APPENDICES



APPENDIX 1

CITY OF DEL MAR
HOUSING ELEMENT UPDATE

City of Del Mar

Notice of Preparation of a Draft PEIR

And Notice of Public Scoping Meeting

Date: February 19, 2020

To: Responsible and Trustee Agents/Interested Organizations and Individuals

Subject: **Notice of Preparation of a Draft Environmental Report and Notice of a Public Scoping Meeting**

6th Cycle Housing Element Update and PEIR

Lead Agency:

CITY OF DEL MAR
Planning and Community Development Department
1050 Camino del Mar
Del Mar, CA 92414

This NOP includes a project description and a list of the environmental issues to be examined in the Program Environmental Impact Report (EIR).

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but no later than 30 days after receipt of this notice.

Please send your written response to Joseph D. Smith at the City of Del Mar, address and email provided below. Please include the name, phone number, email, and address of a contact person in your response.

Project Title: 6Th Cycle Housing Element Update and EIR

Location: City-wide

A. Project Setting

Incorporated in 1959, the City of Del Mar is a small, residential community located on the Pacific Coast, west of Interstate 5 and approximately 20 miles north of downtown San Diego. According to the 2010 Census, Del Mar is the smallest incorporated jurisdiction in San Diego County with a population of 4,161 and an area of roughly two and a half square miles.

The City of Del Mar continues to be characterized by its high-quality residential neighborhoods, as well as its small-village downtown. The City's coastal location, climate and small-village atmosphere attract a large number of tourists to the community as well as the Del Mar Racetrack and Fairgrounds located in the northeastern portion of the City. The tourists contribute to many of the retail and service industries that provide employment opportunities in the City.

The City is long and narrow in shape, bordering approximately 2.5 miles of the coast, and extending inland less than one mile at its widest point. Along the coast, the land rises abruptly from the sandy beaches to cliffs reaching 75 feet in height. The cliffs have been eroded by drainage from the San Dieguito River (to the north) and Los Penasquitos Creek (to the south), creating small canyons extending into the hillsides. Crest Canyon extends south from the San Dieguito Lagoon and forms much of the eastern boundary of

the City. Much of the northern portion of the City lies within the floodplain of the San Dieguito River. The City is vigilant in its protection of natural resources, environmental protection for the cliffs, canyons, and wetlands. This presents some constraints on the location of new development and opportunities for new subdivisions.

B. Project Overview

The Housing Element is a State-mandated policy document that is a component of the Del Mar Community (General) Plan. The Housing Element provides direction for the implementation of various programs to meet existing and projected future housing needs for all income levels within the Del Mar community. The Housing Element provides policies, programs, and actions that support and create the framework for the production, preservation, and maintenance of the City's housing stock for all income levels.

Background

The City's current Housing Element (5th Cycle) was adopted by the City Council in 2013 and certified by the State Department of Housing and Community Development (HCD). The adopted Housing Element covers the planning period from April 2013, through April 2021. Staff is currently implementing the respective actions and programs for the current planning cycle. The next housing cycle (6th Cycle) will cover the planning period from April 2021 to 2029.

To comply with State law, the City's Housing Element must be updated to ensure the City's policies and programs can accommodate estimated housing growth need identified in the San Diego County Association of Government's (SANDAG) Regional Housing Needs Assessment (RHNA) allocation for the 2021-2029 planning period. Any future changes to Housing Element policy will require environmental review pursuant to the California Environmental Quality Act (CEQA).

To meet these statutory deadlines, the local Del Mar approval process will need to be completed by October 30, 2020. Regularly-scheduled meetings by the City Council/Housing Committee, Planning Commission, and 6th Cycle Housing Element Ad-Hoc Citizens' Task Force (Citizens' Task Force) may be used as a public forum to further discuss associated housing issues, receive public input, discuss options, and provide direction regarding the content of the Housing Element.

6th Cycle Housing Element Update Components

The 6th Cycle Housing Element update will consist of five main components:

1. Assessment of City-wide Housing Needs and Opportunities;
2. Drafting of Goals, Policies, Programs, and Objectives (GPPOs);
3. Preparation of CEQA - Environmental Review Documents as applicable;
4. Preparation of the Sixth Cycle Housing Element; and
5. Coordination with HCD to Obtain State Certification

Completion of these five components and local adoption process are envisioned to take place from November 2019 through October 2020, and will include various public engagement opportunities, such

as a community-wide survey, public workshops and meetings, and public hearings before the City Council/Housing Committee, Planning Commission, and Citizens' Task Force.

Regional Housing Needs Assessment (RHNA)

RHNA is mandated by state law to quantify future housing growth need throughout the State and each city in the San Diego Region. This informs the local planning process by addressing existing and future housing need resulting from estimated growth in population, employment, and households.

SANDAG is responsible for oversight of the RHNA process for the San Diego region. SANDAG is currently overseeing the 6th cycle RHNA, which covers the planning period from 2021-2029.

Per the RHNA for the 2021-2029 planing period, the City of Del Mar is allocated 163 units to accommodate the estimated growth need at various income levels. As required by state law, the Housing Element must identify the City's ability to accommodate this estimated growth through available sites and appropriate zoning. The 6th Cycle RHNA for Del Mar is as follows:

City of Del Mar 6th Cycle RHNA Allocations by Income Category			
Income Category	**Income Range***		**RHNA Allocation**
	Minimum	***Maximum***	
Very Low (31% to 50%)	*$26,753*	*$43,150*	**37 units**
Low (51% to 80%)	*$43,151*	*$69,040*	**64 units**
Moderate (81% to 120%)	*$69,041*	*$103,560*	**31 units**
Above Moderate (121% or more)	*$103,560*	*> $103,560*	**31 units**
TOTAL			**163 UNITS**

** Income range is based on the 2019 San Diego County Area Median Income of $86,300*

Available Sites and Capacity Analysis

The Housing Element must demonstrate the City's ability to accommodate the RHNA either through production or the availability of properly zoned land that can accommodate additional growth. If adequate sites cannot be identified within the existing zoning, the City is required to rezone sites that can accommodate the remaining need at a minimum density of 20 dwelling units per acre, which is the default density set by HCD. The City is not required to build dwelling units in order to meet its RHNA allocation, only to identify potential sites and create the framework to allow the market the opportunity to develop these units.

The Housing Element will explore opportunities to accommodate the RHNA through current production, entitled units, or the availability of properly zoned land that can accommodate additional growth. The Housing Element will further identify and address potential and actual governmental and non-governmental constraints on the development of housing for all income levels.

C. Required Approvals

The Housing Element is a policy of component of the Del Mar Community adopted by Resolution of the City Council at a duly noticed Public Hearing. Additionally, HCD will review the Housing Element for compliance with applicable statutory provisions.

A "progam-level" Environmental Impact Report (EIR) will provide the necessary environmental determimation required by CEQA. The Program EIR would be adopted by Resolution of the City Council.

The following discretionary actions on the part of the City Council are anticipated to result from the proposed Project:

1. General Plan Amendment (Community Plan Amendment)
2. Zoning Code Amendment
3. Local Coastal Program Amendment (subject to certification by the Coastal Commission)

Environmental Issues to be Evaluated in the PEIR

The City of Del Mar, the lead agency for the proposed 6th Cycle Housing Element and Program EIR, is subject to environmental review under CEQA. CEQA Guidelines §15063 provide that if a lead agency determines that an EIR will clearly be required for a project, an Initial Study is not required. In this case, the City has already determined that an EIR will need to be prepared based on the Project's potential to create short-term, long-term, and cumulative impacts associated with other development. Therefore, a Program EIR will be prepared to fully evaluate the potential impacts of the proposed Project. The Program EIR will be comprehensive in nature evaluating all identified issues from the 2019 CEQA Initial Study Checklist.

The following issues are anticipated to be addressed in the PEIR:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

The Program EIR will address the short-term and long-term effects of the Project on the environment. It will also evaluate the potential for the Project to cause direct and indirect growth-inducing impacts, as well as cumulative impacts. Alternatives to the proposed Project will be evaluated that may reduce impacts that are determined to be significant in the Program EIR. Mitigation may be proposed for those impacts that are determined to be significant. A mitigation monitoring and reporting program (MMRP)

will also be developed as required by §15097 of the CEQA Guidelines. The environmental determination in this Notice of Preparation (NOP) is subject to a 30-day public review period per Public Resources §21080.4 and CEQA Guidelines §15082. Public agencies, interested organizations, and individuals have the opportunity to comment on the proposed Project, to identify those environmental issues, potentially affected by the Project which should be addressed further by the City of Del Mar in the Program EIR.

The Program EIR and Environmental Documentation will be made available for review Monday through Thursday from 8:00 a.m. to 5:30 p.m., and 8:00 a.m. and 4:30 p.m. on Fridays at the following locations:

Del Mar Civic Center
1050 Camino del Mar
Del Mar, CA 92014

Del Mar Library
1309 Camino del Mar
Del Mar, CA 92014

All Program EIR and Environmental Documentation for the Project will be made available to download from the City's website: www.delmar.ca.us/HousingElement

Public Review Period

CEQA requires a 30-day public review period for an NOP. In accordance with CEQA, should you have any comments, please provide a written response to this NOP within the 30-day NOP period between **February 19, 2020 and March 20, 2020.**

The City is requesting comments and guidance on the scope and content of the Program EIR from Responsible and Trustee agencies, interested public agencies, organizations, and the general public (pursuant to CEQA Guidelines §15082). All parties that have submitted their names and mailing addresses will be notified as part of the Project's CEQA review process. If you wish to be placed on the mailing list or have any questions or need additional information, please contact the lead agency contact noted below.

Agencies: The City requests each Responsible and Trustee agency's views on the scope and content of environmental issues relevant to your agency's statutory responsibilities in connection with the proposed Project, in a manner consistent with California Code of Regulations, Title 14, Section 15082(b). Your agency may use the Program EIR prepared by the City when considering any permits that your agency must issue, or other approvals for the Project.

CITY OF DEL MAR
HOUSING ELEMENT UPDATE

City of Del Mar

Notice of Preparation of a Draft PEIR

And Notice of Public Scoping Meeting

Public Comments

The City requests your careful review and consideration of this notice, and invites ***written comments*** from interested agencies, persons, and organizations regarding the preparation of the Program EIR. Please send your written comments to:

City of Del Mar
Planning and Community Development Department
Attn: Joseph D. Smith, AICP, Director
1050 Camino del Mar
Del Mar, CA 92014
Phone: (858) 755-9313
Email: jsmith@delmar.ca.us

Please include the name, phone number, email, and address of a contact person in your response.

You may also provide oral or written comments in person at the ***Scoping Meeting*** noted below. Comments in response to this notice must be submitted to the City through close of business **(4:30 p.m.) on Friday, March 20, 2020.**

Public Scoping Meeting

The City will have a Scoping Meeting to present updates to the Project and the CEQA process, and to receive public comments and suggestions regarding the scope and content of the Program EIR. The meeting will be held at the following location, date and time:

Date: **Saturday February 29, 2020**

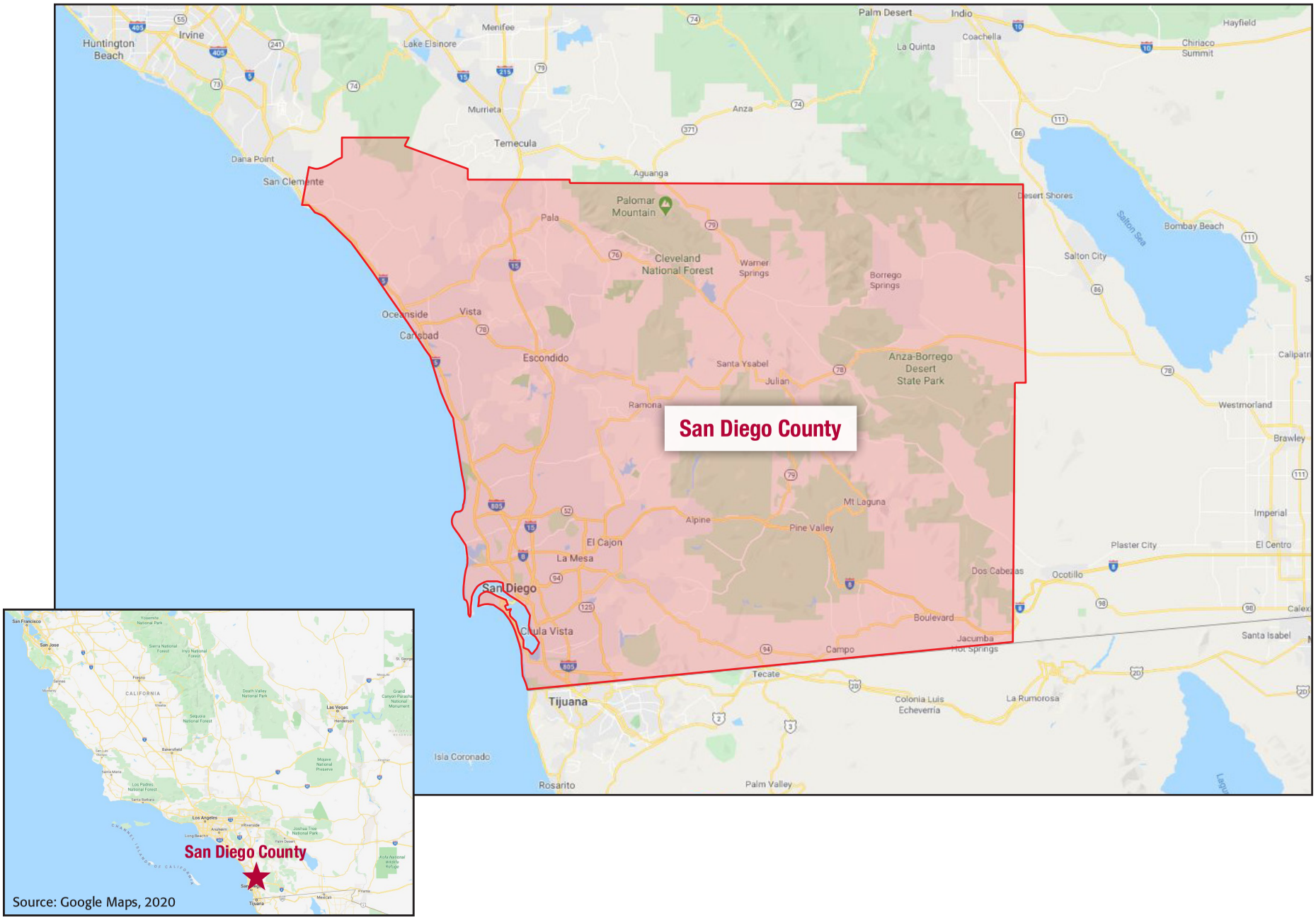
Location: **City of Del Mar**
Town Hall
1050 Camino del Mar
Del Mar, CA 92014

Time: **9:30 a.m.**

Special Accommodations. Should you require special accommodations at the public scoping meeting, such as for the hearing impaired or an English translator, please contact the City of Del Mar no later than **Friday, February 28, 2020.** (see contact information above).

Attachments:

Exhibit 1 – Regional Map
Exhibit 2 – Local Vicinity Map



Source: Google Maps, 2020

EXHIBIT 1: Regional Map
6th Cycle Housing Element Update and EIR

Kimley»Horn



EXHIBIT 2: City Map
6th Cycle Housing Element Update and EIR

Kimley»Horn

Notice of Preparation

To: State Clearinghouse
Po Box 3044
Sacramento Ca 95812
(Address)

From: Joseph D. Smith
1050 Camino del Mar
Del Mar Ca 92014
(Address)

Subject: Notice of Preparation of a Draft Environmental Impact Report

The City of Del Mar will be the Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials. A copy of the Initial Study (☐ is ☐ is not) attached.

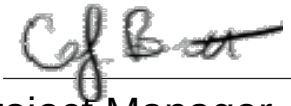
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Please send your response to Joseph Smith at the address shown above. We will need the name for a contact person in your agency.

Project Title: 6th Cycle Housing Element Update and PEIR

Project Applicant, if any: City of Del Mar

Date February 17, 2020

Signature 

Title Project Manager, Kimley Horn

Telephone 951-824-8697

Reference: California Code of Regulations, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15375.

CITY OF DEL MAR
HOUSING ELEMENT UPDATE

City of Del Mar
Notice of Preparation of a Draft PEIR
And Notice of Public Scoping Meeting

Date: February 19, 2020

To: Responsible and Trustee Agents/Interested Organizations and Individuals

Subject: **Notice of Preparation of a Draft Environmental Report and Notice of a Public Scoping Meeting**
6th Cycle Housing Element Update and EIR

FILED
Ernest J Dronenburg, Jr. Recorder County Clerk
FEB 19 2020
BY K. Ortiz DEPUTY

Lead Agency:

CITY OF DEL MAR
Planning and Community Development Department
1050 Camino del Mar
Del Mar, CA 92014

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FILED IN THE OFFICE OF THE COUNTY CLERK

San Diego County on FEB 19 2020

Posted FEB 19 2020 Removed

Returned to agency on

Deputy K. Ortiz

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Planning and Community Development Department
Attn: Joseph D. Smith, AICP, Director
1050 Camino del Mar
Del Mar, CA 92014
Phone: (858) 755-9313
Email: jsmith@delmar.ca.us

Please include the name, phone number, email, and address of a contact person in your response.

You may also provide oral or written comments in person at the ***Scoping Meeting*** noted below. Comments in response to this notice must be submitted to the City through close of business **(4:30 p.m.) on Friday, March 20, 2020.**

Public Scoping Meeting

The City will have a Scoping Meeting to present updates to the Project and the CEQA process, and to receive public comments and suggestions regarding the scope and content of the Program EIR. The meeting will be held at the following location, date and time:

Date: **Saturday February 29, 2020**

Location: **City of Del Mar**
Town Hall
1050 Camino del Mar
Del Mar, CA 92014

Time: **9:30 a.m.**

Special Accommodations. Should you require special accommodations at the public scoping meeting, such as for the hearing impaired or an English translator, please contact the City of Del Mar no later than **Friday, February 28, 2020.** (see contact information above).

Attachments:

Exhibit 1 – Regional Map
Exhibit 2 – Local Vicinity Map

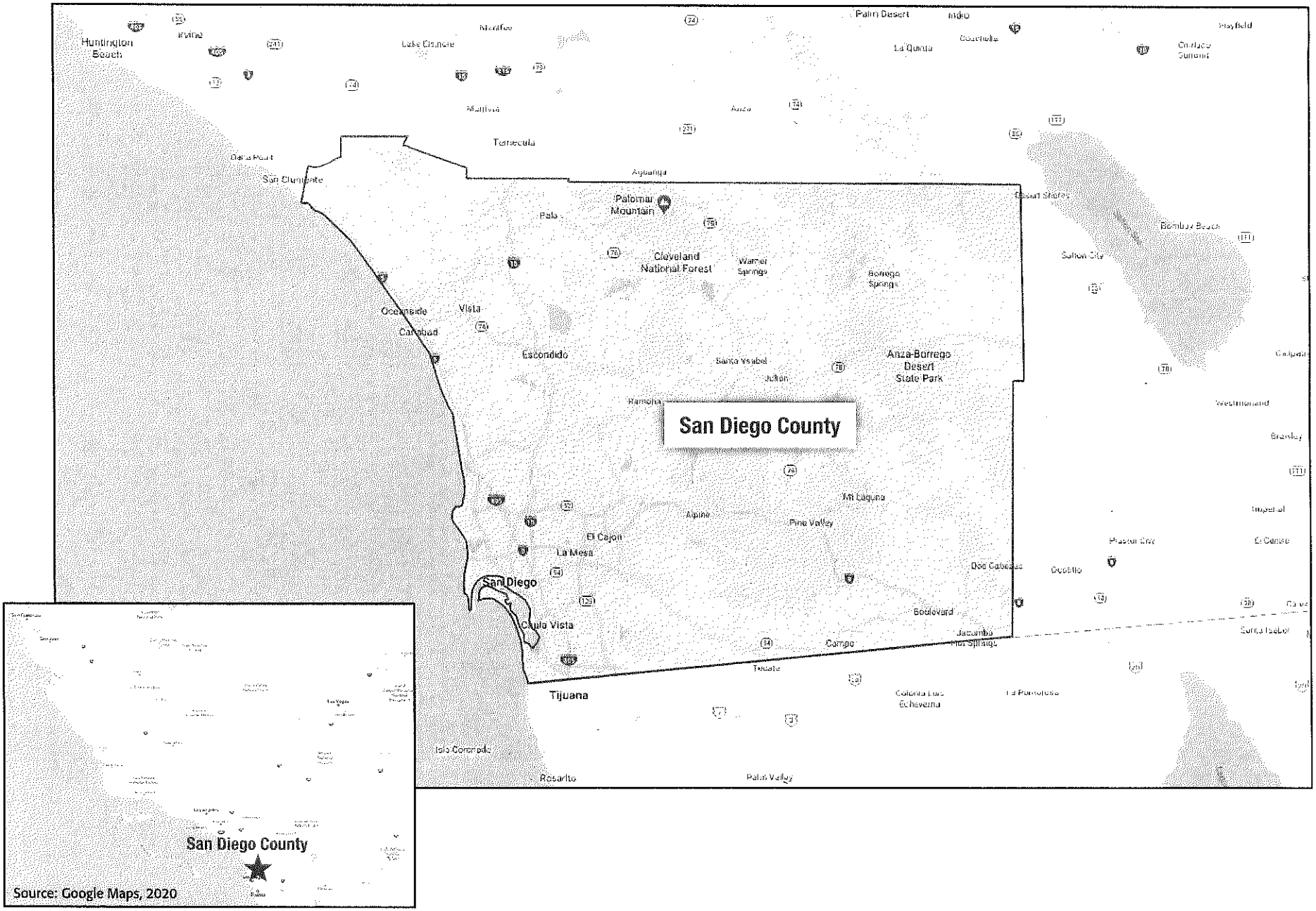


EXHIBIT 1: Regional Map
6th Cycle Housing Element Update and EIR

Kimley»Horn



EXHIBIT 2: City Map
6th Cycle Housing Element Update and EIR

Kimley»Horn

NATIVE AMERICAN HERITAGE COMMISSION

RECEIVED
FEB 24 2020
City of Del Mar
Administrative Services Dept.

February 20, 2020

Joseph D. Smith
City of Del Mar
1050 Camino del Mar
Del Mar, CA 92014

Re: 2020029064, 6th Cycle Housing Element and PEIR Project, San Diego County

Dear Mr. Smith:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
Russell Attebery
Karuk

COMMISSIONER
Marshall McKay
Wintun

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Joseph Myers
Pomo

COMMISSIONER
Julie Tumamait-Stenslie
Chumash

COMMISSIONER
[Vacant]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

a. A brief description of the project.

b. The lead agency contact information.

c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).

d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

a. Alternatives to the project.

b. Recommended mitigation measures.

c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

a. Type of environmental review necessary.

b. Significance of the tribal cultural resources.

c. Significance of the project's impacts on tribal cultural resources.

d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

a. Whether the proposed project has a significant impact on an identified tribal cultural resource.

b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Staff Services Analyst

cc: State Clearinghouse

Kimley-Horn
Attn: Candyce Burnett
3880 Lemon Street Suite 420
Riverside CA 92501

The San Diego Union-Tribune

PROOF OF PUBLICATION

STATE OF CALIFORNIA
County of San Diego

The Undersigned, declares under penalty of perjury under the laws of the State of California: That he/she is the resident of the County of San Diego. That he/she is and at all times herein mentioned was a citizen of the United States, over the age of twenty-one years, and that he/she is not a party to, nor interested in the above entitled matter; that he/she is Chief Clerk for the publisher of

The San Diego Union-Tribune

a newspaper of general circulation, printed and published daily in the City of San Diego, County of San Diego, and which newspaper is published for the dissemination of local news and intelligence of a general character, and which newspaper at all the times herein mentioned had and still has a bona fide subscription list of paying subscribers, and which newspaper has been established, printed and published at regular intervals in the said City of San Diego, County of San Diego, for a period exceeding one year next preceding the date of publication of the notice hereinafter referred to, and which newspaper is not devoted to nor published for the interests, entertainment or instruction of a particular class, profession, trade, calling, race, or denomination, or any number of same; that the notice of which the annexed is a printed copy, has been published in said newspaper in accordance with the instruction of the person(s) requesting publication, and not in any supplement thereof on the following dates, to wit:

February 14, 21, 28, 2020

I certify under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Dated in the City of San Diego, California
on this of February 2020

Cris Gaza
San Diego Union-Tribune
Legal Advertising

CITY OF DEL MAR
Notice of Preparation of a Draft Environmental Report and Notice of a Public Scoping Meeting

Date: February 19, 2020
To: Responsible and Trustee Agents/Interested Organizations and Individuals
Subject: Notice of Preparation of a Draft Environmental Report and Notice of a Public Scoping Meeting
6th Cycle Housing Element Update and PEIR

Lead Agency: CITY OF DEL MAR
Planning and Community Development Department
1050 Camino del Mar, Del Mar, CA 92014

This NOP includes a project description and a list of the environmental issues to be examined in the Program Environmental Impact Report (EIR).

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but no later than 30 days after receipt of this notice.

Please send your written response to Joseph D. Smith at the City of Del Mar, address and email provided below. Please include the name, phone number, email, and address of a contact person in your response.

Project Title: 6th Cycle Housing Element Update and EIR
Location: City-wide

A. Project Setting

Incorporated in 1959, the City of Del Mar is a small, residential community located on the Pacific Coast, west of Interstate 5 and approximately 20 miles north of downtown San Diego. According to the 2010 Census, Del Mar is the smallest incorporated jurisdiction in San Diego County with a population of 4,161 and an area of roughly two and a half square miles.

