Class III Bike Route

\*Coltrans D4 Bike Plan plans for Class IV on El Camino Real north of Collins Avenue, while San Mateo County Comprehensive Bicycle and Pedestrian Plan plans for Class II (as shown on this graphic)



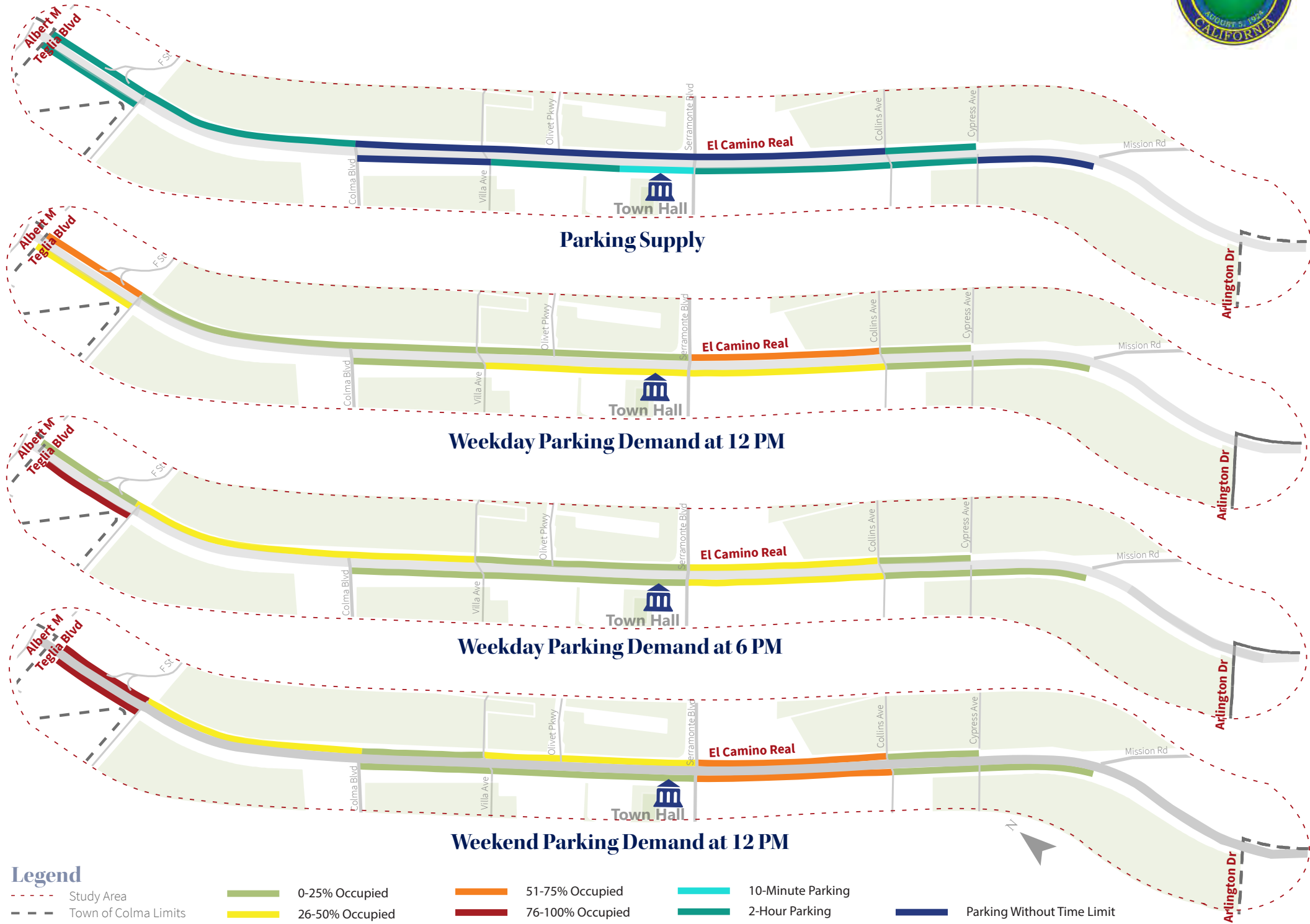
On-street parking is permitted and free on both sides of El Camino Real, with the exception of the west side from F Street to Colma Boulevard, the east side from Cypress Avenue to Mission Road, and both sides from Mission Road to Arlington Drive.

As shown in the **Parking Demand** graphic, on-street parking utilization on El Camino Real is generally low at all times, except for north of F Street, near Colma BART station, and from Serramonte Boulevard to Collins Avenue, near the commercial area. The total on-street parking supply in the study area is 262 parking spaces. On a typical weekday, there were only at 68 parked vehicles (25 percent overall) at noon and 60 parked vehicles at 6 PM. On a typical Saturday, when there are more activities at shopping centers and commercial areas, parking demand was slightly higher with 81 on-street parking spaces occupied (30 percent overall). Most parked vehicles concentrate on both sides of El Camino Real from Albert M Teglia Boulevard to F Street and from Serramonte Boulevard to Collins Avenue. This on-street parking data supports the Town's *Land Use and Urban Design Strategy* for maintaining on-street parking at commercial areas ("Pedestrian Public Realm Focus" areas) and the opportunities for parking removal at lower-utilized segments in exchange for bicycle and pedestrian facilities ("Boulevard" areas). These changes would help the Town encourage bicycle and walking as modes of travel to work, shopping, and to connect to transit.





# Parking Demand on El Camino Real



## Parking Supply

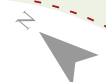
## Weekday Parking Demand at 12 PM

## Weekday Parking Demand at 6 PM

## Weekend Parking Demand at 12 PM

### Legend

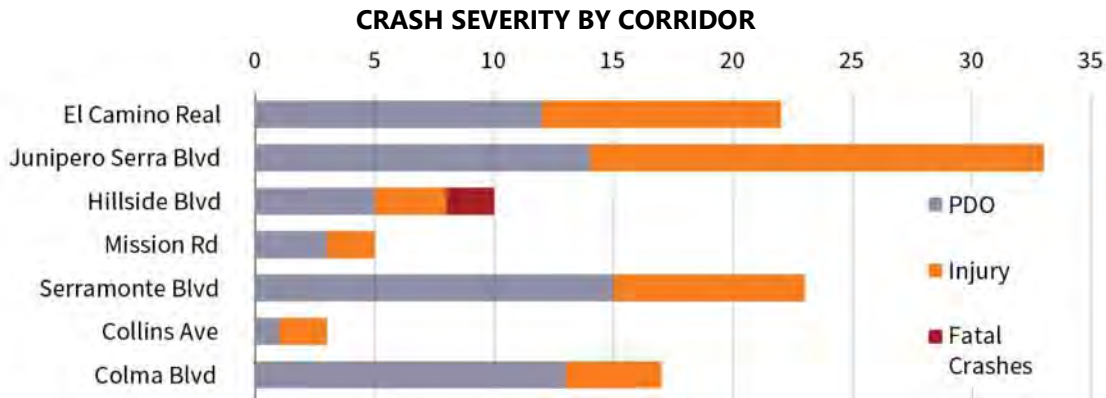
- Study Area
- 0-25% Occupied
- 51-75% Occupied
- 10-Minute Parking
- 76-100% Occupied
- 2-Hour Parking
- Parking Without Time Limit
- Town of Colma Limits



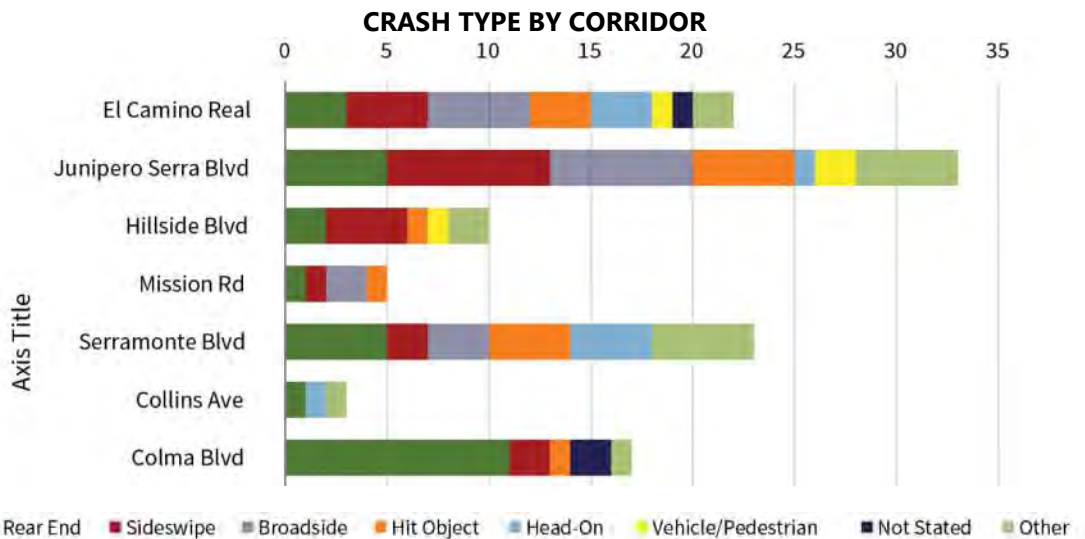


### Crash Data

The *Colma SSAR* provides insight into existing collision trends on the corridor available 2011-2016. According to the report, El Camino Real is the third highest collision corridor in the Town with 18 percent of total crashes, as shown in **Crash Severity by Corridor** graph below. Crash types on El Camino Real are varied, with the most common ones being broadside and sideswipe crashes, as presented in the **Crash Type by Corridor** graph below. The four most common violations in the Colma El Camino Real study area are related to improper turning (18%), failure to yield to another motorist who had the right of way (18%), unsafe speed (14%), and driving or bicycling under the influence of alcohol or drugs (14%).



Source: *Colma SSAR*, 2018

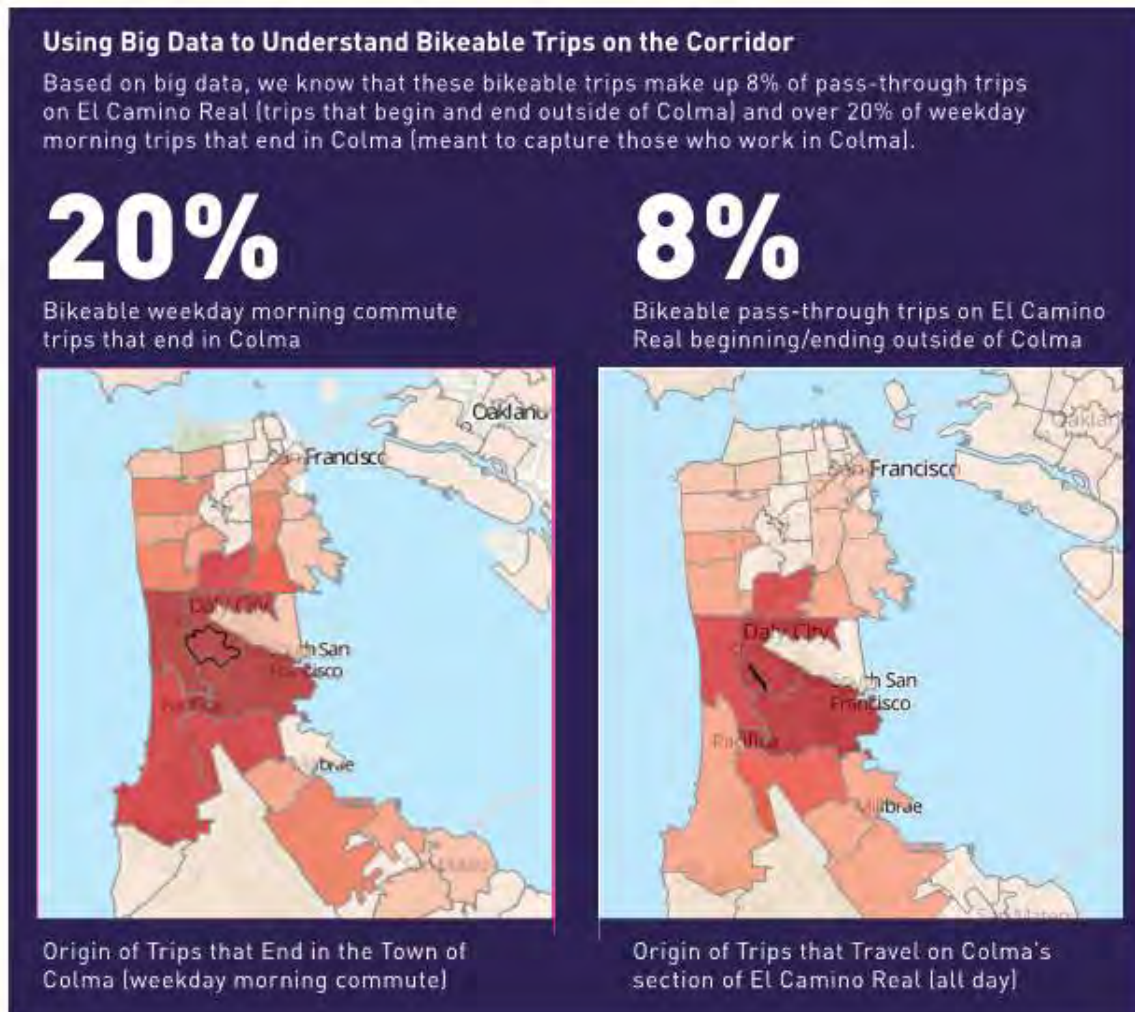


Source: *Colma SSAR*, 2018



## Active Transportation Demand and Opportunities

As discussed in the previous section, bicycle and pedestrian facilities on El Camino Real are insufficient to provide a safe and pleasant environment for everyone to bike or walk on the corridor. However, Colma employees come from nearby communities, with 20 percent of those trips being less than two miles (i.e. a bikeable distance). Similarly, eight percent of trips travelling on the Colma El Camino Real study area are two miles or less. With the implementation of bicycle facilities on El Camino Real, the Town could reduce the vehicle trips by connecting up to twenty percent of Colma's employees to their jobs by bike and converting up to eight percent of all vehicle trips on the corridor to bicycle trips.





# Plan Goals & Values

The Grand Boulevard Initiative (GBI) presents a single vision for the El Camino Corridor – that "El Camino Real will achieve its full potential for [people] to work, live, shop, and play, creating links between communities that promote walking and transit and an improved and meaningful quality of life." In support of the vision, GBI established the following ten Guiding Principles, which are intended to be consistent across all GBI projects.

- GBI-1** Target housing and job growth in strategic areas along the corridor
- GBI-2** Encourage compact mixed-use development and high-quality urban design and construction
- GBI-3** Create a pedestrian-oriented environment and improve streetscapes, ensuring full access to and between public areas and private developments
- GBI-4** Develop a balanced multimodal corridor to maintain and improve mobility of people and vehicles along the corridor
- GBI-5** Manage Parking Assets
- GBI-6** Provide vibrant public spaces and gathering places
- GBI-7** Preserve and accentuate unique and desirable community character and the existing quality of life in adjacent neighborhoods
- GBI-8** Improve safety and public health
- GBI-9** Strengthen pedestrian and bicycle connections with the corridor
- GBI-10** Pursue environmentally sustainable and economically viable development patterns

While GBI defines a unifying vision and guiding principles for all of El Camino Real, corridor change is implemented through a series of distinct projects completed at the local level by the various communities that line the corridor. Each community brings its own unique values and needs to the planning and design process for El Camino Real, prioritizing different guiding principles and approaching implementation and evaluation in different ways.





## Goals & Values for El Camino Real in the Town of Colma

Goals and values were developed for the Town of Colma El Camino Real Bicycle & Pedestrian Improvement Plan. These goals and values are informed by Town priorities and consistent with the Town's grant funding application. They also are aligned with Grand Boulevard Initiative Guiding Principles and reflect street design best practices in California.

The goals and values help set a vision for the El Camino Real corridor in Colma. They allow the Town to communicate the strengths, weaknesses and tradeoffs of the design alternatives and evaluate how the alternatives meet the priorities of the Town of Colma and the Grand Boulevard Initiative more broadly.

The goals and values summarized below present a range of multimodal and multiuse objectives that, consistent with the Town's grant funding application, prioritize safety and health; sustainability; economic development; cost efficiency; connectivity and access; mobility and reliability; and quality of experience for all roadway users.

### Safety & Public Health

Create safe conditions that help reduce the severity and frequency of collisions for all modes, as well as promote physical activity by enhancing the desirability of walking and bicycling. [Aligns with GBI-8]

Potential ways to accomplish goal/value:

- Traffic calming measures to reduce speeding
- High-visibility or otherwise enhanced crossings
- High-quality bicycle facilities that minimize Bicycle Level of Traffic Stress (LTS)
- Parallel low-stress bicycle routes
- Minimized number of driveways or intersecting roadways
- Minimized emergency vehicle (EV) response time
- Direct pedestrian and bicycle access to schools



## **Sustainability**

Support the regional goal of reducing vehicle miles traveled by making walking, biking, and riding transit more viable at the local level, as well as by reducing the environmental impact of roadway infrastructure. [Aligns with GBI-10]

Potential ways to accomplish goal/value:

- High mode shift potential
- Green storm-water treatments
- Other green infrastructure

## **Economic Development**

Develop solutions that encourage economic vitality and equitable economic opportunities for all neighborhoods and corridor users. [Aligns with GBI-1, GBI-7]

Potential ways to accomplish goal/value:

- Design alternatives aligned with community and local business owner support
- Enhancements located in neighborhoods or adjacent to destinations serving low-income, minority, or other equity-focused groups

## **Cost Efficiency**

Prioritize cost-effective solutions that align with existing funding sources and minimize implementation complexity. [Aligns with GBI-10]

Potential ways to accomplish goal/value:

- Categorization of cost into low/medium/high
- Minimized construction complexity
- Coordination with other plans or construction projects
- Alignment of costs with available funding sources



### **Connectivity & Access**

Reduce gaps in the transportation network for all modes, including greater provision of pedestrian sidewalks and crossings, bicycle paths, and transit access. [Aligns with GBI-3, GBI-9]

Potential ways to accomplish goal/value:

- Closure of existing gaps in walking and bicycling facilities
- Minimized spacing between El Camino Real pedestrian and bicycle crossings
- Direct pedestrian and bicycle connections between activity centers
- ADA accessibility at crosswalks
- Bicycle parking

### **Mobility & Reliability**

Reduce travel times along the corridor for all modes, increase transit reliability, and right-size parking supply. [Aligns with GBI-4, GBI-5]

Potential ways to accomplish goal/value:

- Reasonable volume to capacity ratio
- Loading and reliability improvements at transit stops and along corridor
- Public parking provided to meet demand

### **Quality of Experience**

Create an integrated environment for pedestrians and bicyclists with enhanced wayfinding, vibrant public spaces and improved landscaping. [Aligned with GBI-2, GBI-3, GBI-6]

Potential ways to accomplish goal/value:

- Wayfinding signage
- Tree or vegetation plantings



- Street furniture
- Pedestrian-scale lighting
- Small public spaces such as pocket parks or plazas
- Consolidated driveways
- Consistency with Town's Street Design Guidelines



# **APPENDIX A**

## MULTIMODAL INTERSECTION TURNING-MOVEMENT COUNTS

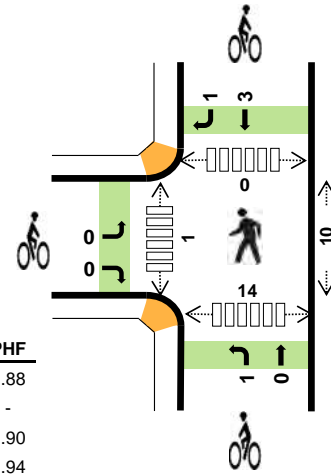
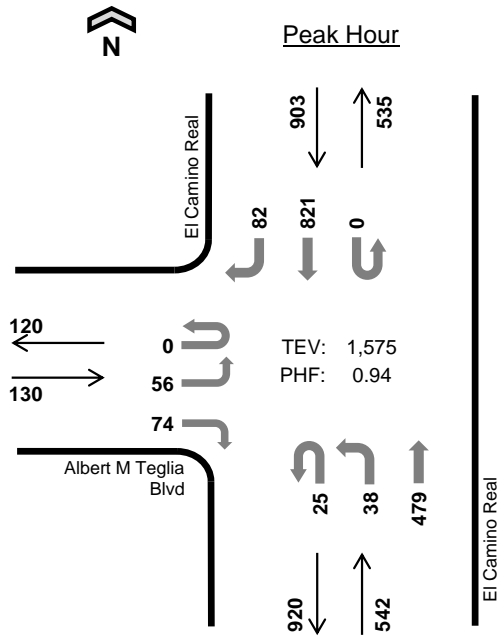
**WEEKDAY AM**

7AM - 9AM

# El Camino Real Albert M Teglia Blvd



Date: 05-30-2019  
 Count Period: 7:00 AM to 9:00 AM  
 Peak Hour: 7:30 AM to 8:30 AM



	HV %:	PHF
EB	22.3%	0.88
WB	-	-
NB	1.8%	0.90
SB	1.1%	0.94
TOTAL	3.1%	0.94

### Two-Hour Count Summaries

Interval Start	Albert M Teglia Blvd				n/a				El Camino Real				El Camino Real				15-min Total	Rolling One Hour	
	Eastbound		Westbound		Northbound		Southbound		UT		LT		TH						
7:00 AM	0	11	0	18	0	0	0	0	2	7	60	0	0	0	122	23	243	0	
7:15 AM	0	11	0	19	0	0	0	0	7	7	65	0	0	0	170	21	300	0	
7:30 AM	0	17	0	17	0	0	0	0	5	8	103	0	0	0	194	17	361	0	
7:45 AM	0	7	0	23	0	0	0	0	9	7	135	0	0	0	216	23	420	1,324	
8:00 AM	0	13	0	16	0	0	0	0	6	17	119	0	0	0	213	20	404	1,485	
8:15 AM	0	19	0	18	0	0	0	0	5	6	122	0	0	0	198	22	390	1,575	
8:30 AM	0	11	0	20	0	0	0	0	5	8	99	0	0	0	181	20	344	1,558	
8:45 AM	0	10	0	17	0	0	0	0	6	13	97	0	0	0	202	21	366	1,504	
Count Total	0	99	0	148	0	0	0	0	45	73	800	0	0	0	1,496	167	2,828	0	
Peak Hour	All	0	56	0	74	0	0	0	0	25	38	479	0	0	0	821	82	1,575	0
	HV	0	8	0	21	0	0	0	0	0	4	6	0	0	0	7	3	49	0
	HV%	-	14%	-	28%	-	-	-	-	0%	11%	1%	-	-	-	1%	4%	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	8	0	1	3	12	0	0	0	1	1	3	0	0	5	8
7:15 AM	7	0	5	3	15	0	0	0	0	0	1	3	0	6	10
7:30 AM	7	0	3	1	11	0	0	0	1	1	2	0	0	5	7
7:45 AM	7	0	1	4	12	0	0	0	1	1	4	1	0	2	7
8:00 AM	7	0	4	3	14	0	0	1	1	2	1	0	0	3	4
8:15 AM	8	0	2	2	12	0	0	0	1	1	3	0	0	4	7
8:30 AM	7	0	5	3	15	0	0	0	0	0	1	1	0	2	4
8:45 AM	9	0	2	3	14	0	0	0	2	2	3	1	0	7	11
Count Total	60	0	23	22	105	0	0	1	7	8	18	6	0	34	58
Peak Hr	29	0	10	10	49	0	0	1	4	5	10	1	0	14	25

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Albert M Teglia Blvd				n/a				El Camino Real				El Camino Real				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	2	0	6	0	0	0	0	0	0	1	0	0	0	2	1	12	0
7:15 AM	0	3	0	4	0	0	0	0	1	1	3	0	0	0	2	1	15	0
7:30 AM	0	3	0	4	0	0	0	0	0	2	1	0	0	0	1	0	11	0
7:45 AM	0	1	0	6	0	0	0	0	0	0	1	0	0	0	3	1	12	50
8:00 AM	0	3	0	4	0	0	0	0	0	2	2	0	0	0	2	1	14	52
8:15 AM	0	1	0	7	0	0	0	0	0	0	2	0	0	0	1	1	12	49
8:30 AM	0	3	0	4	0	0	0	0	0	3	2	0	0	0	3	0	15	53
8:45 AM	0	4	0	5	0	0	0	0	0	1	1	0	0	0	2	1	14	55
Count Total	0	20	0	40	0	0	0	0	1	9	13	0	0	0	16	6	105	0
Peak Hour	0	8	0	21	0	0	0	0	0	4	6	0	0	0	7	3	49	0

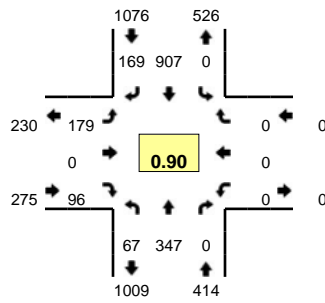
Two-Hour Count Summaries - Bikes														
Interval Start	Albert M Teglia Blvd			n/a			El Camino Real			El Camino Real			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	3
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	4
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	5
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	2	5
Count Total	0	0	0	0	0	0	0	1	0	0	0	5	2	8
Peak Hour	0	0	0	0	0	0	0	1	0	0	0	3	1	5

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

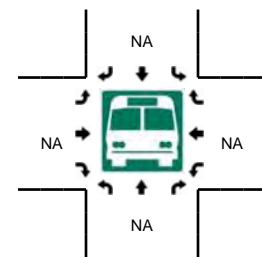
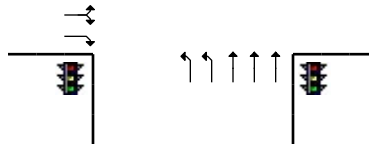
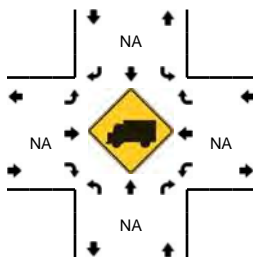
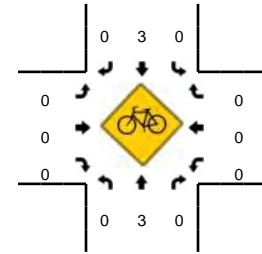
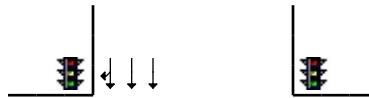
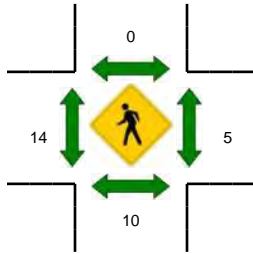
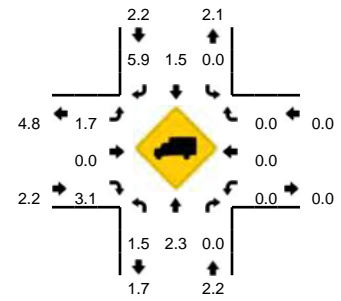


**LOCATION:** El Camino Real -- F St  
**CITY/STATE:** Colma, CA

**QC JOB #:** 14552009  
**DATE:** Wed, Nov 01 2017



**Peak-Hour: 7:35 AM -- 8:35 AM**  
**Peak 15-Min: 8:10 AM -- 8:25 AM**

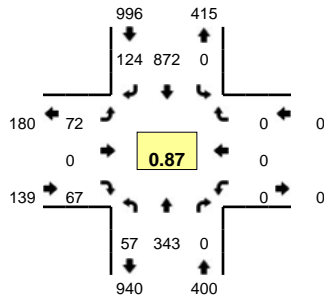


5-Min Count Period Beginning At	El Camino Real (Northbound)				El Camino Real (Southbound)				F St (Eastbound)				F St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	11	0	1	0	43	8	0	7	0	1	0	0	0	0	0	71	
7:05 AM	4	20	0	0	0	34	11	0	9	0	1	0	0	0	0	0	79	
7:10 AM	2	20	0	0	0	43	18	0	2	0	8	0	0	0	0	0	93	
7:15 AM	4	13	0	0	0	39	11	0	11	0	7	0	0	0	0	0	85	
7:20 AM	2	21	0	0	0	48	10	0	10	0	6	0	0	0	0	0	97	
7:25 AM	3	16	0	0	0	60	11	1	12	0	13	0	0	0	0	0	116	
7:30 AM	7	29	0	0	0	39	8	0	11	0	3	0	0	0	0	0	97	
7:35 AM	3	31	0	0	0	81	16	0	13	0	5	0	0	0	0	0	149	
7:40 AM	6	21	0	1	0	71	22	0	16	0	4	0	0	0	0	0	141	
7:45 AM	4	20	0	2	0	76	17	0	13	0	6	0	0	0	0	0	138	
7:50 AM	6	27	0	0	0	68	16	0	11	0	6	0	0	0	0	0	134	
7:55 AM	8	34	0	1	0	74	15	0	16	0	7	0	0	0	0	0	155	1355
8:00 AM	6	17	0	0	0	100	20	0	11	0	7	0	0	0	0	0	161	1445
8:05 AM	5	26	0	0	0	59	11	0	8	0	15	0	0	0	0	0	124	1490
8:10 AM	1	25	0	0	0	86	11	0	20	0	7	0	0	0	0	0	150	1547
8:15 AM	6	28	0	2	0	89	17	0	12	0	14	0	0	0	0	0	168	1630
8:20 AM	5	65	0	0	0	70	9	0	19	0	6	0	0	0	0	0	174	1707
8:25 AM	6	25	0	0	0	65	7	0	24	0	8	0	0	0	0	0	135	1726
8:30 AM	5	28	0	0	0	68	8	0	16	0	11	0	0	0	0	0	136	1765
8:35 AM	2	35	0	0	0	78	8	0	10	0	5	0	0	0	0	0	138	1754
8:40 AM	5	35	0	0	0	53	10	0	15	0	10	0	0	0	0	0	128	1741
8:45 AM	5	24	0	0	0	72	10	0	16	0	12	0	0	0	0	0	139	1742
8:50 AM	2	27	0	0	0	62	7	0	12	0	8	0	0	0	0	0	118	1726
8:55 AM	3	25	0	0	0	54	18	0	2	0	6	0	0	0	0	0	108	1679
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	48	472	0	8	0	980	148	0	204	0	108	0	0	0	0	0	1968	
Heavy Trucks	0	12	0		0	20	8		0	0	0		0	0	0		40	
Pedestrians		8				0				20				8			36	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