The City is long and narrow in shape, bordering approximately 2.5 miles of the coast, and extending inland less than one mile at its widest point. Along the coast, the land rises abruptly from the sandy beaches to cliffs reaching 75 feet in height. The cliffs have been eroded by drainage from the San Dieguito River (to the north) and Los Penasquitos Creek (to the south), creating small canyons extending into the hillsides. Crest Canyon extends south from the San Dieguito Lagoon and forms much of the eastern boundary of the City. Much of the northern portion of the City lies within the floodplain of the San Dieguito River. The City is vigilant in its protection of natural resources, environmental protection for the cliffs, canyons, and wetlands. This presents some constraints on the location of new development and opportunities for new subdivisions.

B. Project Overview

The Housing Element is a State-mandated policy document that is a component of the Del Mar Community (General) Plan. The Housing Element provides direction for the implementation of various programs to meet existing and projected future housing needs for all income levels within the Del Mar community. The Housing Element provides policies, programs, and actions that support and create the framework for the production, preservation, and maintenance of the City's housing stock for all income levels.

Background

The City's current Housing Element (5th Cycle) was adopted by the City Council in 2013 and certified by the State Department of Housing and Community Development (HCD). The adopted Housing Element covers the planning period from April 2013, through April 2021. Staff is currently implementing the respective actions and programs for the current planning cycle. The next housing cycle (6th Cycle) will cover the planning period from April 2021 to 2029.

Order ID: 7676461
Name: Kimley-Horn

To comply with State law, the City's Housing Element must be updated to ensure the City's policies and programs can accommodate estimated housing growth need identified in the San Diego County Association of Government's (SANDAG) Regional Housing Needs Assessment (RHNA) allocation for the 2021-2029 planning period. Any future changes to Housing Element policy will require environmental review pursuant to the California Environmental Quality Act (CEQA).

To meet these statutory deadlines, the local Del Mar approval process will need to be completed by October 30, 2020. Regularly-scheduled meetings by the City Council/Housing Committee, Planning Commission, and 6th Cycle Housing Element Ad-Hoc Citizens' Task Force (Citizens' Task Force) may be used as a public forum to further discuss associated housing issues, receive public input, discuss options, and provide direction regarding the content of the Housing Element.

6th Cycle Housing Element Update Components

The 6th Cycle Housing Element update will consist of five main components:
1. Assessment of City-wide Housing Needs and Opportunities;
2. Drafting of Goals, Policies, Programs, and Objectives (GPPOs);
3. Preparation of CEQA - Environmental Review Documents as applicable;
4. Preparation of the Sixth Cycle Housing Element; and
5. Coordination with HCD to Obtain State Certification

Completion of these five components and local adoption process are envisioned to take place from November 2019 through October 2020, and will include various public engagement opportunities, such as a community-wide survey, public workshops and meetings, and public hearings before the City Council/Housing Committee, Planning Commission, and Citizens' Task Force.

Regional Housing Needs Assessment (RHNA)

RHNA is mandated by state law to quantify future housing growth need throughout the State and each city in the San Diego Region. This informs the local planning process by addressing existing and future housing need resulting from estimated growth in population, employment, and households.

SANDAG is responsible for oversight of the RHNA process for the San Diego region. SANDAG is currently overseeing the 6th cycle RHNA, which covers the planning period from 2021-2029.

Per the RHNA for the 2021-2029 planing period, the City of Del Mar is allocated 163 units to accommodate the estimated growth need at various income levels. As required by state law, the Housing Element must identify the City's ability to accommodate this estimated growth through available sites and appropriate zoning.

Available Sites and Capacity Analysis

The Housing Element must demonstrate the City's ability to accommodate the RHNA either through production or the availability of properly zoned land that can accommodate additional growth. If adequate sites cannot be identified within the existing zoning, the City is required to rezone sites that can accommodate the remaining need at a minimum density of 20 dwelling units per acre, which is the default density set by HCD. The City is not required to build dwelling units in order to meet its RHNA allocation, only to identify potential sites and create the framework to allow the market the opportunity to develop these units.

The Housing Element will explore opportunities to accommodate the RHNA through current production, entitled units, or the availability of properly zoned land that can accommodate additional growth. The Housing Element will further identify and address potential and actual governmental and non-governmental constraints on the development of housing for all income levels.

C. Required Approvals

The Housing Element is a policy of component of the Del Mar Community adopted by Resolution of the City Council at a duly noticed Public Hearing. Additionally, HCD will review the Housing Element for compliance with applicable statutory provisions.

A "program-level" Environmental Impact Report (EIR) will provide the necessary environmental determination required by CEQA. The Program EIR would be adopted by Resolution of the City Council.

The following discretionary actions on the part of the City Council are anticipated to result from the proposed Project:
1. General Plan Amendment (Community Plan Amendment)
2. Zoning Code Amendment
3. Local Coastal Program Amendment (subject to certification by the Coastal Commission)

Environmental Issues to be Evaluated in the PEIR

The City of Del Mar, the lead agency for the proposed 6th Cycle Housing Element and Program EIR, is subject to environmental review under CEQA. CEQA Guidelines §15063 provide that if a lead agency determines that an EIR will clearly be required for a project, an Initial Study is not required. In this case, the City has already determined that an EIR will need to be prepared based on the Project's potential to create short-term, long-term, and cumulative impacts associated with other development. Therefore, a Program EIR will be prepared to fully evaluate the potential impacts of the proposed Project. The Program EIR will be comprehensive in nature evaluating all identified issues from the 2019 CEQA Initial Study Checklist.

The following issues are anticipated to be addressed in the PEIR:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

The Program EIR will address the short-term and long-term effects of the Project on the environment. It will also evaluate the potential for the Project to cause direct and indirect growth-inducing impacts, as well as cumulative impacts. Alternatives to the proposed Project will be evaluated that may reduce impacts that are determined to be significant in the Program EIR. Mitigation may be proposed for those impacts that are determined to be significant. A mitigation monitoring and reporting program (MMRP) will also be developed as required by §15097 of the CEQA Guidelines. The environmental determination in this Notice of Preparation (NOP) is subject to a 30-day public review period per Public Resources §21080.4 and CEQA Guidelines §15082. Public agencies, interested organizations, and individuals have the opportunity to comment on the proposed Project, to identify those environmental issues, potentially affected by the Project which should be addressed further by the City of Del Mar in the Program EIR.

The Program EIR and Environmental Documentation will be made available for review Monday through Thursday from 8:00 a.m. to 5:30 p.m., and 8:00 a.m. and 4:30 p.m. on Fridays at the following locations:

Del Mar Civic Center
1050 Camino del Mar
Del Mar, CA 92014

Del Mar Library
1309 Camino del Mar
Del Mar, CA 92014

All Program EIR and Environmental Documentation for the Project will be made available to download from the City's website: www.delmar.ca.us/HousingElement

Public Review Period

CEQA requires a 30-day public review period for an NOP. In accordance with CEQA, should you have any comments, please provide a written response to this NOP within the 30-day NOP period between February 19, 2020 and March 20, 2020.

The City is requesting comments and guidance on the scope and content of the Program EIR from Responsible and Trustee agencies, interested public agencies, organizations, and the general public (pursuant to CEQA Guidelines §15082). All parties that have submitted their names and mailing addresses will be notified as part of the Project's CEQA review process. If you wish to be placed on the mailing list or have any questions or need additional information, please contact the lead agency contact noted below.

Agencies: The City requests each Responsible and Trustee agency's views on the scope and content of environmental issues relevant to your agency's statutory responsibilities in connection with the proposed Project, in a manner consistent with California Code of Regulations, Title 14, Section 15082(b). Your agency may use the Program EIR prepared by the City when considering any permits that your agency must issue, or other approvals for the Project.

Public Comments

The City requests your careful review and consideration of this notice, and invites written comments from interested agencies, persons, and organizations regarding the preparation of the Program EIR. Please send your written comments to:

City of Del Mar
Planning and Community Development Department
Attn: Joseph D. Smith, AICP, Director
1050 Camino del Mar
Del Mar, CA 92014
Phone: (858) 755-9313
Email: jsmith@delmar.ca.us

Please include the name, phone number, email, and address of a contact person in your response.

You may also provide oral or written comments in person at the Scoping Meeting noted below. Comments in response to this notice must be submitted to the City through close of business (4:30 p.m.) on Friday, March 20, 2020.

Public Scoping Meeting

The City will have a Scoping Meeting to present updates to the Project and the CEQA process, and to receive public comments and suggestions regarding the scope and content of the Program EIR. The meeting will be held at the following location, date and time:

Date: Saturday February 29, 2020
Location: City of Del Mar Town Hall
1050 Camino del Mar, Del Mar, CA 92014
Time: 9:30 a.m.

Special Accommodations. Should you require special accommodations at the public scoping meeting, such as for the hearing impaired or an English translator, please contact the City of Del Mar no later than Friday, February 28, 2020. (see contact information above).

City of Del Mar, 6th Cycle Housing Element Update (2021-2029)
Community Workshop #1 Summary
February 29, 2020

Station 1: What Creative ways can Del Mar Provide Housing in Existing Commercial and Residential Areas?
Comments:

1. Our commercial zone already allows one residential unit per commercial parcel – ideally if every parcel had one unit, we would have about 55 units approximately, we have about 5 now, we should speak to owners and find out why they have not taken advantage of this opportunity, Is it cost? Is it hassle and dealing with the City? Is it height or FAR? Once we know we can then address to make safe and facilitate.
2. Convert upper floors of commercial buildings for residential use
3. Can there be incentives to help business for downtown owners to upgrade buildings to mixed use and make downtown more modern and vital
4. Mixed-use commercial area, fewer offices, more housing units
5. There are R1 zone that have illegal 2nd units, we have not been enforcing so perhaps create an amnesty program to legalize then with restrictions to rent for affordable housing
6. Making regulations for affordable housing simpler, quicker and less expensive
7. Stop R-1 building in R-2 zones
    a. Tearing down multi units for one big single family
8. In restaurants
9. Look at city owned parcels, see if any are appropriate to build, sell and take the money to put into affordable housing building in viable location
10. Encourage community buy in and code changes to allow modifications to make residential above commercial building in [sic]
11. Mixed use in downtown village, small units
12. Allow rental units within R-1 zone homes

Station 2: How many Types of Community Assistance Programs can the City Provide to Facilitate Housing?
Comments:

1. Housing financial advisor
2. Low interest loans, housing assistance, assistance for city employees/interns, assistance for disabled, group home for disabled
3. Students who need down payment assistance
4. Special needs – adult children with disabilities, group home, board and care
5. Assistance with “granny flat” availability and remodel to help elderly create the granny flat
6. Parents who want to live loser to Winston school, mortgage loan qualification
7. Home loans
8. Project based vouchers for senior housing – Gary and Mary, West Ramona Senior Service
9. Financial assistance for disabled rental assistance, security deposit
10. We need to include community groups to the discussion of assistance programs – can’t expect City government to do it all
11. Encourage a short-term rental home to convert to an elderly group home and hire a caretaker company to manage it, or for disabled

12. Project based vouchers through serving seniors – Gary and Mary West, Ramona, Vista, San Marcos

Station 3: How Should the City Incorporate Public Lands into the Housing Element Strategy?
Comments:

1. ADUs (1-2) in shores park rather than parking and offices
2. Crest Canyon in Play?
3. Crest Canyon, Fair grounds, area south of Jimmy Durante
4. Make better use out of City Hall property by building city-owned residential units there
5. Church Property? Library
6. West of track
7. South of practice track
8. East of rail line
9. Long term units in this area (not just temporary during fair)
10. Tony shelter – shelter/community on fairgrounds 9 months out of the year
11. Temporary homeless shelter on fairgrounds
12. Horse caretaker housing should be considered low income housing. They need a variance to not have kitchen in each but use commercial kitchen
13. Tiny homes or mobile homes on 20 RV spots on fairgrounds
14. Look for Zuni Reservoir are these other PRCW parcels in this area along crest?
15. Housing and safety paramount for growth
16. Joint opportunity with State – press hard to partner

Additional Comments:

1. North commercial rezone to high density residential
2. Hydrology water quality building on lagoon
3. Public services no public transportation
4. Aesthetics of high density not compatible with community character
5. Wildfire risk with Crest Canyon traffic congestion could be an issue for evacuation
6. Traffic congestion and greenhouse gasses
7. Noise pollution on Lagoon vs Birds/owls
8. Allocation of 163 units based on highly inaccurate employment data. Great need to modify allocation for Del Mar to accurate verified, current employment data as first step in process
9. It would be good to clearly establish at each meeting that the topic under discussion does not include the question of whether 163 units is the correct number of units required. Everybody should accept the 163 and deal with it whether 163's the right number can be discussed elsewhere.
10. The charm of Del Maris that the residential and commercial are not congested. We would like the future plans to continue this. One suggestion would be to have some housing above existing businesses.
11. Are Mira Costa college or veterans' affairs or other organizations interested in partnering with the City of Del Mar to allocate and build new housing? My feeling is the community in general lumps "low-income" with significant mental health needs/other populations that will bring

drugs, crime to DM. Focusing on housing students, teachers, caregivers, widowed/divorced, who fit the income criteria would be more palatable. I went to college in a small affluent town not so different from DM and the dorms were counted as the town's "low income" housing. Just a thought!

12. Questions and comments. The EIR needs to address the multiple iterations/combinations to get to 163 units. It seems every iteration would have a different environmental impact. So how does the EIR meaningfully address housing impacted without having an idea of what a housing plan might look like.

NOP Comments:

1. Topical EIR Categories definitions (19+ categories)
2. 163 units allocation
    a. Methodology, etc. accurate?
    b. How to substantiate number
    c. Is it based on inaccurate info?
3. How does short term rentals issue address?
4. Hydro/H2O Quality
    a. North HD area
5. Aesthetics of HD Housing
6. Checklist Items too much?
    a. Does it prostrate CEQA process?
7. Emergency response/noise
    a. Study diligently
8. Methodology
    a. How to study?
    b. Why have?
9. Wildfire risk
    a. # of evacuation routes
10. Evacuation/traffic patterns
11. Land Use issues
    a. ADU = R1 to R2
12. Fairgrounds (600 units)
    a. In stable area

Station #1=

Our Commercial Zone already allows one residential unit per commercial parcel – ideally if every parcel had one unit, we would have about 55 units approx. We have about 5 now, We should speak to owners & find out why they have not taken advantage of this opportunity –
- is it cost
- is it hassle of dealing with city
- is it height or FAR?

Once we know we can then address to mitigate & facilitate.

There are homes in R1 zone that have illegal 2nd units, We have not been enforcing so perhaps create an amnesty program to legalize them with restrictions to rent for affordable housing

Look at city owned parcels, See if any appropriate to build – sell & take $1 to put into affordable housing building in viable location –

Encourage Community Buy in and code changes to allow ~~Residential~~ modifications to make residential ~~as~~ above commercial building in DMan.

Making regulations for affordable housing simpler/quicker & less expensive!

- Convert upper floors of commercial blds for residential use.

Stop R-1 building in R-2 zones!

tearing down multi units for one BIG single family

Can there be incentives to help busines or downtown owners to upgrade buildings to mix use and make downtown more modern & vital

IN restaurants

Mixed use in downtown village small units

Mixed use Commercial area – fewer offices – more housing UNIT

allow rental units within R-1 zone homes

Station #2 =

Housing financial assistance

Assistance with "granny flat" availability and remodel to help elderly create the granny flat.

We need to include community groups to the discussion of assistance programs. Can't expect city government to do it all.

- Low Interest Loan
- Housing Assistance
- Assistance for City employees/interns

Parents who want to live closer to Winston School
- Mortgage loan Qualification

Encourage a short term Rental Home to convert to a ~~group~~ elderly* group home and hire a care taker company to manage it.
* or for Disabled

- Assistance for Disabled
- Group Home for Disabled

Home loans

Project Based Vouchers through Serving Seniors Gary & Jory West Ramona Vista San Marcos

Students who need down payment assistance

Project Based Vouchers for Senior Housing
Remove Gary + Mary West Sr. Serv

Special Needs
- Adult Children with disabilities
- Group Home
- Board + Care

Financial Assistance for disabled
Rental assistance, security deposit

Station #3=

ADUs (1-2) IN Shores park rather then parking and offices

Church property ? LIBRARY

City Hall ?

Horse caretakers Housing Should be considered Low income housing They need a Variance? to not have Kitchen in each but use community Kitchen

CREST CANYON IN PLAY?

- Crest Canyon
- Fair Grounds
- Area South of Jimmy Durante

(Annette)

- west of track
- South of practice track
- east of rail line

long term units in this area (not just temp during fair)

TINY homes or mobil homes or 20 RV spots or Fairgrounds

Tiny shelter

Shelter / community on fairgrounds 9 mos of year

Make better use of the City Hall property by building city-owned residential units there.

(Shirley)

Look for Zuni Reservoir

are there other PROW parcels in this area along Crest ?

Temporary Homeless Shelter on Fairgrounds

- H&S safety paramount for growth
- Joint opportunity with state
  → Press hard to partner

COMMENT CARD
City of Del Mar, 6th Cycle Housing Element Update (2021-2029)
Community Workshop #1
Date: February 29, 2020

CITY OF DEL MAR

Please provide any additional information you believe would be useful during the Housing Element Update process. Please return this form to a staff member today, or email to Shaun McMahon at smcmahon@delmar.ca.us. Thank you!

* North Commercial rezone to High Density Residential
1. Hydrology water quality Building on Lagoon
2. Public Services & no Public transportation
3. Aesthetics HighDensity not compatable w/ Community Character
4. Wildfire risk with Crest canyon traffic congestion ≠ evacuation
5. traffic congestion greenhouse gas
6. Noise pollution on Lagoon vs Buds, owls.

COMMENT CARD
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- Allocation of 163 units based on highly inaccurate employment data. Great need to modify allocation for Del Mar to accurate, verified, current employment data as first step in process.

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It would be good to clearly establish at each meeting that the topic under discussion does not include the question of whether 163 is the correct number of units required.

Everybody should accept the 163 and deal with it. Whether 163 is the ~~right~~ right number can be discussed elsewhere.

Ken Olsen

COMMENT CARD
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CITY OF DEL MAR

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The charm of Del Mar is that the residential and commercial are not congested. We would like the future plans to continue this.

One suggestion would be to have some housing above existing businesses.

Patricia McDean
411-8th Street
Del Mar 92014, Calif

COMMENT CARD
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Are MiraCosta College, or Veterans Affairs, or other orgs interested in partnering w/ City of DM to allocate + build new housing?

My feeling is the community in general lumps "low-income" w/ significant mental health needs / other populations that will bring drugs, crime to DM. Focusing on housing students, teachers, caregivers, widowed/divorced, who fit the income criteria would be more palatable.

I went to college in a small affluent town not so diffrent than DM + the dorms were counted as the town's "low-income" housing: Just a thought!

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Question + Comment: The EIR needs to address the multiple iterations / combinations to get to 163 units. It seems every iteration would have a different environmental impact. So how does EIR meaningfully address housing ~~to~~ impact without having an idea of what a housing plan might look like.

Greg Rothman
(858) 449-0575

APPENDIX 2

APPENDIX 2: POTENTIAL 6TH CYCLE HOUSING ELEMENT UPDATE ACTION PROGRAMS

	Potential Program	Description	Objective
1	**PRIORITY: Complete Processing of Amendments to North Commercial (NC) Zone – already in process** -Must be completed within first year of 6th Cycle	Would amend the City's General Plan (Community Plan), Zoning Code, and Local Coastal Program to add residential as an allowed (primary) use on properties within the NC zone as part of residential or mixed use projects. The actions will help add necessary housing capacity to meet the 6th Cycle RHNA allocation of 163 dwelling units at specified levels of affordability. The NC zone applies to generally underutilized properties located along Jimmy Durante Boulevard and San Dieguito Drive, north of the Village Commercial District/Central Commercial zone, and just south of the State-owned Del Mar Fairgrounds. This zone currently does not allow residential as an allowed use. Would require certification by the Coastal Commission to become effective.	• Completes 5th Cycle Housing Element Program 2-E being carried over to 6th Cycle HEU to increase housing capacity • Is consistent with City's housing goals: - Overall goal "Inspire a more diverse, sustainable, and balanced community through implementation of strategies and programs that will result in economically and socially diversified housing choices that preserve and enhance the special character of Del Mar" - #1 Facilitate Strategies that Complement the Existing Character of the Community; - #4 Provide Economically and Socially Diverse Balance of Housing Options that Are Affordable for a Variety of Income Levels - #6 Ensure a Sustainable Approach to New Housing Opportunities That Protects the Quality of Life and Future of Del Mar
2	**PRIORITY: Complete Processing of Amendments to Professional Commercial (PC) Zone – already in process** -Must be completed within first year of 6th Cycle	Would amend the City's General Plan (Community Plan), Zoning Code, and Local Coastal Program to add residential as an allowed (primary) use on properties within the PC zone as part of residential or mixed use projects. The actions will help add necessary housing capacity to meet the 6th Cycle RHNA allocation of 163 dwelling units at specified levels of affordability. The PC zone is centrally located and applies to properties in an existing developed commercial office area along Camino del Mar just south of the Village Commercial District/Central Commercial zone. This zone currently does not allow residential as an allowed use. Would require certification by the Coastal Commission to become effective.	• Completes 5th Cycle Housing Element Program 2-F being carried over to 6th Cycle HEU to increase housing capacity • Is consistent with City's housing goals: - Overall goal "Inspire a more diverse, sustainable, and balanced community through implementation of strategies and programs that will result in economically and socially diversified housing choices that preserve and enhance the special character of Del Mar" - #1 Facilitate Strategies that Complement the Existing Character of the Community; - #4 Provide Economically and Socially Diverse Balance of Housing Options that Are Affordable for a Variety of Income Levels - #6 Ensure a Sustainable Approach to New Housing Opportunities That Protects the Quality of Life and Future of Del Mar

	Potential Program	Description	Objective
3	**PRIORITY: Process Amendments to the Central Commercial (CC) Zone** -Must occur no later than 3 years and 120 days from the beginning of the 6th Cycle planning period	Would amend the City's General Plan (Community Plan), Zoning Code, and Local Coastal Program to add residential as an allowed (primary) use on properties within the CC zone as part of mixed use projects. The actions will help add necessary housing capacity to meet the 6th Cycle RHNA allocation of 163 dwelling units at specified levels of affordability. The CC zone is centrally located in the heart of downtown along Camino del Mar. This zone currently does not allow residential as an allowed (primary) use. Residential is allowed as an accessory use. The residential portion of mixed use projects would be required to comply with the City's Horizontal Zoning requirements (DMMC §30.22.030) to maintain active commercial uses along the street front. Would require certification by the Coastal Commission to become effective.	• Consistent with community survey results • Would result in small number of units per parcel due to smaller lot sizes • If deed restricted at lower income would count towards the 101 DUs for lower income • By maintaining the existing Horizontal Zoning requirement, will preserve an active street front for this area in heart of downtown • Is consistent with City's housing goals: - Overall goal "Inspire a more diverse, sustainable, and balanced community through implementation of strategies and programs that will result in economically and socially diversified housing choices that preserve and enhance the special character of Del Mar" - #1 Facilitate Strategies that Complement the Existing Character of the Community; - #4 Provide Economically and Socially Diverse Balance of Housing Options that Are Affordable for a Variety of Income Levels - #6 Ensure a Sustainable Approach to New Housing Opportunities That Protects the Quality of Life and Future of Del Mar
4	**PRIORITY: Extend and enhance the City's Existing Accessory Dwelling Unit (ADU) Incentive Pilot Program and Considering Whether to Offer Additional Incentives (i.e., ADU concierge program; and permit ready program that is already in process)**	The City's RHNA allocation includes 101 affordable units. This program would specifically target the production of affordable units to count towards RHNA. Would amend the City's Zoning Code and Local Coastal Program to formally adopt this incentive program as a permanent program. Currently, the program grants a 500 square foot Floor Area Ratio (FAR) bonus in exchange for a 30-year affordable ADU or JrADU. The 500 square foot FAR bonus is subject to discretionary permit approval in order to be developed. There is no limit on the number of units per lot in the Pilot Program. It can be as many are allowed	• Would produce affordable units towards RHNA • Action is consistent with housing goals: - Overall: Inspire a more diverse, sustainable, and balanced community through implementation of strategies and programs that will result in economically and socially diversified housing choices that preserve and enhance the special character of Del Mar - #2 Prioritize production of ADUs

	Potential Program	Description	Objective
		per lot per the City's ADU ordinance. The program is set to expire in May 2022 unless extended by the City Council. If approved as a permanent program, would require certification by Coastal Commission to become effective.	- #4 Provide Economically and Socially Diverse Balance of Housing Options that Are Affordable for a Variety of Income Levels - #6 Ensure Sustainable Approach to New Housing Opportunities That Protects the Quality of Life and Future of Del Mar
5	**PRIORITY: Pursue a Tiered Program of Actions that Would Involve Securing Partnership Agreements, Developer Participation Agreements, and Execution of Development Agreements to Develop Housing at the State-owned Del Mar Fairgrounds**	The City's RHNA allocation includes 101 affordable units. This program would specifically target the production of affordable units to count towards RHNA. Pursue a partnership with the 22nd District Agricultural Association (DAA), an affordable housing developer, and other agencies as necessary to execute an agreement to develop affordable housing on State-owned Del Mar Fairgrounds property. This program will also require processing of Memorandums of Understanding (MOUs) to clearly identify how the housing units will be counted towards RHNA for participating jurisdictions. This will be a key strategy that will be extremely hard to develop. This program should be considered a "bonus" program to be implemented in conjunction with other programs. Past HCD guidance has advised not to "count" lands that not under City control. However, HCD has indicated a willingness to work with the City on potential creative solutions. The 6th Cycle HEU will need to include specific details of said potential solutions (i.e., background, history and process) and must specify the steps for implementation. Step 1: Partnership agreements (22nd DAA, Solana Beach, etc.) Step 2: Developer participation Step 3: Execute Disposition and Development Agreement (DDA), MOUs, etc. for project(s) The upside is that if in the future the program is implemented, and results in affordable units, the City would have less pressure to develop non-market rate units in other locations within the City.	• Would produce affordable units that can be counted towards RHNA • Action is consistent with City's housing goals: - Overall: Inspire a more diverse, sustainable, and balanced community through implementation of strategies and programs that will result in economically and socially diversified housing choices that preserve and enhance the special character of Del Mar - #3 to "Vigorously pursue housing opportunities on 22nd District Agricultural Association Property (Del Mar Fairgrounds)" - #4 Provide Economically and Socially Diverse Balance of Housing Options that Are Affordable for a Variety of Income Levels - #6 Ensure Sustainable Approach to New Housing Opportunities that Protects the Quality of Life and Future of Del Mar

	Potential Program	Description	Objective
6	**PRIORITY: Establish an ADU Amnesty Program**	Would establish a program to allow owners with existing unpermitted ADUs to obtain permits to legalize the units so that they can be counted by the City as progress towards RHNA. Rents/purchase price would be required to be defined at amnesty to determine eligibility. This would be similar to the carryover program from the 5th Cycle Housing Element (Program 3-F); however, instead of limiting eligibility to just those units that will be dedicated as affordable with a deed restriction, the proposed program would provide an opportunity for legalization of ADUs of any size if they can be counted towards RHNA. This is considered an "alternative adequate sites" program that is subject to HCD approval. Staff's understanding is that it is not a guarantee that the units that result from this program would be able to count towards RHNA.	• To provide a more accurate count of available housing stock • Goal is to enable City to Count these existing unpermitted units towards RHNA Obligation • Action is consistent with City's housing goals: - Overall: Inspire a more diverse, sustainable, and balanced community through implementation of strategies and programs that will result in economically and socially diversified housing choices that preserve and enhance the special character of Del Mar - #5 "Improve and Preserve Community's existing Housing Stock" - #6 Ensure Sustainable Approach to New Housing Opportunities That Protects the Quality of Life and Future of Del Mar
7	**PRIORITY: Establish a Streamlining/Incentive Program Available to Projects Proposing Affordable Units**	The City's RHNA allocation includes 101 affordable units. This program would address and remove various identified governmental regulatory constraints in order to facilitate production of affordable housing to count towards RHNA. The first step would take one year to collect data and determine what the appropriate relief is to result in private interest to develop affordable units. Work with local hotels and owners of local retail centers and multiple dwelling units to solicit interest. The second step would be to provide a public process to help evaluate the considerations and seek approval of a formal list of incentives and streamlining measures available through the program for applicants with projects that will produce affordable units that count towards RHNA. Examples of measures could include consolidated processing of permits, permit exemptions, discounted permit fees, etc. The concept is that in exchange for the production of affordable units on their properties, the City can offer permit streamlining and development incentives as needed to execute the agreement and count the units towards RHNA. This meets several housing goals and would help to more directly address the housing needs of local	• Would remove identified governmental constraints to facilitate affordable units • Would provide an incentive to private owners to produce affordable housing that otherwise is not likely to be produced • Could be implemented as a multi-step program for use as needed through the 6th Cycle planning period to encourage the affordable housing production to meet RHNA obligation • Would produce affordable units to meet RHNA obligation

	Potential Program	Description	Objective
		workers as allocated by the RHNA, which was tied to local jobs and an equity factor due to the City's unit availability below the regional average for low income and very low-income households.	
8	**Update and Promote the City's Density Bonus Ordinance to Comply with State Law**	The City's RHNA allocation includes 101 affordable units. This program would specifically target the production of affordable units to count towards RHNA. Would update the City's Density Bonus ordinance to comply with State law. The ordinance was last amended in 2014 as a program in the 5th Cycle Housing Element. This program typically applies to medium and larger housing development. The City has not had a developer pursue this option yet even though it is currently available per State law. Program would involve actions to make information available to the public.	• Would fulfill a State law requirement • By publishing the updated version of the requirements, it may facilitate new applications that produce affordable dwelling units to count towards the City's RHNA allocation
9	**Explore Whether to Create an Affordable Housing Overlay Zone**	The City's RHNA allocation includes 101 affordable units. This program would specifically target the production of affordable units to count towards RHNA. Explore whether to create and apply an Affordable Housing Overlay Zone to potentially apply to properties with opportunities for development of affordable units. The concept is that the overlay zone would provide flexibility from development standards where incentives may be needed to facilitate production of affordable units by encouraging private owners to develop affordable housing on their properties. This could involve a first step action by the City to conduct a market study to assess whether it is feasible to expect the private market to produce affordable units under the existing code; and if not, identify which of the development limitations are the barrier that needs to be addressed (i.e., height, FAR, setbacks, lot coverage, parking, private view conflicts). If needed, develop the overlay zone, which would apply to selected properties with opportunities for development of affordable units. Properties where this could be applied would be the CC zone, PC zone, NC zone, Del Mar Plaza, Del Mar Hotel properties, and properties with existing multi-dwelling unit buildings.	• Would provide an incentive to private owners to produce affordable housing that otherwise is not likely to be produced. Could be implemented as a multi-step program for use as needed through the planning period to encourage the affordable housing production to meet RHNA obligation • Would produce affordable units to meet RHNA obligation • Is consistent with City's housing goals: - Overall goal "Inspire a more diverse, sustainable, and balanced community through implementation of strategies and programs that will result in economically and socially diversified housing choices that preserve and enhance the special character of Del Mar" - #1 Facilitate a Variety of Strategies to Meet Housing Element Production in a Way that Complements the Existing Character of the Community - #4 Provide an Economically and Socially Diverse Balance of Housing Options that Are Affordable for a Variety of Income Levels and Housing Needs

	Potential Program	Description	Objective
		This program would amend the City's Zoning Code and Local Coastal Program to apply an overlay zone to properties and would require certification by the Coastal Commission to become effective.	
10	**Explore Whether to Establish a Residential Opportunity Infill Program**	The City's RHNA allocation includes 101 affordable units. This program would be included in the HEU specifically to meet the RHNA affordable units. The program would involve steps to explore whether to establish a program to pursue partnerships with owners of existing hotels, retail centers, and multiple dwelling unit buildings with the goal to produce units that would be dedicated as affordable.	• Would produce affordable units as part of existing developments that could be counted towards RHNA obligation • Would produce housing options to support local workers on existing employment sites to reduce vehicle miles traveled • Is consistent with City's housing goals: - Overall goal "Inspire a more diverse, sustainable, and balanced community through implementation of strategies and programs that will result in economically and socially diversified housing choices that preserve and enhance the special character of Del Mar" - #1 Facilitate Strategies that Complements the Existing Character of the Community - #4 Provide Economically and Socially Diverse Balance of Housing Options that Are Affordable for a Variety of Income Levels - #6 Ensure Sustainable Approach to New Housing Opportunities that Protects Quality of Life and the Future of Del Mar
12	**Rezone Program to Produce Affordable Units on Vacant Land** -Must be included as an HEU program to meet State law unless the City is able to identify alternative programs to produce fordable units	The City's RHNA allocation includes 101 affordable units. This program would be included in the HEU specifically to meet a State mandate. If the City's preferred approach to execute a development agreement with the 22nd DAA for affordable units on the State-owned Del mar Fairgrounds is not executed by Year 5 of the 6th Cycle planning period, the City would proceed with a rezone of the North Bluff and/or Southwest Stratford Court properties to apply a new R3 zone that allows multiple dwelling unit development up to 20 dwelling units per acre with a 25% inclusionary affordable housing requirement.	• Would meet the State law requirement for adequate sites to meet at least 50% of the affordable units RHNA allocation on vacant land - these are the City's last remaining areas of vacant contiguous 0.5 to 10 acre lands pursuant to State law • This program is otherwise an undesirable program because these are oceanfront, bluff-top properties with extremely high land costs and scenic value that the Community Plan designates for development as very-low and low-density single dwelling unit residential development

	Potential Program	Description	Objective
13	**Carryover Rezone Program from the 5th Cycle Housing Element (Program 2-G)** -Must complete in the first year of the HEU.	This program would be included in the HEU to meet a State mandate for 'no net loss". By carrying this program over to the 6th Cycle, it will maintain City compliance with State law. The subject properties are located within the North Commercial (NC) zone and are required to develop 46 dwelling units to meet the designation per the 5th Cycle Housing Element (20-25 dwelling units per acre). However, if the program/project is denied, or the number of units/affordability levels are approved at a reduced level than what was committed to by the City in the Housing Element, then the "no net loss" State law penalty would be triggered and the City must adopt equivalent replacement units within 180 days. In this case, the City would bring forward the list of candidate sites from the 6th Cycle Program EIR for the City Council to select from as a replacement program to accommodate the carryover units.	• Would maintain compliance with the "no net loss" requirement mandate per State law • If developed, would contribute units (market rate and affordable) towards the City's obligation from the 5th Cycle that is being carried over to the 6th Cycle HEU

APPENDIX 3

Appendix- LOS Discussion

Automobile Delay

The PEIR documents VMT analysis in accordance with the City's CEQA Guidelines, while also documents automobile-based delay analysis in accordance with the ITE Regional Guidelines. Automobile delay at intersections is commonly measured using LOS as a metric. LOS is measured on a scale of 'A' to 'F' where 'F' is more delay, and 'A' is less delay. The LOS is provided to inform a comprehensive evaluation of the updated Housing Element.

The City is unique in that a variety of events occur on an annual basis at the Del Mar Fairgrounds (Fairgrounds), such as the Del Mar National Horse Show, the San Diego County Fair, Thoroughbred Horse Racing (summer and fall racing seasons), and a variety of other special events and vendor throughout the year. For the PEIR, three distinct conditions that represent different traffic scenarios were analyzed: "off-season", "fair" and "race." The highest traffic volumes occur during the summer fair and race season.

I-5 is the principal freeway in the vicinity of the candidate housing sites. I-5 is a major north-south freeway providing regional connectivity between San Diego, Orange, and Los Angeles counties (and areas further north). It has a posted speed limit of 65 mph, and generally consists of eight travel lanes in the north-south direction with additional auxiliary lanes. In 2019, freeway mainline segments operated at an acceptable LOS except for two freeway mainline segments during a typical weekday and metered on-ramps operated with no delay. (Michael Baker International, 2019).

Existing traffic counts for both weekdays and weekends were compiled for each of the three traffic scenarios to capture the effects of seasonal traffic variation on 20 roadway segments and 12 intersections. Delay at intersections is the focus of this discussion because it is generally a better indicator of overall automobile transportation system performance than delay along roadway segments.

Over the past ten years, a variety of traffic impact analyses have been prepared throughout the City. Traffic volumes and level of service at major signalized and unsignalized intersections were extracted from traffic studies that have been reviewed and approved by the City. The analysis of roadway segments and intersections allows the City to identify potential capacity problem areas where deficient operations exist or may become problematic in the future. This information assists the City in determining the traffic impacts of future development near existing and future problem locations where capacity deficiencies are known to exist and whether improvements may be needed to mitigate these deficiencies. (Michael Baker International, 2019)

Existing intersection operations within the vicinity of the candidate housing sites were evaluated based on the amount of delay experienced. ***Table 4.14-1: Key Intersection Locations***, summarizes the weekday and weekend LOS for study intersections in the City.

As the candidate housing sites include properties that are dispersed throughout the community, it is anticipated that future housing development under the HEU will not result in "substantial" adverse effects on traffic because traffic would be distributed throughout the community. Further, the City is not required

to build dwelling units in order to meet its RHNA allocation, only to identify potential sites and create the framework to allow the market the opportunity to develop these units. Development would occur over time and as the market demand created the need for the additional housing. Therefore, traffic would increase at a rate that would be relatively minor and dispersed. Additionally, the candidate housing sites are located near public transportation and recreation opportunities to encourage the use of public transportation, biking, and walking consistent with the City's local VMT reduction strategies.

Table 4.14-1: Key Intersection Locations

No.	Intersection Location	Traffic Control	Weekday LOS			Weekend LOS (AM/PM)		
			Off Season AM/PM	Fair Season AM/PM	Race Season PM only	Off Season AM/PM	Fair Season AM/PM	Race Season PM only
1	Via de La Valle / Camino del Mar	Signal	B/C	B/C	C	B/C	B/C	C
2	Via de La Valle / Jimmy Durante Blvd	Signal	D/D	D/E	D	D/D	D/E	D
3	Camino del Mar / 27th Street	All-Way Stop	C/D	C/F	E	C/D	C/F	E
4	Jimmy Durante Blvd / San Dieguito Dr	Roundabout	A/B	(--)/(-)	(-)	A/B	(-)/(-)	(-)
5	Camino del Mar / Coast Blvd	All-Way Stop	B/F	C/F	F	B/F	C/F	F
6	Camino del Mar / L'Auberge Del Mar	Signal	A/B	(-)/(-)	A	A/B	(-)/(-)	A
7	Camino del Mar / 15th St	Signal	C/C	C/C	C	C/C	C/C	C
8	Camino del Mar / 13th St	All-Way Stop	(-)/F	(-)/F	E	(-)/F	(-)/F	E
9	Camino del Mar / 11th St	All-Way Stop	(-)/F	C/F	F	(-)/F	C/F	F
10	Camino del Mar / 9th St	Signal	(-)/B	B/B	A	(-)/B	B/B	A
11	Camino del Mar / Del Mar Heights Rd	Signal	C/E	D/E	F	C/E	D/E	F
12	Camino del Mar / Carmel Valley Rd	Signal	C/C	(-)/(-)	C	C/C	(-)/(-)	C

Source: Michael Baker International

(-) = Peak hour count data and LOS was not available at these locations.

In addition to the citywide traffic analysis prepared by Michael Baker International (2019), the City prepared a Traffic Impact Analysis to analyze key intersections and roadway networks in strategic locations where there was a potential for additional traffic impacts to occur resulting from development of candidate housing sites.

Existing Conditions

Traffic Volumes

Due to the sudden shutdown of schools and businesses amid the COVID-19 pandemic existing traffic counts were not able to be collected for the HEU. Therefore, existing morning (7:00 to 9:00 a.m.) and evening (4:00 to 6:00 p.m.) traffic counts and peak-hour turning movement counts were used from traffic studies for other projects. For date that was more than one year old, an ambient annual growth rate of 1.0 percent was applied.

A traffic impact study was prepared to evaluate transportation impacts and effects associated with the development of candidate housing sites in anticipation of the adoption of the new Guidelines that comply with SB 743. The report documents the VMT analysis and result in accordance with the City's CEQA Guidelines. In addition, LOS-based local transportation analysis was provided for informational purposes

only. While the LOS-based portion of the study is not required; it was provided to inform decision makers of the existing baseline traffic and roadway conditions during the transition period from LOS-based to VMT-based CEQA analysis[1].

The PEIR analyzes the potential transportation impacts that could be associated with development of candidate housing sites facilitated by the HEU. The HEU is expected to facilitate a potential yield of 298 units; however, the HEU will only need to include enough sites to yield 209 units in order to meet the City's assigned RHNA; this accounts for carryover units from the 5th Cycle Housing Element. For the purpose of the TIA, two priority areas were studied adjacent to large vacant properties where development of candidate housing sites can yield the most dwelling units.. The two main "focus areas" include the Camino del Mar/Border Avenue (North Bluff) properties (candidate housing sites 98-A, 98-B, and 98-C) and the Stratford Ct properties (candidate housing site 99).

Analysis Scenarios

Fourteen scenarios were analyzed as part of the traffic analysis:

1. **Existing Conditions**: Represents the traffic conditions of the existing street network.
2. **Existing Plus Development of Two Identified Priority Candidate Housing Sites Conditions**: Represents the existing traffic conditions with the addition of the proposed project. Project effects under this scenario are considered direct project effects.
3. **Existing Weekend Conditions**: Represents the traffic conditions of the existing street network during the weekend.
4. **Existing Weekend Plus Project Conditions**: Represents the existing weekend traffic conditions with the addition of the proposed project. Project effects under this scenario are considered direct project effects.
5. **During Fair (Weekday) Conditions**: Represents the traffic conditions of the existing street network during the San Diego County Fair (Del Mar Fair) season on a weekday.
6. **During Fair (Weekday) Plus Project Conditions**: Represents the existing "During Fair" weekday traffic conditions with the addition of the proposed project. Project effects under this scenario are considered direct project effects.
7. **During Fair (Weekend) Conditions**: Represents the traffic conditions of the existing street network during the San Diego County Fair (Del Mar Fair) season on a weekend.
8. **During Fair (Weekend) Plus Project Conditions**: Represents the existing "During Fair" weekend traffic conditions with the addition of the proposed project. Project effects under this scenario are considered direct project effects.

9. **During Horse Races (Weekday) Conditions**: Represents the traffic conditions of the existing street

   network during the Horse Racing season on a weekday.

10. **During Horse Races (Weekday) Plus Project Conditions**: Represents the existing "Horse Races" weekday traffic conditions with the addition of the proposed project. Project effects under this scenario are considered direct project effects.

11. **During Horse Races (Weekend) Conditions**: Represents the traffic conditions of the existing street network during the Horse Racing season on a weekend.

12. **During Horse Races (Weekend) Plus Project Conditions**: Represents the existing "Horse Races" weekend traffic conditions with the addition of the proposed project. Project effects under this scenario are considered direct project effects.

13. **Future Year 2035 Conditions**: Represents the traffic conditions of the street network assumed to be in place under Future Year 2035 Conditions.

14. **Future Year 2035 Plus Project Conditions**: Represents the Horizon Year traffic conditions with the
    addition of the proposed project. Comparison of this scenario to the Future Year 2035 Conditions scenario determines cumulative project effect.

Intersection Analysis: Existing Conditions

Table 4.14-2 Summary of Intersections displays the LOS analysis results for the study intersections under the Existing Conditions. As shown in the table, all study intersections operate at a LOS D or better during both peak periods.

Table 4.14-2 Summary of Intersections Operation Existing Conditions

No.	Intersection Location	Traffic Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Camino del Mar at Via de la Valle	S	34.3	C	35.1	D
2	Jimmy Durante Blvd at Via de la Valle	S	36.4	D	37.7	D
3	I-5 SB Ramps at Via de la Valle	S	13.0	B	15.3	B
4	I-5 NB Ramps at Via de la Valle	S	24.5	C	22.4	C
5	Jimmy Durante Blvd at San Dieguito Dr	U	5.0	A	6.9	A
6	Camino del Mar at Del Mar Heights Rd	S	36.9	D	34.6	C
7	Camino del Mar at 9th St	S	10.1	B	6.3	A
8	Camino del Mar at 15th St	S	23.8	C	25.3	C

Notes:
Bold values indicate intersections operating at an unacceptable Level ofService
Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

Source: Kimley Horn TIA May 2020

Existing Conditions with Development of Two Identified Priority Candidate Housing Sites

The TIA conservatively evaluated the potential change in existing traffic conditions by evaluating the change in conditions (road network, traffic volumes and intersections) if all 298 units from the candidate housing sites were selected for the HEU Program and developed as a worst-case scenario. No changes to the roadway network were assumed with the project. Based on the traffic trip distribution for the project, no impacts to the road network would occur and the intersections under the Existing Plus Project Conditions as shown in ***Table 4.14-3*** would continue to operate at acceptable LOS D or better. Traffic does not create a significant impact at any of the study locations.

Table 4.14-3 Summary of Intersection Operation Existing Plus Project Conditions

Int #	Intersection	AM Peak Hour						PM Peak Hour					
		Without Project		With Project		Change Delay	Sig Impact?	Without Project		Without Project		Change Delay	Sig Impact?
		Delay	LOS	Delay	LOS	Change Delay		Delay	LOS	Delay	LOS		
	Camino del Mar at Via de la Valle	34.3	C	34.6	C	0.3	No	35.1	D	34.6	C	-0.5	No
2	Jimmy Durante Blvd at Via de la Valle	36.4	D	36.4	D	0.0	No	37.7	D	37.5	D	-0.2	No
3	I-5 SB Ramps at Via de la Valle	13.0	B	13.0	B	0.0	No	15.3	B	15.4	B	0.1	No
4	I-5 NB Ramps at Via de la Valle	24.5	C	24.6	C	0.1	No	22.4	C	22.8	C	0.4	No
5	Jimmy Durante Blvd at San Diegutio Dr.	5.0	A	5.0	A	0.0	No	6.9	A	6.9	A	0.0	No
6	Camino del Mar at Del Mar Heights Rd	36.9	D	38.1	D	1.2	No	34.6	C	35.8	D	1.2	No
7	Camino del Mar at 9th St	10.1	B	10.0	A	-0.1	No	6.3	A	6.4	A	0.1	No
8	Camino del Mar at 15th St	23.8	C	24.1	C	0.3	No	25.3	C	26.1	C	0.8	No

Notes:
Bold values indicate intersections operating at an unacceptable Level ofService
Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

Existing Weekend Conditions Plus Project

The TIA evaluated the existing weekend traffic conditions with the candidate housing sites focus areas with the anticipated additional 298 units and analyzed the impacts to the road network, traffic volumes and intersections. No changes to the roadway network were assumed with the proposed Program. Existing Weekend peak-hour turning movement counts were used from traffic studies for other projects as the sudden shutdown due to the Covid -19 pandemic of schools and businesses limited the ability to collect traffic counts for the program. No impacts to the road network would occur and the intersections under the Existing Weekend Conditions as shown in Table 4.14-4 would continue to operate at acceptable LOS D or better. Traffic does not create a significant impact at any of the study locations.

Table 4.16-4 Summary of Intersection Operation Existing Weekend Conditions

Int#	Intersection	AM Peak Hour					
		Without Project		With Project		Change Delay	Sig Impact?
		Delay	LOS	Delay	LOS		
1	Camino del Mar at Via de la Valle	38.3	D	36.2	D	-2.1	No
2	Jimmy Durante Blvd at Via de la Valle	35.7	D	35.5	D	-0.2	No
3	I-5 SB Ramps at Via de la Valle	16.5	B	16.4	B	-0.1	No
4	I-5 NB Ramps at Via de la Valle	22.3	C	22.6	C	0.3	No
5	Jimmy Durante Blvd at San Diegutio Dr.	-	-	-	-	-	-
6	Camino del Mar at Del Mar Heights Rd	34.5	C	36.0	D	1.5	No
7	Camino del Mar at 9th St	-	-	-	-	-	-
8	Camino del Mar at 15th St	32.0	C	32.4	C	0.4	No

Notes:

- **Bold** values indicate intersections operating at an unacceptable Level of Service
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

During Fair Conditions Plus Project

The TIA evaluated the traffic conditions during the Fair Conditions and during the Fair with the addition of the candidate housing sites focus areas with the anticipated additional 298 units and analyzed the impacts to the road network, traffic volumes and intersections. No changes to the roadway network were assumed with the proposed Program. During the Fair Condition peak-hour turning movement counts were used from traffic studies for other projects as the sudden shutdown due to the Covid -19 pandemic of schools and businesses limited the ability to collect traffic counts for the program. No impacts to the road network would occur and all study intersections continue to operate under the During Fair and During Fair Plus Project Conditions as shown in Table 4.14-5 at acceptable LOS D or better except at Jimmy Durante Boulevard at Via de la Valle in the PM which would operate at a LOS E (with and without the project). The deficient intersection does not exceed the allowable delay threshold and therefore would not be considered a significant project impact. Traffic does not create a significant impact at any of the study locations.

Table 4.14-5 Summary of Intersection Operation During Fair Conditions

Int#	Intersection	AM Peak Hour						PM Peak Hour					
		Without Project		With Project		Change Delay	Sig Impact?	Without Project		Without Project		Change Delay	Sig Impact?
		Delay	LOS	Delay	LOS			Delay	LOS	Delay	LOS		
	Camino del Mar at Via de la Valle	34.5	C	35.1	D	0.6	No	37.0	D	36.1	D	-0.9	No
2	Jimmy Durante Blvd at Via de la Valle	34.6	C	34.5	C	-0.1	No	55.2	E	56.4	E	1.2	No
3	I-5 SB Ramps at Via de la Valle	15.3	B	15.1	B	-0.2	No	17.4	B	17.5	B	0.1	No
4	I-5 NB Ramps at Via de la Valle	24.8	C	24.9	C	.1	No	24.7	C	24.9	C	0.2	No
5	Jimmy Durante Blvd at San Diegutio Dr.												
6	Camino del Mar at Del Mar Heights Rd												
7	Camino del Mar at 9th St												
8	Camino del Mar at 15th St	24.4	C	24.7	C	0.3	No	26.6	C	27.2	C	0.6	No

Notes:

- **Bold** values indicate intersections operating at an unacceptable Level of Service
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection

Future Year 2035 Conditions Plus Project

The TIA evaluated the traffic conditions during the Future Year 2035 with the addition of the Program including the candidate housing sites focus areas with the anticipated additional 298 units and analyzed the impacts to the road network, traffic volumes and intersections. No changes to the roadway network were assumed with the proposed Program. Future Year 2035 peak-hour turning movement counts were used from traffic studies for other projects and an annual growth rate of one percent (1%) per year was applied to existing turning movement volumes, as the sudden shutdown due to the Covid -19 pandemic of schools and businesses limited the ability to collect traffic counts for the program. No impacts to the road network would occur and all study intersections continue to operate under the Future Year 2035 Plus Project Conditions as shown in Table 4.14-6 at acceptable LOS D or better. Traffic does not create a significant impact at any of the study locations.