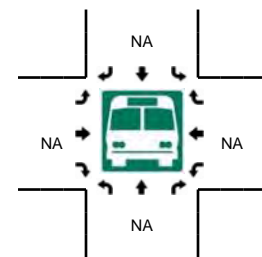
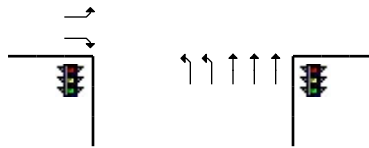
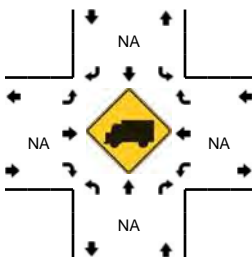
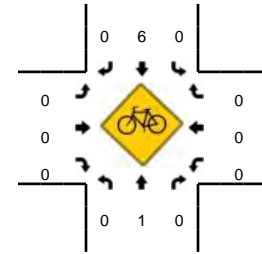
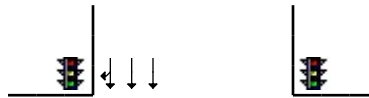
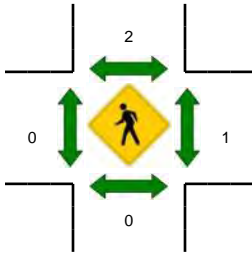
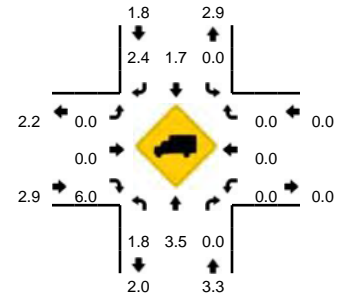
Comments:

**LOCATION:** El Camino Real -- Colma Blvd  
**CITY/STATE:** Colma, CA

**QC JOB #:** 14552011  
**DATE:** Wed, Nov 01 2017



**Peak-Hour: 7:50 AM -- 8:50 AM**  
**Peak 15-Min: 8:10 AM -- 8:25 AM**



5-Min Count Period Beginning At	El Camino Real (Northbound)				El Camino Real (Southbound)				Colma Blvd (Eastbound)				Colma Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	3	14	0	0	0	39	2	0	2	0	3	0	0	0	0	0	63	
7:05 AM	3	15	0	0	0	37	4	0	2	0	2	0	0	0	0	0	63	
7:10 AM	1	22	0	0	0	42	7	0	3	0	2	0	0	0	0	0	77	
7:15 AM	1	15	0	0	0	38	5	0	1	0	1	0	0	0	0	0	61	
7:20 AM	2	18	0	0	0	47	0	0	4	0	2	0	0	0	0	0	73	
7:25 AM	5	16	0	0	0	71	6	0	4	0	6	0	0	0	0	0	108	
7:30 AM	4	33	0	0	0	42	4	0	5	0	1	0	0	0	0	0	89	
7:35 AM	0	31	0	0	0	77	7	0	6	0	1	0	0	0	0	0	122	
7:40 AM	8	26	0	0	0	60	8	0	4	0	2	0	0	0	0	0	108	
7:45 AM	5	20	0	0	0	52	11	0	3	0	3	0	0	0	0	0	94	
7:50 AM	4	32	0	0	0	86	5	0	6	0	4	0	0	0	0	0	137	
7:55 AM	3	32	0	0	0	63	9	0	6	0	6	0	0	0	0	0	119	1114
8:00 AM	0	22	0	0	0	83	10	0	1	0	7	0	0	0	0	0	123	1174
8:05 AM	3	24	0	0	0	70	10	0	6	0	4	0	0	0	0	0	117	1228
8:10 AM	3	25	0	0	0	93	12	0	4	0	4	0	0	0	0	0	141	1292
8:15 AM	9	23	0	0	0	83	7	0	8	0	4	0	0	0	0	0	134	1365
8:20 AM	10	48	0	0	0	72	15	0	14	0	8	0	0	0	0	0	167	1459
8:25 AM	4	30	0	0	0	63	11	0	7	0	7	0	0	0	0	0	122	1473
8:30 AM	6	22	0	0	0	67	13	0	4	0	7	0	0	0	0	0	119	1503
8:35 AM	3	35	0	0	0	69	14	0	4	0	5	0	0	0	0	0	130	1511
8:40 AM	7	31	0	0	0	52	8	0	7	0	4	0	0	0	0	0	109	1512
8:45 AM	4	19	0	1	0	71	10	0	5	0	7	0	0	0	0	0	117	1535
8:50 AM	7	28	0	0	0	57	15	0	4	0	7	0	0	0	0	0	118	1516
8:55 AM	3	23	0	0	0	42	13	0	6	0	6	0	0	0	0	0	93	1490
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	88	384	0	0	0	992	136	0	104	0	64	0	0	0	0	0	1768	
Heavy Trucks	0	12	0	0	0	20	0	0	0	0	4	0	0	0	0	0	36	
Pedestrians		0				0					0						0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

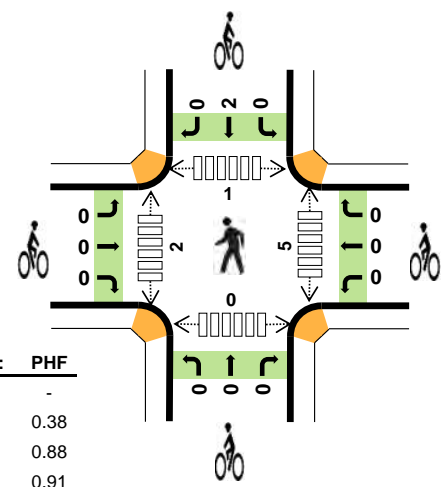
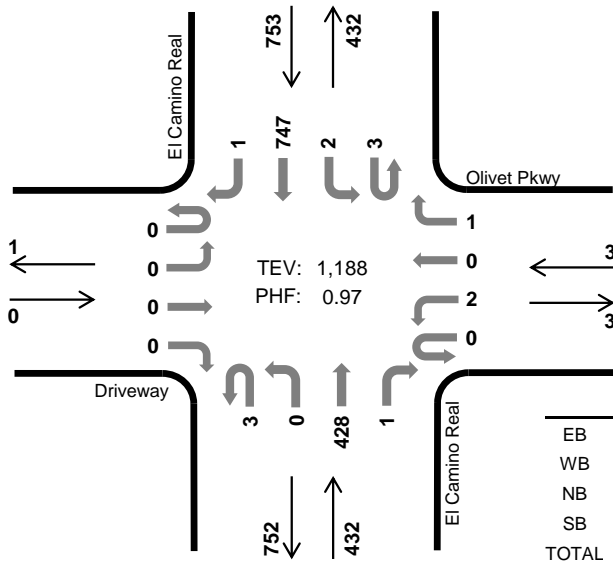
Comments:

### El Camino Real Olivet Pkwy



Peak Hour

Date: 05-30-2019  
Count Period: 7:00 AM to 9:00 AM  
Peak Hour: 7:45 AM to 8:45 AM



	HV %:	PHF
EB	-	-
WB	0.0%	0.38
NB	3.0%	0.88
SB	2.1%	0.91
TOTAL	2.4%	0.97

#### Two-Hour Count Summaries

Interval Start	Driveway				Olivet Pkwy				El Camino Real				El Camino Real				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	0	0	0	0	0	0	0	0	62	1	0	0	120	0	183	0	
7:15 AM	0	0	0	0	0	0	0	1	0	0	57	0	1	0	155	1	215	0	
7:30 AM	0	0	0	1	0	0	0	0	0	0	95	0	0	1	174	0	271	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	111	0	0	1	181	0	293	962	
8:00 AM	0	0	0	0	0	0	0	0	0	0	101	0	0	0	206	0	307	1,086	
8:15 AM	0	0	0	0	0	1	0	1	2	0	121	0	1	0	178	0	304	1,175	
8:30 AM	0	0	0	0	0	1	0	0	1	0	95	1	2	1	182	1	284	1,188	
8:45 AM	0	0	0	0	0	0	0	0	0	1	92	0	0	0	175	0	268	1,163	
Count Total	0	0	0	1	0	2	0	2	3	1	734	2	4	3	1,371	2	2,125	0	
Peak Hour	All	0	0	0	0	0	2	0	1	3	0	428	1	3	2	747	1	1,188	0
	HV	0	0	0	0	0	0	0	0	0	0	13	0	0	0	16	0	29	0
	HV%	-	-	-	-	-	0%	-	0%	0%	-	3%	0%	0%	0%	2%	0%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	1	4	5	0	0	0	1	1	0	0	0	1	1
7:15 AM	0	0	4	5	9	0	0	0	0	0	1	4	1	0	6
7:30 AM	0	0	5	5	10	0	0	0	1	1	0	2	0	0	2
7:45 AM	0	0	1	5	6	0	0	0	0	0	3	0	0	0	3
8:00 AM	0	0	5	3	8	0	0	0	1	1	0	1	0	0	1
8:15 AM	0	0	3	4	7	0	0	0	1	1	1	1	1	0	3
8:30 AM	0	0	4	4	8	0	0	0	0	0	1	0	0	0	1
8:45 AM	0	0	4	6	10	0	0	0	1	1	0	1	1	0	2
Count Total	0	0	27	36	63	0	0	0	5	5	6	9	3	1	19
Peak Hour	0	0	13	16	29	0	0	0	2	2	5	2	1	0	8

<b>Two-Hour Count Summaries - Heavy Vehicles</b>																		
Interval Start	Driveway				Olivet Pkwy				El Camino Real				El Camino Real				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	5	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0	9	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	10	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5	0	6	30
8:00 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	3	0	8	33
8:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	7	31
8:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	8	29
8:45 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	6	0	10	33
Count Total	0	0	0	0	0	0	0	0	0	0	27	0	0	0	36	0	63	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	13	0	0	0	16	0	29	0

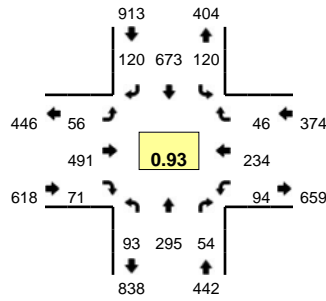
<b>Two-Hour Count Summaries - Bikes</b>																	
Interval Start	Driveway			Olivet Pkwy			El Camino Real			El Camino Real			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0			
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0			
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0			
Count Total	0	0	0	0	0	0	0	0	0	0	5	0	5	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	2	0	2	0			

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

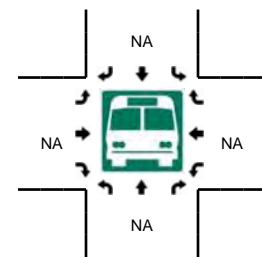
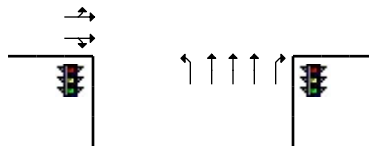
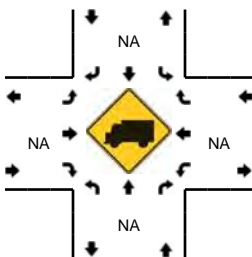
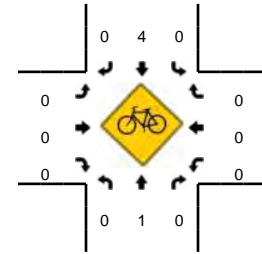
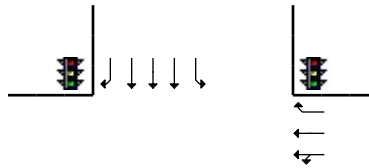
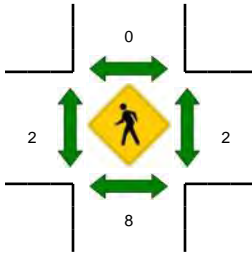
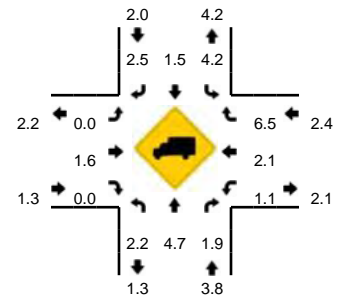


**LOCATION:** El Camino Real -- Serramonte Blvd  
**CITY/STATE:** Colma, CA

**QC JOB #:** 14552013  
**DATE:** Wed, Nov 01 2017



**Peak-Hour: 7:50 AM -- 8:50 AM**  
**Peak 15-Min: 8:10 AM -- 8:25 AM**

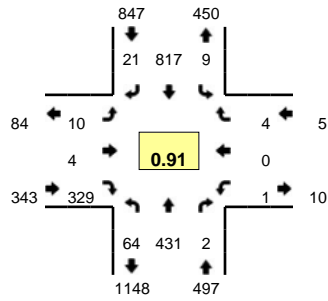


5-Min Count Period Beginning At	El Camino Real (Northbound)				El Camino Real (Southbound)				Serramonte Blvd (Eastbound)				Serramonte Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	3	9	2	0	5	27	5	0	2	19	2	0	2	12	5	0	93	
7:05 AM	6	14	4	0	5	25	8	0	5	14	5	0	5	5	4	0	100	
7:10 AM	6	18	5	0	3	30	4	0	3	15	4	0	4	12	1	0	105	
7:15 AM	7	12	3	0	8	32	4	0	0	16	2	0	5	10	2	0	101	
7:20 AM	4	20	6	0	5	47	4	0	3	27	2	0	4	15	2	0	139	
7:25 AM	8	12	4	0	6	37	10	0	0	27	5	0	6	12	6	0	133	
7:30 AM	6	24	4	0	5	42	9	0	6	23	4	0	5	20	5	0	153	
7:35 AM	7	24	2	0	8	48	14	0	4	21	4	0	8	9	4	0	153	
7:40 AM	7	21	3	0	9	56	13	0	2	34	3	0	5	10	6	0	169	
7:45 AM	4	20	7	0	8	48	6	0	3	42	6	0	4	11	7	0	166	
7:50 AM	13	28	7	0	10	56	10	0	6	34	4	0	11	15	1	0	195	
7:55 AM	4	30	6	0	6	61	13	0	6	45	7	0	8	25	2	0	213	1720
8:00 AM	9	15	3	0	7	62	8	1	2	28	2	0	4	17	4	0	162	1789
8:05 AM	6	23	2	0	5	58	10	1	5	27	5	0	11	24	4	0	181	1870
8:10 AM	8	21	7	0	7	73	11	0	4	30	4	0	10	21	5	0	201	1966
8:15 AM	5	35	5	0	14	62	5	0	2	49	6	0	4	20	2	0	209	2074
8:20 AM	6	30	2	0	11	71	10	1	6	41	4	0	6	25	9	0	222	2157
8:25 AM	8	22	4	1	8	47	15	1	5	51	9	0	4	16	5	1	197	2221
8:30 AM	12	19	4	0	10	48	7	1	5	42	6	0	13	19	5	0	191	2259
8:35 AM	11	32	5	0	10	37	15	1	3	59	13	0	2	18	2	0	208	2314
8:40 AM	8	25	5	0	12	49	5	0	8	49	5	0	10	19	3	0	198	2343
8:45 AM	2	15	4	0	13	49	11	1	4	36	6	0	10	15	4	0	170	2347
8:50 AM	9	25	3	0	11	49	9	1	7	34	14	0	12	15	4	0	193	2345
8:55 AM	9	13	3	0	4	38	9	0	6	37	5	0	1	22	7	0	154	2286
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	76	344	56	0	128	824	104	4	48	480	56	0	80	264	64	0	2528	
Heavy Trucks	4	16	0		4	16	4		0	8	0		4	12	0		68	
Pedestrians		4				0				4				4			12	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

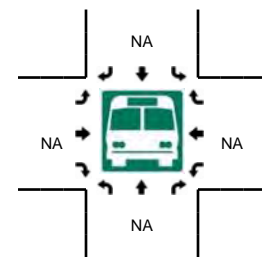
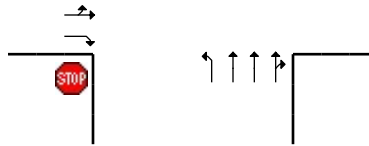
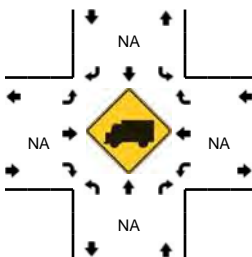
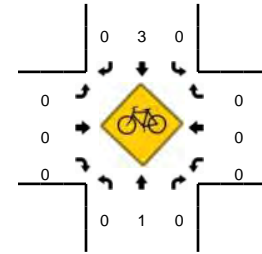
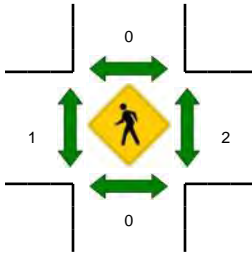
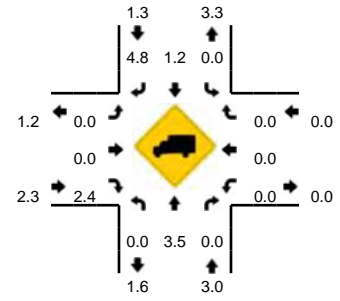
Comments:

**LOCATION:** El Camino Real -- Collins Ave  
**CITY/STATE:** Colma, CA

**QC JOB #:** 14552015  
**DATE:** Wed, Nov 01 2017



**Peak-Hour: 7:55 AM -- 8:55 AM**  
**Peak 15-Min: 8:10 AM -- 8:25 AM**



5-Min Count Period Beginning At	El Camino Real (Northbound)				El Camino Real (Southbound)				Collins Ave (Eastbound)				Collins Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	9	15	0	0	0	33	2	0	2	0	8	0	0	0	0	0	69	
7:05 AM	5	29	0	0	0	32	2	2	1	0	9	0	0	0	0	0	80	
7:10 AM	5	23	0	0	0	32	2	0	0	0	8	0	0	0	0	0	70	
7:15 AM	6	20	0	0	1	35	3	3	1	0	17	0	0	0	1	0	87	
7:20 AM	6	35	0	0	1	45	4	0	2	0	24	0	0	0	0	0	117	
7:25 AM	13	25	1	0	0	44	2	0	0	0	12	0	0	0	0	0	97	
7:30 AM	8	35	1	0	0	54	0	0	1	0	15	0	0	0	0	0	114	
7:35 AM	5	39	0	1	0	55	5	2	0	0	18	0	0	0	0	0	125	
7:40 AM	7	26	1	0	1	59	4	0	1	0	20	0	0	0	0	0	119	
7:45 AM	1	35	0	0	1	57	0	1	2	1	18	0	0	0	1	0	117	
7:50 AM	3	42	2	0	0	64	1	0	2	1	19	0	0	0	0	0	134	
7:55 AM	5	42	1	0	1	79	0	0	1	1	22	0	0	0	0	0	152	1281
8:00 AM	7	31	0	0	0	66	0	1	0	0	28	0	0	0	1	0	134	1346
8:05 AM	5	25	0	0	0	71	2	0	1	1	28	0	1	0	1	0	135	1401
8:10 AM	6	35	0	0	1	83	1	0	0	0	19	0	0	0	0	0	145	1476
8:15 AM	2	39	0	0	0	67	2	1	2	0	27	0	0	0	0	0	140	1529
8:20 AM	2	50	0	0	0	89	1	0	0	1	39	0	0	0	0	0	182	1594
8:25 AM	11	29	0	0	0	54	2	0	1	0	23	0	0	0	1	0	121	1618
8:30 AM	7	41	0	0	1	67	2	1	0	1	19	0	0	0	0	0	139	1643
8:35 AM	2	52	0	0	0	46	4	0	2	0	26	0	0	0	0	0	132	1650
8:40 AM	4	28	0	0	0	62	2	1	0	0	36	0	0	0	1	0	134	1665
8:45 AM	7	26	0	1	0	64	2	1	1	0	35	0	0	0	0	0	137	1685
8:50 AM	5	33	1	0	1	69	3	0	2	0	27	0	0	0	0	0	141	1692
8:55 AM	5	32	0	0	0	48	0	1	2	0	28	0	0	1	0	0	117	1657
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	40	496	0	0	4	956	16	4	8	4	340	0	0	0	0	0	1868	
Heavy Trucks	0	20	0	0	0	16	4	0	0	0	4	0	0	0	0	0	44	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

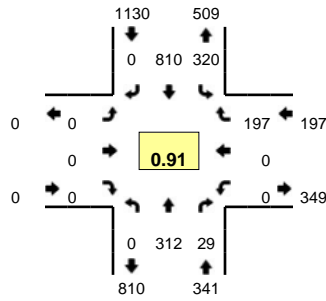
Comments:

Type of peak hour being reported: Intersection Peak

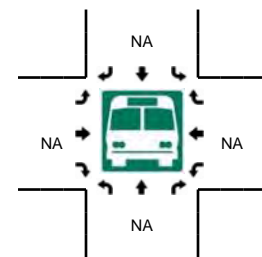
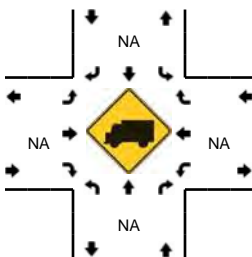
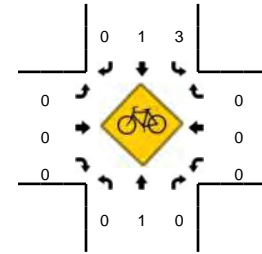
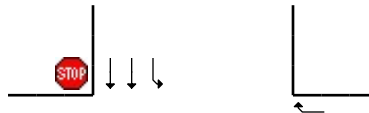
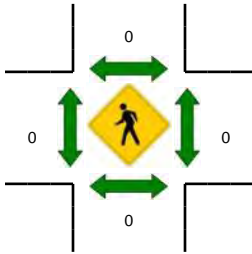
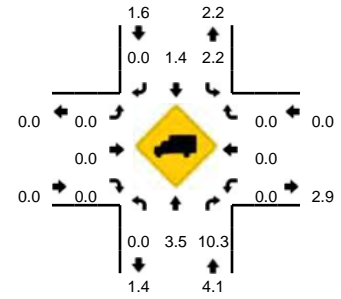
Method for determining peak hour: Total Entering Volume

**LOCATION:** El Camino Royal -- Mission Rd  
**CITY/STATE:** Colma, CA

**QC JOB #:** 14552017  
**DATE:** Wed, Nov 01 2017



**Peak-Hour: 7:55 AM -- 8:55 AM**  
**Peak 15-Min: 8:10 AM -- 8:25 AM**



5-Min Count Period Beginning At	El Camino Royal (Northbound)				El Camino Royal (Southbound)				Mission Rd (Eastbound)				Mission Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	14	2	0	10	30	0	0	0	0	0	0	0	0	15	0	71	
7:05 AM	0	13	2	0	16	26	0	0	0	0	0	0	0	0	18	0	75	
7:10 AM	0	16	3	0	12	31	0	0	0	0	0	0	0	0	13	0	75	
7:15 AM	0	18	2	0	18	30	0	0	0	0	0	0	0	0	10	0	78	
7:20 AM	0	24	0	0	19	48	0	0	0	0	0	0	0	0	22	0	113	
7:25 AM	0	23	1	0	24	36	0	0	0	0	0	0	0	0	16	0	100	
7:30 AM	0	22	3	0	21	46	0	0	0	0	0	0	0	0	18	0	110	
7:35 AM	0	26	2	0	21	48	0	0	0	0	0	0	0	0	19	0	116	
7:40 AM	0	19	5	0	26	54	0	0	0	0	0	0	0	0	20	0	124	
7:45 AM	0	30	5	0	18	54	0	0	0	0	0	0	0	0	9	0	116	
7:50 AM	0	26	0	0	20	60	0	0	0	0	0	0	0	0	26	0	132	
7:55 AM	0	29	3	0	28	70	0	0	0	0	0	0	0	0	20	0	150	1260
8:00 AM	0	25	2	0	31	66	0	0	0	0	0	0	0	0	15	0	139	1328
8:05 AM	0	23	1	0	28	68	0	0	0	0	0	0	0	0	17	0	137	1390
8:10 AM	0	21	1	0	22	77	0	0	0	0	0	0	0	0	11	0	132	1447
8:15 AM	0	37	0	0	25	72	0	0	0	0	0	0	0	0	14	0	148	1517
8:20 AM	0	22	5	0	39	89	0	0	0	0	0	0	0	0	25	0	180	1584
8:25 AM	0	23	2	0	22	50	0	0	0	0	0	0	0	0	23	0	120	1604
8:30 AM	0	29	1	0	29	58	0	0	0	0	0	0	0	0	16	0	133	1627
8:35 AM	0	32	4	0	16	49	0	0	0	0	0	0	0	0	17	0	118	1629
8:40 AM	0	24	5	0	22	73	0	0	0	0	0	0	0	0	12	0	136	1641
8:45 AM	0	24	2	0	26	69	0	0	0	0	0	0	0	0	14	0	135	1660
8:50 AM	0	23	3	0	32	69	0	0	0	0	0	0	0	0	13	0	140	1668
8:55 AM	0	24	3	0	33	39	0	0	0	0	0	0	0	0	20	0	119	1637
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	320	24	0	344	952	0	0	0	0	0	0	0	0	200	0	1840	
Heavy Trucks	0	8	8		8	16	0		0	0	0		0	0	0		40	
Pedestrians		0				0			0	0	0		0	0	0		0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

Comments:

**WEEKDAY PM**

4PM - 6PM

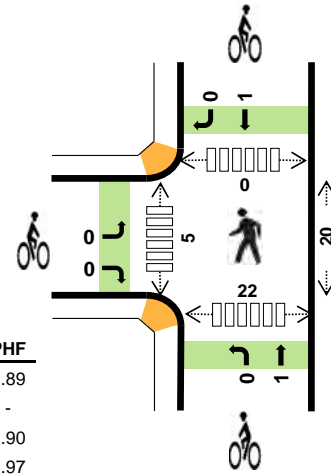
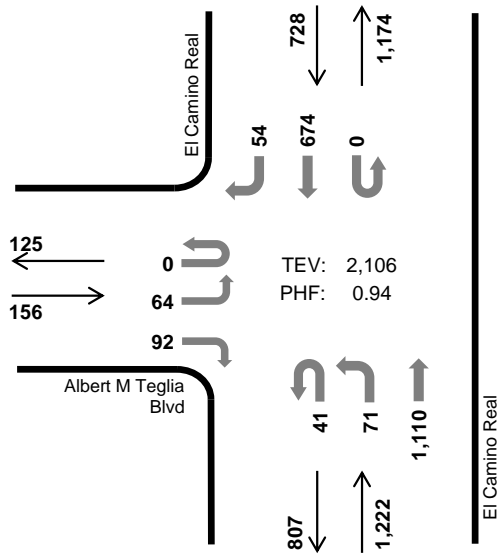


# El Camino Real Albert M Teglia Blvd



Peak Hour

Date: 05-30-2019  
Count Period: 4:00 PM to 6:00 PM  
Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	16.7%	0.89
WB	-	-
NB	0.3%	0.90
SB	1.0%	0.97
TOTAL	1.8%	0.94