Table 4.14-6 Summary of Intersection Operation Future Year 2035 Conditions

Int#	Intersection	AM Peak Hour						PM Peak Hour					
		Without Project		With Project		Change Delay	Sig Impact?	Without Project		Without Project		Change Delay	Sig Impact?
		Delay	LOS	Delay	LOS			Delay	LOS	Delay	LOS		
	Camino del Mar at Via de la Valle	35.0	C	35.9	D	0.9	No	39.9	D	41.0	D	1.1	No
2	Jimmy Durante Blvd at Via de la Valle	46.3	D	47.7	D	1.4	No	46.6	D	48.2	D	1.6	No
3	I-5 SB Ramps at Via de la Valle	13.2	B	13.2	B	0.0	No	15.7	B	15.9	B	0.2	No
4	I-5 NB Ramps at Via de la Valle	26.3	C	26.5	C	0.2	No	22.7	C	23.2	C	0.5	No
5	Jimmy Durante Blvd at San Diegutio Dr.	5.4	A	5.4	A	0.0	No	7.9	A	7.9	A	0.0	No
6	Camino del Mar at Del Mar Heights Rd	39.1	D	40.7	D	1.6	No	40.3	D	41.9	D	1.6	No
7	Camino del Mar at 9th St	10.4	B	10.4	B	0.0	No	6.5	A	6.6	A	0.1	No
8	Camino del Mar at 15th St	24.4	C	24.8	C	0.4	No	26.9	D	27.7	C	0.8	No

Notes:

- **Bold** values indicate intersections operating at an unacceptable Level of Service
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

CITY OF DEL MAR

HOUSING ELEMENT

Traffic Impact Analysis

MAY 2020

Prepared By:

Kimley»Horn

EXECUTIVE SUMMARY

This traffic impact study has been prepared to evaluate the project-related transportation impacts and effects associated with the updated Housing Element for the City of Del Mar (City) in anticipation of the City of City's adoption of new guidelines that comply with SB 743 requirements. The City presented draft CEQA Guidelines to the Planning Commission on May 12, 2020 and will present these guidelines to City Council for adoption prior to July 1, 2020. The City is responsible for developing or adopting guidelines by July 1, 2020.

This report documents the VMT analysis and results in accordance with the City's draft CEQA Guidelines, while also addressing the results of the LOS-based local transportation analysis in accordance with the ITE Regional Guidelines. The LOS-based portion of this report may not be required if the City were to adopt or implement the City's draft CEQA Guidelines; however, with direction from the City of Del Mar staff for this project, the LOS-based portion has been provided to inform decision-makers during this transition period from LOS-based to VMT-based analysis. Both transportation analysis methodologies are provided to assist in a comprehensive evaluation of the updated Housing Element.

LOS-Based Analysis Process and Results

Local transportation analysis includes the evaluation of any multimodal transportation improvements (transit, bicycle, pedestrian) that are recommended to support a land development project.

The study provides evaluation of morning and evening peak hour operations at eight study intersections for the following scenarios:

- Existing Conditions
- Existing Plus Project
- Existing Weekend
- Existing Weekend Plus Project
- During Fair
- During Fair Plus Project
- During Fair Weekend
- During Fair Weekend Plus Project
- During Horse Races
- During Horse Races Plus Project
- During Horse Races Weekend
- During Horse Races Weekend Plus Project
- Future Year 2035
- Future Year 2035 Plus Project

Results of the local transportation analysis indicate all study intersections would operate at an acceptable Level of Service (LOS) under all conditions, except for the following intersection under During Fair and During Fair Plus Project conditions:

- #2 – Jimmy Durante Boulevard at Via De La Valle: PM - LOS E (with and without project)

The deficient intersection does not exceed the allowable delay threshold; therefore, the effect of project traffic would not be considered a significant project effect.

VMT-Based Analysis Process and Results

For residential uses, projects need to compare to Del Mar VMT per resident. According to SANDAG's travel forecast model, as depicted below, the average residential VMT in Del Mar is 22.45 VMT per resident. Del Mar is proposing a threshold of 85% of the average Del Mar VMT per resident for a project to avoid a significant impact. Since all residential projects in Del Mar have the same 22.45 VMT per resident, according to the SANDAG model, mitigation to reduce VMT would be through trip reduction measures.

The City proposes to allow this to occur either through the implementation of local Transportation Demand Management (TDM) strategies or through the payment of an In-Lieu Fee. An In-Lieu Fee has not yet been established by City Council but could include on-demand shuttle services or mobility agreements with nearby, major employers such as 22nd District Agricultural Association or University of California San Diego. These programs would need to be implemented citywide to be effective and cost efficient.

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1 INTRODUCTION

This traffic impact study has been prepared to evaluate the project-related transportation impacts and effects associated with the updated Housing Element for the City of Del Mar (City) in anticipation of the City of City's adoption of new guidelines that comply with SB 743 requirements. The City presented draft CEQA Guidelines to the Planning Commission on May 12, 2020 and will present these guidelines to City Council for adoption prior to July 1, 2020. The City is responsible for developing or adopting guidelines by July 1, 2020.

This report documents the VMT analysis and results in accordance with the City's draft CEQA Guidelines, while also addressing the results of the LOS-based local transportation analysis in accordance with the ITE Regional Guidelines. The Level of Service (LOS)-based portion of this report is to provide project understanding to decision-makers during the transition period between VMT-based and LOS-based analysis but is not required as part of CEQA documentation. The LOS-based information is provided in case the City of Del Mar chooses to have additional analyses conducted outside of the CEQA analysis.

1.1 PROJECT INFORMATION

While the City of Del Mar is generally fully developed, some parcels are still vacant, or underdeveloped and have the potential to provide additional housing within the City of Del Mar. For purposes of this Housing Element Update, these areas have been designated "Focus Areas". Discussion of the potential changes in the nature or quantity of development in these focus areas is provided below.

The Housing Element Update proposes two main "Focus Area" locations: the "Camino Del Mar/Border Avenue Zone" and the "Staver Zone." The "Camino Del Mar/Border Avenue Zone" is located just west of the intersection of Camino Del Mar at Via De La Valle and has identified potentially 201 additional residential dwelling units within this Focus Area. The "Staver Zone" is located just west of the intersection of Camino Del Mar at Del Mar Heights Road and has identified potentially 97 additional residential dwelling units within this Focus Area. No projects or site plans have been provided to the City. The locations of these focus areas in its regional context are presented on **Figure 1-1**.

1.2 ANALYSIS SCENARIOS

Based on discussions with City staff, a total of fourteen (14) scenarios will be analyzed as part of this traffic analysis:

1) **Existing Conditions**: Represents the traffic conditions of the existing street network.
2) **Existing Plus Project Conditions**: Represents the existing traffic conditions with the addition of the proposed Project. Project effects under this scenario are considered direct project effects.
3) **Existing Weekend Conditions**: Represents the traffic conditions of the existing street network during the weekend.
4) **Existing Weekend Plus Project Conditions**: Represents the existing weekend traffic conditions with the addition of the proposed Project. Project effects under this scenario are considered direct project effects.

5) **During Fair (Weekday) Conditions**: Represents the traffic conditions of the existing street network during the San Diego County Fair (Del Mar Fair) season on a weekday.

6) **During Fair (Weekday) Plus Project Conditions**: Represents the existing "During Fair" weekday traffic conditions with the addition of the proposed Project. Project effects under this scenario are considered direct project effects.

7) **During Fair (Weekend) Conditions**: Represents the traffic conditions of the existing street network during the San Diego County Fair (Del Mar Fair) season on a weekend.

8) **During Fair (Weekend) Plus Project Conditions**: Represents the existing "During Fair" weekend traffic conditions with the addition of the proposed Project. Project effects under this scenario are considered direct project effects.

9) **During Horse Races (Weekday) Conditions**: Represents the traffic conditions of the existing street network during the Horse Racing season on a weekday.

10) **During Horse Races (Weekday) Plus Project Conditions**: Represents the existing "Horse Races" weekday traffic conditions with the addition of the proposed Project. Project effects under this scenario are considered direct project effects.

11) **During Horse Races (Weekend) Conditions**: Represents the traffic conditions of the existing street network during the Horse Racing season on a weekend.

12) **During Horse Races (Weekend) Plus Project Conditions**: Represents the existing "Horse Races" weekend traffic conditions with the addition of the proposed Project. Project effects under this scenario are considered direct project effects.

13) **Future Year 2035 Conditions**: Represents the traffic conditions of the street network assumed to be in place under Future Year 2035 Conditions.

14) **Future Year 2035 Plus Project Conditions**: Represents the Horizon Year traffic conditions with the addition of the proposed Project. Comparison of this scenario to the Future Year 2035 Conditions scenario determines cumulative project effect.

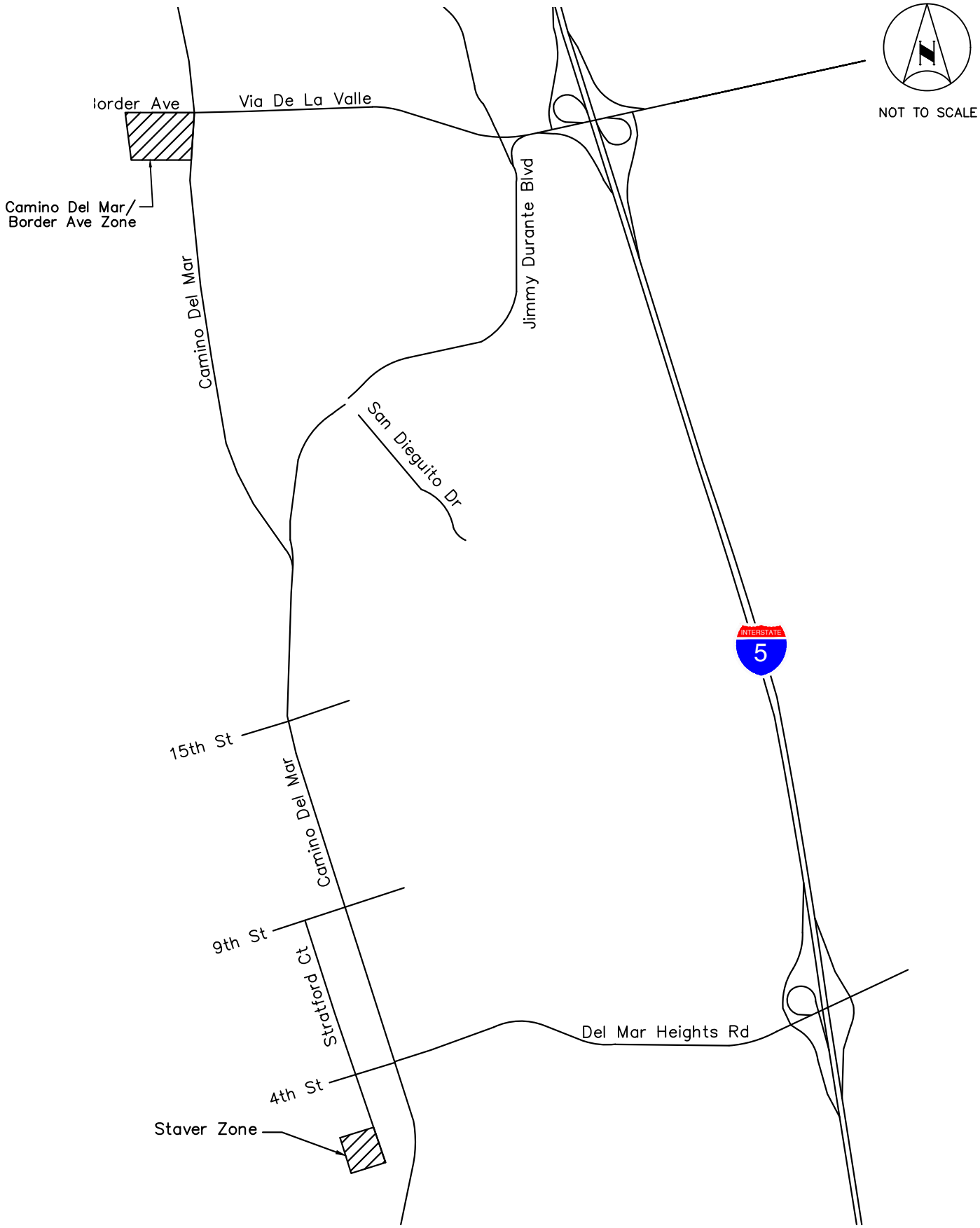


FIGURE 1-1
FOCUS AREA LOCATIONS

2 METHODOLOGY

The following section describes the methodology used to forecast traffic data, determine the study area, perform capacity analyses, and determine significant effects.

2.1 STUDY AREA

The study area was determined based on the project's trip assignment and reflects the main access routes to and from the project site. The 8 intersections identified for evaluation are shown in **Table 2-1**.

Table 2-1 Study Intersections

#	Intersection	Traffic Control
1	Camino Del Mar at Via De La Valle	Traffic Signal
2	Jimmy Durante Blvd at Via De La Valle	Traffic Signal
3	I-5 SB Ramps at Via De La Valle	Traffic Signal
4	I-5 NB Ramps at Via De La Valle	Traffic Signal
5	Jimmy Durante Blvd at San Dieguito Dr	Roundabout
6	Camino Del Mar at Del Mar Heights Rd	Traffic Signal
7	Camino Del Mar at 9th Street	Traffic Signal
8	Camino Del Mar at 15th Street	Traffic Signal

The study area is illustrated in **Figure 2-1**.



FIGURE 2-1
STUDY AREA

2.2 TRAFFIC VOLUME FORECASTING

Future Year 2035 volumes were based on SANDAG Series 12 model outputs. To estimate the Future Year 2035 turning movement volumes at the study intersections, the existing turning movements at each respective study intersection were factored up based on the projected ADT growth along each segment. Future Year 2035 turning movement volumes for each respective movement was derived using an iterative approach that balances the inflows and outflows for each approach. The input values include the existing turning movement volumes and future year peak-hour approach and departure volumes along each leg of the intersection.

An Excel model computes the forecast turning volumes from existing turning movement volumes and forecasted approach and departure volumes by the techniques described in NCHRP 255. As a conservative approach, if a turning movement volume produced by this model was less than the existing count for that movement, manual adjustments were made to assure that all forecast future year volumes would be equal to or greater than the existing turning movement counts. At locations that were not previously studied, an annual growth rate of one percent (1%) per year was applied to existing turning movement volumes.

2.3 ANALYSIS PROCESS

The ITE Guidelines provide recommendations for preparing a transportation report. The analysis process includes determining the operations at the study intersections for the a.m. and p.m. peak periods and operations along the roadway segments. Intersection analyses were measured and quantified using Vistro software using the 6th Edition of the Highway Capacity Manual (HCM) methodology.

2.3.1 SIGNALIZED AND UNSIGNALIZED INTERSECTIONS

To analyze the operations of both signalized and unsignalized intersections, Vistro was used for the analysis. Vistro uses the methodologies outlined in the 6th Edition of the Highway Capacity Manual (HCM).

The 6th Edition of the Highway Capacity Manual (HCM) published by the Transportation Research Board establishes a system whereby highway facilities are rated for their ability to process traffic volumes. The terminology "level of service" is used to provide a "qualitative" evaluation based on certain "quantitative" calculations, which are related to empirical values.

Level of service (LOS) is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and loss of travel time. Specifically, LOS criteria for signalized intersections are stated in terms of the average control delay per vehicle for the peak 15-minute period within the hour analyzed. The average control delay includes initial deceleration delay, queue move-up time, and final acceleration time in addition to the stop delay.

The intersection of Jimmy Durante Boulevard at San Dieguito Drive (Int. #5) is a roundabout. Analysis of the roundabout intersection was conducted using Vistro software. This software uses a gap-acceptance methodology and determines the roundabout capacity, based on the roundabout geometry. The combined (hybrid) geometry and gap-acceptance parameters take into account the effect that the traffic volumes on the roundabout and the roundabout geometry would have on driver behavior, through gap-availability and gap-acceptance modelling.

The criteria for the various levels of service designations for signalized and unsignalized intersections are given in **Table 2-2**. Within the City of La Mesa, intersections are considered deficient if they operate at LOS E or F.

Table 2-2 Level of Service (LOS) Criteria for Intersections

LOS	Signalized (Control Delay) (sec/veh) [a]	Unsignalized (Control Delay) (sec/veh) [b]	Description
A	≤10.0	≤10.0	Operations with very low delay and most vehicles do not stop.
B	>10.0 and ≤20.0	>10.0 and ≤15.0	Operations with good progression but with some restricted movement.
C	>20.0 and ≤35.0	>15.0 and ≤25.0	Operations where a significant number of vehicles are stopping with some backup and light congestion.
D	>35.0 and ≤55.0	>25.0 and ≤35.0	Operations where congestion is noticeable, longer delays occur, and many vehicles stop. The proportion of vehicles not stopping declines.
E	>55.0 and ≤80.0	>35.0 and ≤50.0	Operations where there is significant delay, extensive queuing, and poor progression.
F	>80.0	>50.0	Operations that are unacceptable to most drivers, when the arrival rates exceed the capacity of the intersection.

Source:
(a) 6th Edition of the Highway Capacity Manual, Chapter 18, Page 6, Exhibit 18-4
(b) 6th Edition of the Highway Capacity Manual, Chapter 19, Page 2, Exhibit 19-1
6th Edition of the Highway Capacity Manual, Chapter 20, Page 3, Exhibit 20-2

2.4 SIGNIFICANCE DETERMINATION

The acceptable threshold standards to determine the significance of project effects to intersections and roadway segments are outlined in the ITE Guidelines. The measurement of effectiveness (MOE) for intersections is based on allowable increases in delay measured in seconds.

At intersections that are expected to operate at LOS E or F without the project, the allowable increase in delay is two seconds with the addition of the project. If vehicle trips from a project cause the delay at an intersection to increase by more than the allowable threshold, this would be considered to have a significant project effect that may require recommended improvements. Also, if the project causes an intersection that was operating at an acceptable LOS to operate at LOS E or F, this would be considered a significant project effect that may requires recommendation for improvement.

Two classes of effects are typically measured for significance: Direct Project Effects and Cumulative Project Effects. Direct traffic effects are those projected to occur at the time the proposed study development becomes operational. During this time, other developments not presently operational but which are anticipated to be operational during the Horizon Year scenario are included. Cumulative traffic effects are those projected to occur at some point after the proposed study development becomes operational, such as when the affected community plan area reaches full planned build out (long-term cumulative). The project applicant may be responsible for recommending improvements for direct project effects by improving operations to better than pre-project conditions. The project applicant would provide their fair share contribution toward installing improvements to cumulative project effects. A fair share contribution is based on the project's proportionate traffic contribution to future increased traffic volumes on a facility.

Table 2-3 shows the criteria for determining levels of significance for the different facilities in the study area.

Table 2-3 Significance Criteria for Facilities in Study Area

Facility	Measures of Effectiveness (MOE)	Significance Threshold [(a)]
Intersection	Seconds of Delay	>2.0 seconds at LOS E or F
Notes: If a project adds any increment of delay to cause the operations of an intersection to go from LOS D to either LOS E or LOS F, then the project is considered to cause a significant impact. (a) Significance threshold applies only when the type of facility operates at LOS E or F.		
Source: ITE Guidelines for Traffic Impact Studies (TIS) in the San Diego Region (2019), Table 7-1, Page 7-6.		

3 EXISTING CONDITIONS

This section summarizes the existing roadway circulation network, daily and peak-hour traffic volumes, and operations at the study intersections and roadway segments.

3.1 ROAD NETWORK

Highway 101 functions as a north-south four-lane divided major arterial. The posted speed limit is 40 miles per hour (mph) and bike facilities are provided in the southbound direction. Parking is permitted along the south side of the road.

Camino Del Mar is a north-south two-lane divided major arterial from Via De La Valle to Jimmy Durante Blvd, and a four-lane divided major arterial south of Jimmy Durante Blvd. The posted speed limit is 40 mph and bike facilities are provided in both directions. Parking is permitted on both sides of the road with the exception of L'Auberge Del Mar to 15th Street only providing parking in the northbound direction.

Via De La Valle is an east-west four-lane divided roadway. Via De La Valle provides direct access to I-5 northbound and southbound ramps. The posted speed limit is 45 mph and bike facilities are provided west of Jimmy Durante Blvd on both sides of the road. Parking is permitted west of Jimmy Durante Blvd along the westbound side of the road.

Border Avenue is an east-west two-lane local road that will provide access to the Camino Del Mar/Border Ave Zone. Parking is permitted on both sides of the road.

Jimmy Durante Boulevard is a north-south four-lane roadway with a center-left turn-lane. The posted speed limit is 45 mph and bike facilities are provided on both sides of the road. Parking is prohibited on both sides of the road.

Del Mar Heights Road is an east-west four-lane major arterial and provides direct access to I-5 northbound and southbound ramps. The posted speed limit is 40 mph and bike facilities are not provided. Parking is permitted west of Crest Way and prohibited east of Crest Way.

4th Street is an east-west two-lane local road that will provide access to the Staver Zone. Parking is permitted on both sides of the road.

9th Street is an east-west two-lane local street. Parking is permitted on both sides of the road.

15th Street is an east-west two-lane local road. Parking is permitted west of Camino Del Mar.

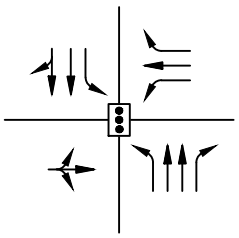
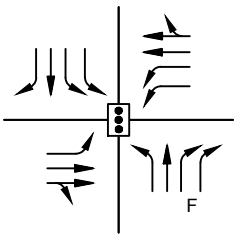
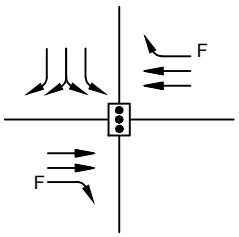
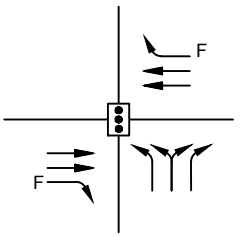
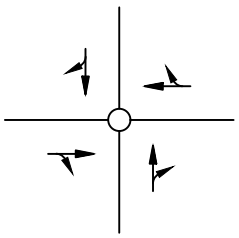
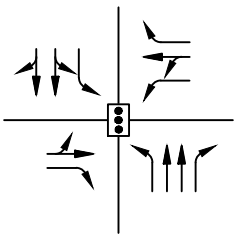
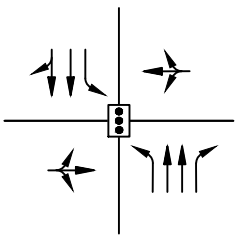
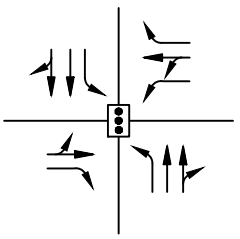
Figure 3-1 shows the geometrics of the study intersections for the Existing scenario.

3.2 MULTIMODAL TRANSPORTATION NETWORK

Based on the ITE Guidelines, "local transportation analysis includes evaluation of any multimodal transportation improvements (transit, bicycle, pedestrian) that are recommended to support a land development project but may or may not be required as mitigation measures for a project's significant VMT impacts." A detailed VMT-based analysis is outlined later in this study. Criteria for determining significance of transportation effects must promote "the development of multimodal transportation networks". Below is a description of the existing multimodal transportation network.

NOT TO SCALE



1. Via De La Valle at Camino Del Mar	2. Via De La Valle at Jimmy Durante Blvd
	
3. Via De La Valle at I-5 SB Ramps	**4. Via De La Valle at I-5 NB Ramps**
	
5. Jimmy Durante Blvd at San Dieguito Dr	**6. Del Mar Heights Rd at Camino Del Mar**
	
7. Camino Del Mar at 9th Street	**8. Camino Del Mar at 15th Street**
	

LEGEND:
- X = Study Intersection
- = Turn or Through Lane
- = Signal
- F = Free Right Turn

FIGURE 3-1
EXISTING INTERSECTION GEOMETRICS

3.2.1 TRANSIT NETWORK

This section describes the existing transit conditions in the project study area.

Transit service is provided by the North County Transit District (NCTD). The only route serving the immediate project area is the NCTD Bus Route 101. Route 101 runs from Oceanside Transit Center to VA San Diego Healthcare System/University of California San Diego, and University Town Centre (UTC) mall. Through the City of Del Mar, Route 101 navigates solely along Camino Del Mar.

At the Camino Del Mar/Border Ave Zone, there is currently one southbound stop on the west side of Highway 101 and one northbound stop on the east side of Highway 101. Both stops are less than 0.1 mile north of the intersection of Camino Del Mar at Via De La Valle.

The Staver Zone currently has one southbound stop on the west side of Camino Del Mar and one northbound stop on the east side of Camino Del Mar. The southbound and northbound bus stops are less than 0.1 miles north and south of the intersection of Camino Del Mar at Del Mar Heights Road.

3.2.2 BICYCLE NETWORK

Existing Bike Facilities

Via De La Valle: Currently has Class II bike facilities in both the eastbound and westbound directions from Camino Del Mar to Jimmy Durante Boulevard within the study area.

Camino Del Mar: Currently has Class II bike facilities in both the northbound and southbound directions from north of Via De La Valle to south of Del Mar Heights Road within the study area.

Jimmy Durante Boulevard: Currently has Class II bike facilities in both the northbound and southbound directions from north of Via De La Valle to Camino Del Mar within the study area.

Del Mar Heights Road: Currently has Class II bike facilities in the eastbound direction from Nob Avenue to east of the I-5 freeway and Class II bike facilities in the westbound direction from east of the I-5 freeway to Crest Way

3.2.3 PEDESTRIAN NETWORK

Existing Pedestrian Conditions

Via De La Valle: Continuous sidewalks are provided along both sides of Via De La Valle within the study area.

Camino Del Mar: Sidewalks are provided on the west side for most of the length of Camino Del Mar within the study area, except for a portion between 24th Street and L'Auberge Del Mar. Sidewalks are also provided on the east for most of the length, except for a portion just north of 29th Street, and from Coast Boulevard to Jimmy Durante Boulevard.

Jimmy Durante Boulevard: Sidewalks are provided on the west side for most of the length of Jimmy Durante Boulevard, except for a portion south of San Dieguito Drive. Continuous sidewalks are also provided on the east side of Jimmy Durante Boulevard.

Del Mar Heights Road: Continuous sidewalks are provided along both sides of Del Mar Heights Road within the study area.

3.3 TRAFFIC VOLUMES

Existing a.m. (7:00 to 9:00 a.m.) and p.m. (4:00 to 6:00 p.m.) counts peak-hour turning movement counts were used from traffic studies for other projects. Existing counts were not able to be collected due to the sudden shutdown of schools and businesses amid the COVID-19 pandemic. For counts that are more than a year old, an ambient annual growth rate of 1.0% was applied.

Figure 3-4 illustrates the Existing Conditions traffic volumes for the study area.

Appendix A contains the existing peak-hour traffic volume data at the study intersections

3.4 INTERSECTION ANALYSIS

Table 3-1 displays the LOS analysis results for the study intersections under Existing Conditions. As shown in the table, all study intersections operate at LOS D or better during both peak periods.

Appendix B contains the peak-hour intersections LOS calculation worksheets.



NOT TO SCALE

1. Via De La Valle at Camino Del Mar	2. Via De La Valle at Jimmy Durante Blvd
21/19 ← 491/492 ← 378/269 ↖ 175/475 ← 113/179 ← 150/223 2/9 → 149/204 → 23/37 ↘ 16/44 ↑ 143/368 ↑ 132/152	51/66 ← 101/99 ← 469/377 ↖ 393/394 ← 565/692 ← 438/405 51/58 → 644/564 → 60/46 ↘ 27/183 ↑ 85/197 ↑ 205/335
3. Via De La Valle at I-5 SB Ramps	**4. Via De La Valle at I-5 NB Ramps**
233/285 ← 159/304 ↖ 501/255 ← 1235/1218 591/974 → 789/748 ↘	↖ 336/349 ← 1008/844 514/846 → 235/431 ↘ 728/628 ↑ 379/375
5. Jimmy Durante Blvd at San Dieguito Dr	**6. Del Mar Heights Rd at Camino Del Mar**
6/3 ← 390/261 ↖ 34/45 ← 2/1 2/0 → 4/1 ↘ 251/672 ↑ 9/20	2/13 ← 443/530 ← 263/310 ↖ 293/365 ← 46/115 ← 362/200 8/10 → 98/23 → 28/18 ↘ 19/40 ↑ 121/865 ↑ 64/262
7. Camino Del Mar at 9th Street	**8. Camino Del Mar at 15th Street**
36/14 ← 753/624 ← 25/23 ↖ 6/9 ← 2/4 ← 14/19 38/15 → 1/0 → 33/23 ↘ 42/22 ↑ 457/904 ↑ 8/18	61/108 ← 625/710 ← 88/105 ↖ 70/128 ← 18/23 ← 24/40 44/51 → 14/18 → 78/96 ↘ 88/141 ↑ 383/1335 ↑ 42/61

LEGEND:

Ⓧ = Study Intersection

XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 3-4
EXISTING BASELINE PEAK-HOUR TRAFFIC VOLUMES

Kimley»Horn

TABLE 3-1
SUMMARY OF INTERSECTION OPERATION
EXISTING CONDITIONS

Int. #	Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Camino Del Mar at Via De La Valle	S	34.3	C	35.1	D
2	Jimmy Durante Blvd at Via De La Valle	S	36.4	D	37.7	D
3	I-5 SB Ramps at Via De La Valle	S	13.0	B	15.3	B
4	I-5 NB Ramps at Via De La Valle	S	24.5	C	22.4	C
5	Jimmy Durante Blvd at San Diegutio Dr	U	5.0	A	6.9	A
6	Camino Del Mar at Del Mar Heights Rd	S	36.9	D	34.6	C
7	Camino Del Mar at 9th St	S	10.1	B	6.3	A
8	Camino Del Mar at 15th St	S	23.8	C	25.3	C

Notes:
- Bold values indicate intersections operating at an unacceptable Level of Service
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

4 PROJECT TRAFFIC

The following section describes the trip generation, distribution, and assignment related to the proposed Project.

4.1 TRIP GENERATION

Trip generation for the project site were estimated using traffic generation rates from SANDAG's *Not So Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region* (April 2002) during the weekday. During the weekend, ITE Trip Generation Manual (10th Edition, 2017) trips for "Multifamily Housing (Low-Rise)" (ITE Code 220) was used. The "Camino Del Mar/Border Ave Zone" would consist of an upper estimate of approximately 201 dwelling units (du). The "Staver Zone" would consist of an upper estimate of 97 du.

The net trip generation for the proposed site is summarized below.

Camino Del Mar/Border Ave Zone

- Weekday
  - 1,608 daily trips (ADT)
  - 129 a.m. peak-hour trips (26 in, 103 out)
  - 161 p.m. peak-hour trips (113 in, 48 out)

- Weekend
  - 140 peak-hour trips (70 in, 70 out)

Staver Zone

- Weekday
  - 776 daily trips (ADT)
  - 62 a.m. peak-hour trips (12 in, 50 out)
  - 77 p.m. peak-hour trips (54 in, 23 out)

- Weekend
  - 68 peak-hour trips (34 in, 34 out)

Table 4-1 further details the trip generation for the proposed site.

TABLE 4-1
SUMMARY OF PROJECT TRIP GENERATION
CITY OF DEL MAR - HOUSING ELEMENT

Land Use	ITE Code	Unit	Trip Generation Rates									
			Daily	AM Peak Hour [1]			PM Peak Hour [1]			Weekend Peak Hour [2]		
				In	Out	Total	In	Out	Total	In	Out	Total
Camino Del Mar/ Border Ave Zone	-	DU	8.000	0.128	0.512	0.640	0.560	0.240	0.800	0.350	0.350	0.700
Staver Zone	-	DU	8.000	0.128	0.512	0.640	0.560	0.240	0.800	0.350	0.350	0.700

Land Use	Quantity	Unit	Trip Generation Estimates									
			Daily	AM Peak Hour			PM Peak Hour			Weekend Peak Hour		
				In	Out	Total	In	Out	Total	In	Out	Total
Camino Del Mar/ Border Ave Zone	201	DU	1,608	26	103	129	113	48	161	70	70	140
Staver Zone	97	DU	776	12	50	62	54	23	77	34	34	68
Total Project Trips			2,384	38	153	191	167	71	238	104	104	208

[1] Source: SANDAG Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region (April 2002)

[2] Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition

4.2 TRIP DISTRIBUTION

Traffic trip distribution for the proposed Project was based on the existing roadway network and proposed access locations within the study area. Site-specific distributions through the study intersections were provided for each site, since the sites are located at opposite sides of the city.

Figure 4-1 illustrates the estimated traffic distribution for the proposed Project.

4.3 TRIP ASSIGNMENT

Based on the expected Project trip distributions, daily, a.m., and p.m. peak-hour Project trips were assigned to the roadway network and through the study intersections. The weekday and weekend trip assignments for the proposed Project are presented in **Figure 4-2** and **Figure 4-3**, respectively.

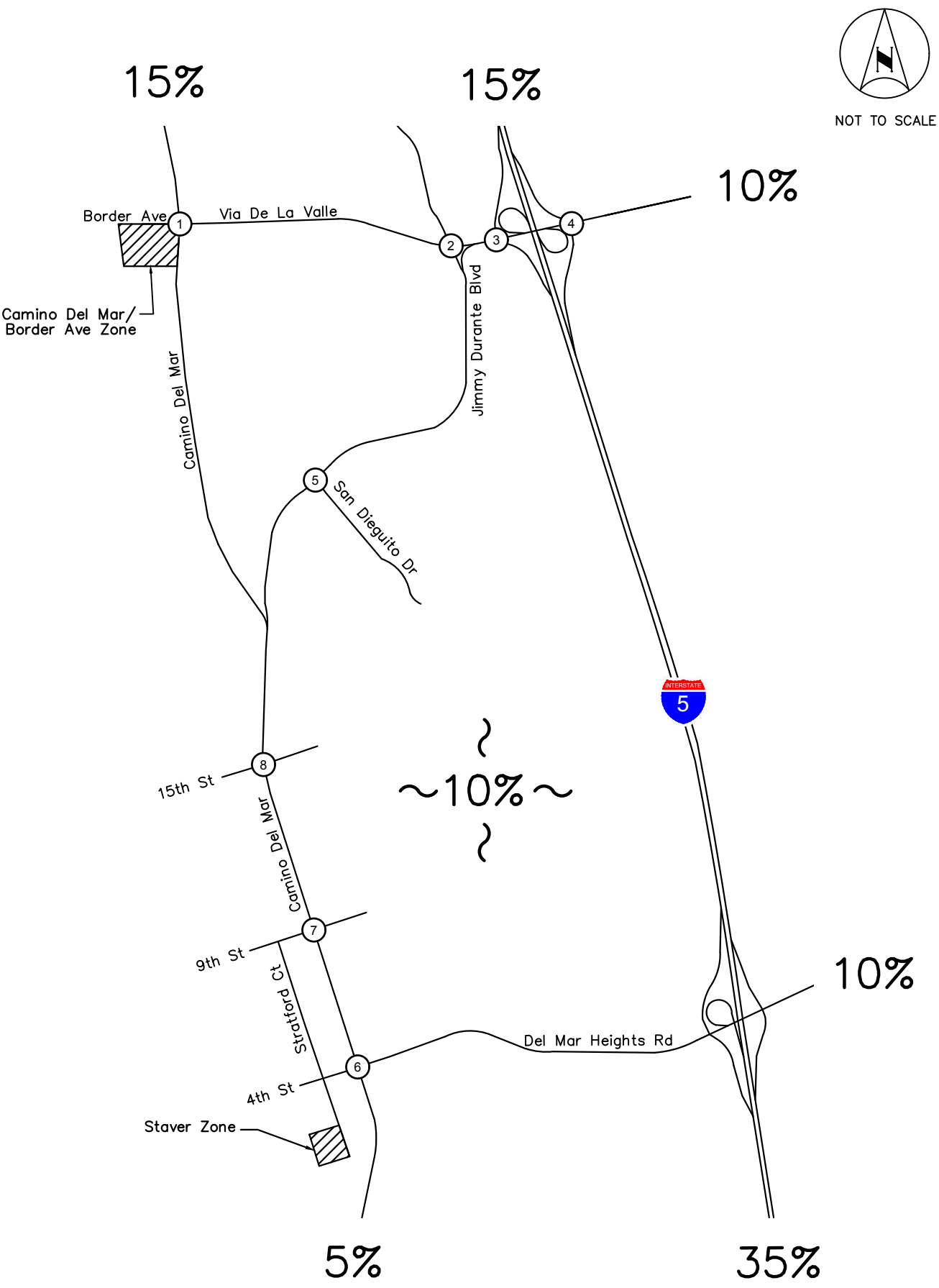


FIGURE 4-1
PROPOSED TRIP DISTRIBUTION

NOT TO SCALE



1. Via De La Valle at Camino Del Mar	2. Via De La Valle at Jimmy Durante Blvd
4/17, 2/8 ← 19/79 15/7 → 73/34 → 15/7 ↘ 4/17, 8/3	19/79 ← 73/34 →
3. Via De La Valle at I-5 SB Ramps	**4. Via De La Valle at I-5 NB Ramps**
4/17 ← 1/6 15/62 ← 25/12 → 48/22 ↘	4/17 ← 10/5 → 15/7 ↘ 12/51, 5/2
5. Jimmy Durante Blvd at San Dieguito Dr	**6. Del Mar Heights Rd at Camino Del Mar**
	3/13, 5/2 ← 8/38 13/5 → 34/17 → 3/1 ↘ 1/3, 1/6
7. Camino Del Mar at 9th Street	**8. Camino Del Mar at 15th Street**
7/10 ← 1/5 9/9 → 5/2	7/10, 10/5 ← 3/11 9/9 →

LEGEND:

X = Study Intersection

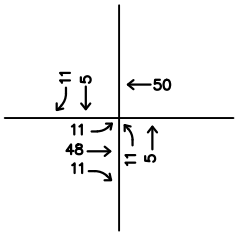
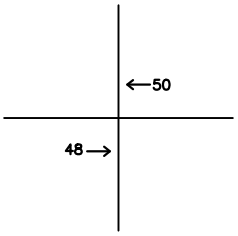
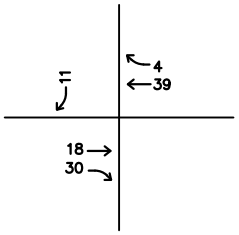
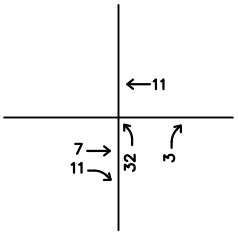
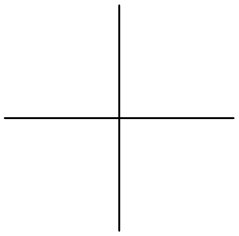
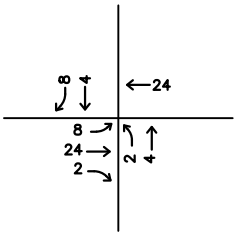
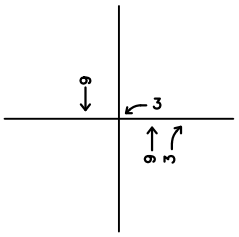
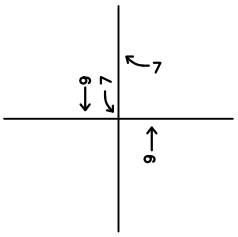
XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 4-2
PROPOSED PROJECT WEEKDAY TRIP ASSIGNMENT

Kimley»Horn



NOT TO SCALE

1. Via De La Valle at Camino Del Mar	2. Via De La Valle at Jimmy Durante Blvd
	
3. Via De La Valle at I-5 SB Ramps	4. Via De La Valle at I-5 NB Ramps
	
5. Jimmy Durante Blvd at San Dieguito Dr	6. Del Mar Heights Rd at Camino Del Mar
	
7. Camino Del Mar at 9th Street	8. Camino Del Mar at 15th Street
	

LEGEND:

Ⓧ = Study Intersection

YY = PM Peak Hour Turning Movement Volumes

FIGURE 4-3
PROPOSED PROJECT WEEKEND TRIP ASSIGNMENT

Kimley»Horn

5 EXISTING PLUS PROJECT CONDITIONS

This section provides a description of Existing Conditions with the addition of the proposed Project.

5.1 ROAD NETWORK

No changes to the roadway network were assumed with the proposed Project.

5.2 TRAFFIC VOLUMES

Traffic volumes for the Existing Plus Project Conditions were estimated by adding the project trips to the existing traffic volumes. **Figure 5-1** illustrates the Existing Plus Project Conditions traffic volumes.

5.3 INTERSECTION ANALYSIS

Table 5-1 displays the LOS analysis results for the study intersections under Existing Plus Project Conditions. As shown in the table, all study intersections would continue to operate at acceptable LOS D or better.

The addition of project traffic does not create a significant effect at any of the study locations.

Appendix B contains the peak-hour intersections LOS calculation worksheets.



NOT TO SCALE

1. Via De La Valle at Camino Del Mar	2. Via De La Valle at Jimmy Durante Blvd
25/36 ← 493/500 ← 378/269 ↖ ← 175/475 ← 132/258 ← 150/223 ↖ 17/16 → 222/238 → 38/44 ↘ ↗ 20/61 ↑ 151/371 ↑ 132/152 ↑	51/66 ← 101/99 ← 469/377 ↖ ← 393/394 ← 584/771 ← 438/405 ↖ 51/58 → 717/598 → 60/46 ↘ ↗ 27/183 ↑ 85/197 ↑ 205/335 ↑
3. Via De La Valle at I-5 SB Ramps	**4. Via De La Valle at I-5 NB Ramps**
237/302 ← 159/304 ↖ ← 502/261 ← 1250/1280 ↖ 616/986 → 837/770 ↘	↖ ← 336/349 ← 1012/861 524/851 → 250/438 ↘ ↗ 740/679 ↑ 384/377 ↑
5. Jimmy Durante Blvd at San Dieguito Dr	**6. Del Mar Heights Rd at Camino Del Mar**
6/3 ← 390/261 ↖ ← 34/45 ← 2/1 ↖ 2/0 → 4/1 ↘ ↗ 251/672 ↑ 9/20 ↑	5/26 ← 448/532 ← 263/310 ↖ ← 293/365 ← 54/153 ← 362/200 ↖ 21/15 → 132/40 → 31/19 ↘ ↗ 20/43 ↑ 122/871 ↑ 64/262 ↑
7. Camino Del Mar at 9th Street	**8. Camino Del Mar at 15th Street**
36/14 ← 760/634 ← 25/23 ↖ ← 6/9 ← 2/4 ← 15/24 ↖ 38/15 → 1/0 → 33/23 ↘ ↗ 42/22 ↑ 466/913 ↑ 13/20 ↑	61/108 ← 632/720 ← 98/110 ↖ ← 73/139 ← 18/23 ← 24/40 ↖ 44/51 → 14/18 → 78/96 ↘ ↗ 88/141 ↑ 392/1344 ↑ 42/61 ↑

LEGEND:

Ⓧ = Study Intersection

XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 5-1
EXISTING PLUS PROJECT PEAK-HOUR TRAFFIC VOLUMES

Kimley»Horn

TABLE 5-1
SUMMARY OF INTERSECTION OPERATION
EXISTING PLUS PROJECT CONDITIONS

Int. #	Intersection	AM Peak Hour						PM Peak Hour					
		Without Project		With Project		Change Delay	Sig Impact?	Without Project		With Project		Change Delay	Sig Impact?
		Delay	LOS	Delay	LOS			Delay	LOS	Delay	LOS		
1	Camino Del Mar at Via De La Valle	34.3	C	34.6	C	0.3	No	35.1	D	34.6	C	-0.5	No
2	Jimmy Durante Blvd at Via De La Valle	36.4	D	36.4	D	0.0	No	37.7	D	37.5	D	-0.2	No
3	I-5 SB Ramps at Via De La Valle	13.0	B	13.0	B	0.0	No	15.3	B	15.4	B	0.1	No
4	I-5 NB Ramps at Via De La Valle	24.5	C	24.6	C	0.1	No	22.4	C	22.8	C	0.4	No
5	Jimmy Durante Blvd at San Diegutio Dr	5.0	A	5.0	A	0.0	No	6.9	A	6.9	A	0.0	No
6	Camino Del Mar at Del Mar Heights Rd	36.9	D	38.1	D	1.2	No	34.6	C	35.8	D	1.2	No
7	Camino Del Mar at 9th St	10.1	B	10.0	A	-0.1	No	6.3	A	6.4	A	0.1	No
8	Camino Del Mar at 15th St	23.8	C	24.1	C	0.3	No	25.3	C	26.1	C	0.8	No

Notes:
- Bold values indicate intersections operating at an unacceptable Level of Service
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

6 EXISTING WEEKEND CONDITIONS

This section provides a description of Existing Weekend Conditions and Existing Weekend with the addition of the proposed Project Conditions.

6.1 ROAD NETWORK

No changes to the roadway network were assumed under this condition.

6.2 TRAFFIC VOLUMES

Existing Weekend peak-hour turning movement counts were used from traffic studies for other projects.

Figure 6-1 illustrates the Existing Weekend Condition traffic volumes.

Figure 6-2 illustrates Existing Weekend Plus Project Condition traffic volumes.

6.3 INTERSECTION ANALYSIS

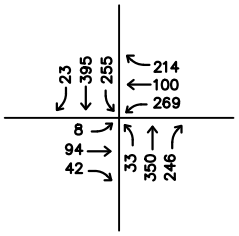
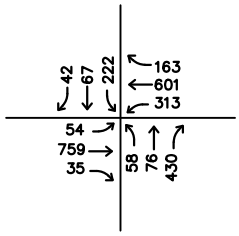
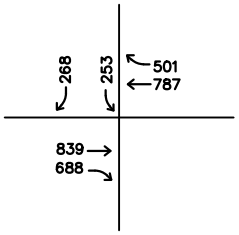
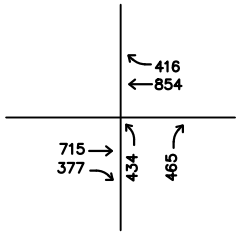
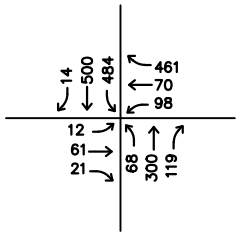
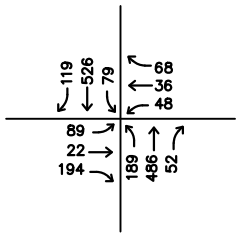
Table 6-2 displays the LOS analysis results for the study intersections under Existing Weekend and Existing Weekend Plus Project conditions. As shown in the table, all study intersections would continue to operate at acceptable LOS D or better under Existing Weekend Conditions.

The addition of project traffic does not create a significant effect at any of the study locations.

Appendix B contains the peak-hour intersections LOS calculation worksheets.

NOT TO SCALE



1. Via De La Valle at Camino Del Mar	2. Via De La Valle at Jimmy Durante Blvd
	
3. Via De La Valle at I-5 SB Ramps	4. Via De La Valle at I-5 NB Ramps
	
5. Jimmy Durante Blvd at San Dieguito Dr	6. Del Mar Heights Rd at Camino Del Mar
NOT ANALYZED FOR THIS SCENARIO	
7. Camino Del Mar at 9th Street	8. Camino Del Mar at 15th Street
NOT ANALYZED FOR THIS SCENARIO	

LEGEND:

Ⓧ = Study Intersection

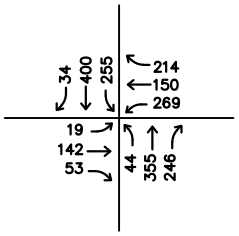
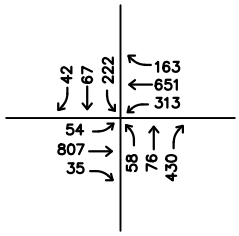
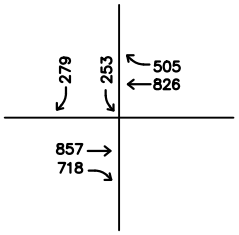
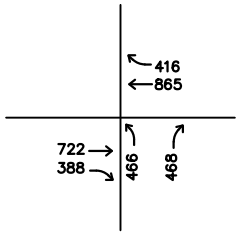
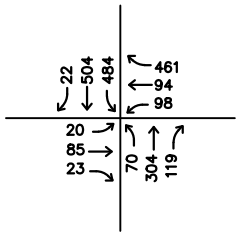
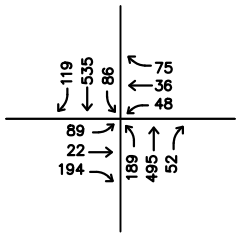
YY = PM Peak Hour Turning Movement Volumes

FIGURE 6-1
EXISTING WEEKEND PEAK-HOUR TRAFFIC VOLUMES

Kimley»Horn

NOT TO SCALE



1. Via De La Valle at Camino Del Mar	2. Via De La Valle at Jimmy Durante Blvd
	
3. Via De La Valle at I-5 SB Ramps	4. Via De La Valle at I-5 NB Ramps
	
5. Jimmy Durante Blvd at San Dieguito Dr	6. Del Mar Heights Rd at Camino Del Mar
NOT ANALYZED FOR THIS SCENARIO	
7. Camino Del Mar at 9th Street	8. Camino Del Mar at 15th Street
NOT ANALYZED FOR THIS SCENARIO	

LEGEND:

(X) = Study Intersection

YY = PM Peak Hour Turning Movement Volumes

FIGURE 6-2
EXISTING WEEKEND PLUS PROJECT PEAK-HOUR TRAFFIC VOLUMES

TABLE 6-1
SUMMARY OF INTERSECTION OPERATION
EXISTING WEEKEND CONDITIONS

Int. #	Intersection	PM Peak Hour					
		Without Project		With Project		Change Delay	Sig Impact?
		Delay	LOS	Delay	LOS		
1	Camino Del Mar at Via De La Valle	38.3	D	36.2	D	-2.1	No
2	Jimmy Durante Blvd at Via De La Valle	35.7	D	35.5	D	-0.2	No
3	I-5 SB Ramps at Via De La Valle	16.5	B	16.4	B	-0.1	No
4	I-5 NB Ramps at Via De La Valle	22.3	C	22.6	C	0.3	No
5	Jimmy Durante Blvd at San Diegutio Dr	-	-	-	-	-	-
6	Camino Del Mar at Del Mar Heights Rd	34.5	C	36.0	D	1.5	No
7	Camino Del Mar at 9th St	-	-	-	-	-	-
8	Camino Del Mar at 15th St	32.0	C	32.4	C	0.4	No

Notes:
- Bold values indicate intersections operating at an unacceptable Level of Service
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

7 DURING FAIR CONDITIONS

This section provides a description of During Fair Conditions and During Fair with the addition of the Project Conditions.