### Two-Hour Count Summaries

Interval Start	Albert M Teglia Blvd				n/a				El Camino Real				El Camino Real				15-min Total	Rolling One Hour	
	Eastbound		Westbound		Northbound		Southbound		UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	8	0	14	0	0	0	0	4	11	235	0	0	0	167	7	446	0	
4:15 PM	0	13	0	20	0	0	0	0	13	6	226	0	0	0	156	6	440	0	
4:30 PM	0	8	0	20	0	0	0	0	17	9	265	0	0	0	168	8	495	0	
4:45 PM	0	9	0	24	0	0	0	0	7	15	268	0	0	0	154	11	488	1,869	
5:00 PM	0	16	0	17	0	0	0	0	13	14	269	0	0	0	175	13	517	1,940	
5:15 PM	0	19	0	25	0	0	0	0	11	21	306	0	0	0	166	10	558	2,058	
5:30 PM	0	17	0	20	0	0	0	0	10	15	285	0	0	0	170	15	532	2,095	
5:45 PM	0	12	0	30	0	0	0	0	7	21	250	0	0	0	163	16	499	2,106	
Count Total	0	102	0	170	0	0	0	0	82	112	2,104	0	0	0	1,319	86	3,975	0	
Peak Hour	All	0	64	0	92	0	0	0	0	41	71	1,110	0	0	0	674	54	2,106	0
	HV	0	8	0	18	0	0	0	0	0	4	0	0	0	0	4	3	37	0
	HV%	-	13%	-	20%	-	-	-	-	0%	6%	0%	-	-	-	1%	6%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	6	0	4	5	15	0	0	0	0	0	1	0	0	1	2
4:15 PM	6	0	4	2	12	0	0	0	0	0	1	0	0	3	4
4:30 PM	5	0	1	1	7	0	0	0	0	0	2	1	0	1	4
4:45 PM	9	0	6	3	18	1	0	0	0	1	1	6	0	2	9
5:00 PM	4	0	0	2	6	0	0	0	1	1	4	0	0	5	9
5:15 PM	8	0	1	2	11	0	0	1	0	1	2	1	0	3	6
5:30 PM	7	0	3	2	12	0	0	0	0	0	4	4	0	3	11
5:45 PM	7	0	0	1	8	0	0	0	0	0	10	0	0	11	21
Count Total	52	0	19	18	89	1	0	1	1	3	25	12	0	29	66
Peak Hr	26	0	4	7	37	0	0	1	1	2	20	5	0	22	47

Two-Hour Count Summaries - Heavy Vehicles														15-min Total	Rolling One Hour			
Interval Start	Albert M Teglia Blvd				n/a				El Camino Real				El Camino Real					
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	1	0	5	0	0	0	0	0	1	3	0	0	0	4	1	15	0
4:15 PM	0	0	0	6	0	0	0	0	0	1	3	0	0	0	1	1	12	0
4:30 PM	0	2	0	3	0	0	0	0	0	1	0	0	0	0	1	0	7	0
4:45 PM	0	3	0	6	0	0	0	0	0	2	4	0	0	0	2	1	18	52
5:00 PM	0	1	0	3	0	0	0	0	0	0	0	0	0	0	1	1	6	43
5:15 PM	0	2	0	6	0	0	0	0	0	1	0	0	0	0	2	0	11	42
5:30 PM	0	3	0	4	0	0	0	0	0	3	0	0	0	0	1	1	12	47
5:45 PM	0	2	0	5	0	0	0	0	0	0	0	0	0	0	0	1	8	37
Count Total	0	14	0	38	0	0	0	0	0	9	10	0	0	0	12	6	89	0
Peak Hour	0	8	0	18	0	0	0	0	0	4	0	0	0	0	4	3	37	0

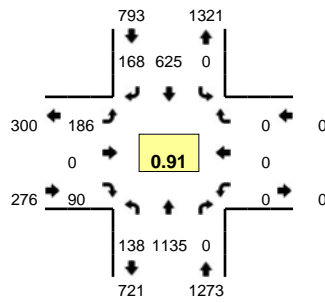
  

Two-Hour Count Summaries - Bikes														15-min Total	Rolling One Hour			
Interval Start	Albert M Teglia Blvd			n/a			El Camino Real			El Camino Real								
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	1	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	3	0
Peak Hour	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	2	0

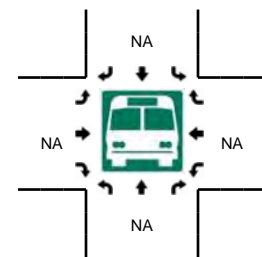
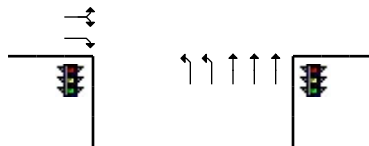
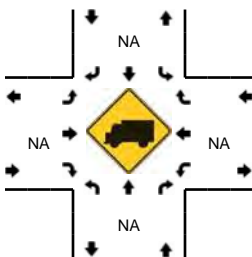
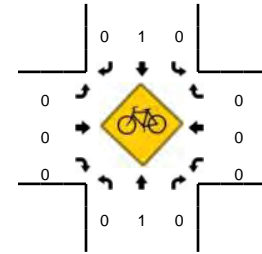
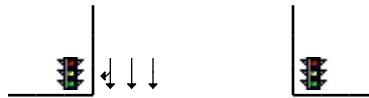
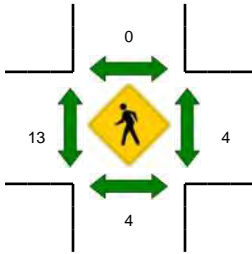
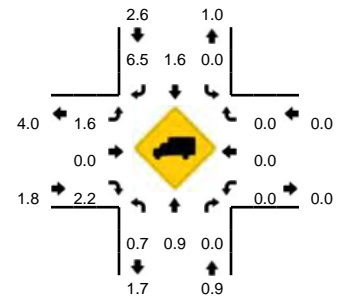
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

**LOCATION:** El Camino Real -- F St  
**CITY/STATE:** Colma, CA

**QC JOB #:** 14552010  
**DATE:** Wed, Nov 01 2017



**Peak-Hour: 5:00 PM -- 6:00 PM**  
**Peak 15-Min: 5:25 PM -- 5:40 PM**

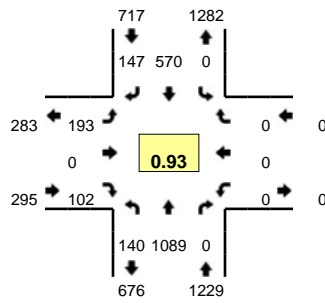


5-Min Count Period Beginning At	El Camino Real (Northbound)				El Camino Real (Southbound)				F St (Eastbound)				F St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	10	80	0	2	0	54	14	0	13	0	13	0	0	0	0	0	186	
4:05 PM	6	67	0	0	0	76	14	0	6	0	8	0	0	0	0	0	177	
4:10 PM	2	73	0	0	0	56	17	0	12	0	3	0	0	0	0	0	163	
4:15 PM	6	90	0	0	0	67	15	0	16	0	6	0	0	0	0	0	200	
4:20 PM	9	78	0	0	0	42	11	0	13	0	3	0	0	0	0	0	156	
4:25 PM	5	72	0	0	0	54	10	0	17	0	3	0	0	0	0	0	161	
4:30 PM	9	82	0	1	0	65	8	0	15	0	4	0	0	0	0	0	184	
4:35 PM	13	63	0	0	0	49	18	0	9	0	5	0	0	0	0	0	157	
4:40 PM	4	73	0	2	0	47	11	0	18	0	12	0	0	0	0	0	167	
4:45 PM	5	89	0	2	0	60	24	0	14	0	9	0	0	0	0	0	203	
4:50 PM	5	78	0	1	0	67	14	0	16	0	5	0	0	0	0	0	186	
4:55 PM	13	70	0	0	0	39	14	0	12	0	4	0	0	0	0	0	152	2092
5:00 PM	10	100	0	1	0	55	13	0	21	0	2	0	0	0	0	0	202	2108
5:05 PM	9	100	0	1	0	50	16	0	12	0	10	0	0	0	0	0	198	2129
5:10 PM	8	86	0	1	0	32	14	0	17	0	7	0	0	0	0	0	165	2131
5:15 PM	9	80	0	0	0	63	15	0	10	0	16	0	0	0	0	0	193	2124
5:20 PM	9	100	0	0	0	42	13	0	6	0	3	0	0	0	0	0	173	2141
5:25 PM	13	111	0	0	0	37	14	0	17	0	5	0	0	0	0	0	197	2177
5:30 PM	11	85	0	0	0	66	17	0	15	0	5	0	0	0	0	0	199	2192
5:35 PM	13	110	0	1	0	78	11	0	26	0	7	0	0	0	0	0	246	2281
5:40 PM	16	85	0	0	0	44	15	0	15	0	10	0	0	0	0	0	185	2299
5:45 PM	15	94	0	1	0	58	13	0	8	0	7	0	0	0	0	0	196	2292
5:50 PM	11	101	0	0	0	41	18	0	25	0	12	0	0	0	0	0	208	2314
5:55 PM	8	83	0	1	0	59	9	0	14	0	6	0	0	0	0	0	180	2342
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	148	1224	0	4	0	724	168	0	232	0	68	0	0	0	0	0	2568	
Heavy Trucks	0	16	0	0	0	4	12	0	0	0	0	0	0	0	0	0	32	
Pedestrians		4				0				16				0			20	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

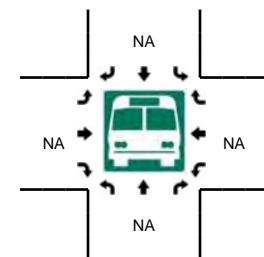
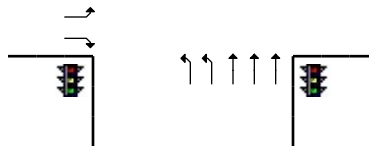
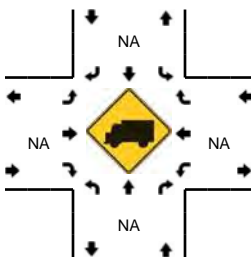
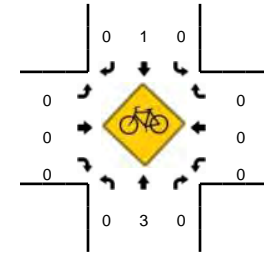
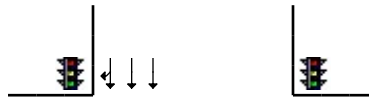
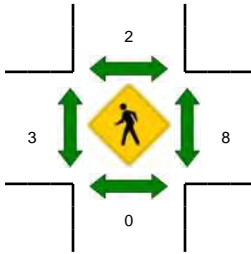
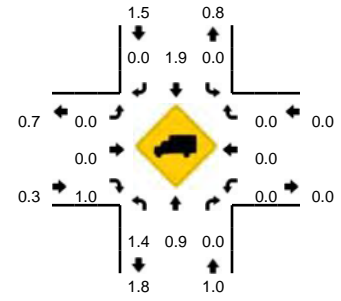
Comments:

**LOCATION:** El Camino Real -- Colma Blvd  
**CITY/STATE:** Colma, CA

**QC JOB #:** 14552012  
**DATE:** Wed, Nov 01 2017



**Peak-Hour: 5:00 PM -- 6:00 PM**  
**Peak 15-Min: 5:25 PM -- 5:40 PM**



5-Min Count Period Beginning At	El Camino Real (Northbound)				El Camino Real (Southbound)				Colma Blvd (Eastbound)				Colma Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	8	77	0	0	0	62	9	0	11	0	12	0	0	0	0	0	179	
4:05 PM	11	57	0	0	0	64	14	0	18	0	10	0	0	0	0	0	174	
4:10 PM	5	50	0	1	0	56	12	0	19	0	11	0	0	0	0	0	154	
4:15 PM	8	88	0	0	0	58	12	0	17	0	12	0	0	0	0	0	195	
4:20 PM	16	78	0	0	0	46	3	0	17	0	4	0	0	0	0	0	164	
4:25 PM	12	56	0	0	0	46	9	0	11	0	8	0	0	0	0	0	142	
4:30 PM	7	82	0	0	0	50	16	0	21	0	9	0	0	0	0	0	185	
4:35 PM	15	59	0	0	0	28	7	0	5	0	6	0	0	0	0	0	120	
4:40 PM	4	73	0	0	0	52	17	0	12	0	12	0	0	0	0	0	170	
4:45 PM	14	74	0	1	0	60	15	0	17	0	9	0	0	0	0	0	190	
4:50 PM	13	63	0	0	0	55	13	0	21	0	9	0	0	0	0	0	174	
4:55 PM	10	70	0	0	0	38	7	0	18	0	10	0	0	0	0	0	153	2000
5:00 PM	13	98	0	0	0	44	14	0	12	0	11	0	0	0	0	0	192	2013
5:05 PM	12	85	0	1	0	50	7	0	18	0	14	0	0	0	0	0	187	2026
5:10 PM	9	88	0	0	0	28	13	0	19	0	6	0	0	0	0	0	163	2035
5:15 PM	10	100	0	0	0	63	15	0	6	0	8	0	0	0	0	0	202	2042
5:20 PM	9	64	0	1	0	38	7	0	19	0	10	0	0	0	0	0	148	2026
5:25 PM	14	106	0	0	0	31	12	0	22	0	9	0	0	0	0	0	194	2078
5:30 PM	7	82	0	1	0	61	11	0	21	0	9	0	0	0	0	0	192	2085
5:35 PM	13	104	0	0	0	53	19	0	18	0	7	0	0	0	0	0	214	2179
5:40 PM	9	95	0	0	0	52	16	0	16	0	5	0	0	0	0	0	193	2202
5:45 PM	11	90	0	1	0	35	13	0	11	0	7	0	0	0	0	0	168	2180
5:50 PM	19	101	0	0	0	53	5	0	16	0	12	0	0	0	0	0	206	2212
5:55 PM	10	76	0	0	0	62	15	0	15	0	4	0	0	0	0	0	182	2241
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	136	1168	0	4	0	580	168	0	244	0	100	0	0	0	0	0	2400	
Heavy Trucks	0	16	0		0	4	0		0	0	4		0	0	0		24	
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

Comments:

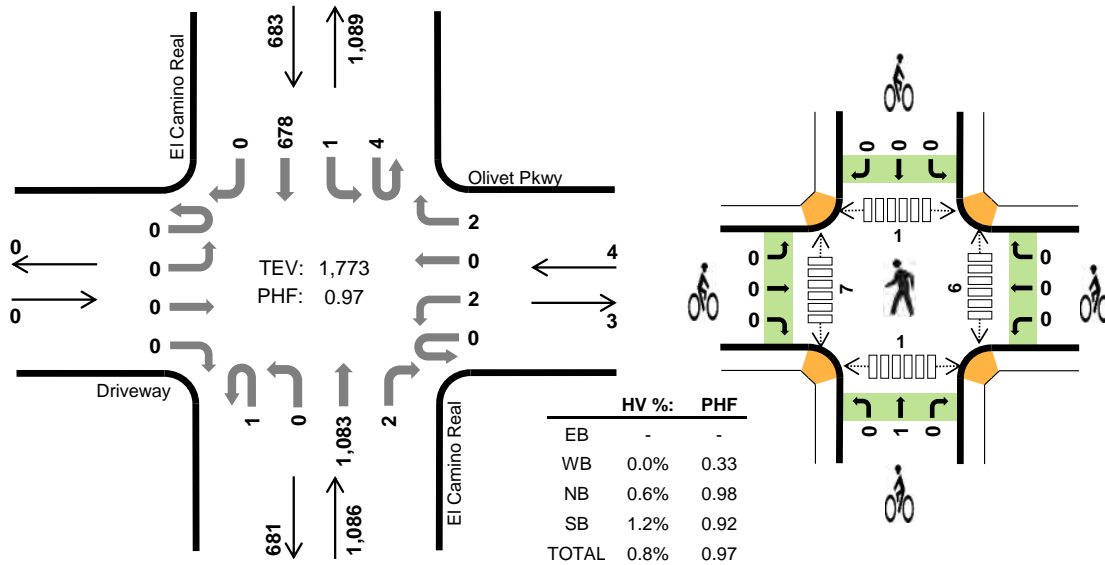


# El Camino Real Olivet Pkwy



Peak Hour

Date: 05-30-2019  
Count Period: 4:00 PM to 6:00 PM  
Peak Hour: 4:30 PM to 5:30 PM



### Two-Hour Count Summaries

Interval Start	Driveway				Olivet Pkwy				El Camino Real				El Camino Real				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	0	1	0	0	0	1	0	0	236	0	1	0	153	0	392	0	
4:15 PM	0	0	0	0	0	0	0	1	1	0	221	1	0	0	136	0	360	0	
<b>4:30 PM</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>269</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>184</b>	<b>0</b>	<b>456</b>	<b>0</b>	
4:45 PM	0	0	0	0	0	2	0	1	0	0	270	0	0	0	153	0	426	1,634	
5:00 PM	0	0	0	0	0	0	0	0	0	0	267	1	1	0	169	0	438	1,680	
5:15 PM	0	0	0	0	0	0	0	1	0	0	277	0	3	0	172	0	453	1,773	
5:30 PM	0	0	0	0	0	0	0	0	0	0	286	1	0	0	151	0	438	1,755	
5:45 PM	0	1	0	0	0	0	0	0	0	0	223	0	0	1	182	0	407	1,736	
Count Total	0	1	0	1	0	2	0	4	2	0	2,049	4	5	2	1,300	0	3,370	0	
Peak Hour	All	0	0	0	0	0	2	0	2	1	0	1,083	2	4	1	678	0	1,773	0
	HV	0	0	0	0	0	0	0	0	0	0	7	0	0	0	8	0	15	0
	HV%	-	-	-	-	-	0%	-	0%	0%	-	1%	0%	0%	0%	1%	-	1%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	5	2	7	0	0	0	0	0	1	0	0	0	1
4:15 PM	0	0	1	2	3	0	0	0	0	0	0	1	1	0	2
<b>4:30 PM</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>3</b>
4:45 PM	0	0	5	3	8	0	0	0	0	0	1	1	0	0	2
5:00 PM	0	0	0	1	1	0	0	0	0	0	3	3	1	1	8
5:15 PM	0	0	1	1	2	0	0	1	0	1	1	1	0	0	2
5:30 PM	0	0	3	3	6	0	0	0	0	0	0	1	0	0	1
5:45 PM	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	16	17	33	0	0	1	0	1	7	9	2	1	19
Peak Hour	0	0	7	8	15	0	0	1	0	1	6	7	1	1	15

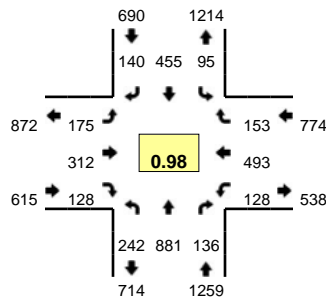
<b>Two-Hour Count Summaries - Heavy Vehicles</b>																		
Interval Start	Driveway				Olivet Pkwy				El Camino Real				El Camino Real				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	2	0	7	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	0
<b>4:30 PM</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>0</b>
4:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	3	0	8	22
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	16
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	15
5:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6	17
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	11
Count Total	0	0	0	0	0	0	0	0	0	0	16	0	0	0	17	0	33	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	7	0	0	0	8	0	15	0

<b>Two-Hour Count Summaries - Bikes</b>																	
Interval Start	Driveway			Olivet Pkwy			El Camino Real			El Camino Real			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>4:30 PM</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
Peak Hour	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0

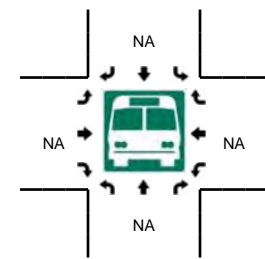
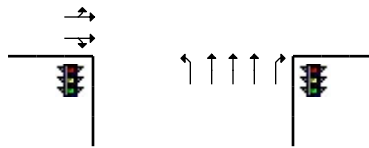
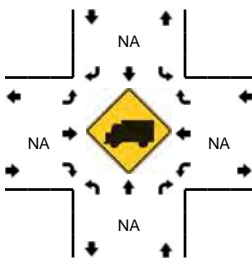
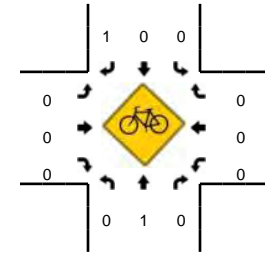
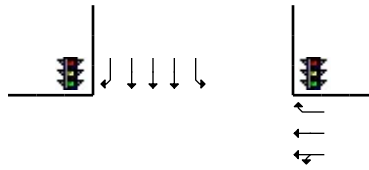
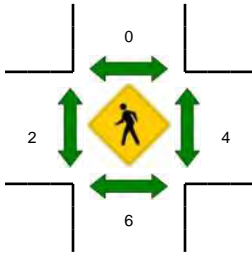
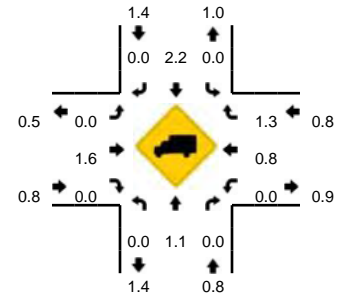
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

**LOCATION:** El Camino Real -- Serramonte Blvd  
**CITY/STATE:** Colma, CA

**QC JOB #:** 14552014  
**DATE:** Wed, Nov 01 2017



**Peak-Hour: 4:55 PM -- 5:55 PM**  
**Peak 15-Min: 5:25 PM -- 5:40 PM**

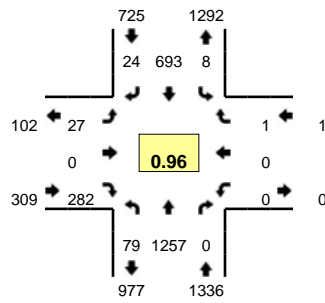


5-Min Count Period Beginning At	El Camino Real (Northbound)				El Camino Real (Southbound)				Serramonte Blvd (Eastbound)				Serramonte Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	20	61	6	0	9	47	9	0	12	15	5	0	11	27	10	0	232	
4:05 PM	15	49	15	1	7	58	9	0	11	29	7	0	5	16	7	0	229	
4:10 PM	18	61	9	0	10	57	16	0	10	22	7	0	14	27	2	0	253	
4:15 PM	14	56	13	1	7	35	9	0	16	21	13	0	11	35	13	0	244	
4:20 PM	14	70	11	0	9	44	14	2	16	36	9	0	7	27	7	0	266	
4:25 PM	15	53	11	2	6	26	15	0	16	24	14	0	4	42	9	0	237	
4:30 PM	22	48	13	2	6	46	6	0	20	24	10	0	7	32	13	0	249	
4:35 PM	26	66	11	1	11	37	7	1	6	19	15	0	10	26	12	0	248	
4:40 PM	17	40	7	0	7	35	10	1	17	15	5	0	16	44	9	0	223	
4:45 PM	31	60	14	1	9	34	16	1	19	28	13	0	14	33	13	0	286	
4:50 PM	13	47	7	0	6	56	11	0	11	24	13	1	14	46	12	0	261	
4:55 PM	18	53	17	0	12	40	9	0	19	31	15	0	10	45	16	0	285	3013
5:00 PM	11	80	13	1	7	30	13	1	10	27	15	0	6	34	14	0	262	3043
5:05 PM	28	71	10	0	8	40	7	0	15	23	8	0	11	34	13	0	268	3082
5:10 PM	22	68	13	0	10	47	5	0	13	22	17	0	11	45	17	0	290	3119
5:15 PM	30	82	15	1	6	38	12	0	12	35	11	0	8	30	12	0	292	3167
5:20 PM	26	44	10	0	6	34	11	0	16	23	11	0	15	58	8	0	262	3163
5:25 PM	16	91	11	0	4	36	13	1	13	23	4	0	17	44	16	0	289	3215
5:30 PM	20	54	8	0	7	27	14	0	19	30	14	0	12	38	16	0	259	3225
5:35 PM	13	94	7	0	9	57	16	1	14	20	9	0	11	49	7	0	307	3284
5:40 PM	21	79	9	1	10	40	9	1	12	30	5	0	7	37	14	0	275	3336
5:45 PM	17	67	8	0	5	17	16	1	20	25	9	0	11	35	9	0	240	3290
5:50 PM	17	98	15	0	6	49	15	0	12	23	10	0	9	44	11	0	309	3338
5:55 PM	27	62	10	0	7	27	16	0	13	32	12	0	8	36	15	0	265	3318
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	196	956	104	0	80	480	172	8	184	292	108	0	160	524	156	0	3420	
Heavy Trucks	0	12	0		0	8	0		0	4	0		0	4	4		32	
Pedestrians		12				0				0				4			16	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

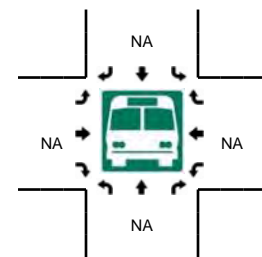
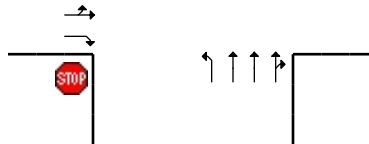
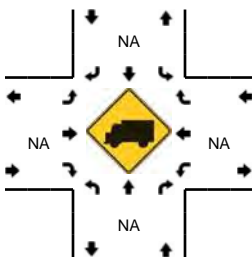
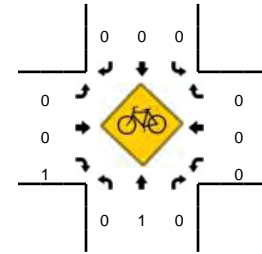
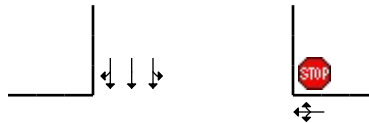
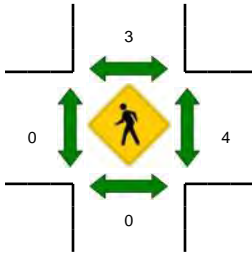
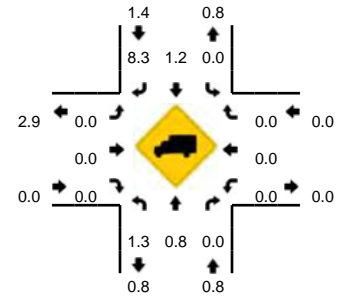
Comments:

**LOCATION:** El Camino Real -- Collins Ave  
**CITY/STATE:** Colma, CA

**QC JOB #:** 14552016  
**DATE:** Wed, Nov 01 2017



**Peak-Hour: 5:00 PM -- 6:00 PM**  
**Peak 15-Min: 5:05 PM -- 5:20 PM**



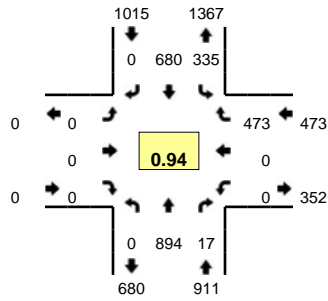
5-Min Count Period Beginning At	El Camino Real (Northbound)				El Camino Real (Southbound)				Collins Ave (Eastbound)				Collins Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	7	67	0	0	0	61	2	2	1	0	25	0	0	1	0	0	166	
4:05 PM	7	89	0	0	0	67	2	1	4	0	21	0	0	0	0	0	191	
4:10 PM	3	77	0	1	0	70	0	1	2	0	26	0	0	0	0	0	180	
4:15 PM	0	89	0	0	0	67	3	0	5	1	21	0	0	0	0	0	186	
4:20 PM	5	84	0	1	2	63	1	0	4	0	22	0	1	0	0	0	183	
4:25 PM	4	82	0	0	0	45	4	0	4	0	24	0	2	2	3	0	170	
4:30 PM	2	98	0	0	0	59	3	2	3	0	22	0	3	1	1	0	194	
4:35 PM	4	87	1	0	0	57	2	2	2	0	23	0	0	0	0	0	178	
4:40 PM	4	72	0	0	0	69	3	1	3	0	26	0	0	0	0	0	178	
4:45 PM	7	92	0	0	0	67	2	0	2	1	30	0	0	0	1	0	202	
4:50 PM	2	70	0	0	0	81	2	0	1	0	22	0	0	0	0	0	178	
4:55 PM	3	95	0	0	0	59	5	1	2	0	14	0	0	0	0	0	179	2185
5:00 PM	9	117	0	0	0	49	3	0	2	0	25	0	0	0	0	0	205	2224
5:05 PM	2	104	0	0	0	60	3	1	3	0	26	0	0	0	1	0	200	2233
5:10 PM	4	107	0	0	0	69	4	0	4	0	18	0	0	0	0	0	206	2259
5:15 PM	9	109	0	1	0	60	3	1	2	0	27	0	0	0	0	0	212	2285
5:20 PM	8	87	0	0	0	56	1	0	2	0	20	0	0	0	0	0	174	2276
5:25 PM	5	109	0	0	0	56	3	2	2	0	25	0	0	0	0	0	202	2308
5:30 PM	5	89	0	1	0	56	1	1	2	0	24	0	0	0	0	0	179	2293
5:35 PM	6	101	0	0	0	77	0	0	1	0	23	0	0	0	0	0	208	2323
5:40 PM	10	107	0	0	0	55	2	0	1	0	22	1	0	0	0	0	198	2343
5:45 PM	5	103	0	0	0	39	1	2	6	0	21	0	0	0	0	0	177	2318
5:50 PM	9	120	0	0	0	67	3	1	0	0	26	0	0	0	0	0	226	2366
5:55 PM	5	104	0	0	0	49	0	0	1	0	25	0	0	0	0	0	184	2371
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	60	1280	0	4	0	756	40	8	36	0	284	0	0	0	4	0	2472	
Heavy Trucks	4	0	0		0	8	4		0	0	0		0	0	0		16	
Pedestrians		0				4				0				8			12	
Bicycles	0	1	0		0	0	0		0	0	0		0	0	0		1	
Railroad																		
Stopped Buses																		

Comments:

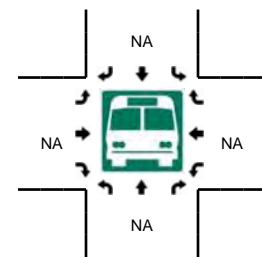
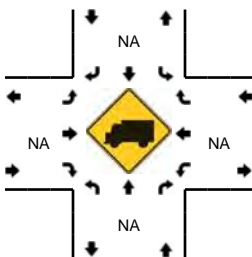
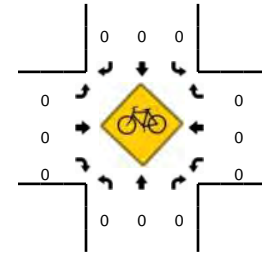
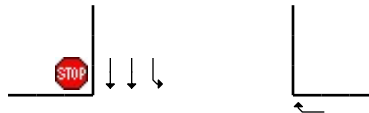
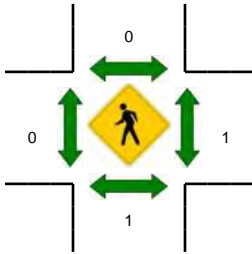
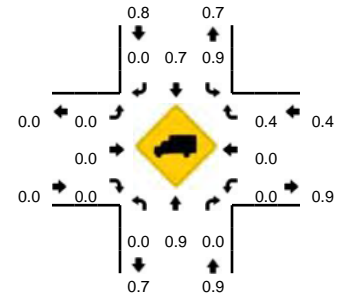


**LOCATION:** El Camino Royal -- Mission Rd  
**CITY/STATE:** Colma, CA

**QC JOB #:** 14552018  
**DATE:** Wed, Nov 01 2017



**Peak-Hour: 5:00 PM -- 6:00 PM**  
**Peak 15-Min: 5:05 PM -- 5:20 PM**



5-Min Count Period Beginning At	El Camino Royal (Northbound)				El Camino Royal (Southbound)				Mission Rd (Eastbound)				Mission Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	41	3	0	28	56	0	0	0	0	0	0	0	0	24	0	152	
4:05 PM	0	66	5	0	34	51	0	0	0	0	0	0	0	0	25	0	181	
4:10 PM	0	55	5	0	36	64	0	0	0	0	0	0	0	0	20	0	180	
4:15 PM	0	78	4	0	24	56	0	0	0	0	0	0	0	0	20	0	182	
4:20 PM	0	59	4	0	27	60	0	0	0	0	0	0	0	0	24	0	174	
4:25 PM	0	52	3	0	24	46	0	0	0	0	0	0	0	0	34	0	159	
4:30 PM	0	54	5	0	35	48	0	0	0	0	0	0	0	0	38	0	180	
4:35 PM	0	55	2	0	25	61	0	0	0	0	0	0	0	0	36	0	179	
4:40 PM	0	49	5	0	26	61	0	0	0	0	0	0	0	0	39	0	180	
4:45 PM	0	54	6	0	39	65	0	0	0	0	0	0	0	0	26	0	190	
4:50 PM	0	59	3	0	32	76	0	0	0	0	0	0	0	0	24	0	194	
4:55 PM	0	65	4	0	32	41	0	0	0	0	0	0	0	0	28	0	170	2121
5:00 PM	0	78	0	0	33	47	0	0	0	0	0	0	0	0	49	0	207	2176
5:05 PM	0	75	1	0	26	73	0	0	0	0	0	0	0	0	43	0	218	2213
5:10 PM	0	65	4	0	25	62	0	0	0	0	0	0	0	0	49	0	205	2238
5:15 PM	0	71	0	0	31	60	0	0	0	0	0	0	0	0	53	0	215	2271
5:20 PM	0	64	5	0	33	46	0	0	0	0	0	0	0	0	29	0	177	2274
5:25 PM	0	73	1	0	30	58	0	0	0	0	0	0	0	0	44	0	206	2321
5:30 PM	0	59	2	0	27	55	0	0	0	0	0	0	0	0	27	0	170	2311
5:35 PM	0	73	3	0	29	73	0	0	0	0	0	0	0	0	41	0	219	2351
5:40 PM	0	81	1	0	25	52	0	0	0	0	0	0	0	0	37	0	196	2367
5:45 PM	0	88	0	0	24	41	0	0	0	0	0	0	0	0	39	0	192	2369
5:50 PM	0	82	0	0	25	60	0	0	0	0	0	0	0	0	37	0	204	2379
5:55 PM	0	85	0	0	27	53	0	0	0	0	0	0	0	0	25	0	190	2399
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	844	20	0	328	780	0	0	0	0	0	0	0	0	580	0	2552	
Heavy Trucks	0	0	0	0	0	8	0	0	0	0	0	0	0	0	4	0	12	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

Comments:

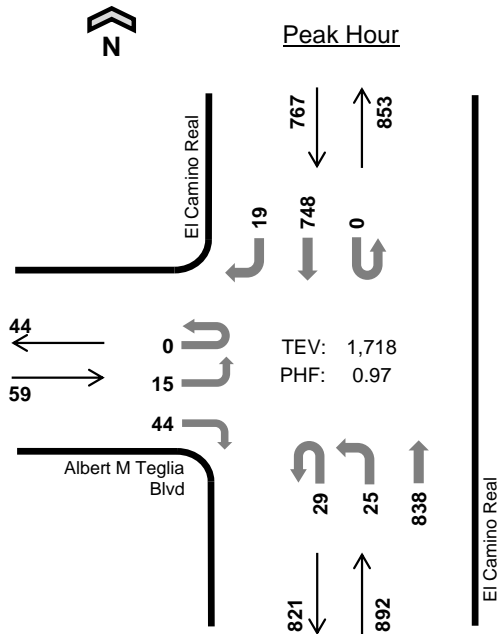
# **WEEKEND MIDDAY**

12PM - 2PM

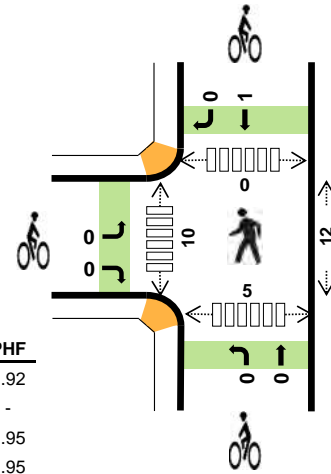
## EI Camino Real Albert M Teglia Blvd



Date: 06-01-2019  
Count Period: 12:00 PM to 2:00 PM  
Peak Hour: 1:00 PM to 2:00 PM



	HV %:	PHF
EB	28.8%	0.92
WB	-	-
NB	0.7%	0.95
SB	0.4%	0.95
TOTAL	1.5%	0.97



### Two-Hour Count Summaries

Interval Start	Albert M Teglia Blvd				n/a				EI Camino Real				EI Camino Real			15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound				
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	
12:00 PM	0	5	0	9	0	0	0	0	7	8	204	0	0	0	205	5	
12:15 PM	0	4	0	5	0	0	0	0	6	3	194	0	0	0	204	4	
12:30 PM	0	5	0	6	0	0	0	0	8	4	189	0	0	0	204	7	
12:45 PM	0	4	0	10	0	0	0	0	8	4	167	0	0	0	183	4	
1:00 PM	0	4	0	12	0	0	0	0	8	10	207	0	0	0	196	6	
1:15 PM	0	5	0	11	0	0	0	0	7	3	199	0	0	0	190	6	
1:30 PM	0	3	0	12	0	0	0	0	9	5	209	0	0	0	185	4	
1:45 PM	0	3	0	9	0	0	0	0	5	7	223	0	0	0	177	3	
Count Total	0	33	0	74	0	0	0	0	58	44	1,592	0	0	0	1,544	39	
Peak Hour	All	0	15	0	44	0	0	0	0	29	25	838	0	0	0	748	19
	HV	0	7	0	10	0	0	0	0	0	5	1	0	0	0	1	2
	HV%	-	47%	-	23%	-	-	-	-	0%	20%	0%	-	-	-	0%	11%

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 PM	6	0	2	1	9	0	0	0	0	0	2	0	0	1	3
12:15 PM	3	0	2	0	5	0	0	0	0	0	4	0	0	0	4
12:30 PM	3	0	1	1	5	0	0	0	0	0	2	0	0	0	2
12:45 PM	3	0	1	1	5	0	0	0	0	0	1	1	0	2	4
1:00 PM	8	0	3	1	12	0	0	0	0	0	4	2	0	2	8
1:15 PM	2	0	1	1	4	0	0	0	0	0	1	5	0	1	7
1:30 PM	5	0	0	1	6	0	0	0	1	1	4	1	0	2	7
1:45 PM	2	0	2	0	4	0	0	0	0	0	3	2	0	0	5
Count Total	32	0	12	6	50	0	0	0	1	1	21	11	0	8	40
Peak Hr	17	0	6	3	26	0	0	0	1	1	12	10	0	5	27

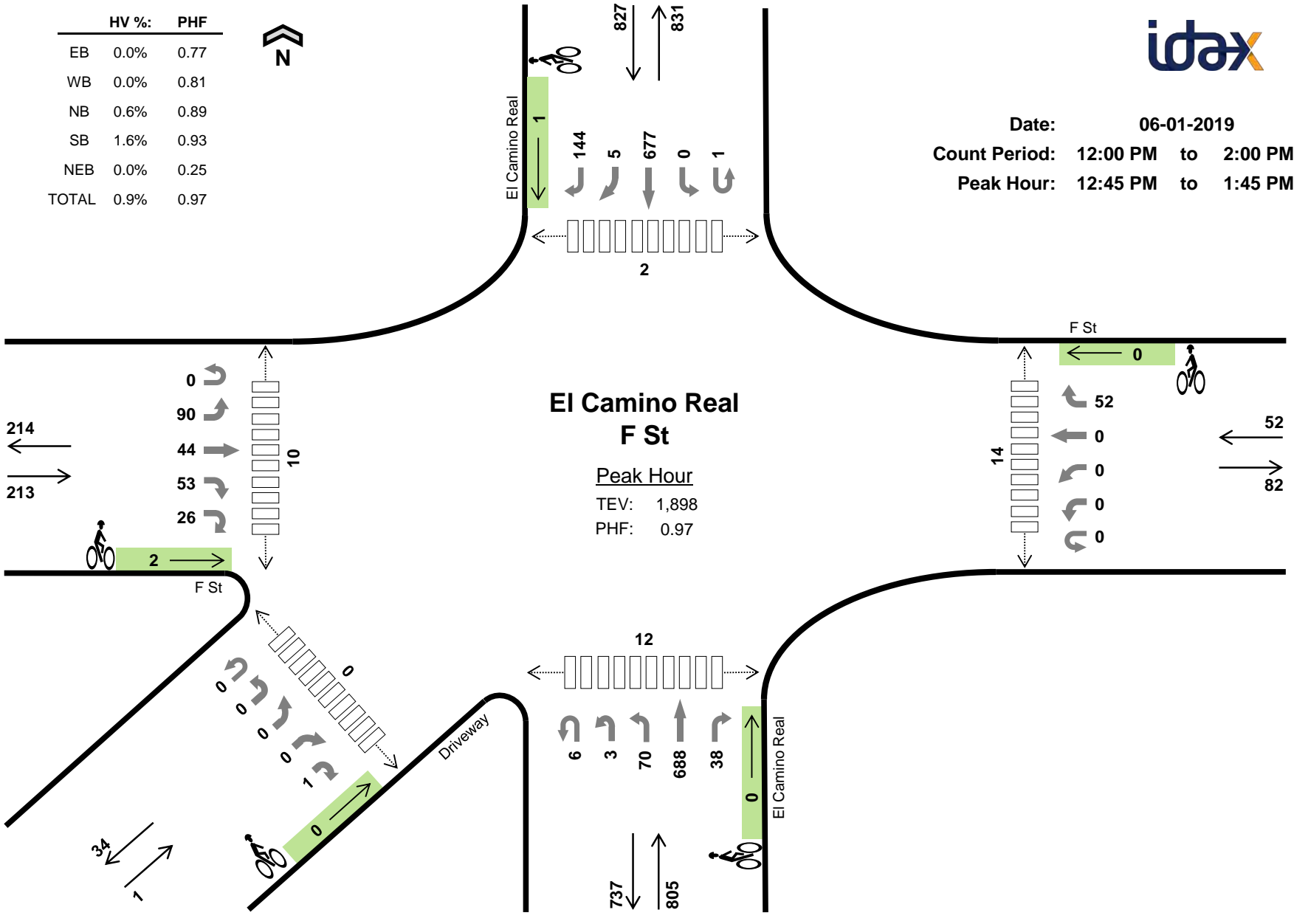
<b>Two-Hour Count Summaries - Heavy Vehicles</b>																			
Interval Start	Albert M Teglia Blvd				n/a				El Camino Real				El Camino Real				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
12:00 PM	0	3	0	3	0	0	0	0	0	1	1	0	0	0	0	1	9	0	
12:15 PM	0	1	0	2	0	0	0	0	0	0	1	1	0	0	0	0	5	0	
12:30 PM	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0	1	5	0	
12:45 PM	0	1	0	2	0	0	0	0	0	0	1	0	0	0	0	1	5	24	
<b>1:00 PM</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>12</b>	<b>27</b>	
1:15 PM	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	1	4	26	
1:30 PM	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	1	6	27	
1:45 PM	0	1	0	1	0	0	0	0	0	0	2	0	0	0	0	0	4	26	
Count Total	0	12	0	20	0	0	0	0	0	0	8	4	0	0	0	2	4	50	0
Peak Hour	0	7	0	10	0	0	0	0	0	0	5	1	0	0	0	1	2	26	0
<b>Two-Hour Count Summaries - Bikes</b>																			
Interval Start	Albert M Teglia Blvd			n/a			El Camino Real			El Camino Real			15-min Total	Rolling One Hour					
	Eastbound			Westbound			Northbound			Southbound									
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT							
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>1:00 PM</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0
<i>Note: U-Turn volumes for bikes are included in Left-Turn, if any.</i>																			





Date: 06-01-2019  
 Count Period: 12:00 PM to 2:00 PM  
 Peak Hour: 12:45 PM to 1:45 PM

	HV %:	PHF
EB	0.0%	0.77
WB	0.0%	0.81
NB	0.6%	0.89
SB	1.6%	0.93
NEB	0.0%	0.25
TOTAL	0.9%	0.97



Two-Hour Count Summaries

Interval Start	F St					F St					El Camino Real					El Camino Real					Driveway					15-min Total	Rolling One Hour
	Eastbound					Westbound					Northbound					Southbound					Northeastbound						
	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	LT	TH	RT	UT	LT	TH	BR	RT	UT	HL	BL	BR	HR		
12:00 PM	0	20	5	15	1	0	0	0	0	18	4	1	11	176	5	0	0	181	1	41	0	0	0	0	0	479	0
12:15 PM	0	15	7	13	0	0	0	0	0	18	3	2	8	162	6	0	0	175	7	35	0	0	0	0	0	451	0
12:30 PM	0	22	7	12	0	0	0	0	0	8	2	2	12	159	7	0	0	178	2	31	0	0	0	0	0	442	0
12:45 PM	0	23	8	16	22	0	0	0	0	10	2	2	14	152	12	0	0	163	1	38	0	0	0	0	0	463	1,835
1:00 PM	0	23	6	17	1	0	0	0	0	15	0	0	20	181	5	0	0	182	0	40	0	0	0	0	1	491	1,847
1:15 PM	0	29	19	11	0	0	0	0	0	16	3	0	19	160	9	1	0	167	4	30	0	0	0	0	0	468	1,864
1:30 PM	0	15	11	9	3	0	0	0	0	11	1	1	17	195	12	0	0	165	0	36	0	0	0	0	0	476	1,898
1:45 PM	0	21	4	12	1	0	0	0	0	10	0	0	13	204	5	0	0	152	1	34	0	0	0	0	0	457	1,892
Count Total	0	168	67	105	28	0	0	0	0	106	15	8	114	1,389	61	1	0	1,363	16	285	0	0	0	0	1	3,727	0
Peak Hour	All	0	90	44	53	26	0	0	0	52	6	3	70	688	38	1	0	677	5	144	0	0	0	0	1	1,898	0
	HV	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	4	0	9	0	0	0	0	0	18	0
	HV%	-	0%	0%	0%	0%	-	-	-	0%	0%	0%	0%	1%	0%	0%	-	1%	0%	6%	-	-	-	-	0%	1%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals						Bicycles						Pedestrians (Crossing Leg)					
	EB	WB	NB	SB	NEB	Total	EB	WB	NB	SB	NEB	Total	East	West	North	South	Southwest	Total
12:00 PM	0	0	2	2	0	4	0	0	0	0	0	0	0	2	0	1	1	4
12:15 PM	0	0	2	3	0	5	0	0	0	0	0	0	1	4	0	3	1	9
12:30 PM	0	0	1	3	0	4	0	0	0	0	0	0	5	2	3	2	0	12
12:45 PM	0	0	1	3	0	4	0	0	0	0	0	0	5	1	0	1	0	7
1:00 PM	0	0	3	5	0	8	2	0	0	0	2	1	1	1	3	0	0	6
1:15 PM	0	0	1	1	0	2	0	0	0	0	0	3	6	1	6	0	16	
1:30 PM	0	0	0	4	0	4	0	0	0	1	1	5	2	0	2	0	9	
1:45 PM	0	0	4	1	0	5	0	0	0	0	0	3	6	0	4	0	13	
Count Total	0	0	14	22	0	36	2	0	0	1	3	23	24	5	22	2	76	
Peak Hr	0	0	5	13	0	18	2	0	0	1	3	14	10	2	12	0	38	

**Two-Hour Count Summaries - Heavy Vehicles**

Interval Start	F St					F St					El Camino Real					El Camino Real					15-min Total	Rolling One Hour					
	Eastbound					Westbound					Northbound					Southbound											
	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	LT	TH	RT	UT	LT	TH	BR	RT			UT	HL	BL	BR	HR
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	1	0	0	0	0	0	4	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	2	0	0	0	0	0	5	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	1	0	0	0	0	0	4	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3	0	0	0	0	0	4	17
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	3	0	0	0	0	0	8	21
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	2	18
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	4	18
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	1	0	0	0	0	0	5	19
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	8	0	14	0	0	0	0	0	36	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	4	0	9	0	0	0	0	0	18	0

**Two-Hour Count Summaries - Bikes**

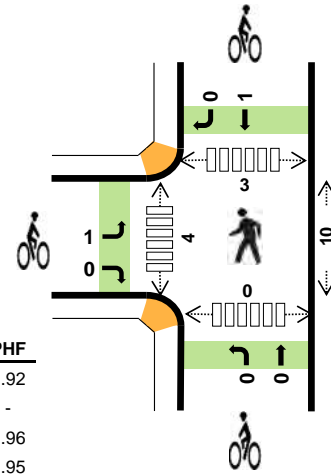
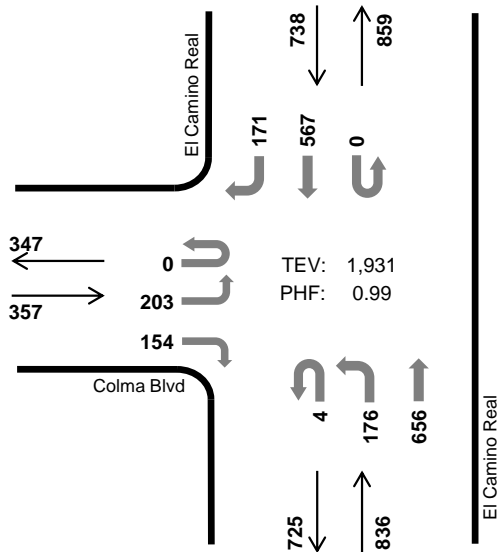
Interval Start	F St					F St					El Camino Real					El Camino Real					15-min Total	Rolling One Hour					
	Eastbound					Westbound					Northbound					Southbound											
	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	LT	TH	RT	UT	LT	TH	BR	RT			UT	HL	BL	BR	HR
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	3
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Count Total	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0
Peak Hour	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0

## El Camino Real Colma Blvd



Peak Hour

Date: 06-01-2019  
Count Period: 12:00 PM to 2:00 PM  
Peak Hour: 1:00 PM to 2:00 PM



	HV %:	PHF
EB	0.0%	0.92
WB	-	-
NB	1.0%	0.96
SB	0.5%	0.95
TOTAL	0.6%	0.99

### Two-Hour Count Summaries

Interval Start	Colma Blvd				n/a				El Camino Real				El Camino Real				15-min Total	Rolling One Hour	
	Eastbound		Westbound		Northbound		Southbound		UT	LT	TH	RT	UT	LT	TH	RT			
12:00 PM	0	36	0	23	0	0	0	0	1	32	167	0	0	0	146	46	451	0	
12:15 PM	0	34	0	35	0	0	0	0	3	22	138	0	0	0	144	47	423	0	
12:30 PM	0	41	0	37	0	0	0	0	2	33	142	0	0	0	133	48	436	0	
12:45 PM	0	52	0	35	0	0	0	0	0	31	116	0	0	0	149	47	430	1,740	
1:00 PM	0	58	0	29	0	0	0	0	1	40	160	0	0	0	141	45	474	1,763	
1:15 PM	0	42	0	35	0	0	0	0	1	51	161	0	0	0	156	39	485	1,825	
1:30 PM	0	57	0	39	0	0	0	0	1	45	159	0	0	0	149	35	485	1,874	
1:45 PM	0	46	0	51	0	0	0	0	1	40	176	0	0	0	121	52	487	1,931	
Count Total	0	366	0	284	0	0	0	0	10	294	1,219	0	0	0	1,139	359	3,671	0	
Peak Hour	All	0	203	0	154	0	0	0	0	4	176	656	0	0	0	567	171	1,931	0
	HV	0	0	0	0	0	0	0	0	0	1	7	0	0	0	4	0	12	0
	HV%	-	0%	-	0%	-	-	-	-	0%	1%	1%	-	-	-	1%	0%	1%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 PM	0	0	3	1	4	0	0	0	0	0	1	1	0	0	2
12:15 PM	0	0	2	1	3	0	0	0	0	0	1	1	0	0	2
12:30 PM	1	0	1	1	3	0	0	0	0	0	2	0	3	0	5
12:45 PM	0	0	1	1	2	0	0	0	0	0	3	0	0	0	3
1:00 PM	0	0	2	1	3	1	0	0	0	1	1	3	1	0	5
1:15 PM	0	0	1	1	2	0	0	0	0	0	6	0	1	0	7
1:30 PM	0	0	0	2	2	0	0	0	1	1	2	0	1	0	3
1:45 PM	0	0	5	0	5	0	0	0	0	0	1	1	0	0	2
Count Total	1	0	15	8	24	1	0	0	1	2	17	6	6	0	29
Peak Hr	0	0	8	4	12	1	0	0	1	2	10	4	3	0	17

<b>Two-Hour Count Summaries - Heavy Vehicles</b>														15-min Total	Rolling One Hour			
Interval Start	Colma Blvd				n/a				El Camino Real				El Camino Real					
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	0
12:30 PM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	3	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	12
1:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	11
1:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	10
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	9
1:45 PM	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	0	5	12
Count Total	0	0	0	1	0	0	0	0	0	1	14	0	0	0	8	0	24	0
Peak Hour	0	0	0	0	0	0	0	0	0	1	7	0	0	0	4	0	12	0

<b>Two-Hour Count Summaries - Bikes</b>														15-min Total	Rolling One Hour
Interval Start	Colma Blvd			n/a			El Camino Real			El Camino Real					
	Eastbound			Westbound			Northbound			Southbound					
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT			
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	1	
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
1:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	2	
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Count Total	1	0	0	0	0	0	0	0	0	0	1	0	2	0	
Peak Hour	1	0	0	0	0	0	0	0	0	0	1	0	2	0	

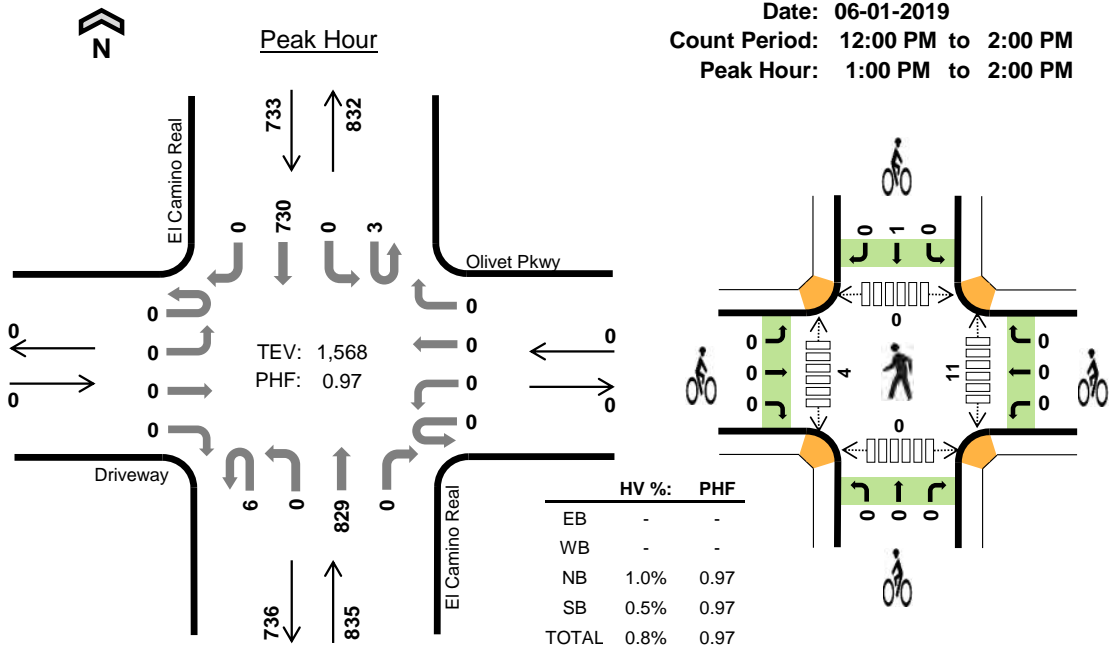
Note: U-Turn volumes for bikes are included in Left-Turn, if any.