7.1 ROAD NETWORK

No changes to the roadway network were assumed under this condition.

7.2 TRAFFIC VOLUMES

During Fair peak-hour turning movement counts were used from traffic studies for other projects.

Figure 7-1 illustrates the During Fair Condition traffic volumes.

Figure 7-2 illustrates During Fair Plus Project Condition traffic volumes.

7.3 INTERSECTION ANALYSIS

Table 7-1 displays the LOS analysis results for the study intersections under During Fair and During Fair Plus Project conditions. As shown in the table, all study intersections would continue to operate at acceptable LOS D or better except at the following locations:

- #2 – Jimmy Durante Boulevard at Via De La Valle: PM - LOS E (with and without project)

The deficient intersection does not exceed the allowable delay threshold; therefore, the effect of project traffic would not be considered a significant project effect.

Appendix B contains the peak-hour intersections LOS calculation worksheets.

NOT TO SCALE



1. Via De La Valle at Camino Del Mar	2. Via De La Valle at Jimmy Durante Blvd
7/20, 411/397, 370/254 / 176/325, 103/104, 193/208 / 3/12, 152/101, 21/44 / 24/54, 164/566, 125/168	60/88, 67/113, 337/207 / 211/238, 655/724, 446/769 / 51/48, 692/459, 45/59 / 33/217, 68/181, 223/1123
3. Via De La Valle at I-5 SB Ramps	4. Via De La Valle at I-5 NB Ramps
254/368, 188/247 / 477/236, 1059/1364 / 510/510, 742/795	274/309, 886/747 / 481/782, 217/391 / 650/768, 414/430
5. Jimmy Durante Blvd at San Dieguito Dr	6. Del Mar Heights Rd at Camino Del Mar
NOT ANALYZED FOR THIS SCENARIO	NOT ANALYZED FOR THIS SCENARIO
7. Camino Del Mar at 9th Street	8. Camino Del Mar at 15th Street
NOT ANALYZED FOR THIS SCENARIO	55/56, 659/765, 76/66 / 52/132, 11/37, 26/34 / 32/61, 10/16, 94/121 / 114/175, 304/899, 40/52

LEGEND:

Ⓧ = Study Intersection

XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 7-1
DURING FAIR PEAK-HOUR TRAFFIC VOLUMES

NOT TO SCALE



1. Via De La Valle at Camino Del Mar	2. Via De La Valle at Jimmy Durante Blvd
11/37 ← 413/405 ← 370/254 ↖ 176/325 ← 122/183 ↖ 193/208 18/19 → 225/135 → 36/51 ↘ ↗ 28/71 ↑ 172/569 ↑ 125/168	60/88 ← 67/113 ← 337/207 ↖ 211/238 ← 674/803 ↖ 446/769 51/48 → 765/493 → 45/59 ↘ ↗ 33/217 ↑ 68/181 ↑ 223/1123
3. Via De La Valle at I-5 SB Ramps	**4. Via De La Valle at I-5 NB Ramps**
258/385 ← 188/247 ↖ 478/342 ← 1074/1426 535/522 → 790/817 ↘	↖ 274/309 ← 890/764 491/787 → 232/398 ↘ 662/819 ↑ 419/432
5. Jimmy Durante Blvd at San Dieguito Dr	**6. Del Mar Heights Rd at Camino Del Mar**
NOT ANALYZED FOR THIS SCENARIO	NOT ANALYZED FOR THIS SCENARIO
7. Camino Del Mar at 9th Street	**8. Camino Del Mar at 15th Street**
NOT ANALYZED FOR THIS SCENARIO	55/56 ← 666/775 ← 86/71 ↖ 55/143 ← 11/37 ← 26/34 32/61 → 10/16 → 94/121 ↘ ↗ 114/175 ↑ 313/908 ↑ 40/52

LEGEND:

Ⓧ = Study Intersection

XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 7-2
DURING FAIR PLUS PROJECT
PEAK-HOUR TRAFFIC VOLUMES

TABLE 7-1
SUMMARY OF INTERSECTION OPERATION
DURING FAIR CONDITIONS

Int. #	Intersection	AM Peak Hour						PM Peak Hour					
		Without Project		With Project		Change Delay	Sig Impact?	Without Project		With Project		Change Delay	Sig Impact?
		Delay	LOS	Delay	LOS			Delay	LOS	Delay	LOS		
1	Camino Del Mar at Via De La Valle	34.5	C	35.1	D	0.6	No	37.0	D	36.1	D	-0.9	No
2	Jimmy Durante Blvd at Via De La Valle	34.6	C	34.5	C	-0.1	No	55.2	E	56.4	E	1.2	No
3	I-5 SB Ramps at Via De La Valle	15.3	B	15.1	B	-0.2	No	17.4	B	17.5	B	0.1	No
4	I-5 NB Ramps at Via De La Valle	24.8	C	24.9	C	0.1	No	24.7	C	24.9	C	0.2	No
5	Jimmy Durante Blvd at San Diegutio Dr	-	-	-	-	-	-	-	-	-	-	-	-
6	Camino Del Mar at Del Mar Heights Rd	-	-	-	-	-	-	-	-	-	-	-	-
7	Camino Del Mar at 9th St	-	-	-	-	-	-	-	-	-	-	-	-
8	Camino Del Mar at 15th St	24.4	C	24.7	C	0.3	No	26.6	C	27.2	C	0.6	No

Notes:
- Bold values indicate intersections operating at an unacceptable Level of Service
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

8 DURING FAIR WEEKEND CONDITIONS

This section provides a description of During Fair Weekend Conditions and During Fair Weekend with the addition of the Project Conditions.

8.1 ROAD NETWORK

No changes to the roadway network were assumed under this condition.

8.2 TRAFFIC VOLUMES

During Fair Weekend peak-hour turning movement counts were used from traffic studies for other projects.

Figure 8-1 illustrates the During Fair Weekend Condition traffic volumes.

Figure 8-2 illustrates During Fair Weekend Plus Project Condition traffic volumes.

8.3 INTERSECTION ANALYSIS

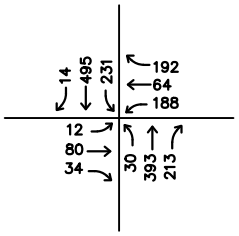
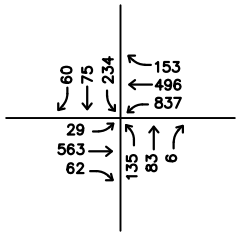
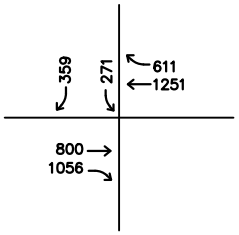
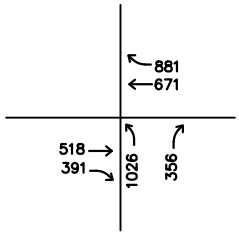
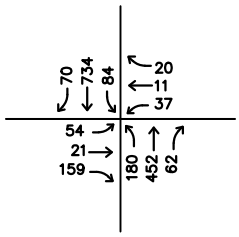
Table 8-1 displays the LOS analysis results for the study intersections under During Fair Weekend and During Fair Weekend Plus Project conditions. As shown in the table, all study intersections would continue to operate at acceptable LOS D or better under During Fair Weekend Conditions.

The addition of project traffic does not create a significant effect at any of the study locations.

Appendix B contains the peak-hour intersections LOS calculation worksheets

NOT TO SCALE



1. Via De La Valle at Camino Del Mar	2. Via De La Valle at Jimmy Durante Blvd
	
3. Via De La Valle at I-5 SB Ramps	4. Via De La Valle at I-5 NB Ramps
	
5. Jimmy Durante Blvd at San Dieguito Dr	6. Del Mar Heights Rd at Camino Del Mar
NOT ANALYZED FOR THIS SCENARIO	NOT ANALYZED FOR THIS SCENARIO
7. Camino Del Mar at 9th Street	8. Camino Del Mar at 15th Street
NOT ANALYZED FOR THIS SCENARIO	

LEGEND:

X = Study Intersection

YY = PM Peak Hour Turning Movement Volumes

FIGURE 8-1
DURING FAIR WEEKEND PEAK-HOUR TRAFFIC VOLUMES

NOT TO SCALE



1. Via De La Valle at Camino Del Mar	2. Via De La Valle at Jimmy Durante Blvd
31 ← 503 ← 231 ↖ 192 ← 143 ← 188 19 ↘ 114 → 41 ↘ 47 ↑ 396 ↑ 213 ↗	60 ← 75 ← 234 ↖ 153 ← 546 ← 837 29 ↘ 611 → 62 ↘ 135 ↑ 83 ↑ 6 ↗
3. Via De La Valle at I-5 SB Ramps	4. Via De La Valle at I-5 NB Ramps
370 ← 271 ← 615 ← 1290 818 → 1086 ↘	881 ← 682 ↖ 525 → 402 ↘ 1058 ↑ 359 ↗
5. Jimmy Durante Blvd at San Dieguito Dr	6. Del Mar Heights Rd at Camino Del Mar
NOT ANALYZED FOR THIS SCENARIO	NOT ANALYZED FOR THIS SCENARIO
7. Camino Del Mar at 9th Street	8. Camino Del Mar at 15th Street
NOT ANALYZED FOR THIS SCENARIO	70 ← 743 ← 91 ↖ 27 ← 11 ← 37 54 ↘ 21 → 159 ↘ 180 ↑ 461 ↑ 62 ↗

LEGEND:

Ⓧ = Study Intersection

YY = PM Peak Hour Turning Movement Volumes

FIGURE 8-2
DURING FAIR WEEKEND PLUS PROJECT PEAK-HOUR TRAFFIC VOLUMES

Kimley»Horn

TABLE 8-1
SUMMARY OF INTERSECTION OPERATION
DURING FAIR WEEKEND CONDITIONS

Int. #	Intersection	PM Peak Hour					
		Without Project		With Project		Change Delay	Sig Impact?
		Delay	LOS	Delay	LOS		
1	Camino Del Mar at Via De La Valle	38.0	D	36.9	D	-1.1	No
2	Jimmy Durante Blvd at Via De La Valle	37.2	D	36.6	D	-0.6	No
3	I-5 SB Ramps at Via De La Valle	16.6	B	16.6	B	0.0	No
4	I-5 NB Ramps at Via De La Valle	27.6	C	27.6	C	0.0	No
5	Jimmy Durante Blvd at San Diegutio Dr	-	-	-	-	-	-
6	Camino Del Mar at Del Mar Heights Rd	-	-	-	-	-	-
7	Camino Del Mar at 9th St	-	-	-	-	-	-
8	Camino Del Mar at 15th St	26.5	C	26.8	C	0.3	No

Notes:
- Bold values indicate intersections operating at an unacceptable Level of Service
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

9 DURING HORSE RACES CONDITIONS

This section provides a description of During Horse Races Conditions and During Horse Races with the addition of the Project Conditions.

9.1 ROAD NETWORK

No changes to the roadway network were assumed under this condition.

9.2 TRAFFIC VOLUMES

During Horse peak-hour turning movement counts were used from traffic studies for other projects.

Figure 9-1 illustrates the During Fair Weekend Condition traffic volumes.

Figure 9-2 illustrates During Fair Weekend Plus Project Condition traffic volumes.

9.3 INTERSECTION ANALYSIS

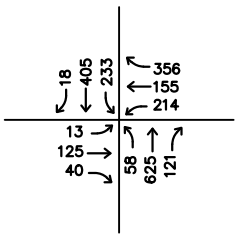
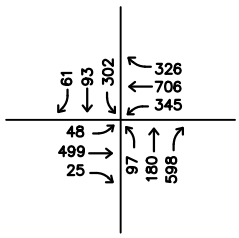
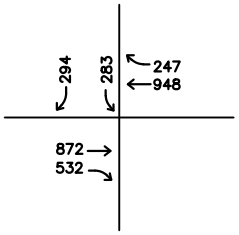
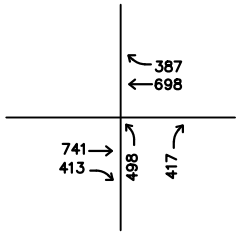
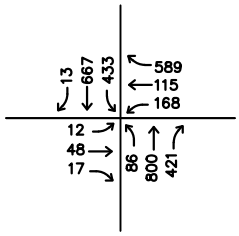
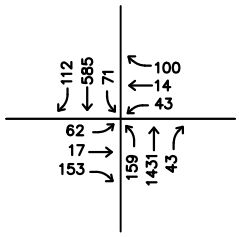
Table 9-1 displays the LOS analysis results for the study intersections under During Horse Races and During Horse Races Plus Project conditions. As shown in the table, all study intersections would continue to operate at acceptable LOS D or better under During Horse Races Conditions.

The addition of project traffic does not create a significant effect at any of the study locations.

Appendix B contains the peak-hour intersections LOS calculation worksheets.

NOT TO SCALE



1. Via De La Valle at Camino Del Mar	2. Via De La Valle at Jimmy Durante Blvd
	
3. Via De La Valle at I-5 SB Ramps	4. Via De La Valle at I-5 NB Ramps
	
5. Jimmy Durante Blvd at San Dieguito Dr	6. Del Mar Heights Rd at Camino Del Mar
NOT ANALYZED FOR THIS SCENARIO	
7. Camino Del Mar at 9th Street	8. Camino Del Mar at 15th Street
NOT ANALYZED FOR THIS SCENARIO	

LEGEND:

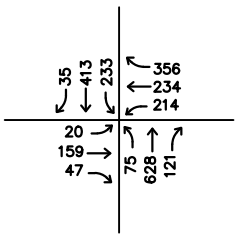
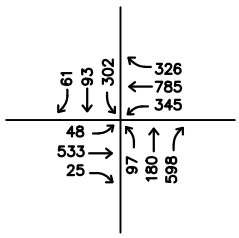
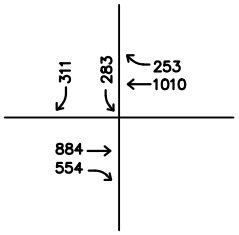
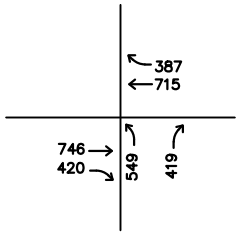
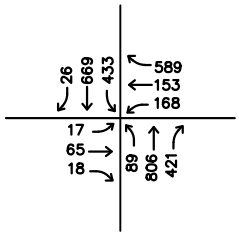
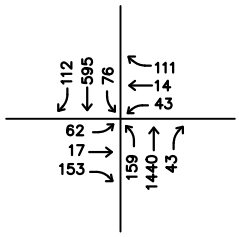
X = Study Intersection

YY = PM Peak Hour Turning Movement Volumes

FIGURE 9-1
DURING HORSE RACE PEAK-HOUR TRAFFIC VOLUMES

NOT TO SCALE



1. Via De La Valle at Camino Del Mar	2. Via De La Valle at Jimmy Durante Blvd
	
3. Via De La Valle at I-5 SB Ramps	4. Via De La Valle at I-5 NB Ramps
	
5. Jimmy Durante Blvd at San Dieguito Dr	6. Del Mar Heights Rd at Camino Del Mar
NOT ANALYZED FOR THIS SCENARIO	
7. Camino Del Mar at 9th Street	8. Camino Del Mar at 15th Street
NOT ANALYZED FOR THIS SCENARIO	

LEGEND:

Ⓧ = Study Intersection

XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 9-2
DURING HORSE RACE PLUS PROJECT PEAK-HOUR TRAFFIC VOLUMES

TABLE 9-1
SUMMARY OF INTERSECTION OPERATION
DURING HORSE RACES CONDITIONS

Int. #	Intersection	PM Peak Hour					
		Without Project		With Project		Change Delay	Sig Impact?
		Delay	LOS	Delay	LOS		
1	Camino Del Mar at Via De La Valle	36.0	D	35.2	D	-0.8	No
2	Jimmy Durante Blvd at Via De La Valle	39.0	D	39.1	D	0.1	No
3	I-5 SB Ramps at Via De La Valle	16.4	B	16.4	B	0.0	No
4	I-5 NB Ramps at Via De La Valle	23.0	C	23.3	C	0.3	No
5	Jimmy Durante Blvd at San Diegutio Dr	-	-	-	-	-	-
6	Camino Del Mar at Del Mar Heights Rd	38.5	D	39.7	D	1.2	No
7	Camino Del Mar at 9th St	-	-	-	-	-	-
8	Camino Del Mar at 15th St	26.2	C	27.0	C	0.8	No

Notes:
- Bold values indicate intersections operating at an unacceptable Level of Service
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

10 DURING HORSE RACES WEEKEND CONDITIONS

This section provides a description of During Horse Races Weekend Conditions and During Horse Races Weekend with the addition of the Project Conditions.

10.1 ROAD NETWORK

No changes to the roadway network were assumed under this condition.

10.2 TRAFFIC VOLUMES

During Horse Races Weekend peak-hour turning movement counts were used from traffic studies for other projects.

Figure 10-1 illustrates the During Horse Races Weekend Condition traffic volumes.

Figure 10-2 illustrates During Horse Races Weekend Plus Project Condition traffic volumes.

10.3 INTERSECTION ANALYSIS

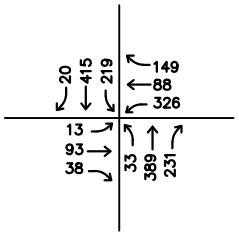
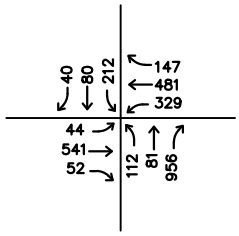
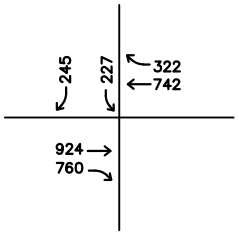
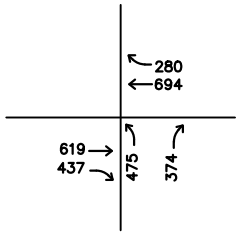
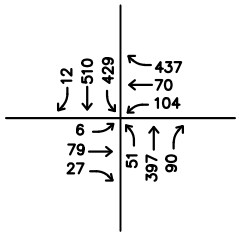
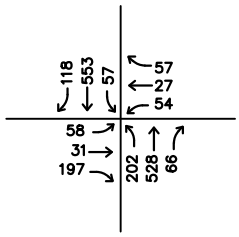
Table 8-1 displays the LOS analysis results for the study intersections under During Fair Weekend and During Fair Weekend Plus Project conditions. As shown in the table, all study intersections would continue to operate at acceptable LOS D or better under During Fair Weekend Conditions.

The addition of project traffic does not create a significant effect at any of the study locations.

Appendix B contains the peak-hour intersections LOS calculation worksheets.

NOT TO SCALE



1. Via De La Valle at Camino Del Mar	2. Via De La Valle at Jimmy Durante Blvd
	
3. Via De La Valle at I-5 SB Ramps	4. Via De La Valle at I-5 NB Ramps
	
5. Jimmy Durante Blvd at San Dieguito Dr	6. Del Mar Heights Rd at Camino Del Mar
NOT ANALYZED FOR THIS SCENARIO	
7. Camino Del Mar at 9th Street	8. Camino Del Mar at 15th Street
NOT ANALYZED FOR THIS SCENARIO	

LEGEND:

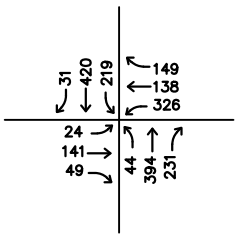
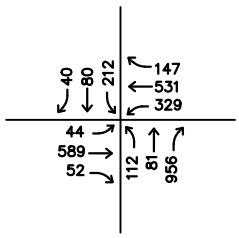
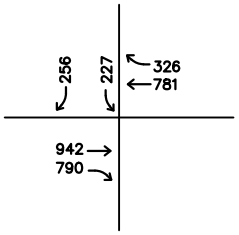
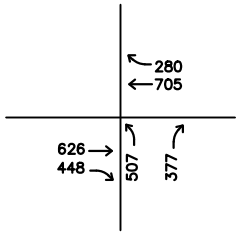
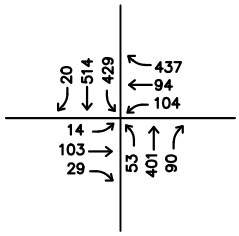
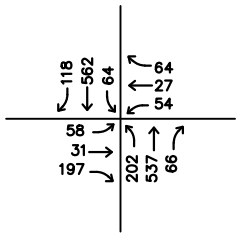
Ⓧ = Study Intersection

YY = PM Peak Hour Turning Movement Volumes

FIGURE 10-1
DURING HORSE RACES WEEKEND PEAK-HOUR TRAFFIC VOLUMES



NOT TO SCALE

1. Via De La Valle at Camino Del Mar	2. Via De La Valle at Jimmy Durante Blvd
	
3. Via De La Valle at I-5 SB Ramps	4. Via De La Valle at I-5 NB Ramps
	
5. Jimmy Durante Blvd at San Dieguito Dr	6. Del Mar Heights Rd at Camino Del Mar
NOT ANALYZED FOR THIS SCENARIO	
7. Camino Del Mar at 9th Street	8. Camino Del Mar at 15th Street
NOT ANALYZED FOR THIS SCENARIO	

LEGEND:

(X) = Study Intersection

YY = PM Peak Hour Turning Movement Volumes

FIGURE 10-2
DURING HORSE RACES WEEKEND PLUS PROJECT PEAK-HOUR TRAFFIC VOLUMES

TABLE 10-1
SUMMARY OF INTERSECTION OPERATION
DURING HORSE RACES WEEKEND CONDITIONS

Int. #	Intersection	PM Peak Hour					
		Without Project		With Project		Change Delay	Sig Impact?
		Delay	LOS	Delay	LOS		
1	Camino Del Mar at Via De La Valle	37.7	D	36.4	D	-1.3	No
2	Jimmy Durante Blvd at Via De La Valle	40.9	D	41.1	D	0.2	No
3	I-5 SB Ramps at Via De La Valle	15.1	B	15.1	B	0.0	No
4	I-5 NB Ramps at Via De La Valle	23.3	C	23.5	C	0.2	No
5	Jimmy Durante Blvd at San Diegutio Dr	-	-	-	-	-	-
6	Camino Del Mar at Del Mar Heights Rd	33.1	C	34.3	C	1.2	No
7	Camino Del Mar at 9th St	-	-	-	-	-	-
8	Camino Del Mar at 15th St	29.7	C	30.1	C	0.4	No

Notes:
- Bold values indicate intersections operating at an unacceptable Level of Service
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

11 FUTURE YEAR 2035 CONDITIONS

This section provides a description of Future Year 2035 Conditions and Future Year 2035 with the addition of the proposed Project Conditions.

11.1 ROAD NETWORK

No changes to the roadway network were assumed under this condition.

11.2 TRAFFIC VOLUMES

Future Year 2035 peak-hour turning movement counts were used from traffic studies for other projects. For locations that were not previously studied, an annual growth rate of one percent (1%) per year was applied to existing turning movement volumes.

Figure 11-1 illustrates the Future Year 2035 Condition traffic volumes.

Figure 11-2 illustrates the Future Year 2035 Plus Project Condition traffic volumes.

11.3 INTERSECTION ANALYSIS

Table 11-1 displays the LOS analysis results for the study intersections under Future Year 2035 and Future Year 2035 Plus Project conditions. As shown in the table, all study intersections would operate at acceptable LOS D or better under Future Year 2035 Conditions.

The addition of project traffic does not create a significant effect at any of the study locations.

Appendix B contains the peak-hour intersections LOS calculation worksheets.