# El Camino Real Olivet Pkwy



Date: 06-01-2019  
 Count Period: 12:00 PM to 2:00 PM  
 Peak Hour: 1:00 PM to 2:00 PM



	HV %:	PHF
EB	-	-
WB	-	-
NB	1.0%	0.97
SB	0.5%	0.97
TOTAL	0.8%	0.97

### Two-Hour Count Summaries

Interval Start	Driveway				Olivet Pkwy				El Camino Real				El Camino Real				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
12:00 PM	0	0	0	0	0	0	0	1	2	0	200	0	0	0	170	0	373	0	
12:15 PM	0	0	0	0	0	0	0	0	2	0	166	0	1	0	185	0	354	0	
12:30 PM	0	0	0	0	0	0	0	0	3	0	181	0	0	0	171	0	355	0	
12:45 PM	0	0	0	0	0	0	0	0	1	0	153	0	0	0	177	0	331	1,413	
<b>1:00 PM</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>199</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>179</b>	<b>0</b>	<b>382</b>	1,422	
1:15 PM	0	0	0	0	0	0	0	0	0	0	206	0	1	0	183	0	390	1,458	
<b>1:30 PM</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>213</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>189</b>	<b>0</b>	<b>405</b>	1,508	
1:45 PM	0	0	0	0	0	0	0	0	0	0	211	0	1	0	179	0	391	1,568	
Count Total	0	0	0	0	0	0	0	1	14	0	1,529	0	4	0	1,433	0	2,981	0	
Peak Hour	All	0	0	0	0	0	0	0	0	6	0	829	0	3	0	730	0	1,568	0
	HV	0	0	0	0	0	0	0	0	0	0	8	0	0	0	4	0	12	0
	HV%	-	-	-	-	-	-	-	-	0%	-	1%	-	0%	-	1%	-	1%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 PM	0	0	3	1	4	0	0	0	0	0	0	1	0	0	1
12:15 PM	0	0	1	1	2	0	0	1	0	1	1	1	0	0	2
12:30 PM	0	0	1	2	3	0	0	0	0	0	0	1	0	0	1
12:45 PM	0	0	1	1	2	0	0	0	0	0	4	1	0	0	5
<b>1:00 PM</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>5</b>
1:15 PM	0	0	1	1	2	0	0	0	0	0	4	0	0	0	4
<b>1:30 PM</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>4</b>
1:45 PM	0	0	5	0	5	0	0	0	0	0	1	1	0	0	2
Count Total	0	0	14	9	23	0	0	1	1	2	16	8	0	0	24
Peak Hour	0	0	8	4	12	0	0	0	1	1	11	4	0	0	15

<b>Two-Hour Count Summaries - Heavy Vehicles</b>																		
Interval Start	Driveway				Olivet Pkwy				El Camino Real				El Camino Real				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	11
1:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	10
1:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	10
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	9
1:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	12
Count Total	0	0	0	0	0	0	0	0	0	0	14	0	0	0	9	0	23	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	8	0	0	0	4	0	12	0

<b>Two-Hour Count Summaries - Bikes</b>																		
Interval Start	Driveway			Olivet Pkwy			El Camino Real			El Camino Real			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0

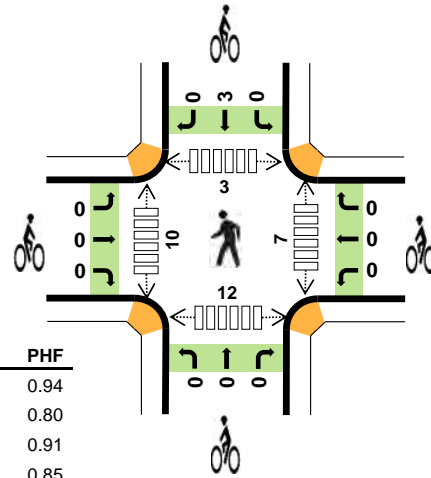
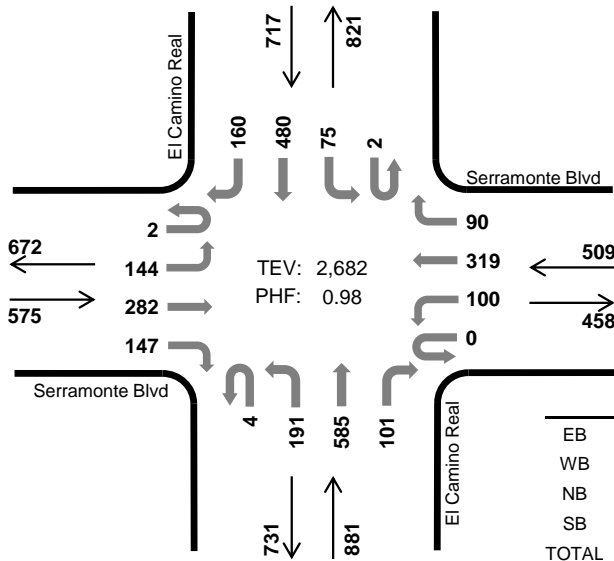
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

# El Camino Real Serramonte Blvd



Peak Hour

Date: 06-01-2019  
Count Period: 12:00 PM to 2:00 PM  
Peak Hour: 1:00 PM to 2:00 PM



	HV %:	PHF
EB	0.3%	0.94
WB	0.6%	0.80
NB	0.7%	0.91
SB	0.7%	0.85
TOTAL	0.6%	0.98

### Two-Hour Count Summaries

Interval Start	Serramonte Blvd Eastbound				Serramonte Blvd Westbound				El Camino Real Northbound				El Camino Real Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
12:00 PM	0	44	59	25	0	24	69	24	0	67	120	19	1	18	121	31	622	0	
12:15 PM	0	36	78	40	0	19	84	18	1	42	113	41	2	14	130	37	655	0	
12:30 PM	0	31	54	29	0	13	79	20	1	45	129	36	2	22	120	30	611	0	
12:45 PM	1	24	76	23	0	25	58	17	1	50	122	34	0	14	138	38	621	2,509	
<b>1:00 PM</b>	<b>0</b>	<b>38</b>	<b>73</b>	<b>42</b>	<b>0</b>	<b>32</b>	<b>101</b>	<b>27</b>	<b>1</b>	<b>48</b>	<b>127</b>	<b>18</b>	<b>1</b>	<b>18</b>	<b>116</b>	<b>37</b>	<b>679</b>	2,566	
1:15 PM	2	35	72	33	0	22	73	21	1	50	153	27	0	16	119	34	658	2,569	
<b>1:30 PM</b>	<b>0</b>	<b>37</b>	<b>68</b>	<b>38</b>	<b>0</b>	<b>21</b>	<b>73</b>	<b>23</b>	<b>1</b>	<b>41</b>	<b>152</b>	<b>21</b>	<b>1</b>	<b>19</b>	<b>139</b>	<b>51</b>	<b>685</b>	2,643	
1:45 PM	0	34	69	34	0	25	72	19	1	52	153	35	0	22	106	38	660	2,682	
Count Total	3	279	549	264	0	181	609	169	7	395	1,069	231	7	143	989	296	5,191	0	
Peak Hour	All	2	144	282	147	0	100	319	90	4	191	585	101	2	75	480	160	2,682	0
	HV	0	0	2	0	0	0	1	2	0	0	6	0	0	0	5	0	16	0
	HV%	0%	0%	1%	0%	-	0%	0%	2%	0%	0%	1%	0%	0%	0%	1%	0%	1%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 PM	0	1	3	1	5	0	0	0	0	0	0	1	0	2	3
12:15 PM	1	0	2	1	4	0	0	1	0	1	0	0	0	0	0
12:30 PM	0	1	2	2	5	0	0	0	0	0	1	0	0	1	2
12:45 PM	0	0	1	1	2	0	0	0	0	0	3	2	0	5	10
<b>1:00 PM</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>8</b>
1:15 PM	0	0	1	1	2	0	0	0	0	0	4	0	1	4	9
<b>1:30 PM</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>3</b>	<b>8</b>
1:45 PM	0	2	3	0	5	0	0	0	0	0	0	4	1	2	7
Count Total	3	5	14	10	32	0	0	1	3	4	11	13	3	20	47
Peak Hour	2	3	6	5	16	0	0	0	3	3	7	10	3	12	32

<b>Two-Hour Count Summaries - Heavy Vehicles</b>																		
Interval Start	Serramonte Blvd				Serramonte Blvd				El Camino Real				El Camino Real				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	1	0	0	1	2	0	0	0	1	0	5	0
12:15 PM	0	0	1	0	0	0	0	0	0	0	2	0	0	0	1	0	4	0
12:30 PM	0	0	0	0	0	0	1	0	0	0	1	1	0	1	1	0	5	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	16
1:00 PM	0	0	1	0	0	0	0	0	0	0	2	0	0	0	2	0	5	16
1:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	14
1:30 PM	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2	0	4	13
1:45 PM	0	0	0	0	0	0	1	1	0	0	3	0	0	0	0	0	5	16
Count Total	0	0	3	0	0	0	3	2	0	1	12	1	0	1	9	0	32	0
Peak Hour	0	0	2	0	0	0	1	2	0	0	6	0	0	0	5	0	16	0

<b>Two-Hour Count Summaries - Bikes</b>																	
Interval Start	Serramonte Blvd			Serramonte Blvd			El Camino Real			El Camino Real			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	3
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Count Total	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	4	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0

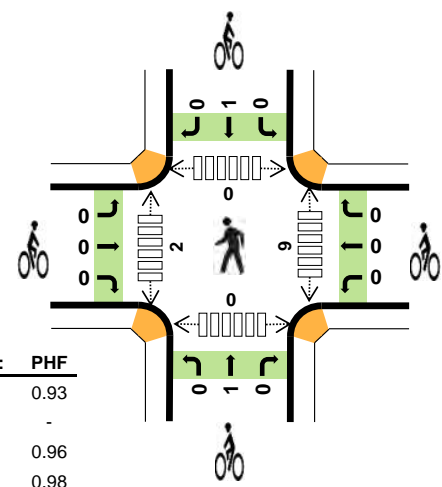
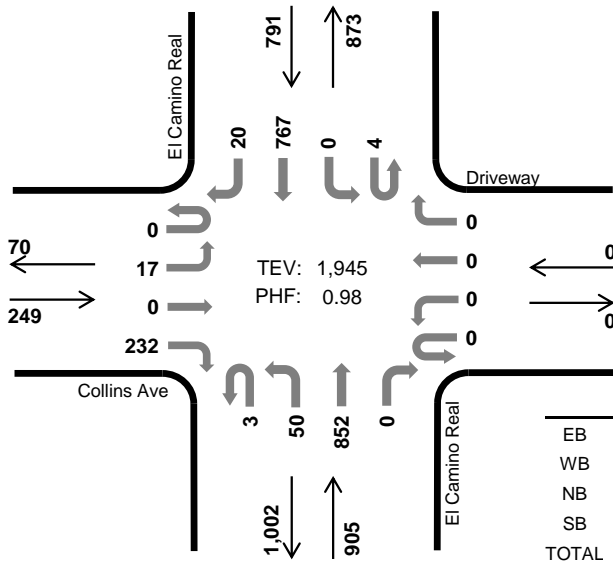
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

# El Camino Real Collins Ave



Peak Hour

Date: 06-01-2019  
Count Period: 12:00 PM to 2:00 PM  
Peak Hour: 12:45 PM to 1:45 PM



	HV %:	PHF
EB	0.0%	0.93
WB	-	-
NB	0.8%	0.96
SB	0.8%	0.98
TOTAL	0.7%	0.98

### Two-Hour Count Summaries

Interval Start	Collins Ave				Driveway				El Camino Real				El Camino Real				15-min Total	Rolling One Hour	
	Eastbound		Westbound		Northbound		Southbound		UT	LT	TH	RT	UT	LT	TH	RT			
12:00 PM	0	4	0	69	0	0	0	0	0	20	210	0	0	0	157	3	463	0	
12:15 PM	0	9	0	78	0	0	0	0	2	18	198	0	3	0	203	2	513	0	
12:30 PM	0	6	0	69	0	0	0	0	1	11	208	0	0	0	152	8	455	0	
12:45 PM	0	3	0	63	0	0	0	0	0	15	199	0	2	0	194	5	481	1,912	
1:00 PM	0	6	0	48	0	0	0	0	0	16	205	0	1	0	199	2	477	1,926	
1:15 PM	0	5	0	62	0	0	0	0	1	9	226	0	1	0	182	9	495	1,908	
1:30 PM	0	3	0	59	0	0	0	0	2	10	222	0	0	0	192	4	492	1,945	
1:45 PM	0	3	0	50	0	0	0	0	0	11	240	0	1	0	160	9	474	1,938	
Count Total	0	39	0	498	0	0	0	0	6	110	1,708	0	8	0	1,439	42	3,850	0	
Peak Hour	All	0	17	0	232	0	0	0	0	3	50	852	0	4	0	767	20	1,945	0
	HV	0	0	0	0	0	0	0	0	0	3	4	0	0	0	6	0	13	0
	HV%	-	0%	-	0%	-	-	-	-	0%	6%	0%	-	0%	-	1%	0%	1%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 PM	0	0	2	0	2	0	0	0	0	0	0	1	0	0	1
12:15 PM	0	0	1	2	3	0	0	1	0	1	1	1	0	0	2
12:30 PM	0	0	1	0	1	0	0	0	0	0	1	1	1	0	3
12:45 PM	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	5	1	6	0	0	1	0	1	3	0	0	0	3
1:15 PM	0	0	1	1	2	0	0	0	0	0	3	0	0	0	3
1:30 PM	0	0	0	2	2	0	0	0	1	1	3	2	0	0	5
1:45 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	13	8	21	0	0	2	1	3	11	5	1	0	17
Peak Hour	0	0	7	6	13	0	0	1	1	2	9	2	0	0	11

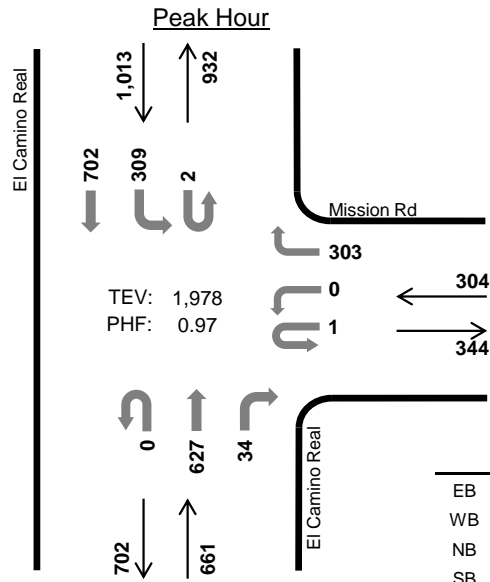


<b>Two-Hour Count Summaries - Heavy Vehicles</b>																		
Interval Start	Collins Ave				Driveway				El Camino Real				El Camino Real				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	9
1:00 PM	0	0	0	0	0	0	0	0	0	3	2	0	0	0	1	0	6	13
1:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	12
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	13
1:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	12
Count Total	0	0	0	0	0	0	0	0	0	3	10	0	0	0	8	0	21	0
Peak Hour	0	0	0	0	0	0	0	0	0	3	4	0	0	0	6	0	13	0

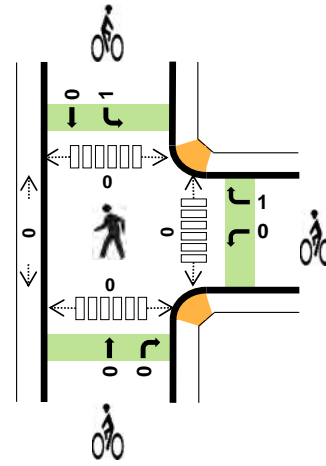
<b>Two-Hour Count Summaries - Bikes</b>																		
Interval Start	Collins Ave			Driveway			El Camino Real			El Camino Real			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	2	2
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	2
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	0	0	0	0	0	0	0	0	2	0	0	1	0	0	3	0	3	0
Peak Hour	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

# El Camino Real Mission Rd



Date: 06-01-2019  
 Count Period: 12:00 PM to 2:00 PM  
 Peak Hour: 12:45 PM to 1:45 PM



	HV %:	PHF
EB	-	-
WB	0.7%	0.93
NB	0.9%	0.91
SB	0.5%	0.99
TOTAL	0.7%	0.97

### Two-Hour Count Summaries

Interval Start	n/a				Mission Rd				El Camino Real				El Camino Real				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
12:00 PM	0	0	0	0	0	0	0	89	0	0	149	14	0	70	160	0	482	0	
12:15 PM	0	0	0	0	0	0	0	58	0	0	158	5	0	80	179	0	480	0	
12:30 PM	0	0	0	0	0	0	0	68	0	0	156	14	0	85	136	0	459	0	
12:45 PM	0	0	0	0	0	0	0	73	0	0	148	5	0	84	168	0	478	1,899	
1:00 PM	0	0	0	0	0	0	0	72	0	0	149	9	1	82	169	0	482	1,899	
1:15 PM	0	0	0	0	0	0	0	77	0	0	169	13	1	71	180	0	511	1,930	
1:30 PM	0	0	0	0	1	0	0	81	0	0	161	7	0	72	185	0	507	1,978	
1:45 PM	0	0	0	0	1	0	0	69	0	0	190	6	0	66	143	0	475	1,975	
Count Total	0	0	0	0	2	0	0	587	0	0	1,280	73	2	610	1,320	0	3,874	0	
Peak Hour	All	0	0	0	0	1	0	0	303	0	0	627	34	2	309	702	0	1,978	0
	HV	0	0	0	0	0	0	0	2	0	0	6	0	0	0	5	0	13	0
	HV%	-	-	-	-	0%	-	-	1%	-	-	1%	0%	0%	0%	1%	-	1%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	3	2	5	0	0	1	0	1	0	0	0	0	0
12:30 PM	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2
12:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	1	4	1	6	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	1	1	2	0	1	0	0	1	0	0	0	0	0
1:30 PM	0	1	0	3	4	0	0	0	1	1	0	0	0	0	0
1:45 PM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0
Count Total	0	4	13	7	24	0	1	1	1	3	2	0	0	0	2
Peak Hr	0	2	6	5	13	0	1	0	1	2	0	0	0	0	0

<b>Two-Hour Count Summaries - Heavy Vehicles</b>																		
Interval Start	n/a				Mission Rd				El Camino Real				El Camino Real				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	5	0
12:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	9
1:00 PM	0	0	0	0	0	0	0	1	0	0	4	0	0	0	1	0	6	13
1:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	10
1:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3	0	4	13
1:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	15
Count Total	0	0	0	0	0	0	0	4	0	0	13	0	0	0	7	0	24	0
Peak Hour	0	0	0	0	0	0	0	2	0	0	6	0	0	0	5	0	13	0
<b>Two-Hour Count Summaries - Bikes</b>																		
Interval Start	n/a			Mission Rd			El Camino Real			El Camino Real			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	3	0
Peak Hour	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	2	0
<i>Note: U-Turn volumes for bikes are included in Left-Turn, if any.</i>																		

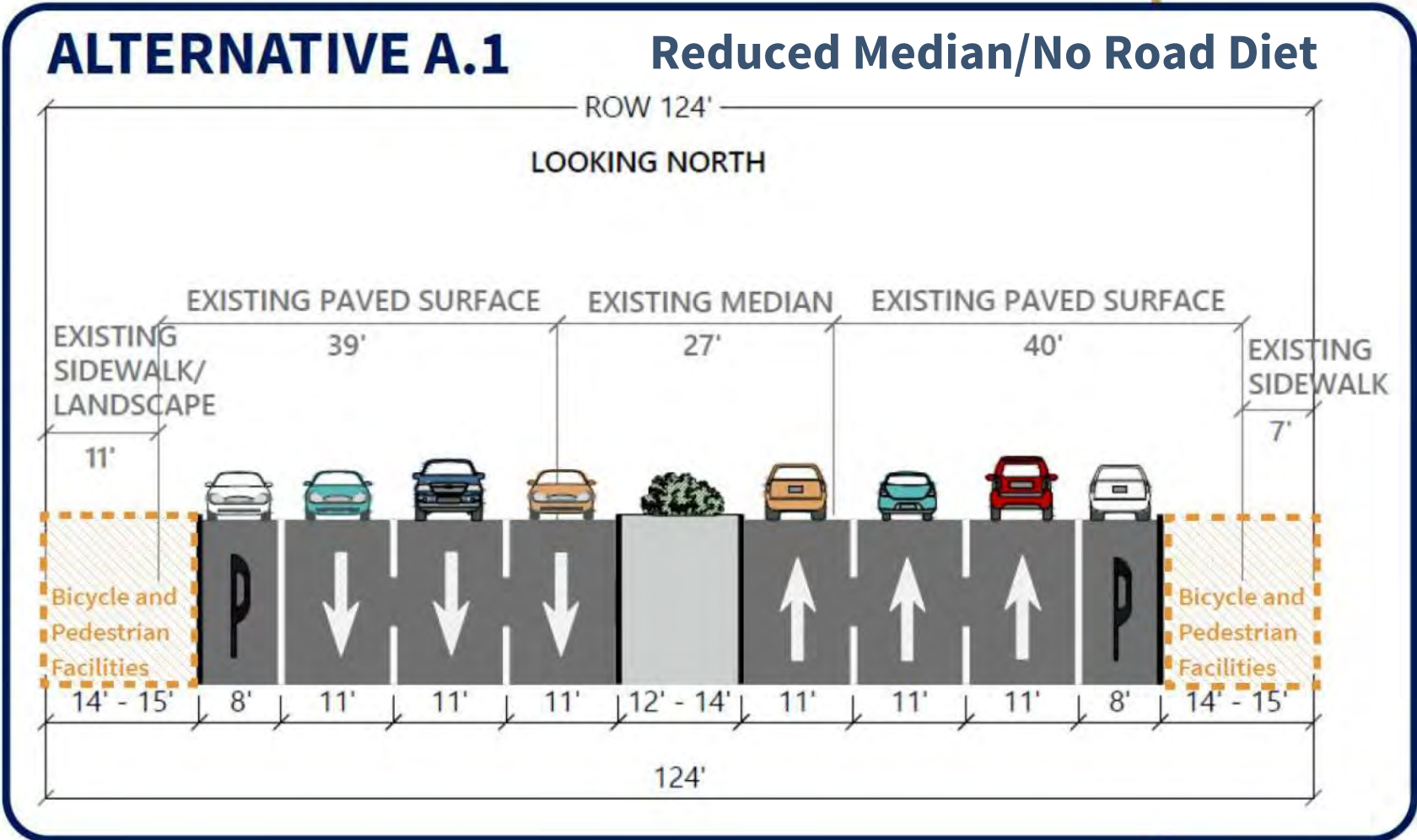


**APPENDIX B**  
**CROSS SECTION ALTERNATIVES**

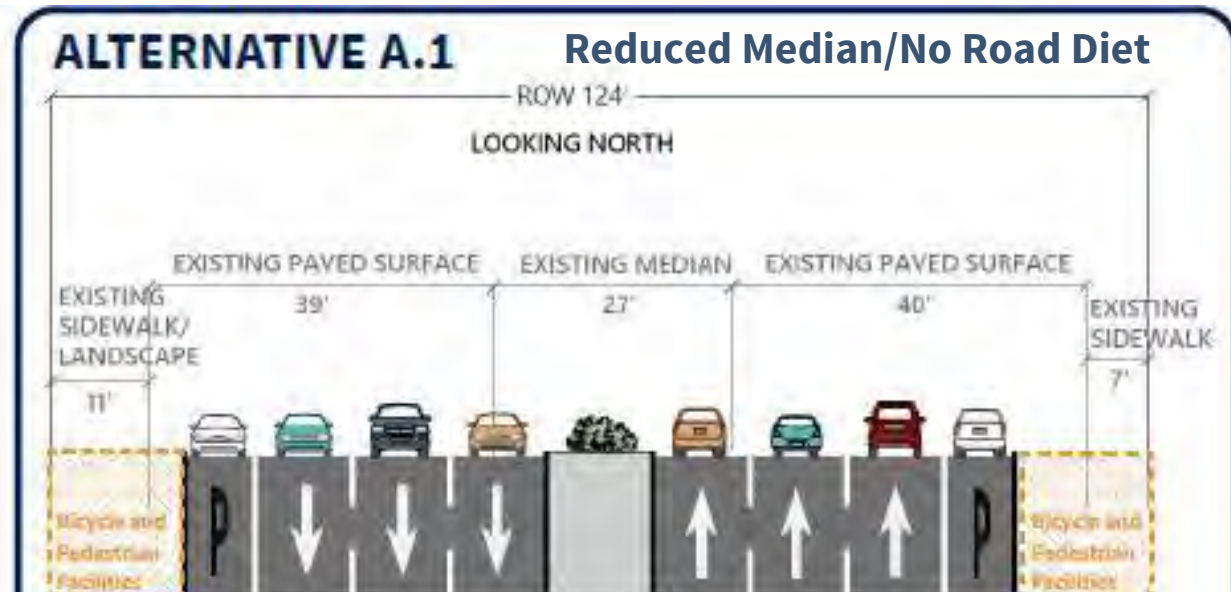
**ALTERNATIVES PRESENTED TO CITY COUNCIL**



Segment A: Albert M Teglia Boulevard to Mission Road



## Segment A: Albert M Teglia Boulevard to Mission Road

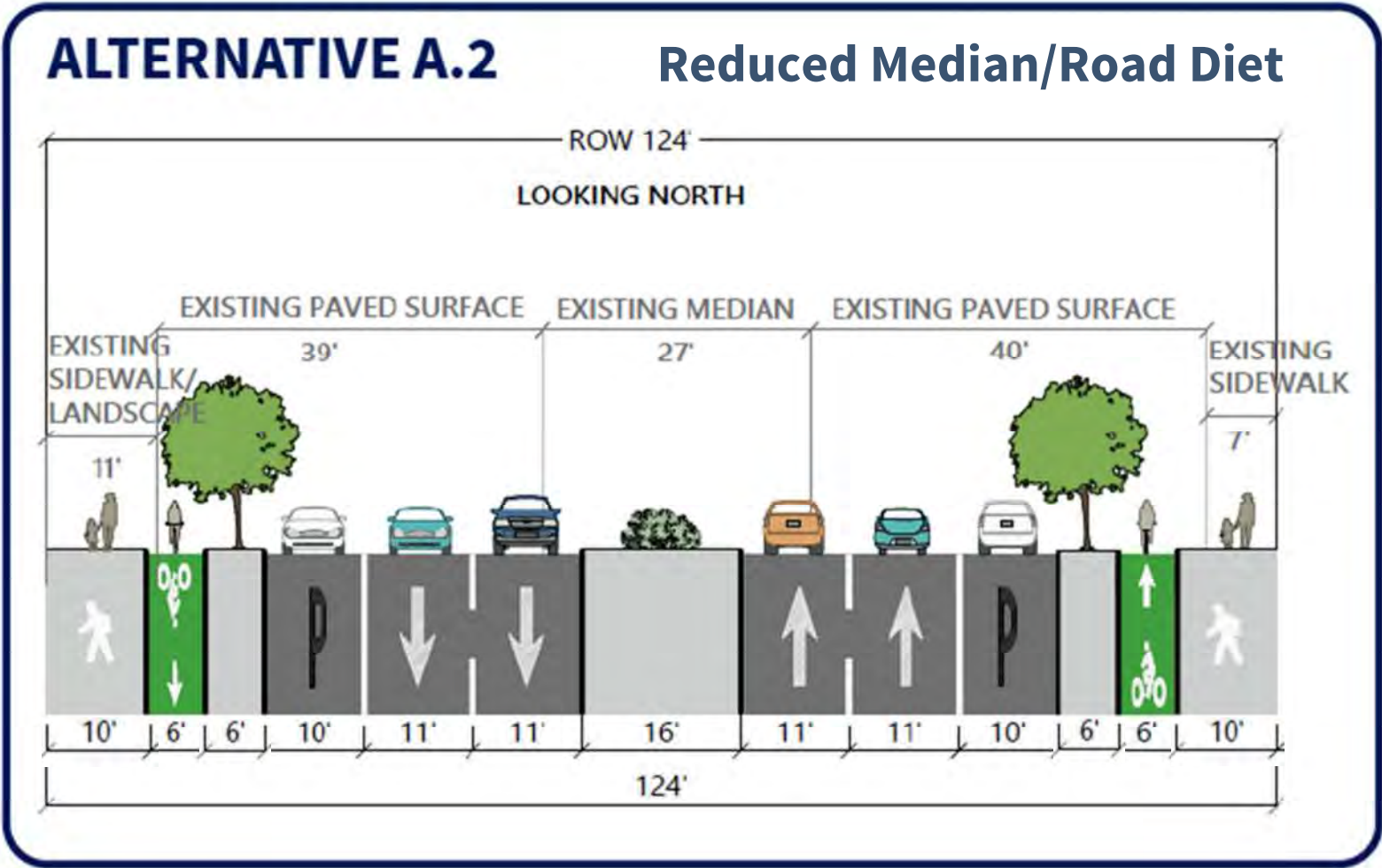


**1.1 - BIKE LANE & SIDEWALK**

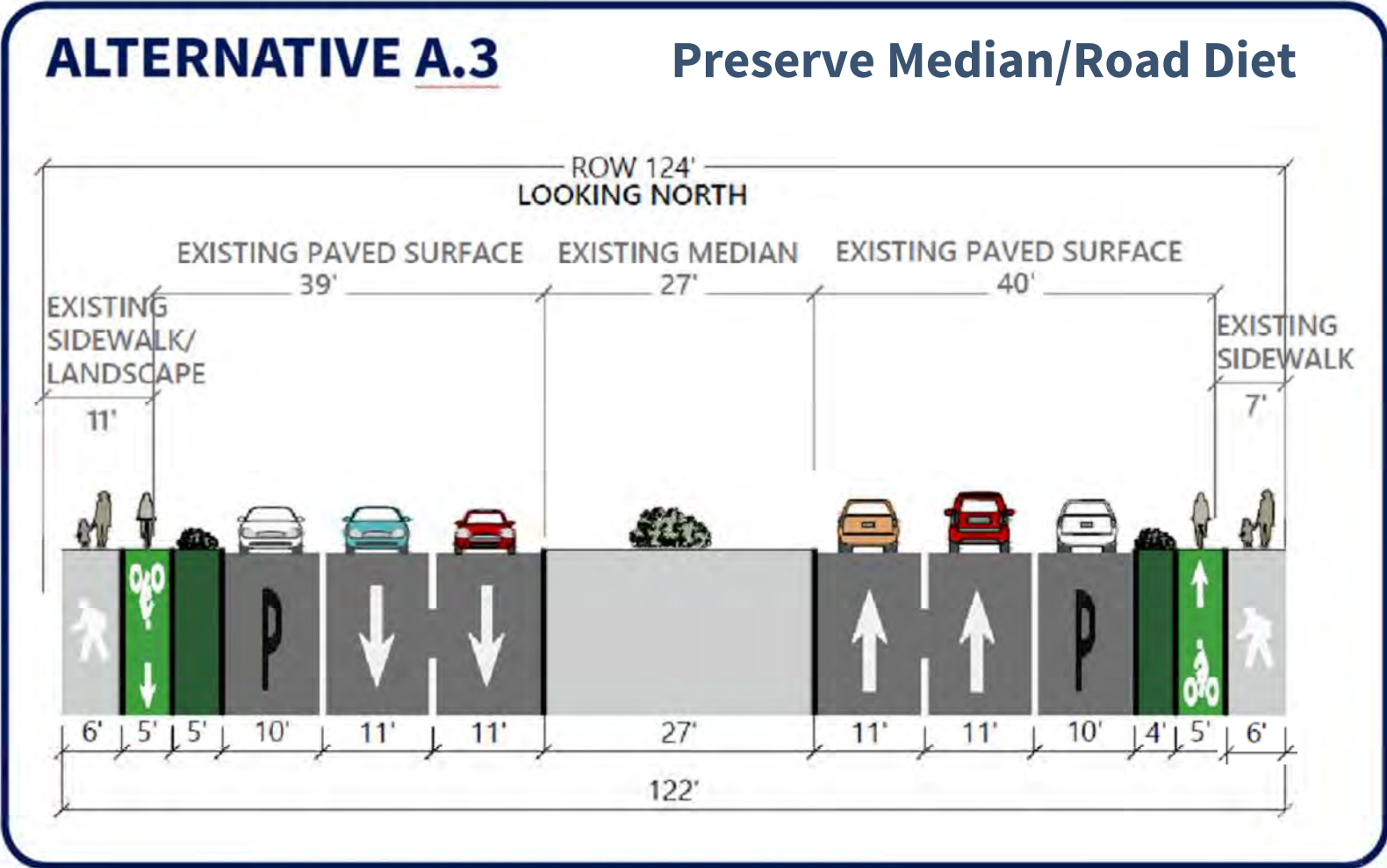


**1.2 - SHARED USE PATH**

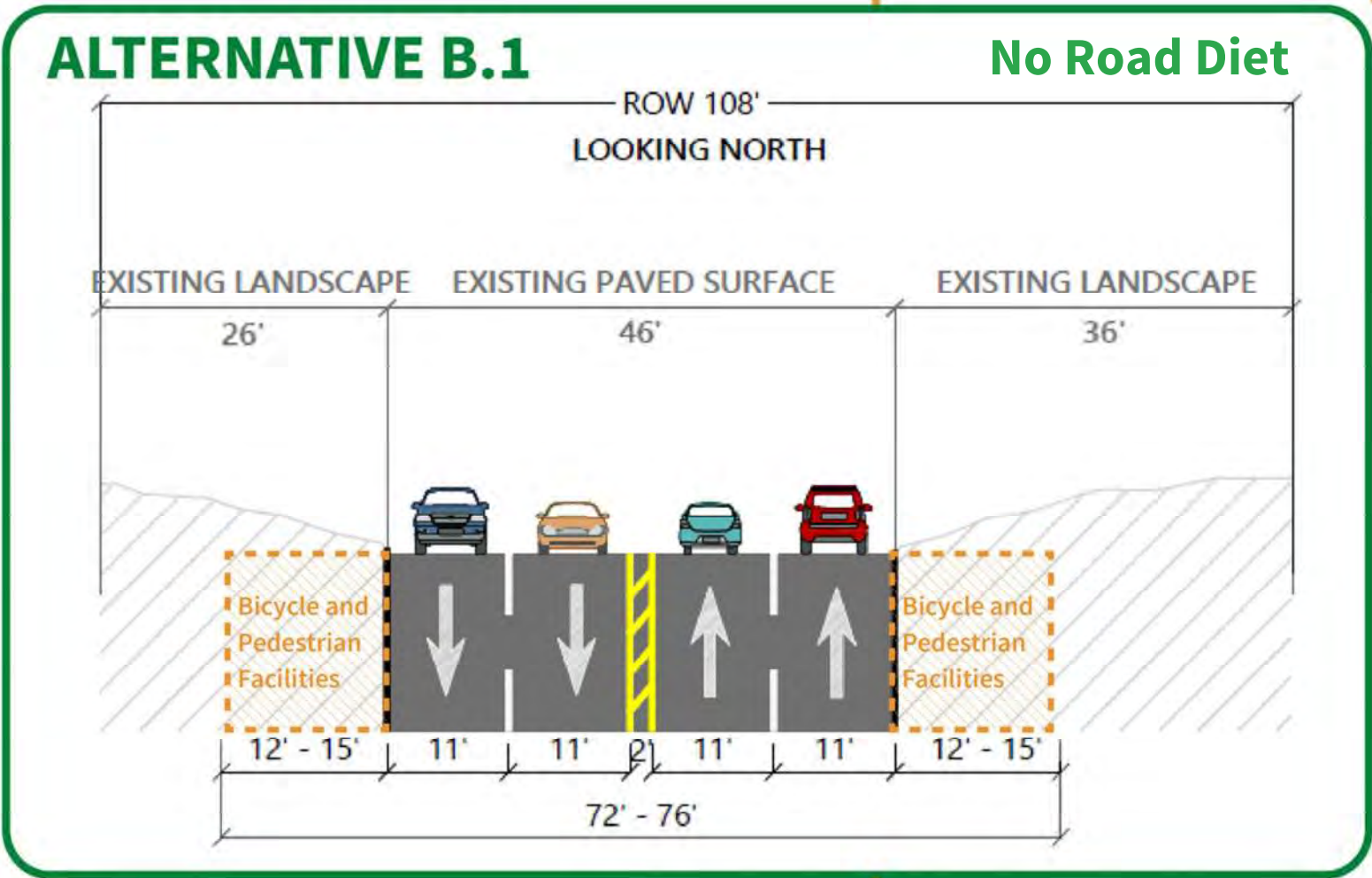
Segment A: Albert M Teglia Boulevard to Mission Road



Segment A: Albert M Teglia Boulevard to Mission Road

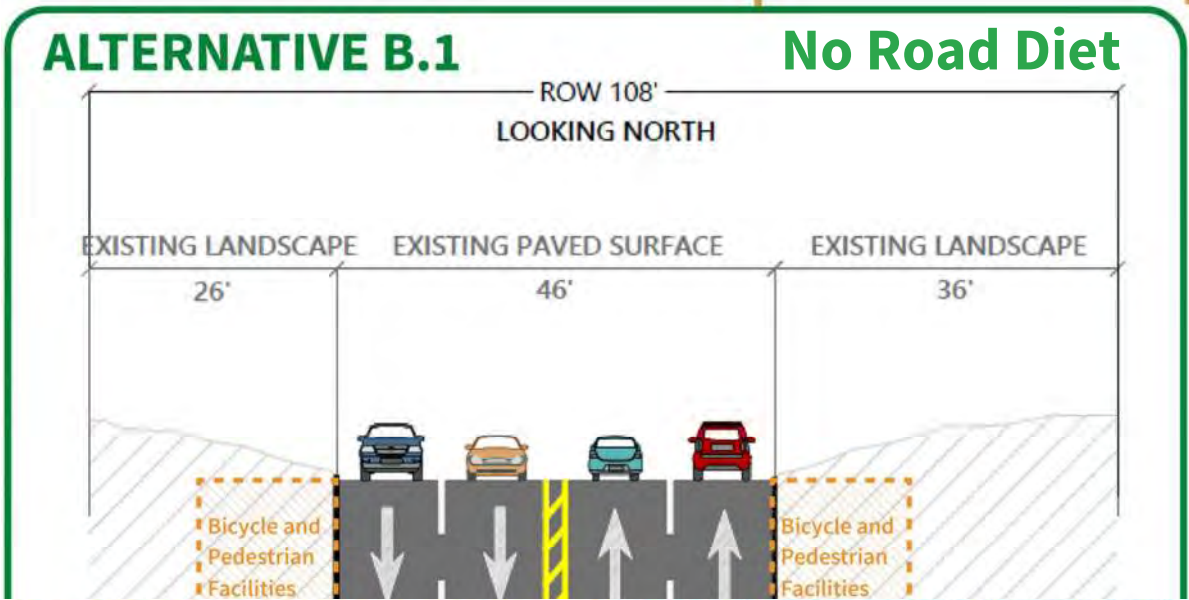


Segment B: Mission Road to Arlington Drive





# Segment B: Mission Road to Arlington Drive



1.1 - BIKE LANE & SIDEWALK

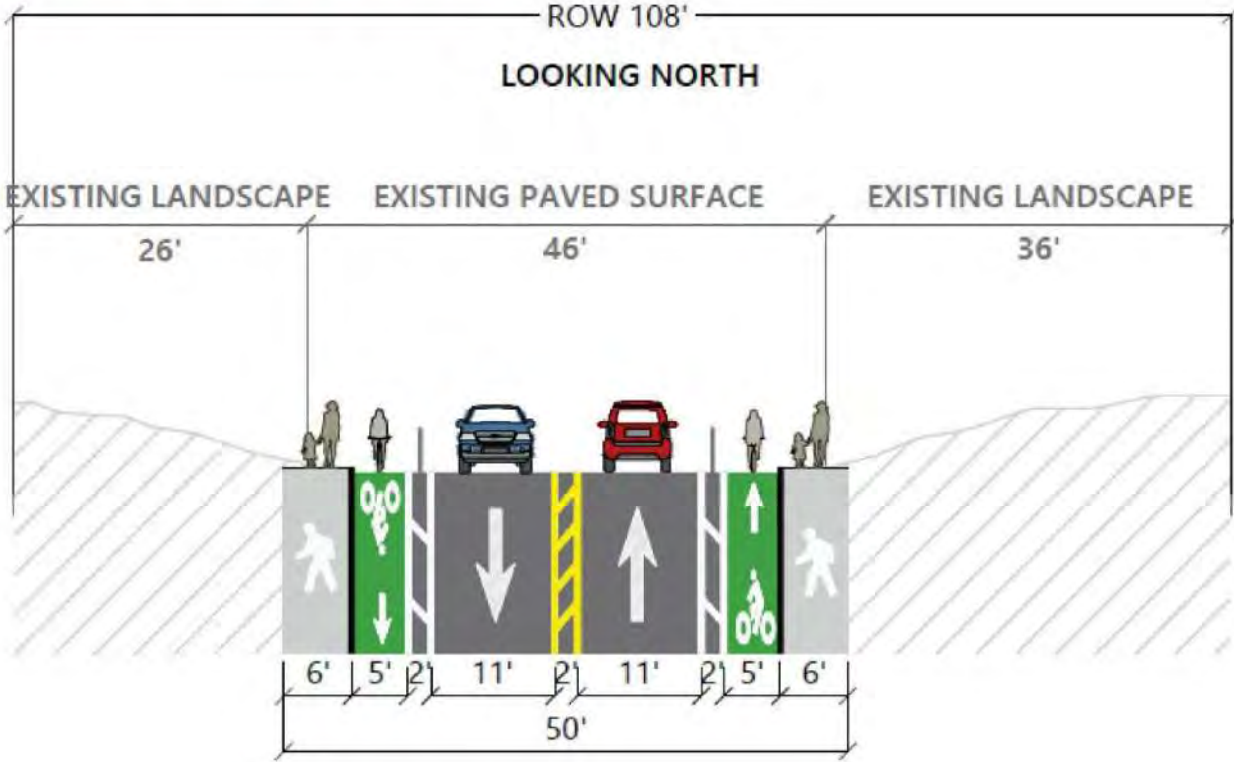


1.2 - SHARED USE PATH

Segment B: Mission Road to Arlington Drive

**ALTERNATIVE B.2**

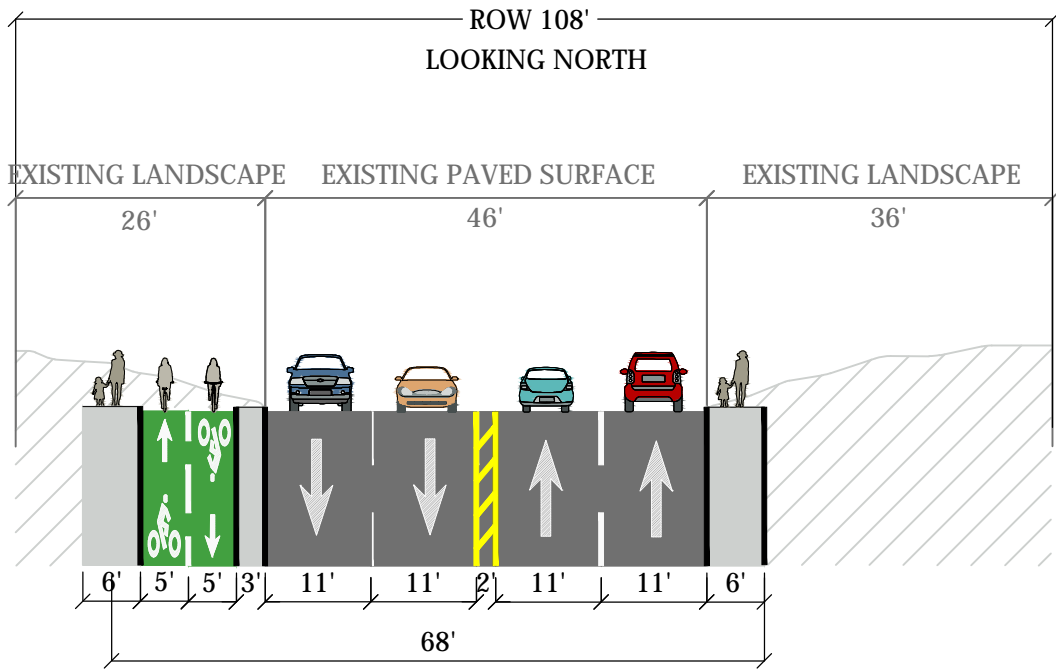
**Road Diet**



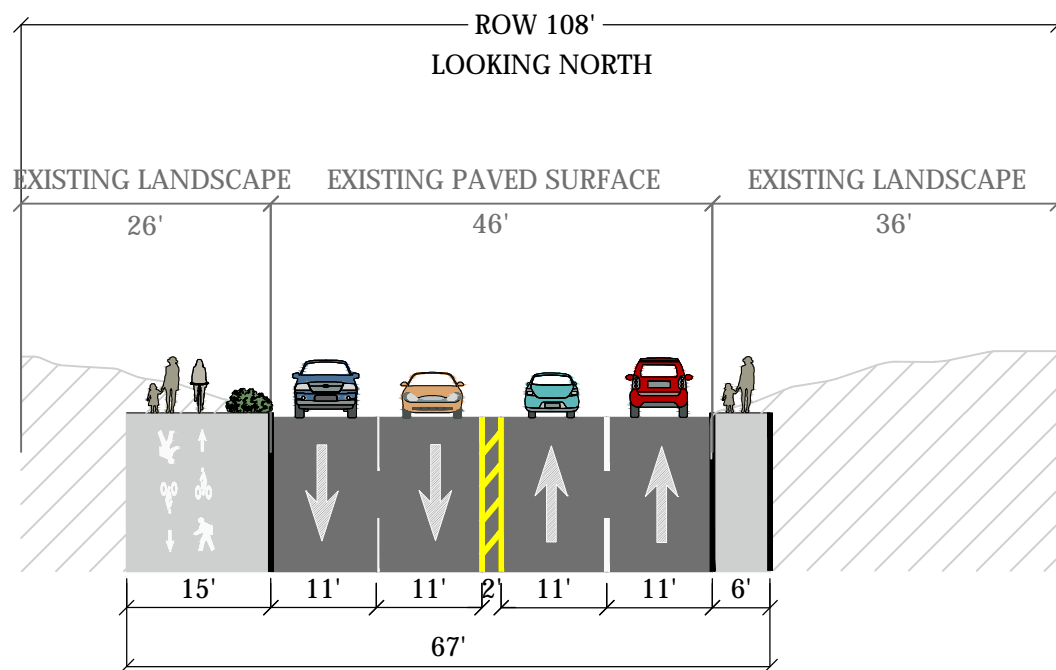
## **ADDITIONAL CROSS-SECTION ALTERNATIVES CONSIDERED**

# SEGMENT B: MISSION ROAD TO ARLINGTON DRIVE

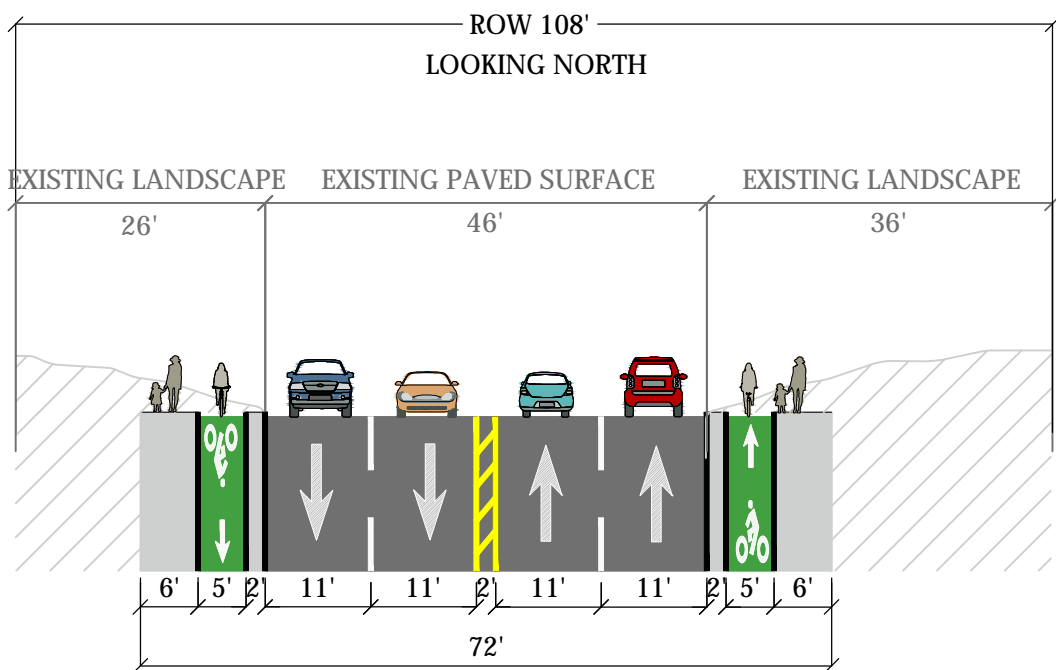
## 2-WAY CLASS IV ON WEST SIDE



## CLASS I ON WEST SIDE



## CLASS II/CLASS IV BOTH SIDES





**APPENDIX C**  
**COST ESTIMATES TABLE**



# Town of Colma

## Colma El Camino Real Bicycle and Pedestrian Improvement Plan Planning-Level Cost Estimate



29-Dec-20

Prepared By: Fehr & Peers

ITEM	DESCRIPTION	UNIT	UNIT PRICE	QUANTITY	ESTIMATE
<b>MOBILIZATION/ TRAFFIC CONTROL</b>					
1	Mobilization/ De-mobilization/ Miscellaneous Conditions	LS	5% of Construction	5%	\$911,589
2	Traffic Control	LS	5% of Construction	5%	\$911,589
3	Develop and Implement Stormwater Pollution Prevention Plan	LS	0.5% of Construction	0.5%	\$91,159
4	Construction Survey	LS	0.8% of Construction	0.8%	\$145,854
5	Utility Protection/ potholing by Contractor	LS	4% of Construction	4%	\$729,271
<b>Subtotal</b>					<b>\$2,789,462</b>
<b>DEMOLITION</b>					
6	Clearing and Grubbing from Mission to Arlington (Segment B)	SF	\$2.00	12,750	\$25,500.0
7	Remove Existing AC	SF	\$6.00	549,885	\$3,299,310.0
8	Remove Existing Curb & Gutter	LF	\$10.00	12,857	\$128,570.0
9	Remove Concrete Sidewalk	SF	\$6.00	47,788	\$286,725.0
<b>Subtotal</b>					<b>\$3,740,105</b>
<b>STREET IMPROVEMENTS</b>					
10	Storm Drain Improvements at Bulb-Out	EA	\$30,000.00	18	\$540,000.0
11	Construct Curb	LF	\$45.00	20,000	\$900,000.0
12	Construct Curb and Gutter	LF	\$60.00	12,619	\$757,140.0
13	Concrete Sidewalk	SF	\$25.00	70,125	\$1,753,125.0
14	Construct ADA Curb Ramp	EA	\$4,500.00	64	\$288,000.0
15	Median Hardscape	SF	\$20.00	4,550	\$91,000.0
16	Detectable Warning Surface/Truncated Dome	EA	\$550.00	118	\$64,900.0
17	Construct Bus Stop Concrete Pad	SF	\$30.00	800	\$24,000.0
18	2" Asphalt Overlay	SF	\$2.00	481,490	\$962,980.0
19	Retaining Wall	LF	\$250.00	300	\$75,000.0
20	Culvert/Bridge Work for Segment B	<i>Unkown at this time. Full survey and additional structural studies required.</i>			
21	New Drainage System for Segment B	LS	\$200,000.00	1	\$200,000.0
22	Thermoplastic Stripes (6")	LF	\$1.00	19,990	\$19,990.0
23	Thermoplastic Pavement Marking	SF	\$5.00	11,982	\$59,910.0
24	Thermoplastic Green Bike Lane (24"x36" Panels)	SF	\$7.00	90	\$630.0
25	Miscellaneous Signs (Stop Signs, Yield to Pedestrian, etc.)	LS	\$10,000.00	1	\$10,000.0
<b>Subtotal</b>					<b>\$5,746,675</b>
<b>SIGNALS, LANDSCAPE &amp; LIGHTING</b>					
26	Signal Modification at (1) F Street, (2) Colma Boulevard, (3) Serramonte	EA	\$400,000.00	3	\$1,200,000.0
27	New Signal at El Camino Real and (1) Collins and (2) Mission	EA	\$700,000.00	2	\$1,400,000.0
28	New Pedestrian Hybrid Beacon (PHB) at El Camino Real and Eternal Home Parkway	EA	\$250,000.00	1	\$250,000.0
29	Median Landscape and Irrigation	SF	\$20.00	54,000	\$1,080,000.0
30	Street Trees	EA	\$2,500.00	66	\$165,000.0
31	New Pedestrian-Scale Light	EA	\$15,000.00	310	\$4,650,000.0
<b>Subtotal</b>					<b>\$8,745,000</b>
<b>TOTAL</b>					<b>\$21,021,242</b>
					25% Contingency
					\$5,255,311
					<b>Construction Total</b>
					<b>\$26,276,553</b>
					PA/ED/PS&E/ Soft Costs (15%)
					\$3,941,483
					<b>GRAND TOTAL</b>
					<b>\$30,220,000</b>

**Notes:**

- The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgement as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will no vary from its opinions of probable costs.
- Underground non-pavement utilities such as, but not limited to, water, sanitary sewer, and gas are assumed to be at an adequate depth.
- Cost shown is based on 2020 dollars.



## **APPENDIX D**

### **FUNDING SOURCES**

# APPENDIX D

## Additional Funding Sources

The following funding sources, though less fitting than those identified in the report, could be considered by the Town to support follow-on studies to this Plan and/or construction of the identified improvements.

### California and Federal Funding Programs

- **Affordable Housing and Sustainable Communities (AHSC) program:** The AHSC funds land use, housing, transportation, and land preservation projects that support infill and compact development and reduce greenhouse gas (GHG) emissions. Funds are available in the form of loans and/or grants in two kinds of project areas: Transit Oriented Development (TOD) Project Areas and Integrated Connectivity (ICP) Project Areas. This grant program follows an annual competitive funding cycle. The last AHSC grant cycle was February 2020.
- **Congestion Mitigation and Air Quality Improvements (CMAQ) Program:** The CMAQ program provides a flexible funding source to State and local governments for transportation projects and programs that help meet the requirements of the Clean Air Act. The program supports surface transportation projects and other related efforts that contribute air quality improvement and provide congestion relief. Historically, the program is open every fiscal year from 2016 to 2020.
- **Local Partnership Program (LPP):** The LPP provides funding to counties, cities, districts, and regional transportation agencies in which voters have approved fees or taxes dedicated solely to transportation improvements or that have imposed fees, including uniform developer fees, dedicated solely to transportation improvements. Funding includes \$200M/year to improve aging infrastructure, road conditions, active transportation, transit and rail, health and safety benefits. The program application is open approximately every two years, with the last cycle in June 2020.
- **Local Streets and Roads (LSR) Program:** The LSR provides funding to cities and counties for basic road maintenance, rehabilitation, and critical safety projects on the local streets and roads system. The funding is open every fiscal year.
- **Sustainable Transportation Equity Project (STEP):** STEP is a new transportation equity pilot that aims to address communities' transportation needs, increase access to key destinations, and reduce greenhouse gas emissions by funding planning, clean transportation, and supporting projects. The Program makes funding available for one to three implementation block grants to fund clean transportation and land use projects in disadvantaged communities. Funded projects will work together to increase access to key destinations so residents can get where they need to go without the use of a personal vehicle. The first STEP round deadline was August 2020.
- **Transformative Climate Communities (TCC) Program:** TCC funds development and infrastructure projects that achieve major environmental, health, and economic benefits in California's most disadvantaged communities. TCC is one of many California Climate Investments programs. The TCC is awarded every year. The latest TCC deadline was February 2020.

## San Mateo County Funding Programs

- **San Mateo County Transportation Authority's Measure W Program:** In 2018, San Mateo County passed Measure W, which provides the county with additional resources to improve transit and relieve traffic congestion raised from a half-cent sales tax. Fifty percent of those funds are administered by the San Mateo County Transportation Authority, while the remaining 50% are administered by the SamTrans Board of Directors. The measure, which went into effect in July of 2019, includes funds for highway projects, local street repair, grade separations for Caltrain tracks that intersect local streets, expanded bicycle and pedestrian facilities, and improved transit connections. The cycle for Measure W program is to be determined.



## **APPENDIX E**

### **QUICK-BUILD OPTIONS**



# **EXCERPT FROM**

---

**LESSONS LEARNED & BEST PRACTICES FOR**

---

## **Grand Boulevard Initiative's Creating Safe and Healthy Corridor Communities Project**

---

# Implementation

## Quick-Build Options

The implementation of improvements along El Camino Real may look different for different cities. In some cases, portions of the project may be implemented over time, as funds and resources are available. Strategies for phased implementation may include coordinating with future resurfacing projects, development projects, or using cost-effective materials to get the project off the ground sooner. Defined as “quick-build” improvements, the latter are increasingly sophisticated and aesthetically-pleasing treatments that provide flexibility in implementation. Using quick-build treatments can also serve to install a pilot program, a strategy that allows the community to experience the functionality of the project and modify the design before upgrading to more fixed materials such as concrete curb. Four quick-build tools are provided below that can be used in the near-term to put improvements on the ground quickly and cost-effectively.

## Painted Bulb Outs

In many locations, bulb outs are recommended to reduce crossing distances for pedestrians. Many cities have used painted bulb outs with raised elements such as delineator or landscape planters to define bulb outs without changing drainage patterns and without the added cost of concrete.



## Tactical Bus Boarding Islands

Bus stops can also have similar temporary treatments. These can be thought of in the same vein as parklet spaces and can be used to enhance public space and engage local architects and artists. There are also prefabricated bus boarding islands on the market that cities can use to improve bus stops in the near-term. Oakland, Los Angeles, and New York City have experimented with prefabricated bus boarding islands.



*Above Top: The City of Fremont has used a combination of painted bulb outs with self-watering landscape planters to achieve this effect. Above: Prefabricated boarding islands or parklet-style boarding islands can be used to extend the sidewalk and allow buses to stop in line to improve transit reliability. Photo credit: www.zicla.com*

## “Paint and Plastic” Separated Bikeways

Many cities in the Bay Area, including San José, have had success with quick implementation of separated bikeways using painted buffer spaces and delineators or similar raised elements commonly made of plastic. The aesthetics of delineators have improved recently, and there are newer products on the market the City of San José could consider such as shorter, sturdier posts, and armadillos, which are recycled plastic dividers with a lower profile than posts.



*Left: “Paint and plastic” separated bikeways can include various products to provide separation between the bicycle lane and traffic, including planters and small plastic lumps (sometimes known as “zebras” or “armadillos”).*



## Pavement to Parks Intersection Reconfigurations

Many cities have successful programs that improve safety by repurposing excess roadway space at skewed intersections with public spaces. These are often successful where foot traffic supports the creation of public space, such as in business districts. They can provide a distinctive look and feel congruent with the local neighborhood character, and are an opportunity to engage with local community-based organizations and artist groups. Maintenance of these spaces is an important consideration and could be an opportunity for a public-private partnership.