NOT TO SCALE



1. Via De La Valle at Camino Del Mar	2. Via De La Valle at Jimmy Durante Blvd
25/20 ← 620/620 ← 500/350 ← 230/620 ← 130/200 ← 170/250 5/10 → 170/230 → 30/40 → 20/50 ↑ 180/810 ↑ 150/170 ↑	70/90 ← 150/150 ← 650/520 ← 540/540 ← 610/750 ← 630/580 70/80 → 700/610 → 80/60 → 40/250 ↑ 130/300 ↑ 290/480 ↑
3. Via De La Valle at I-5 SB Ramps	**4. Via De La Valle at I-5 NB Ramps**
250/310 ← 170/330 ← 550/280 ← 1330/1310 640/1050 → 1150/1090 →	380/390 ← 1400/1170 710/1170 → 280/500 → 850/740 ↑ 460/460 ↑
5. Jimmy Durante Blvd at San Dieguito Dr	**6. Del Mar Heights Rd at Camino Del Mar**
7/4 ← 447/300 ← 39/51 ← 2/1 2/0 → 5/1 → 288/771 ↑ 11/23 ↑	5/15 ← 520/630 ← 390/460 ← 430/540 ← 50/130 ← 500/280 10/10 → 110/30 → 30/20 → 20/40 ↑ 140/1020 ↑ 90/360 ↑
7. Camino Del Mar at 9th Street	**8. Camino Del Mar at 15th Street**
41/16 ← 860/713 ← 29/26 ← 7/11 ← 2/5 ← 16/22 43/17 → 1/0 → 37/26 → 48/25 ↑ 522/1033 ↑ 10/20 ↑	70/120 ← 680/770 ← 100/110 ← 80/140 ← 20/30 ← 30/40 50/50 → 20/20 → 80/100 → 90/150 ↑ 420/1450 ↑ 50/70 ↑

LEGEND:

Ⓧ = Study Intersection

XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 11-1
FUTURE YEAR 2035 PEAK-HOUR TRAFFIC VOLUMES

Kimley»Horn

NOT TO SCALE



1. Via De La Valle at Camino Del Mar	2. Via De La Valle at Jimmy Durante Blvd
29/37 ← 622/628 ← 500/350 → 230/620 ← 149/279 ← 170/250 20/17 → 243/264 → 45/47 → 24/67 ↑ 188/813 ↑ 150/170	70/90 ← 150/150 ← 650/520 → 540/540 ← 629/829 ← 630/580 70/80 → 773/644 → 80/60 → 40/250 ↑ 130/300 ↑ 290/480
3. Via De La Valle at I-5 SB Ramps	**4. Via De La Valle at I-5 NB Ramps**
254/327 ← 170/330 → 551/286 ← 1345/1372 665/1062 → 1198/1112 →	380/390 ← 1404/1187 720/1175 → 295/507 → 862/791 ↑ 465/462
5. Jimmy Durante Blvd at San Dieguito Dr	**6. Del Mar Heights Rd at Camino Del Mar**
7/4 ← 447/300 → 39/51 ← 2/1 2/0 → 5/1 → 288/771 ↑ 11/23	8/28 ← 525/632 ← 390/460 → 430/540 ← 58/168 ← 500/280 23/15 → 144/47 → 33/21 → 21/43 ↑ 141/1026 ↑ 90/360
7. Camino Del Mar at 9th Street	**8. Camino Del Mar at 15th Street**
41/16 ← 867/723 ← 29/26 → 7/11 ← 2/5 ← 17/27 43/17 → 1/0 → 37/26 → 48/25 ↑ 531/1042 ↑ 15/22	70/120 ← 687/780 ← 110/115 → 83/151 ← 20/30 ← 30/40 50/50 → 20/20 → 80/100 → 90/150 ↑ 429/1459 ↑ 50/70

LEGEND:

Ⓧ = Study Intersection

XX/YY = AM/PM Peak Hour Turning Movement Volumes

FIGURE 11-2
FUTURE YEAR 2035 PLUS PROJECT PEAK-HOUR TRAFFIC VOLUMES

Kimley»Horn

TABLE 11-1
SUMMARY OF INTERSECTION OPERATION
FUTURE YEAR 2035 CONDITIONS

Int. #	Intersection	AM Peak Hour						PM Peak Hour					
		Without Project		With Project		Change in Delay	Sig Impact?	Without Project		With Project		Change in Delay	Sig Impact?
		Delay	LOS	Delay	LOS			Delay	LOS	Delay	LOS		
1	Camino Del Mar at Via De La Valle	35.0	C	35.9	D	0.9	No	39.9	D	41.0	D	1.1	No
2	Jimmy Durante Blvd at Via De La Valle	46.3	D	47.7	D	1.4	No	46.6	D	48.2	D	1.6	No
3	I-5 SB Ramps at Via De La Valle	13.2	B	13.2	B	0.0	No	15.7	B	15.9	B	0.2	No
4	I-5 NB Ramps at Via De La Valle	26.3	C	26.5	C	0.2	No	22.7	C	23.2	C	0.5	No
5	Jimmy Durante Blvd at San Diegutio Dr	5.4	A	5.4	A	0.0	No	7.9	A	7.9	A	0.0	No
6	Camino Del Mar at Del Mar Heights Rd	39.1	D	40.7	D	1.6	No	40.3	D	41.9	D	1.6	No
7	Camino Del Mar at 9th St	10.4	B	10.4	B	0.0	No	6.5	A	6.6	A	0.1	No
8	Camino Del Mar at 15th St	24.4	C	24.8	C	0.4	No	26.9	D	27.7	C	0.8	No

Notes:
- Bold values indicate intersections operating at an unacceptable Level of Service
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

12 VEHICLES MILES TRAVELED (VMT) IMPACTS

The City is preparing new CEQA Guidelines to address the transportation related impacts of projects. This change is due to California Senate Bill 743 (SB 743), which is intended to promote public health, infill development, multimodal transportation networks and the reduction of greenhouse gas emissions. The City presented draft CEQA Guidelines to the Planning Commission on May 12, 2020 and will present these guidelines to City Council for adoption prior to July 1, 2020.

12.1 PROJECT SCREENING

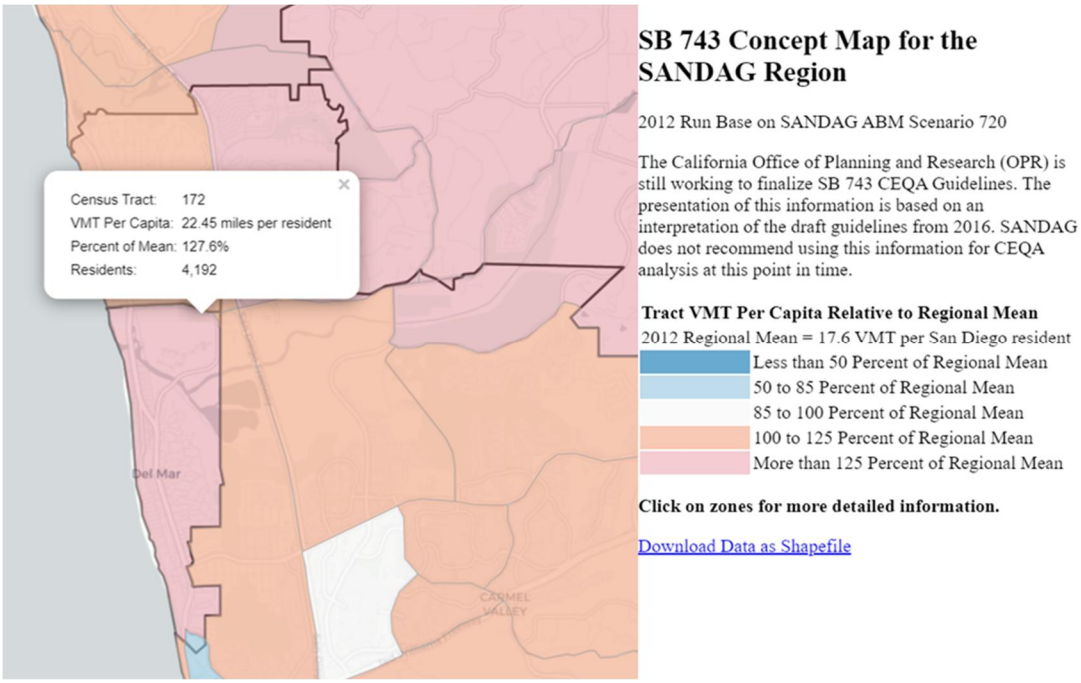
A project can be screened out from the requirement to do VMT based CEQA analysis under certain circumstances, including the following relative to residential projects:

- Projects of 18 apartments or less
- Projects with 100% affordable housing units

It is unknown if individual projects will be processed that would qualify for either of these screening criteria.

12.2 PROJECT TYPE AND THRESHOLD OF SIGNIFICANCE

For residential uses, projects need to compare to Del Mar VMT per resident. According to SANDAG's travel forecast model, as depicted below, the average residential VMT in Del Mar is 22.45 VMT per resident. Del Mar is proposing a threshold of 85% of the average Del Mar VMT per resident for a project to avoid a significant impact. Since all residential projects in Del Mar have the same 22.45 VMT per resident, according to the SANDAG model, mitigation to reduce VMT would be through trip reduction measures.



12.3 PROJECT MITIGATION

Projects not screened out would be required to reduce their VMT per resident by at least 15% to mitigate CEQA transportation impacts. The City proposes to allow this to occur either through the implementation of local Transportation Demand Management (TDM) strategies or through the payment of an In-Lieu Fee. An In-Lieu Fee has not yet been established by City Council, but could include on-demand shuttle services or mobility agreements with nearby, major employers such as 22nd District Agricultural Association or University of California San Diego. These programs would need to be implemented citywide to be effective and cost efficient.

Several TDM measures are suggested in the City's draft CEQA Guidance, including the following that could be implemented for a residential project:

- Increased land density
- Increased transit accessibility
- Enhancements to bike and pedestrian networks
- Traffic calming measures
- Microtransit to/from COASTER station
- Reduced parking requirements
- Implement rideshare
- Mobility Hub improvements

Implementation of one or more of these programs could result in 15% reduction in VMT per resident. Individual development projects could choose to implement a suite of these measures and/or pay an In-Lieu Fee (if implemented by the City) to reduce impacts to a level below significance.

13 FINDINGS AND CONCLUSIONS

The following section provides a summary of the key findings of the local transportation analysis and VMT impact analysis.

13.1 SUMMARY OF INTERSECTION ANALYSIS

All intersections would operate at LOS D or better during all peak periods under all scenarios except for the following intersection.

- #2 – Jimmy Durante Boulevard at Via De La Valle (During Fair and During Fair Plus Project)

Direct Effects:

The deficient intersection does not exceed the allowable delay threshold; therefore, the effect of project traffic would not be considered a significant project effect.

13.2 SUMMARY OF VMT ANALYSIS

Del Mar is proposing a threshold of 85% of the average Del Mar VMT per resident for a project to avoid a significant impact. Since all residential projects in Del Mar have the same 22.45 VMT per resident, according to the SANDAG model, mitigation to reduce VMT would be through trip reduction measures.

The City proposes to allow this to occur either through the implementation of local Transportation Demand Management (TDM) strategies or through the payment of an In-Lieu Fee. An In-Lieu Fee has not yet been established by City Council, but could include on-demand shuttle services or mobility agreements with nearby, major employers such as 22nd District Agricultural Association or University of California San Diego. These programs would need to be implemented citywide to be effective and cost efficient.

APPENDICES

APPENDIX A

TRAFFIC COUNT SHEETS

APPENDIX B

INTERSECTION ANALYSIS WORKSHEETS

APPENDIX C

SANDAG MODEL OUTPUT

APPENDIX A
Traffic Count Sheets



LINSCOTT LAW & GREENSPAN engineers

N:\3108\Figures
Date: 11/07/19

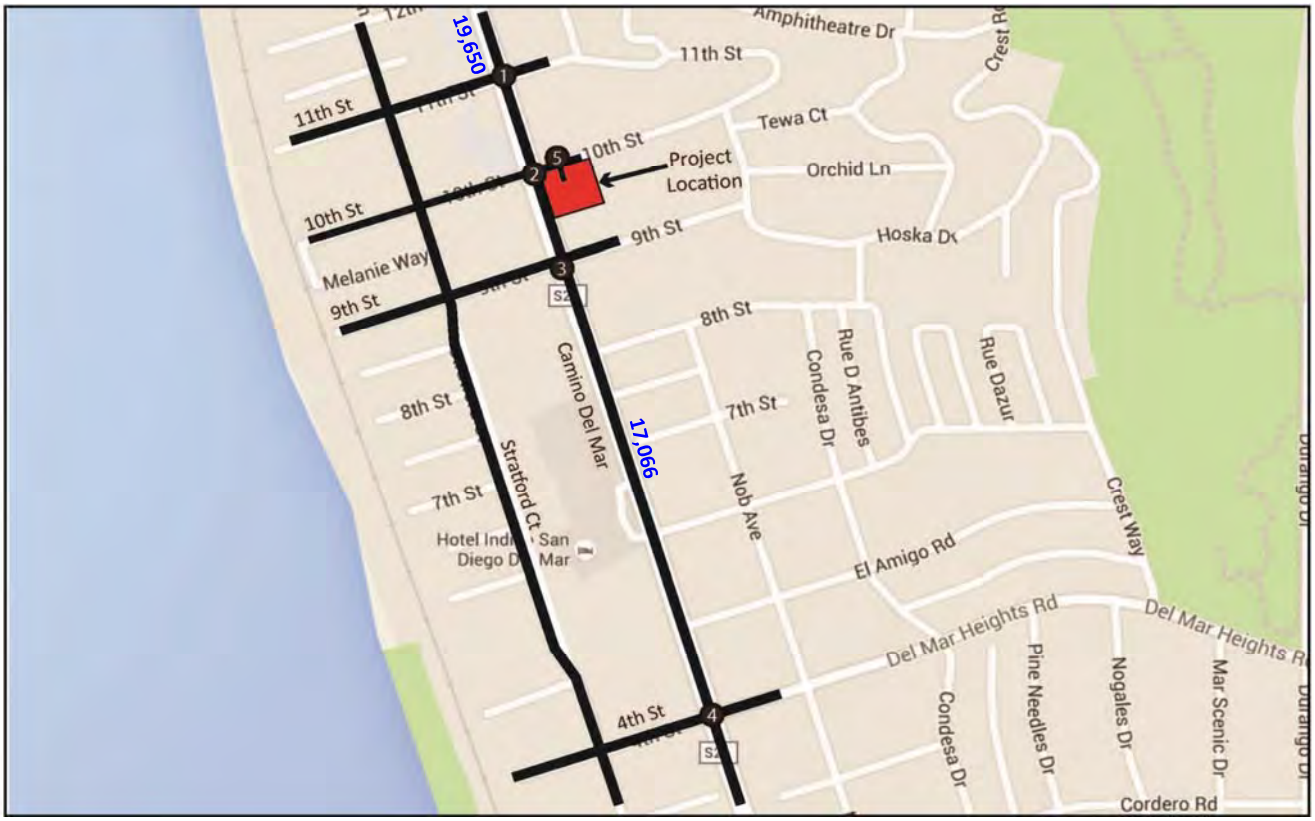
Figure 3-2

Existing Traffic Volumes

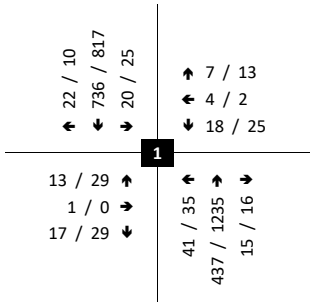
Typical Weekday

MARISOL

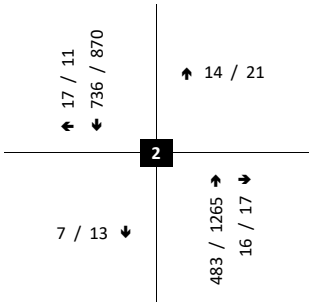
941 Camino Del Mar



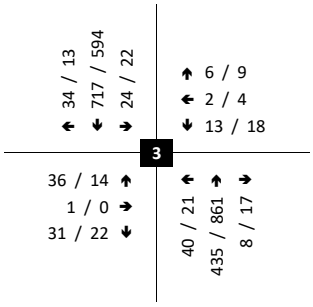
Camino Del Mar @ 11th Street



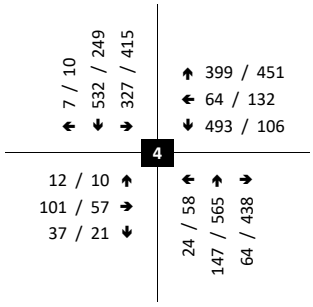
Camino Del Mar @ 10th Street



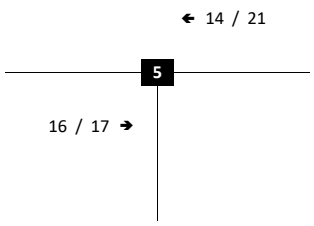
Camino Del Mar @ 9th Street



Camino Del Mar @ Del Mar Heights Rd / 4th Street



Garden Del Mar Driveway @ 10th Street



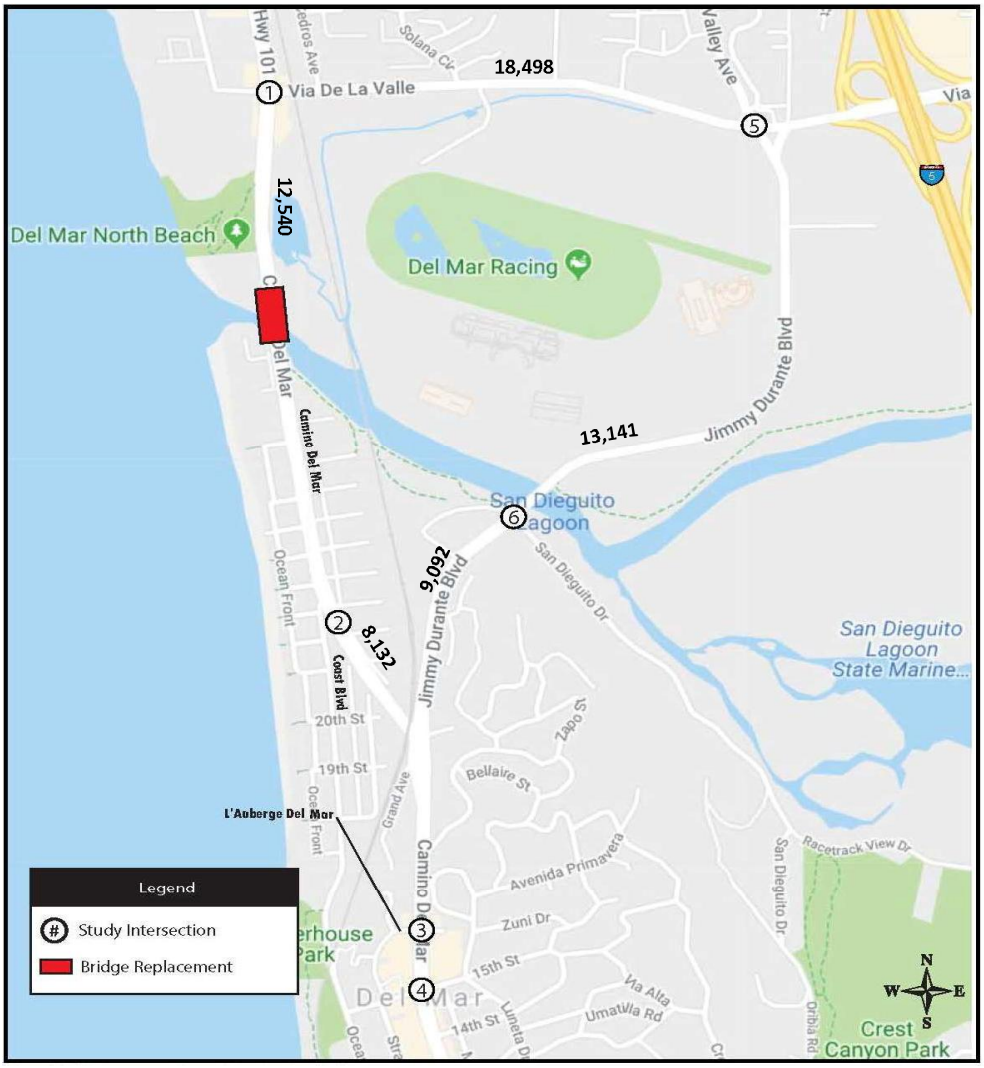
LEGEND
x,xxx = ADT Volume
xx / yy = AM / PM Peak-Hour Turning Movement Volumes

The naming convention for intersections is North / South @ East / West

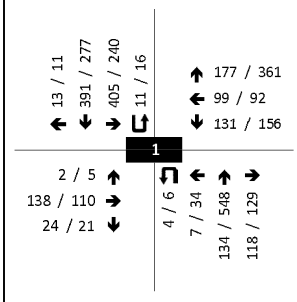
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Figure 3-3
Existing Traffic Volumes

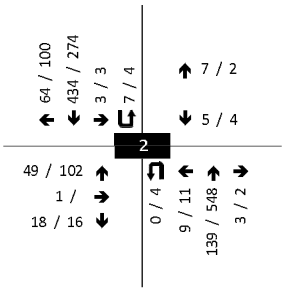
Camino Del Mar Bridge



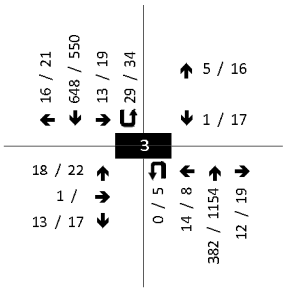
Highway 101 / Camino Del Mar @ Via De La Valle / Border Ave



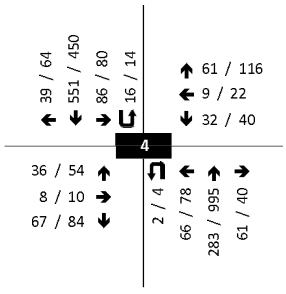
Camino Del Mar @ Court St / Coast Blvd



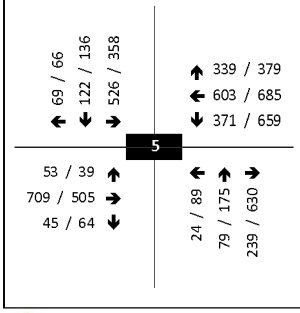
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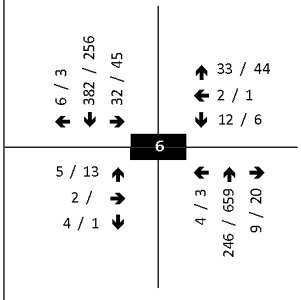
Camino Del Mar @ 15th St



Valley Ave / Jimmy Durante Blvd @ Via De La Valle



Jimmy Durante Blvd @ San Dieguito Dr



LEGEND

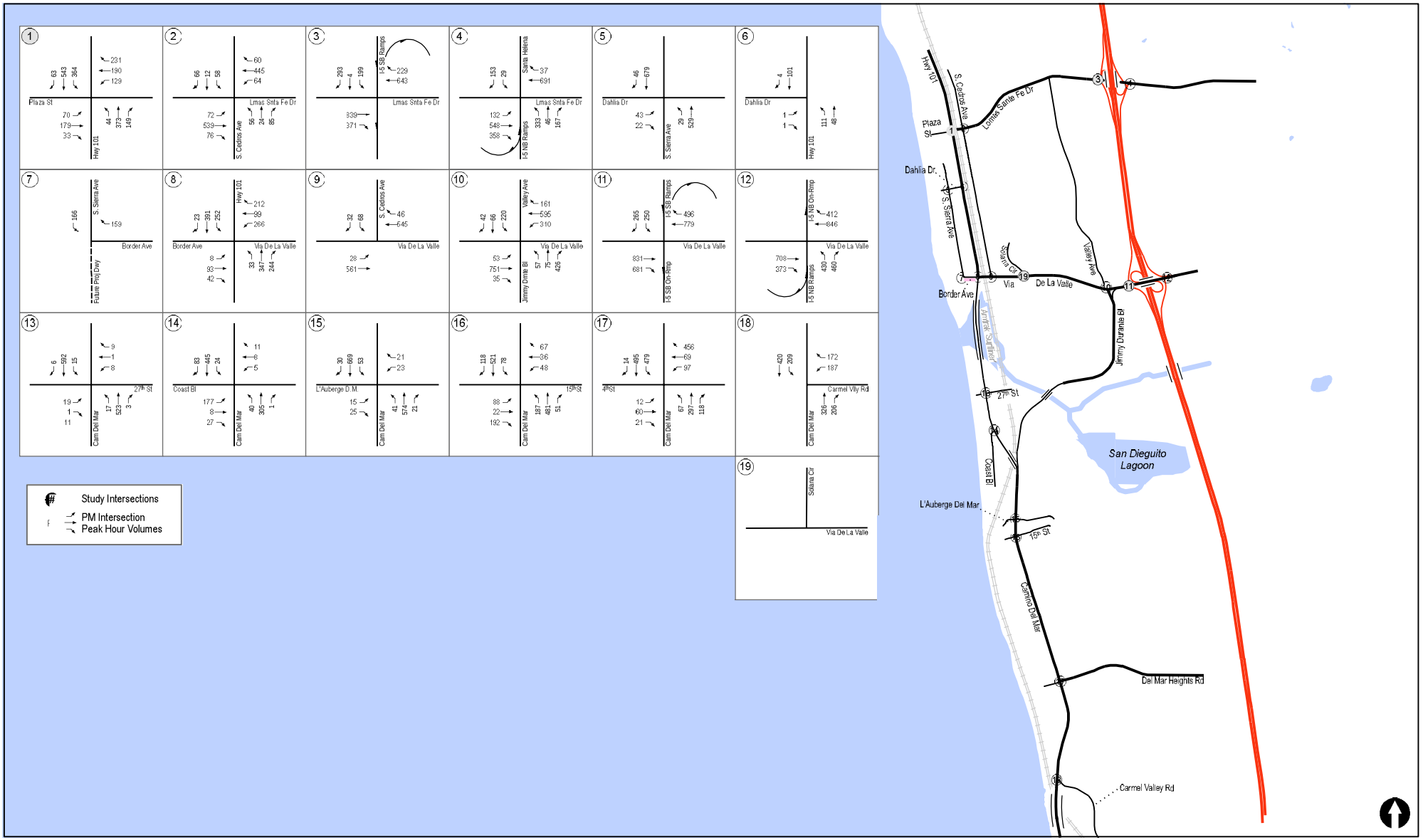
xx / yy = AM / PM Peak-Hour Turning Movement Volumes

X,XXX = ADT Volume

T:\Projects\Meinfelder\18.0487_Camino del Mar Bridge\06_Planning\Analysis\Volumes\[Traffic Volumes -CDM Bridge.xlsx]EX Fig