*Above: An example of repurposing to remove a skewed intersection (and a redundant link in the roadway network) on Sunset Boulevard in Los Angeles. The resulting space now supports the Silver Lake Farmers Market and increases foot traffic in front of small businesses.*



# STAFF REPORT

TO: Mayor and Members of the City Council  
 FROM: Michael Laughlin AICP, City Planner  
 VIA: Brian Dossey, City Manager  
 MEETING DATE: January 27, 2021  
 SUBJECT: General Plan Mobility Element Study Session

---

## RECOMMENDATION

Staff seeks comments, questions, impressions and opinions from each Council member regarding the Mobility Element of the draft General Plan.

## EXECUTIVE SUMMARY

The purpose of this review is to allow the City Council to review the text, goals, policies and implementation measures of the Mobility Element of the General Plan. The updated General Plan will serve as the town's blueprint for growth and development through the year 2040.

## FISCAL IMPACT

None.

## BACKGROUND

Staff and subconsultants have completed work on draft sections of the General Plan. Prior to releasing the document as a public review draft, staff wanted to provide the City Council an opportunity to review individual sections through a series of study sessions. A review of the Land Use and Historic Resources sections was held in December of 2020. An upcoming study session for the Community Services and Safety Element and the Open Space and Conservation Element is planned for February.

The Mobility Element (currently named the Circulation Element) was last updated in 2014. The 2014 update was a minor update to the 1999 Circulation Element to add "complete street" policies and discussions about bicycle and pedestrian plans.

Transportation related policies and analysis for the Mobility Element was provided by Kittelson Associates.



## **ANALYSIS**

Since the 1999 and 2014 General Plan updates, there is now increased policy emphasis on developing infrastructure that accommodates multiple modes of travel, not just automobile travel. This emphasis and legal requirements are reflected in the Mobility Element text and policies. Reducing vehicle use also reduces greenhouse gas (GHG) emissions. General Plan policies are now legally required to be provided which address climate change and its impacts.

Staff will provide a summary of the topics, key policies, and implementation measures at the meeting based on the following outline:

### ***Streets and Highways***

This section begins with an overview of Colma's roadway network as required by state law. Policies in this section relate to the general and broad goal to provide and maintain a safe and efficient circulation system. Key policies include:

- Reduction in fatal and non-fatal collisions (Vision Zero).
- Prioritization of Capital Improvements that consider all travel modes.
- Payment of fair share contributions for development in and outside of Colma.

### ***Roadway Performance***

The determination of environmental impact as it relates to the transportation system has changed since the last General Plan update. The traditional performance measure has been Level of Service (LOS). LOS is a measure used to rate roadway traffic flow characteristics and serves as an indicator of roadway performance, relative to locally established standards for service quality (grades of A-F are assigned based on delays). With the passage of SB 743, Vehicle Miles Traveled (VMT) has replaced LOS as the basis for determining transportation impact identification and mitigation under the California Environmental Quality Act (CEQA). VMT is a measure of the amount of travel for all vehicles in a geographic region over a given time period. VMT levels are lower in communities that are more walkable and compact and in communities that have strong public transportation systems. Increased population density is also associated with lower VMT per capita.

Guidelines from the California Office of Planning and Research require that cities replace LOS standards with multimodal VMT standards. This approach has changed the way municipalities measure transportation impacts. By using VMT, the project evaluation process may prioritize more sustainable transportation modes over high-capacity intersections. This can generate far-reaching impacts, leading to safer, more efficient, and more sustainable local street design, and encouraging development in locations well served by multimodal infrastructure, rather than those characterized by low vehicle volumes. The following goal and policies establish a VMT standard and outline specific actions and programs the Town will undertake to transition to a multimodal approach to traffic impact analysis.

The overarching goal for this section is to improve mobility (not traffic flow) along major street segments and at major intersections. Key policies include:

- Requirement for VMT reduction for development projects.
- Creation of a multi-modal traffic impact fee for projects that cannot reduce VMT.
- Consideration of LOS as it relates to operating conditions on various roadways.

### ***Public Transportation***

Public transportation is an important component in the movement of people and goods within a community and can serve to reduce vehicle use. As a result of Covid-19 and stay at home orders, transit ridership and use has dropped, and transit agency funds have been greatly reduced. It is hoped that transit use will increase and become vital after the pandemic. However, the increase in rideshare use will continue to impact transit ridership into the future.

Since Colma is not a direct transit provider, goals outlined in this section relate to Colma's collaboration to maintain and improve public transportation. Here is a summary of these goals:

- Work cooperatively with other agencies and jurisdictions to enhance connectivity between Colma and the region.
- Support local and regional transit that is efficient and convenient.

### ***Active Transportation (Pedestrian and Bicycle)***

Active transportation includes the ability to walk or bike to a destination. Much of Colma can be reached with a short walk or bicycle ride. Walking and biking can support commuter and recreational needs and provide connectivity between residents and schools, parks, shopping areas, jobs, and transit connections to areas outside the town limits.

The California Complete Streets Act of 2008 requires that Colma plan a multimodal transportation network that allows for effective travel by motor vehicle, foot, bicycle, and transit to key destinations within the community and the larger region. The law emphasizes that cities prioritize the construction of public improvements that accelerate the development of a balanced, multimodal transportation network. The Mobility Element accomplishes this goal in-part through a Complete Streets Policy. The Town of Colma is committed to improving mobility whenever possible as capital improvement projects.

The Town will continue to identify areas in need of appropriate pedestrian improvements. Currently there are two plans and one project to improve pedestrian facilities. These are:

- The El Camino Pedestrian and Bicycle Master Plan
- The Serramonte Boulevard and Collins Avenue Master Plan
- The Mission Road Improvement Project

Since Colma's roadway network will not be expanding, improvements to safety, pedestrian comfort and bicycle access will largely need to occur within the existing right of way.

San Mateo County is currently completing an update to their Bicycle and Pedestrian Master Plan. The plan identifies Hillside Boulevard, El Camino Real and Junipero Serra Boulevard as part of their north/south "backbone network" to facilitate movement within the County.

The overarching goal of this section is to increase mobility options to reduce traffic congestion, greenhouse gas emissions, and commute travel time. Key policies include:

- Incorporation of Complete Streets where feasible.
- Design of improvements for all travel modes and abilities, where feasible.
- Bicycle connection coordination with BART, South San Francisco, Daly City, Caltrans and San Mateo County.

### ***Scenic Corridors***

The Town of Colma has designated I-280, El Camino Real, and Hillside Boulevard as scenic corridors through Colma in order to protect and enhance the overall visual experience along each of the identified scenic corridors, primarily through sensitive site planning in these locations taking into consideration the possible impacts on the views. The overarching goal of this section is to preserve scenic corridors as community assets. Key policies include:

- Siting of new development to carefully fit within the environment and setting.
- Minimizing of access points along scenic corridors

### ***Transportation Demand Management***

Transportation Demand Management (TDM) programs are intended to reduce vehicle trips and parking demand by promoting the use of a variety of transportation options and shifting travel mode and time of day to take advantage of available capacity to reduce crowding and congestion. By implementing TDM programs, municipalities and private entities can use available transportation resources more efficiently.

TDM measures cover a broad spectrum, including subsidies for use of alternatives to the solo occupant vehicle, parking and road pricing, work scheduling alternatives, car sharing programs, and many others. The Town is a member of the Commute.org joint powers authority which is San Mateo County's transportation demand management agency. Funding for Commute.org is provided by C/CAG, the San Mateo County Transportation Authority, Bay Area Air Quality Management District, and the Metropolitan Transportation Commission (MTC). Commute.org offers a wide array of commuter incentives and countywide TDM services to employers and employees.

The overarching goal of this section is to implement TDM strategies that reduce vehicle trips. Key policies include:

- Continue to participate in C/CAG TDM programs.
- Require TDM programs for new developments which add a significant number of new employees.
- Support vehicle trip reduction strategies.

## ***Parking***

Encouraging the development of an efficient and adequate parking supply can reduce the negative effects of parking on the pedestrian environment and surrounding neighborhoods, and support the Town's goals for complete streets, walkability, bike ability, and effective transit. A shared public parking approach and "park-once" strategies allow motorists to complete multiple daily tasks before moving their vehicle, thereby reducing both vehicle trips and parking demand, particularly in mixed-use areas. With decreased parking demand and establishment of public parking management strategies, the on- and off-street parking supply can be used more efficiently, ensuring that adequate parking is available for short-term and nearby uses.

The overarching goal of this section is to implement Parking strategies that reduce vehicle trips. Key policies include:

- Reevaluation of minimum parking standards.
- Review of residential parking requirements.
- Continued monitoring and adjustments to commercial street parking regulations
- Continued monitoring and adjustments to the residential parking permit program

## ***Implementation Measures***

Staff has identified the following implementation programs which support the goals of the Mobility Element:

- Monitor collision data and prioritize safety improvements based on the data.
- Review improvement plans for opportunities to include Complete Street components.
- Implement Grand Boulevard Initiative principles on El Camino Real where appropriate.
- Consider a traffic impact fee for new development for improving all modes of transportation.
- Assess maintenance of existing improvements to prioritize projects based on need and funding.

## **Council Adopted Values**

Considering the Mobility Element is consistent with the Council value of *responsibility* because it proactively considers policy that will enhance the Town over time.

## **Sustainability Impact**

The General Plan and its policies will promote sustainability since development will be in-fill in nature and encourage more walking, biking and transit use.

## **Alternatives**

None.

## **CONCLUSION**

Staff recommends that the City Council listen to the presentation by Staff, ask questions and provide feedback to staff regarding the Mobility Element. To direct the discussion, staff will be breaking the discussion into three segments – One for each section. Questions include:

- Are there any recommended changes or additions to the goals and policies?
- Are there any recommended changes or additions to the implementation measures?
- What is the highest priority implementation measure?

## **ATTACHMENT**

- A. General Plan Mobility Element (Draft)





# Mobility Element

## TOWN OF COLMA 2020 GENERAL PLAN

---

### PURPOSE

---

The Mobility Element provides the goals, policies, and actions to develop a safe, efficient, and environmentally responsible multimodal transportation system in the town of Colma, ensuring that these facilities reflect the land uses contemplated by the Land Use Element, and ensuring appropriate facilities that enhance mobility for pedestrians, bicycles, automobiles and which encourages the use of public transit. There are no military airports or ports within the town.

### RELATIONSHIP TO STATE LAW

California State law (Government Code Section 65302(b)) mandates that a city or county adopts a general plan with a mobility (circulation) element that consists of the general location and extent of existing and proposed major thoroughfares, transportation routes, and terminals, as well as other local public utilities and facilities. Discussion of other public utilities and facilities are addressed in the Open Space and Conservation and the Safety elements in the General Plan, in order to allow transportation to be the focus of the Mobility Element.

### RELATION TO OTHER ELEMENTS

State law requires that the Mobility and Land Use elements of a General Plan be cooperatively developed. Integration of the Mobility and Land Use elements results in a General Plan that ensures adequate and appropriate mobility for all transportation modes and users with future planned development. The Mobility Element is primarily related to the Land Use, Housing, Safety and Open Space Elements. This Mobility Element intends to provide the framework for

the community and decision-makers to ensure transportation facilities are built to provide mobility, support and enhance neighborhoods and activity centers built alongside them, and encourage travel by non-automobile modes while also improving public health.

DRAFT

## STREETS AND HIGHWAYS

The street system within Colma is structured around State Highway 82 (El Camino Real) and Interstate 280, (I-280, Junipero Serra Freeway) which carry traffic into and out of town in a generally north-south direction. The internal street system consists of arterial streets, collector streets and local streets. Usable road width, sight distance, and travel speed generally decrease from major highways to local streets.

### FUNCTIONAL CLASSIFICATIONS

Roadways serve two primary functions: mobility and property access. Higher and reliable speeds are desirable for mobility, while low speeds are more desirable for property access and bicycle and pedestrian safety, particularly in residential areas. A functional classification system provides a hierarchy of streets to meet both access and mobility needs. Arterials emphasize high mobility for through traffic, local streets emphasize property access, and collectors provide a balance between both functions.

The Town of Colma uses a modified version of the Federal Highway Administration (FHWA) classifications. The street classifications table retains a correlation to the FHWA classification to ensure that Colma remains eligible for federal transportation funds.

Table M-1: Roadway Classifications

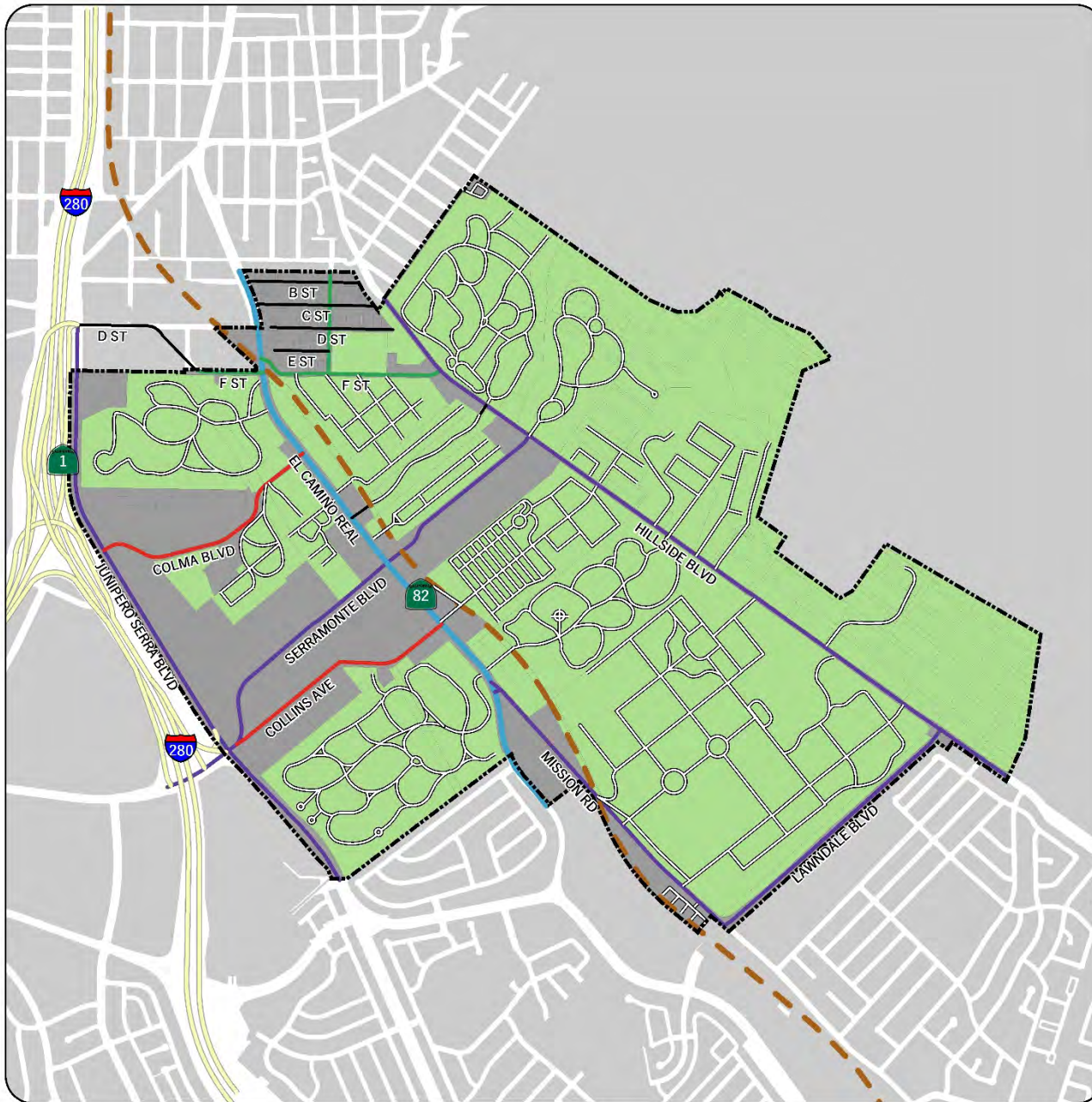
FHWA Roadway Classification	Major Highway	Principal Arterial	Arterial	Commercial Collector	Residential Collector	Local
Principal Arterial, Interstate	●					
Principal Arterial, Freeways	●					
Principal Arterial, Other		●				
Minor Arterial			●			
Commercial Collector				●	●	
Local						●

A street's classification dictates the way a street is designed. Current one-size-fits-most design standards make it difficult to safely accommodate modes (meaning different forms of travel) and to adjust designs based on the unique needs of a neighborhood or street. Mode priorities for each street type are illustrated in Table M-2. This provides a guideline for prioritizing modes

on new and improved roadways within the town. The recommended modal priorities aim to strike a balance between functional classification, adjacent land use, and competing travel needs and uses. Within limited right-of-way, these priorities allow the Town to make design trades-offs to best fit the function and need of various travel modes. In constrained conditions, modes identified as priority must be accommodated.

Table M-2: Roadway Transportation Priorities

	Transit	Bicycles	Pedestrian	Trucks	Automobiles
Major Highway	●	●	●	●	●
Principal Arterial	●	●	●	●	●
Arterial	●	●	●	●	●
Commercial Collector	●	●	●	●	●
Residential Collector	●	●	●	●	●
Local	●	●	●	●	●
● High Priority   ● Medium Priority   ● Low Priority   ● Prohibited					

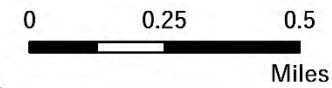


## Town of Colma

Figure M.1.  
Roadway Classifications

- Town Limits
- BART Line
- Major Highway
- Principal Arterial
- Arterial
- Commercial Collector
- Residential Collector
- Local
- Private

Data provided by: Town of Colma, Daly City, San Mateo County, and Caltrans.





---

## Major Highways

Major highways are limited access regional freeways that are a part of the state and regional network of highways. They are controlled by Caltrans (California Department of Transportation) and subject to State design standards.

## Principal Arterial

El Camino Real is a principal arterial and a part of the state and regional network of highways, carrying a significant volume of regional motor vehicle traffic as well as providing regional transit service and transit connections. The corridor has mixed commercial and retail frontages. The roadway is controlled by Caltrans and is subject to State design standards. Pedestrian improvements are comfortable to walk along and provide safe crossings at designated locations. In areas of significant travel mode conflict, bicycle improvements may have lower priority, particularly where parallel corridors exist.

## Arterial Streets

Arterial streets are primarily streets that serve as a majority of trips and that form the key connections within and to the town. Arterial streets provide a service for vehicles, transit, bicycles, and pedestrians wherever possible. Serving bicyclists is a greater priority along identified bicycle corridors. Pedestrian improvements are comfortable to walk along and provide safe crossings at designated locations.

## Commercial Collector

Commercial collectors are streets with commercial frontages that accommodate intra-city trips while also distributing local traffic to major arterials. These roadways prioritize truck and vehicle modes of travel. Pedestrian improvements are comfortable to walk along and provide safe crossings at designated locations.

## Residential Collector

Residential collectors are streets that serve the same level of travel activity, and with the same connectivity, as commercial collectors, but have primarily residential frontages. Residential collector streets accommodate intra-city trips while also distributing local traffic to major arterials. These streets prioritize non-motorized travel, providing high quality conditions for walking and bicycling.

## Local Streets

Local streets are low volume residential streets, serving mostly local traffic. They provide access primarily to abutting uses. These streets serve people walking and biking.

## Private Streets

Private streets may be permitted for planned residential, commercial, or cemetery developments in Colma. The improved width of private roads should be designed to accommodate the level of traffic the road is expected to carry. Colma has two unique private streets worth noting:

### *Cypress Hills Access Road (Partially Existing and Proposed)*

Cypress Hills Access Road is a proposed emergency access loop road extending from the Cypress Lawn Memorial Park's Hillside Campus entrance to the golf driving range access road. The road is intended to provide emergency access to the cemetery properties and the base of San Bruno Mountain. The proposed access road would be a private road, available for police and fire emergency use.

### *Decommissioned Landfill/Park Access Road*

Access to the decommissioned Hillside Landfill is provided by a two-lane road (Sand Hill Road; privately owned road). If the decommissioned landfill is redeveloped in the future, this access road will become the entrance to the site. The actual configuration and routing of the road may change depending on the end uses and conformance to accessibility and emergency access standards.

### **“Paper” Streets**

The Cypress Hills area and Holy Cross lands east of Hillside Boulevard have a series of public easements remaining from when the land was originally platted for development. Although the streets were never built, a number of lots within the platted area were sold speculatively. These “in-holding” lots have not been developed, but nevertheless the Town is obliged to maintain the paper streets as a theoretical means of access. The paper streets remain on the County Assessor's maps. The Town supports landowner applications to abandon paper streets that do not provide access to in-holding lots, are not needed for utility purposes, or are redundant with other paper streets.

## **VISION ZERO**

Transportation safety can always be improved. “Vision Zero” is the simple notion that any loss of life on city streets is unacceptable. Humans, by nature, make mistakes. Vision Zero includes design practices to keep and make road networks safer for human activity and protect all users of the street and adjacent spaces. Colma has established a Vision Zero goal incorporating three key efforts: (1) project prioritization through Capital Improvement Plan projects, (2) engineering, and (3) enforcement to create safer streets by slowing vehicle traffic and reducing the impacts associated with vehicle travel. For example, streets can be made safer by minimizing truck routes through town, diverting goods movement to specific thoroughfares to protect vulnerable populations and minimizing risk to residents.

Project prioritization through the Town's Capital Improvement Plan promotes review of projects to ensure that the needs of non-motorized travelers are met in all stages of the design and implementation process. This effort also aims to upgrade existing infrastructure before incurring the costs associated with building new infrastructure. By using data driven findings, engineering efforts can more easily focus on critical safety components. Enforcement encourages safety and reduces unsafe behavior among pedestrians, bicyclists, and drivers.

## STREET TREES

Street trees can improve Colma's appearance and provide a link between cemetery/open space and developed areas, especially where new development occurs. Street trees can enhance the building scale, soften the visual impact of development in new and existing areas, and act as a moderator to Colma's windy climate. The Town's Climate Action Plan encourages/mandates the planting of street trees when street projects or opportunities exist. The Town received Tree City USA certification in 2019.

## GREEN INFRASTRUCTURE

Green Infrastructure (GI) is a means of restoring water quality through implementing a range of natural and built approaches to stormwater management that mimic natural systems. GI can reduce the amount of runoff that enters the traditional piped stormwater system below ground, prevent overflows that pollute nearby water bodies, clean stormwater, and allow water to reabsorb back into the ground. GI uses vegetation, soils, filter media, and/or natural processes to create healthier urban environments.


Implementation of GI improvements, such as landscaping, irrigation, bioretention areas, stormwater capture devices, and pervious paving will improve the water quality of stormwater in Town rights-of-way and facilities. The Town of Colma Adopted a Green Infrastructure Plan in July 2019. The plan describes how the Town will, over time, transition its existing "gray" (i.e., traditional) infrastructure to "green" infrastructure. The document also provides guidance to meet stormwater pollutant load reduction goals and creates a process for prioritizing the integration of GI into Capital Improvement Program projects.



The Town successfully implemented its first Green Infrastructure project on Hillside Boulevard between Hoffman Street and Serramonte Boulevard.

## Goal M-1: Provide and maintain a safe, efficient, and attractive circulation system that promotes a healthy, safe, and active community throughout Colma.

---

- M-1-1: Vision Zero.** Eliminate traffic fatalities and reduce the number of non-fatal collisions by 50 percent by 2040.
- M-1-2: Capital Improvement Prioritization.** Maintain and upgrade existing rights-of-way and ensure that the needs of non-motorized travelers are considered in planning, programing, and design of improvements.
- M-1-3: Fair Share Contributions.** Require new development and redevelopment projects both within and outside of Colma to construct or pay their fair share towards improvements for all travel modes to provide enhanced connectivity to existing transportation facilities.
- M-1-4: Street Trees.** Require street trees as a condition of private development, where feasible. In addition, look for opportunities to increase street tree planting as part of existing street renovation projects.
-  **M-1-5: Green Streets.** Incorporate Green Streets best practices, as appropriate to the context, for new streets and street retrofits.
- M-1-6: Truck Routes.** Consider Principal Arterials, Arterials, and Commercial Collectors as truck routes to provide for the safe transportation of goods and services through the town while minimizing risk to vulnerable populations.

---

## ROADWAY PERFORMANCE

---

### EVALUATING ROADWAY PERFORMANCE

The determination of environmental impact as it relates to the transportation system has changed since the last General Plan update. The traditional performance measure has been Level of Service (LOS). LOS is a measure used to rate roadway traffic flow characteristics and serves as an indicator of roadway performance, relative to locally established standards for service quality. With the passage of SB 743, Vehicle Miles Traveled (VMT) has replaced LOS as the basis for determining transportation impact identification and mitigation under the California Environmental Quality Act (CEQA). VMT is a measure of the amount of travel for all vehicles in a geographic region over a given time period. VMT levels are lower in communities that are more walkable and compact and in communities that have strong public transportation systems. Increased population density is also associated with lower VMT per capita (ChangeLab Solutions, 2007; U.S. EPA, 2013). Some strategies that have shown success include:

- Expanding public transportation and improving service;
- Providing active transportation infrastructure (sidewalk, ADA, and bikeway improvements and connections);
- Instituting higher parking fees;
- Placing higher density and more affordable housing closer to transit, employment, and services;
- Balancing the number and type of jobs in the community with the type and range of housing units and costs; and
- Discouraging low density development in more remote areas without services that requires vehicle use.

This Element provides a policy framework for determining the impact of VMT changes resulting from discretionary development within the town. The Town LOS standards and policies will remain for use as part of the transportation planning and consideration of land use changes and entitlement applications. Current LOS thresholds are shown in Tables M-3 and M-4.



Table M-3 Roadway Segment Traffic Level of Service (LOS) Definitions

LOS	Roadway Segment Traffic Flow Conditions
A	<b>Free flow.</b> No traffic-related restrictions on vehicle maneuverability or speed. Speed is determined by drivers' desires, speed limits, and physical roadway conditions.
B	<b>Stable flow.</b> Operating speeds start to be restricted; little or no restrictions on maneuverability from other vehicles. Slight delays.
C	<b>Stable flow.</b> Speeds and maneuverability more closely restricted. Occasional backups behind left-turning vehicles at intersections. Acceptable delays.
D	<b>Approaching unstable flow.</b> Queues develop. Temporary restrictions on speed may cause extensive delays. Little freedom to maneuver. Comfort and convenience low. Delays at intersections may exceed one or more signal changes.
E	<b>Unstable flow.</b> Stoppages of momentary duration. Low operating speeds. Maneuverability severely limited. Intolerable delays. At-capacity operations.
F	<b>Forced flow.</b> Gridlock/over-capacity conditions. Stoppages for long periods. Low operating speeds.

Table M-4 Signalized Intersection LOS Definitions

LOS	Intersection Conditions
A	Progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths contribute to low delay.
B	Good progression and/or short cycle lengths. More vehicles stop causing higher levels of average delay.
C	Fair progression and/or longer cycle lengths. Individual cycle failures, resulting in drivers having to wait through more than one red signal indication begin to appear. The number of vehicles stopping is significant, although many still pass through the intersection without stopping.
D	The influence of congestion becomes more noticeable. Unfavorable progression, long cycle lengths, or high volumes. Many vehicles stop. The proportion of vehicles not stopping declines. Individual cycle failures noticeable.
E	The limit of acceptable delay. Poor progression, long cycle lengths, and high volumes. Individual cycle failures are frequent. At-capacity operations.
F	Unacceptable to most drivers. Oversaturation, arrival flow rates exceed the capacity of the intersection. Many individual cycle failures. Poor progression and long cycle lengths.


Guidelines from the California Office of Planning and Research require that cities replace LOS standards with multimodal VMT standards. This approach has changed the way municipalities measure transportation impacts. By using VMT, the project evaluation process may prioritize more sustainable transportation modes over high-capacity intersections. This can generate far-reaching impacts, leading to safer, more efficient, and more sustainable local street design, and encouraging development in locations well served by multimodal infrastructure, rather than those characterized by low vehicle volumes.

---

The following goal and policies establish a VMT standard and outline specific actions and programs the Town will undertake to ensure a multimodal approach to traffic impact analysis.

## Goal M-2 Improve mobility along major street segments and at major intersections.

---

- M-2-1: Reduce Vehicle Miles Traveled.**  Require new development projects to achieve a reduction in VMT per capita or VMT per service population compared to both baseline VMT performance conditions and General Plan 2040 VMT performance conditions. The Town will regularly monitor baseline VMT to provide updated benchmarks for project applicants. Encourage use of VMT reduction strategies and methods to encourage non-automobile travel.
- M-2-2: Other Traffic Flow Benchmarks.** Establish additional traffic flow benchmarks, such as vehicle-hours of travel and safety-related metrics, in order to evaluate and monitor changes in traffic flow over time.
- M-2-3: VMT Transportation Performance Measures.** Update the Town's transportation measures and thresholds to use VMT standards for traffic impact analysis rather than LOS.
- M-2-4: Multi-Modal Impact Fee.** Consider establishing a transportation impact fee for new development tied to performance measures to generate funds for improving all modes of transportation.
- M-2-5: LOS Planned Operating Conditions.** Strive to achieve LOS D as the planned operating condition for all arterial and collector roadway segments ("segments") and intersections, except for (1) those specified segments and intersections for which planned LOS conditions are otherwise established; and (2) segments and intersections that are operating at LOS E or lower at the time an application for a proposed development project is submitted, if no feasible improvements exist to improve the LOS. The Town may permit the then-existing LOS to be the minimum acceptable operating condition for those segments and intersections in category (2), provided that the LOS does not deteriorate further due to the proposed development.
- M-2-6: Development Review Requirements.** Require proposed development projects that could result in increased traffic to include improvements that assure LOS levels do not fall below the established minimum standard. Ensure that improvements are coordinated with roadway improvements programmed for funding through transportation-related impact fees and that the operational benefits of large-scale, automobile capacity-focused improvements are balanced against the induced VMT resulting from the improvements.

---

## PUBLIC TRANSPORTATION

---



The public road system allows schedule and routing flexibility for those who use it. In contrast, transportation facilities (such as public transit) provide for the movement of goods and people generally along fixed routes and on a fixed schedule. Colma is fortunate to have access to three different modes of public transportation: air, rail, and bus. In addition, Colma residents and workers can take advantage of paratransit opportunities.

### BUS TRANSIT

#### San Mateo County Transit District (SAMTRANS)

San Mateo Transit District (SamTrans) provides bus service throughout San Mateo County with connections to the Colma, Daly City, and South San Francisco BART Stations, San Francisco International Airport, Peninsula Caltrain Stations, San Francisco Greyhound Depot, and Downtown San Francisco's Transbay Terminal. It also provides access to Santa Clara County Transit, with connections in Menlo Park and Palo Alto.

Colma residents can catch SamTrans Mainline Routes along El Camino Real or SamTrans Local Routes along El Camino Real and Junipero Serra Boulevard. Senior citizens and disabled patrons may ride anywhere in the County for a reduced fare

#### Paratransit Service

SamTrans provides two on-call, curb-to-curb paratransit services for disabled and elderly residents of San Mateo County. Redi-Wheels serves the bay side of San Mateo County while

Redi-Coast serves the coast side of San Mateo County. Colma is served by Redi-Wheels. Redi-Wheels passengers must reserve trips one to seven days in advance or set up subscription services for regular trips. Paratransit customers may ride any fixed-route services for free.

### **Long Distance Bus Service**

There is no scheduled intercity bus service (Greyhound or other carriers) serving Colma. The closest long-distance bus stations are in San Francisco, Oakland, and San Jose.

## **DEMAND RESPONSIVE TRANSIT**

Demand Responsive Transit can best be described as participant or provider scheduled, collective transit using smaller vehicles such as vans and automobiles. Colma is fortunate to have many types of Demand Responsive Transit available for the benefit of citizens, employees, and customers of local establishments. The following are examples of Demand Responsive Transit operating in Colma:

### **Airport Shuttle Services**

Numerous airport shuttle services provide pickup and drop off service from a home or business in Colma to and from San Francisco International Airport. These trips are arranged via a telephone or smartphone and booked in advance.

### **Taxis**

Private taxi companies provide door-to-door private rides. These trips are arranged via a street hail, taxi stands, telephone orders, and a smartphone app. Colma is served by taxicab companies located in Pacifica, Daly City, unincorporated Daly City, and South San Francisco.

### **Auto Dealer Shuttles**

Many of the local auto dealers provide a shuttle service to customers who are having auto repair work done on their cars. These shuttles assist individuals who live or work in Colma or neighboring communities.

### **Transportation Network Companies (TNCs)**

Also known as ride-hail or ride share companies, TNCs provide a variety of services ranging from door-to-door-private rides to shared trips with other passengers. These trips are arranged utilizing a smartphone app. These companies include Uber and Lyft.

## **RAIL TRANSIT**

### **Bay Area Rapid Transit (BART)**

The San Francisco Bay Area Rapid Transit district (BART) provides heavy-rail, regional transit service via five rail lines in the following four Bay Area counties: Alameda, Contra Costa, San Francisco, and San Mateo. There are two BART stations located just outside of the town limits. BART runs trains north and south through the Colma station. North bound trains pass through Daly City and San Francisco stations on their way to the East Bay (East Bay destinations include Richmond, Pittsburg/Bay Point, Dublin, and Fremont), and south bound trains pass through South San Francisco, San Bruno, and Millbrae stations on their way to San Francisco International Airport. Trains run Monday through Friday from 4:00 A.M. to midnight and on Saturday and Sunday from 6:00 A.M. to midnight. The Colma BART station is located at Mission Street and Albert M. Teglia Boulevard, just north of the Colma town Limits.



### **Caltrain**

Caltrain, operated by the Peninsula Corridor Joint Powers Board, provides passenger rail service to the Peninsula cities, extending from San Francisco to San Jose and Gilroy. Trains run Monday through Friday from 5:00 A.M. to midnight, Saturday from 7:00 A.M. to midnight, and Sunday from 8:00 A.M. to 10:00 P.M. Colma's nearest Caltrain station is located approximately four miles away in South San Francisco.

## **AIR TRANSIT**

### **San Francisco International Airport (SFO)**

San Francisco International Airport is located approximately six miles from Colma, east of Highway 101 and adjacent to the Cities of San Bruno and Millbrae. The airport is a major regional passenger and cargo air terminal and the seventh most active commercial airfield in the world. It can be reached by Colma residents via private auto, SamTrans bus, and BART.



---

Goal M-3: Work cooperatively with other agencies and jurisdictions in the region to enhance connectivity between Colma and the region and provide an efficient system for regional travel.

---

- M-3-1: Agency Collaboration and Coordination.** Collaborate with Caltrans, the City and County Association of Governments (C/CAG), surrounding jurisdictions, and other agencies to improve connectivity between the county, cities, and the town.
- M-3-2: El Camino Real.** Ensure that El Camino Real retains its distinct character, while encouraging improvements which support increased multi-modal use.
- M-3-3: Regional Transportation Planning.** Actively participate in and support regional transportation planning efforts.
- M-3-4: Transit Funding.** Seek joint transportation and transit funding opportunities with adjoining jurisdictions or agencies to improve transit access in and around Colma.
- M-3-5: Transportation Gaps.** Eliminate gaps in the regional active transportation network in Colma.

---

Goal M-4: Support local and regional transit that is efficient, frequent, convenient, and safe.

---

- M-4-1: Transit Stops.** Support the installation of transit stop amenities including shelters, benches, real-time information panels, lighting, bike parking, and bike sharing stations.
- M-4-2: Reliable Transportation Services.** Encourage SamTrans and other public transit providers to provide service on regular schedules along El Camino Real, arterial streets, and, as feasible, major collectors; support these transportation services to increase the mobility of seniors, the disabled, and others who depend on public transportation.
- M-4-3: Encourage Transportation Options.** Encourage and support various public transit agencies and companies, ride-sharing programs, and other incentive programs that provide residents and visitors with transportation choices other than the private automobile.



**M-4-4: Transit Oriented Development.** Promote the development of multi-modal mixed-use development at sites surrounding the Colma BART station, where feasible along Mission Road, and at the Town Center site.



**M-4-5: Connections to Homes and Businesses.** Seek opportunities to improve first and last mile connections between transit, homes, and businesses.

DRAFT

---

---

## ACTIVE TRANSPORTATION

---

Active Transportation offer numerous benefits, including congestion reduction, economic competitiveness, environmental stewardship, public safety, social equity, and community health. Much of Colma can be reached with a short walk or bicycle ride. Walking and Biking can support commuter and recreational needs and provide connectivity between residents and schools, parks, shopping areas, jobs, and transit connections to areas outside the town limits.

### COMPLETE STREETS

The California Complete Streets Act of 2008 requires that Colma plan a multimodal transportation network that allows for effective travel by motor vehicle, foot, bicycle, and transit to key destinations within the community and the larger region. The law emphasizes that cities prioritize the construction of public improvements that accelerate the development of a balanced, multimodal transportation network. The Mobility Element accomplishes this goal in-part through a Complete Streets Policy. The Town of Colma is committed to improving mobility whenever possible as capital improvement projects or private developments are considered.

### PEDESTRIAN FACILITIES

Walking is a basic and often overlooked part of all trips that also involve transit or automobiles. Walking can be ideal for short, local trips for shopping, school, and recreation. Providing adequate facilities for pedestrians will help to ensure access to commercial, educational, recreational, and residential uses.

Pedestrian facilities include sidewalks, paths, trails, curb ramps, and crossings. Amenities such as street furniture, pedestrian-scale lighting, and landscaping, serve to create an environment that is conducive to walking and is conformable and safe for pedestrians. The Town will continue to identify areas in need of appropriate pedestrian improvements. Currently there are two plans and one project to improve pedestrian facilities. These are:

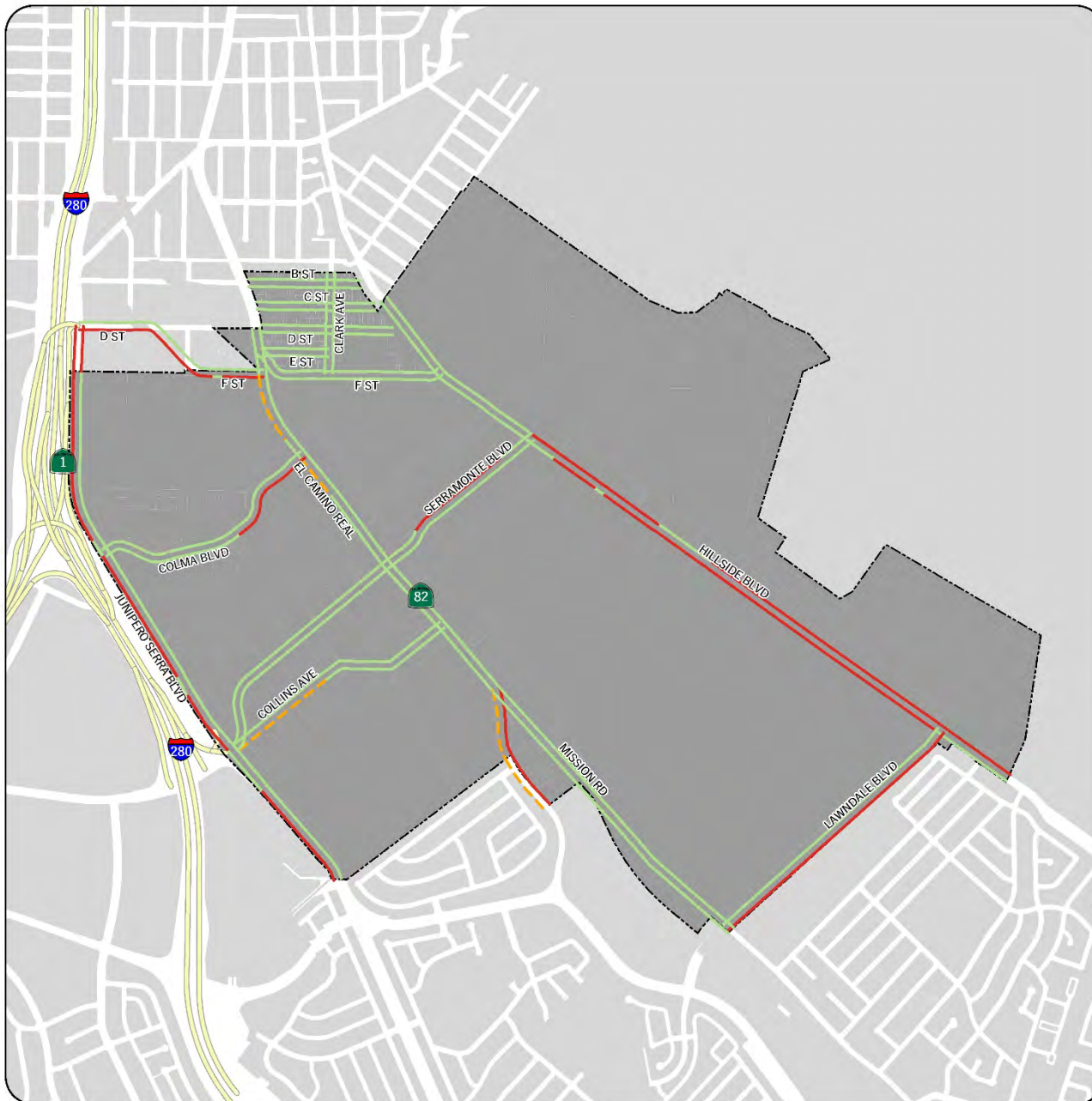
- The El Camino Pedestrian and Bicycle Master Plan
- The Serramonte Boulevard and Collins Avenue Master Plan
- The Mission Road Improvement Project

The El Camino Real and Pedestrian and Bicycle Master plan proposes to improve both pedestrian and bicycle circulation. An initial alternative includes the removal of a travel lane in each direction between F Street to the north and El Camino Real's intersection with Mission Road to the south. Project implementation will require a significant capital improvement investment as well as grant funding and is not anticipated until after the year 2025. Cost estimates have not been prepared, but the project is anticipated to exceed thirty million dollars.

The Serramonte Boulevard and Collins Avenue Master Plan was completed in 2019 and proposes improvements on Collins Avenue, Serramonte Boulevard West, and Serramonte Boulevard East. Proposed improvements include the reduction of lanes on Serramonte Boulevard from 4 to 3 between the Serra Center driveway and El Camino Real. With the lane reduction, there is an opportunity to widen sidewalks, install high-visibility crosswalks, and install landscaping. Implementation is not anticipated until after 2023 or later, with a possible initial phase which includes roadway restriping to remove a travel lane on Serramonte West.





The Mission Road Improvement Project was implemented in 2021 and included pedestrian, bicycle, and roadway improvements on Mission Road.

DRAFT



## Town of Colma

Figure M.2.  
Sidewalk Network

-  Town Limits
-  Sidewalk Network\*
-  Existing Sidewalk
-  Proposed Sidewalk
-  No Sidewalk

\*Sidewalk Network in the Public Right-of-Way

Data provided by: Town of Colma, Daly City, San Mateo County, and Caltrans.





---

## BICYCLE FACILITIES

Biking is ideal for trips which may be too long to walk but are short enough that a vehicle is not needed. Biking is presently not a frequent means of travel in the town, which may be attributed to gaps in infrastructure and hilly terrain.

Bicycle facilities include bikeways, crossings and amenities such as bicycle racks, lighting, and landscaping, which serve to create an environment that is conducive to biking and is conformable and safe for bicyclists.

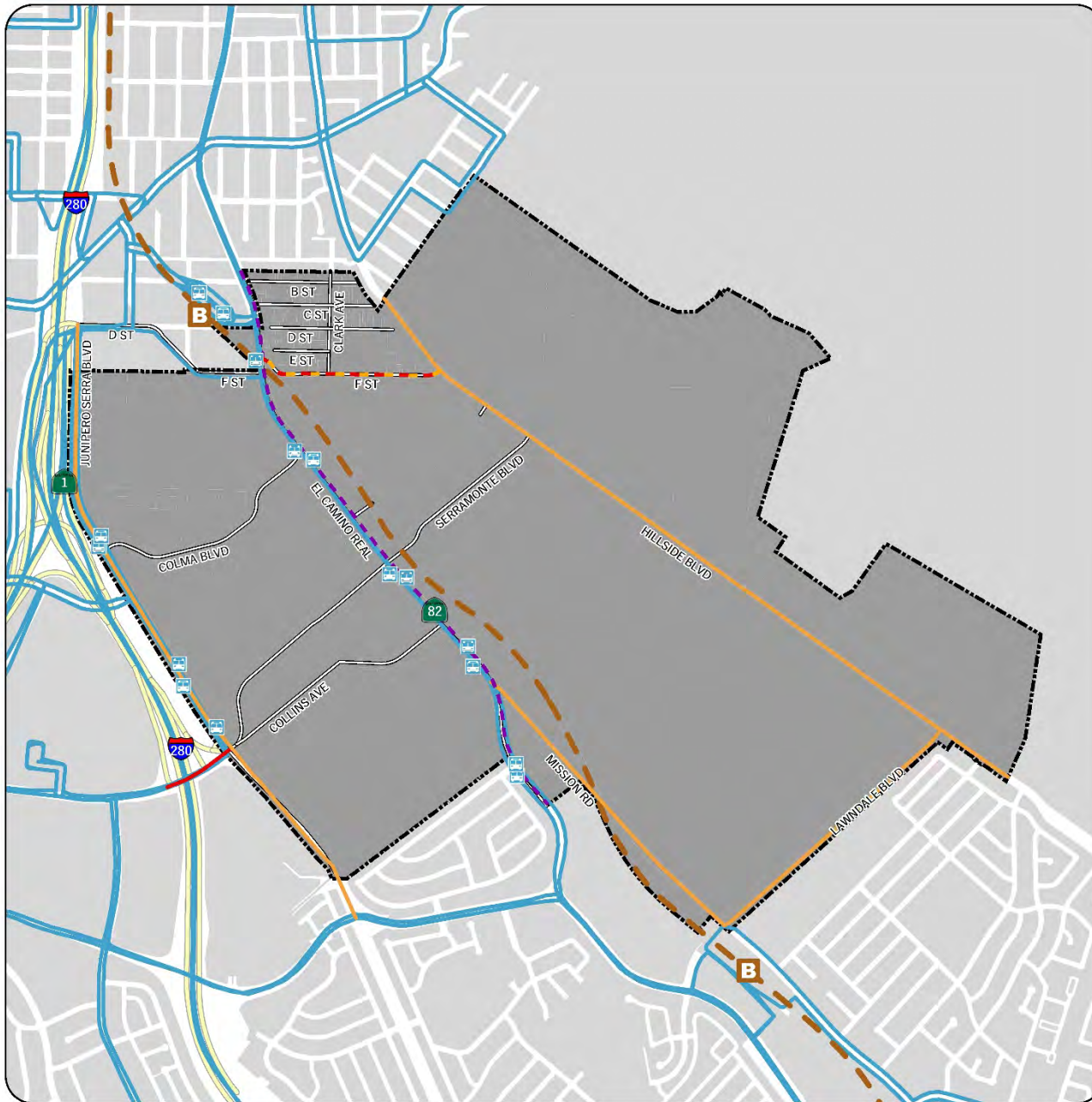
The Town will continue to identify areas in need of appropriate bicycle improvements. Currently there is one plan and one project to improve bicycle facilities. Descriptions are provided above. These include:

- The El Camino Real Pedestrian and Bicycle Master Plan
- The Mission Road Improvement Project

The following are the four types of established bikeway classifications:

- Class I Bikeways (Shared-Use Path) provide a completely separate right-of-way and are designated for the exclusive use of bicycles and pedestrians, with vehicle and pedestrian crossflow minimized. In general, bike paths serve corridors where on-street facilities are not feasible or where sufficient right-of-way exists to allow them to be constructed.
- Class II Bikeways (Bicycle Lanes) are dedicated lanes for bicyclists generally adjacent to the outer vehicle travel lanes. These lanes have special lane markings, pavement legends, and signage. Bicycle lanes are typically five feet wide. Adjacent vehicle parking and vehicle/pedestrian crossflow are permitted.
- Class III Bikeways (Bicycle Route) are designated by signs or pavement markings for shared use with pedestrians or motor vehicles but have no separated bike right-of-way or lane striping. Bike routes serve either to a) provide a connection to other bicycle facilities where dedicated facilities are infeasible, or b) designate preferred routes through high-demand corridors.
- Class IV Bikeways (cycle tracks or “separated” bikeways) provide a right-of-way designated exclusively for bicycle travel within a roadway and are protected from other vehicle traffic by physical barriers, including, but not limited to, grade separation, flexible posts, inflexible vertical barriers such as raised curbs, or parked cars.

In Colma, as shown in Figure M-3, only Class II and Class III bikeways are existing.

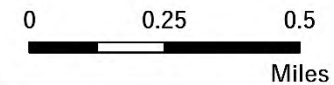


# Town of Colma

Figure M.3.  
Multimodal Circulation

- Town Limits
- Bus Route Network**
- BART Station
- SamTrans Bus Stop
- BART Line
- SamTrans Bus Routes
- Bike Facility Network**
- Existing Class II
- Existing Class III
- Planned Class IV
- Planned Class II/III

Data provided by: Town of Colma, San Mateo County, BART, SamTrans, and Caltrans.



---

## Goal M-5: Increase mobility options to reduce traffic congestion, greenhouse gas emissions, and commute travel time.

---

- M-5-1:** **Complete Streets.** Incorporate Complete Streets infrastructure elements into new streets, street retrofits and certain maintenance projects to encourage multiple modes of travel, based on the modal priorities in Table M-2, as appropriate to the context and determined reasonable and practicable by the Town.
-  **M-5-2:** **Design for All Travel Modes.** Plan, design, and construct transportation projects to safely accommodate the needs of pedestrians, bicyclists, transit riders, motorists, people with mobility challenges, and persons of all ages and abilities.
- M-5-3:** **Bicycle Connection Coordination.** Coordinate with BART, South San Francisco, Daly City, Caltrans, and San Mateo County to plan and implement bicycle and pedestrian improvements which connect with improvements to BART facilities and regional networks.
- M-5-4:** **Accessibility and Universal Design.** Prioritize implementation of pedestrian facilities that improve accessibility consistent with guidelines established by the Americans with Disabilities Act (ADA), allowing mobility-impaired users, such as the disabled and seniors, to travel safely and effectively within and beyond the town.
- M-5-5:** **Design of New Development.** Require new development to incorporate design that prioritizes safe pedestrian and bicycle travel and accommodate senior citizens, people with mobility challenges, and children.

---

## SCENIC CORRIDORS

---

Many of Colma's rights-of-way, including streets, trails, and sidewalks, offer a special visual experience. Distant, panoramic views of Colma and its environs can be appreciated in a number of locations. The State of California has identified I-280 as a State Scenic Highway from the Santa Clara County line to the San Bruno City limit. The section from the San Bruno City limit north through Colma is an Eligible State Scenic Highway, however, it has yet to be officially designated. Although there are no State designated scenic highways in Colma, foreground views of San Bruno Mountain and panoramic views of the built environments of Colma, South San Francisco, and Daly City provide a memorable and highly valued landscape.

### SCENIC CORRIDORS PROTECTION





The Town of Colma has designated I-280, El Camino Real, and Hillside Boulevard as scenic corridors through Colma in order to protect and enhance the overall visual experience along each of the identified scenic corridors, primarily through sensitive site planning in these locations taking into consideration the possible impacts on the views (see Figure M.3).





## Town of Colma

Figure M.4  
Scenic Corridors

-  Town Limits
-  Scenic Corridors

Data provided by: Town of Colma, San Mateo County, and Caltrans.






---

## Goal M-6: Preserve scenic corridors as community assets.

---

- M-6-1: Site Planning.**  Locate and design development projects within a scenic corridor to carefully fit within their environment and setting. The scenic character of the site should be maintained as much as possible. All development should be sited and designed to minimize the impacts of noise, light, glare, and odors on adjacent properties with the community at large.
- M-6-2: Access to Scenic Corridors.** Minimize the number of access roads to a scenic corridor wherever possible. Development of access roads shall be combined with the intent of minimizing intersections with scenic roadways.
- M-6-3: Visual Impacts.** Minimize visual impacts along scenic corridors.
- M-6-4: Paving Integration.** Require new development to design site plans that integrate paved areas into the site, relate paved areas to their structure, and landscape paved areas to reduce their visual impact from scenic corridors. Encourage use of textured paving.

---

---

## TRANSPORTATION DEMAND MANAGEMENT

---

Transportation Demand Management (TDM) programs are intended to reduce vehicle trips and parking demand by promoting the use of a variety of transportation options and shifting travel mode and time of day to take advantage of available capacity to reduce crowding and congestion. By implementing TDM programs, municipalities and private entities can use available transportation resources more efficiently.

TDM measures cover a broad spectrum, including subsidies for use of alternatives to the solo occupant vehicle, parking and road pricing, work scheduling alternatives, car sharing programs, and many others. The Town is a member of the Commute.org joint powers authority which is San Mateo County's transportation demand management agency. Funding for Commute.org is provided by C/CAG, the San Mateo County Transportation Authority, Bay Area Air Quality Management District, and the Metropolitan Transportation Commission (MTC). Commute.org offers a wide array of commuter incentives and countywide TDM services to employers and employees.

The Town adopted a Climate Action Plan (CAP) in 2013 which identified strategies to support statewide greenhouse gas reduction. The CAP included a recommendation to promote TDM strategies for businesses with more than 50 employees.

**Goal M-7: Implement Transportation Demand Management (TDM) strategies that reduce vehicle trips and encourage the use of transportation modes that reduce vehicle miles traveled and greenhouse gas emissions.**

---

- M-7-1: TDM Program.** Continue to participate in the TDM Program as outlined by the San Mateo City/County Association of Governments (C/CAG).
- M-7-2: TDM Program for New Development.** Require major development proposals to include a detailed, verifiable TDM program for consideration by the Town during the review of the development application.
- M-7-3: Vehicle Trip Reduction.** Support vehicle trip reduction strategies, including building safer and more inviting transportation networks, supporting connections to high frequency and regional transit, implementing TDM programs, and integrating land use and transportation decisions.

---

## PARKING

---

Encouraging the development of an efficient and adequate parking supply can reduce the negative effects of parking on the pedestrian environment and surrounding neighborhoods, and support the Town's goals for complete streets, walkability, bikeability, and effective transit. A shared public parking approach and "park-once" strategies allow motorists to complete multiple daily tasks before moving their vehicle, thereby reducing both vehicle trips and parking demand, particularly in mixed-use areas. With decreased parking demand and establishment of public parking management strategies, the on- and off-street parking supply can be used more efficiently, ensuring that adequate parking is available for short-term and nearby uses.

**Goal M-8: Provide a comprehensive parking strategy that considers alternative transportation modes and connections to efficiently serve the needs of residents, visitors, and businesses.**

---

- M-8-1: Parking Standards.** Reevaluate minimum parking standards to account for emerging mobility trends, such as shared mobility, micromobility, autonomous vehicles, and future technology changes. Consider reducing parking requirements for mixed-use developments.
- M-8-2: Flexible Residential Parking Standards.** Establish flexible parking standards, review residential parking requirements in the Zoning Ordinance, and consider new parking provisions and exceptions with the objective of "right-sizing" parking areas and reducing the reliance on automobile use.
- M-8-3: Town-wide Parking Zone Adjustments.** Continue to monitor street parking needs of Colma businesses and adjust parking time limits, signage and striping when needed.
- M-8-4: Residential Parking Permit Program.** Monitor and continue to make needed adjustments to the residential parking permit program.
- M-8-5: Alternative Energy Vehicle Parking.** Support the provision of infrastructure for alternative fuel vehicles, such as electric vehicle charging stations, to facilitate low and zero-emission vehicle use.

## IMPLEMENTATION

Mobility Implementation Programs	2021-2030	2031-2040	Annual	Ongoing
<b>M-IP1: Regularly monitor collisions to respond to safety problems and changing conditions. Prioritize locations with high collision rates for safety improvements.</b>				X
Implements Policy: M-1-1, M-1-2, M-1-3 Responsible Dept.: Engineering, Supporting Dept. Planning				
<b>M-IP2: Review proposed improvement plans to ensure that roadway projects, retrofits, and maintenance projects incorporate Complete Streets elements which support multiple modes of travel.</b>				X
Implements Policy: M-1-2, M-1-5 Responsible Dept.: Planning, Supporting Dept. Engineering				
<b>M-IP3: Implement Grand Boulevard Initiative principles, where appropriate, along El Camino Real within town limits.</b>				X
Implements Policy: M-3-2, M-3-3 Responsible Dept.: Planning				
<b>M-IP4: Consider adopting a transportation impact fee for new development which does not satisfy VMT goals to generate funds for improving all modes of transportation.</b>	X			
Implements Policy: M-2-1, M-2-2, M-2-3, M-2-4, M-2-6 Responsible Dept. Planning, Supporting Dept. Engineering				
<b>M-IP5: Assess the maintenance of sidewalks, pavement and markings, pedestrian crossing signals, and lighting on an on-going basis and prioritize projects</b>				X

<b>based on need and available funding.</b>				
Implements Policy: M-1-2, M-5-1 Responsible Dept. Engineering				
<b>M-IP6: Identify alternative energy vehicle charging locations and opportunities to integrate emerging technology into public parking infrastructure to encourage and expand the use of zero-emissions vehicles.</b>				X
Implements Policy: M-8-5 Responsible Dept.: Engineering, Supporting Dept.: Planning				
<b>M-IP7: Periodically review Town Code parking requirements and standards to ensure that they are adequate to meet demand.</b>	X			X
Implements Policy: M-8-1, M-8-2 and M-8-3 Responsible Dept.: Planning				

DRAFT