Exhibit 3-3

Existing Traffic Volumes



LINSCOTT LAW & GREENSPAN engineers

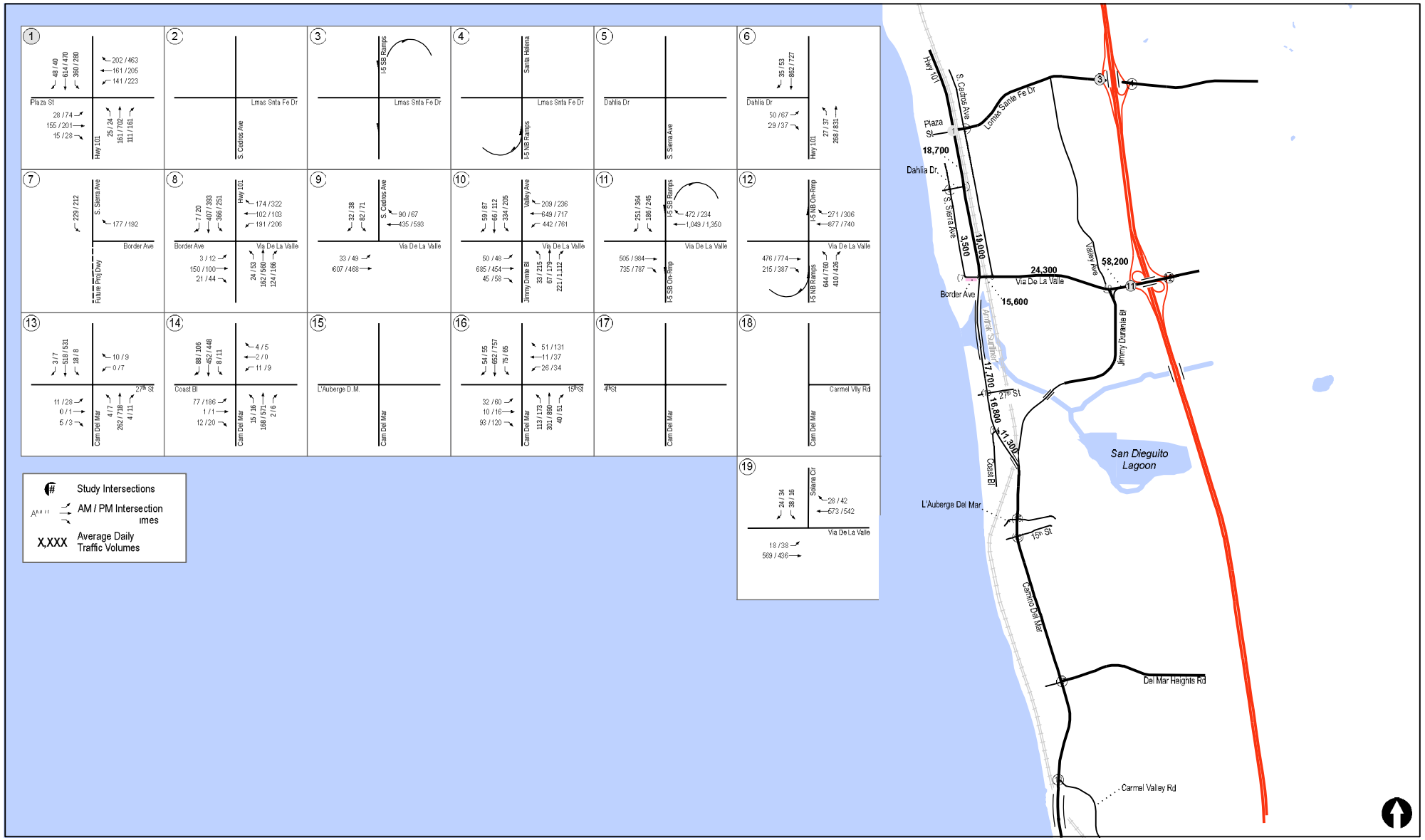
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Date: 11/07/19

Figure 3-3

Existing Traffic Volumes

Typical Weekend

MARISOL



LINSCOTT LAW & GREENSPAN engineers

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Date: 11/07/19

Figure 3-4

Existing Traffic Volumes

Weekday - During Fair

MARISOL



LINSCOTT LAW & GREENSPAN engineers

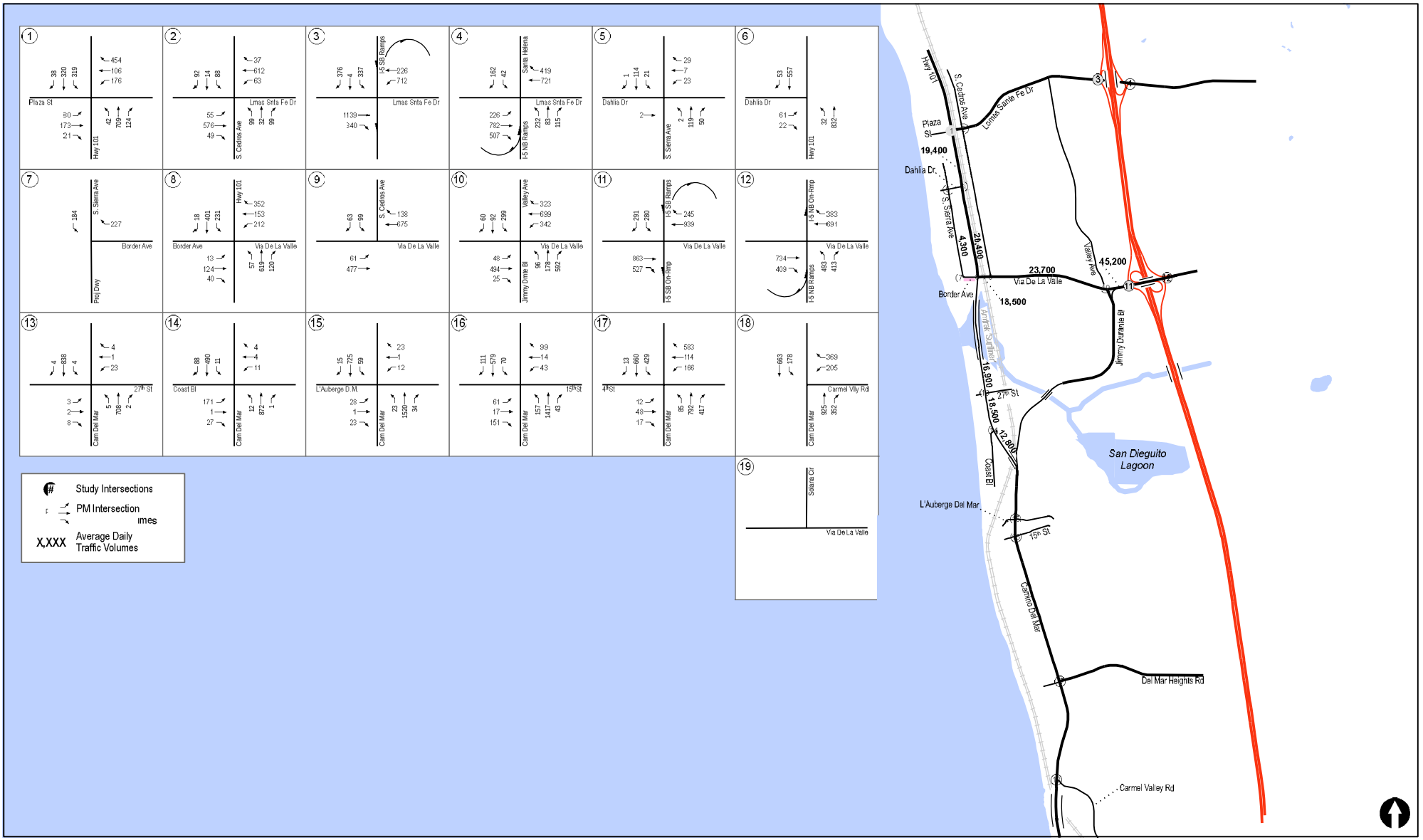
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Date: 11/07/19

Figure 3-5

Existing Traffic Volumes

Weekend - During Fair

MARISOL



LINSCOTT LAW & GREENSPAN engineers

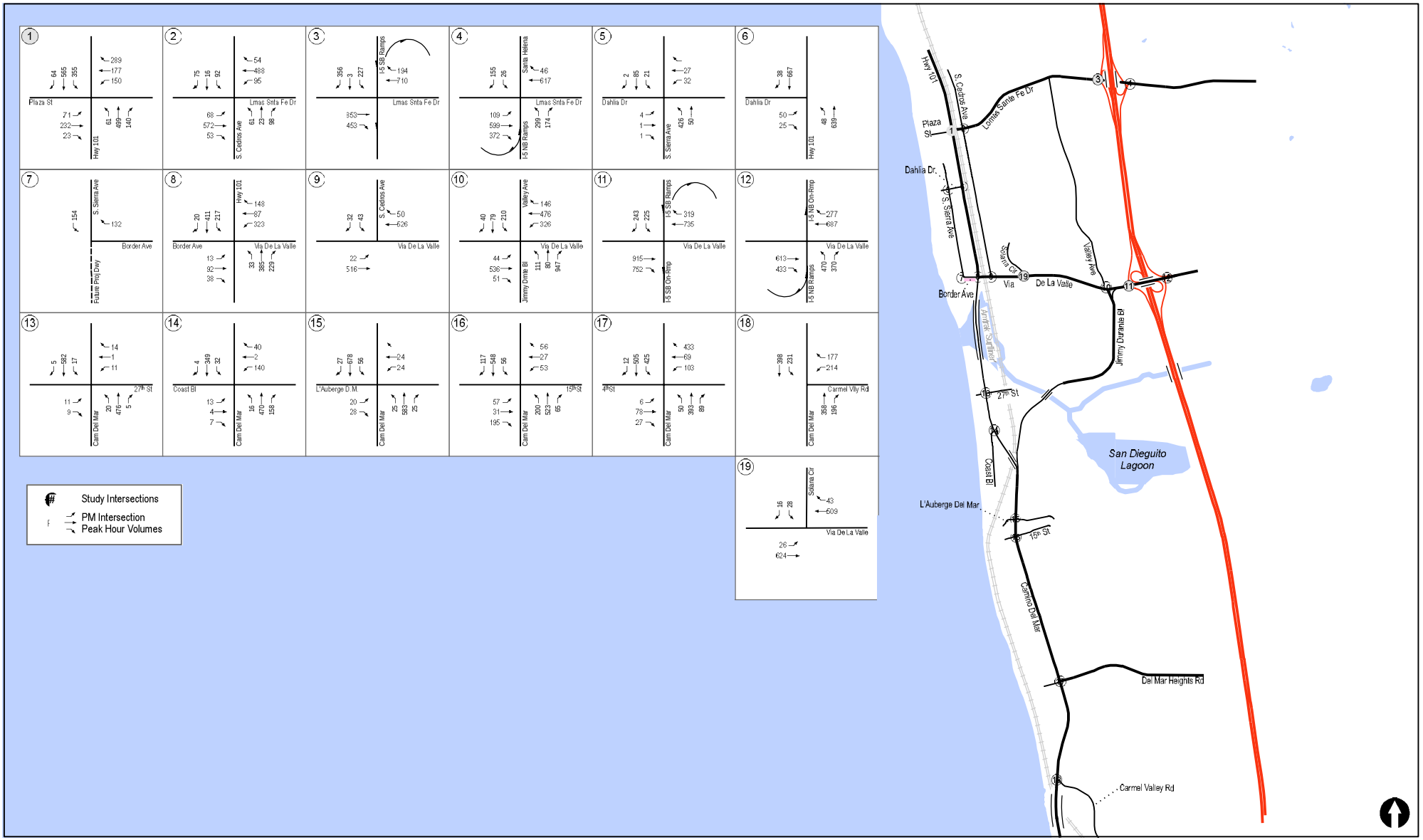
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Date: 11/07/19

Figure 3-6

Existing Traffic Volumes

Weekday - During Horse Races

MARISOL



LINSCOTT LAW & GREENSPAN engineers

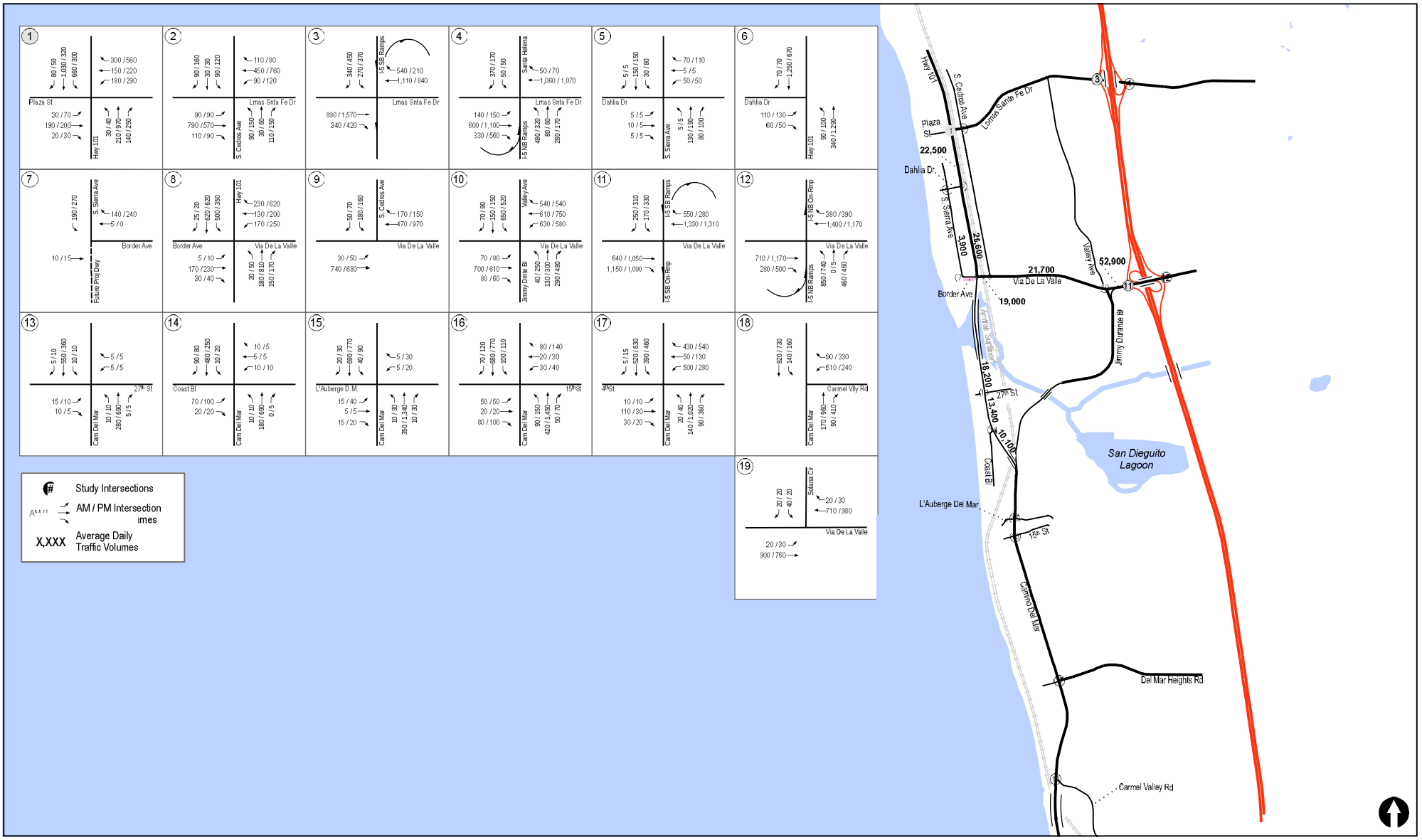
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Date: 11/07/19

Figure 3-7

Existing Traffic Volumes

Weekend - During Horse Races

MARISOL



LINSCOTT LAW & GREENSPAN engineers

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Date: 06/24/19

Figure 12-1

Year 2035 Traffic Volumes

Typical Weekday

DEL MAR RESORT

APPENDIX B
Intersection Analysis Worksheets

Del Mar Housing Elemenet

Vistro File: C:\...\Del Mar AM.vistro
Report File: C:\...\1 EX AM.pdf

Scenario 1 EX AM
5/12/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Camino Del Mar at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.457	34.3	C
2	Jimmy Durante Blvd at Via De La Valle	Signalized	HCM 6th Edition	EB Left	0.572	36.4	D
3	I-5 SB Ramps at Via De La Valle	Signalized	HCM 6th Edition	SB Right	0.462	13.0	B
4	I-5 NB Ramps at Via De La Valle	Signalized	HCM 6th Edition	NB Right	0.560	24.5	C
5	Jimmy Durante Blvd at San Dieguito Drive	Roundabout	HCM 6th Edition	SB Thru		5.0	A
6	Camino Del Mar at Del Mar Heights Rd	Signalized	HCM 6th Edition	EB Thru	0.385	36.9	D
7	9th St at Camino Del Mar	Signalized	HCM 6th Edition	NB Left	0.305	10.1	B
8	15th St at Camino Del Mar	Signalized	HCM 6th Edition	NB Left	0.358	23.8	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Camino Del Mar at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	34.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.457

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	0	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	16	143	132	378	491	21	2	149	23	150	113	175
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	143	132	378	491	21	2	149	23	150	113	175
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	39	36	103	133	6	1	40	6	41	31	48
Total Analysis Volume [veh/h]	17	155	143	411	534	23	2	162	25	163	123	190
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	32	26	0	64	58	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	13	13	30	41	41	65	65	65	65
g / C, Green / Cycle	0.02	0.11	0.11	0.25	0.34	0.34	0.54	0.54	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.01	0.04	0.09	0.23	0.15	0.15	0.10	0.14	0.07	0.12
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1843	1826	1196	1870	1589
c, Capacity [veh/h]	34	393	176	446	639	630	1015	617	1009	857
d1, Uniform Delay [s]	58.31	49.64	52.17	43.85	30.58	30.58	14.20	17.05	13.63	14.46
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.28	0.64	8.81	8.36	0.48	0.48	0.41	1.04	0.25	0.60
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.51	0.39	0.81	0.92	0.44	0.44	0.19	0.26	0.12	0.22
d, Delay for Lane Group [s/veh]	69.60	50.28	60.98	52.21	31.06	31.07	14.61	18.10	13.88	15.06
Lane Group LOS	E	D	E	D	C	C	B	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.62	2.20	4.64	12.85	6.37	6.28	2.74	2.80	1.71	2.83
50th-Percentile Queue Length [ft/ln]	15.43	55.10	115.90	321.22	159.26	156.98	68.56	70.07	42.77	70.81
95th-Percentile Queue Length [veh/ln]	1.11	3.97	8.17	18.73	10.51	10.39	4.94	5.04	3.08	5.10
95th-Percentile Queue Length [ft/ln]	27.78	99.19	204.18	468.18	262.74	259.72	123.41	126.12	76.99	127.46

Movement, Approach, & Intersection Results

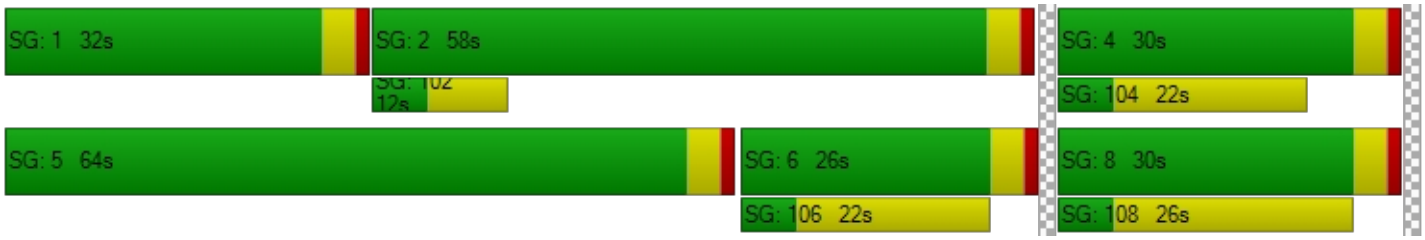
d_M, Delay for Movement [s/veh]	69.60	50.28	60.98	52.21	31.06	31.07	14.61	14.61	14.61	18.10	13.88	15.06
Movement LOS	E	D	E	D	C	C	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	56.18			40.04			14.61			15.79		
Approach LOS	E			D			B			B		
d_I, Intersection Delay [s/veh]	34.26											
Intersection LOS	C											
Intersection V/C	0.457											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.868	2.574	1.902	2.437
Crosswalk LOS	C	B	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	367	900	433	433
d_b, Bicycle Delay [s]	40.02	18.15	36.82	36.82
l_b,int, Bicycle LOS Score for Intersection	1.819	2.358	1.871	2.345
Bicycle LOS	A	B	A	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Jimmy Durante Blvd at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	36.4
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.572

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	27	85	205	469	101	51	51	644	60	438	565	393
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	85	205	469	101	51	51	644	60	438	565	393
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	23	56	127	27	14	14	175	16	119	154	107
Total Analysis Volume [veh/h]	29	92	223	510	110	55	55	700	65	476	614	427
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	30	0	0	31	0	15	26	0	33	44	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	12	21	21	21	5	52	52	19	67	67
g / C, Green / Cycle	0.10	0.10	0.10	0.17	0.17	0.17	0.04	0.43	0.43	0.16	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.02	0.05	0.08	0.15	0.06	0.03	0.03	0.21	0.21	0.14	0.29	0.30
s, saturation flow rate [veh/h]	1781	1870	2813	3459	1870	1589	1781	1870	1815	3459	1870	1623
c, Capacity [veh/h]	180	189	284	593	321	272	72	811	787	554	1036	899
d1, Uniform Delay [s]	49.28	50.99	52.65	48.32	43.77	42.67	57.03	24.27	24.27	49.06	16.87	17.17
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.41	1.93	4.73	3.81	0.63	0.36	15.59	2.02	2.08	4.01	1.92	2.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.16	0.49	0.78	0.86	0.34	0.20	0.77	0.48	0.48	0.86	0.53	0.55
d, Delay for Lane Group [s/veh]	49.70	52.92	57.38	52.13	44.40	43.03	72.62	26.28	26.35	53.07	18.79	19.60
Lane Group LOS	D	D	E	D	D	D	E	C	C	D	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.82	2.72	3.47	7.71	2.95	1.44	1.96	8.28	8.05	7.24	9.79	9.12
50th-Percentile Queue Length [ft/ln]	20.48	68.06	86.68	192.82	73.69	35.92	49.07	206.92	201.33	180.96	244.81	227.99
95th-Percentile Queue Length [veh/ln]	1.47	4.90	6.24	12.27	5.31	2.59	3.53	12.99	12.71	11.65	14.92	14.07
95th-Percentile Queue Length [ft/ln]	36.87	122.51	156.02	306.69	132.64	64.65	88.32	324.87	317.68	291.27	373.12	351.80

Movement, Approach, & Intersection Results

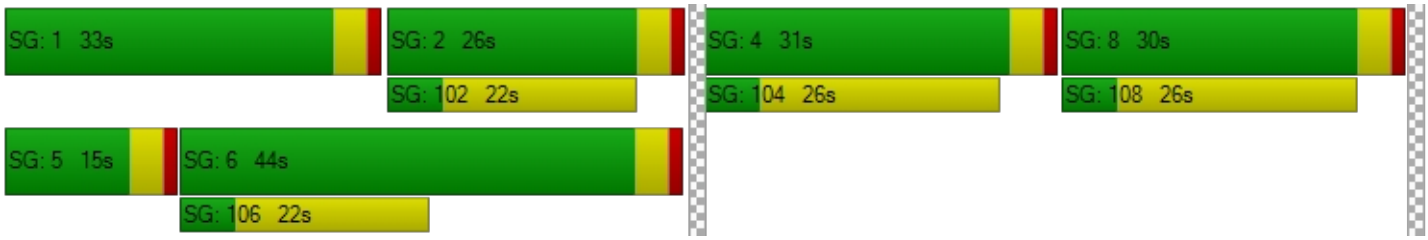
d_M, Delay for Movement [s/veh]	49.70	52.92	57.38	52.13	44.40	43.03	72.62	26.32	26.35	53.07	18.88	19.60
Movement LOS	D	D	E	D	D	D	E	C	C	D	B	B
d_A, Approach Delay [s/veh]	55.54			50.13			29.42			29.81		
Approach LOS	E			D			C			C		
d_I, Intersection Delay [s/veh]	36.44											
Intersection LOS	D											
Intersection V/C	0.572											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.630	2.559	2.611	2.947
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	433	450	367	667
d_b, Bicycle Delay [s]	36.82	36.04	40.02	26.67
l_b,int, Bicycle LOS Score for Intersection	2.127	2.673	2.236	2.811
Bicycle LOS	B	B	B	C

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: I-5 SB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	13.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.462

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	0	159	0	233	0	591	789	0	1235	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	159	0	233	0	591	789	0	1235	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9200	1.0000	0.9200	1.0000	0.9200	0.9200	1.0000	0.9200	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	43	0	63	0	161	214	0	336	0
Total Analysis Volume [veh/h]	0	0	0	173	0	253	0	642	858	0	1342	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	0	0	5	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	38	0	0	0	82	0	0	82	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	21	0	0	0	3	0	0	14	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		13	13	13	99	99
g / C, Green / Cycle		0.11	0.11	0.11	0.82	0.82
(v / s)_i Volume / Saturation Flow Rate		0.09	0.09	0.09	0.18	0.38
s, saturation flow rate [veh/h]		1781	1616	1589	3560	3560
c, Capacity [veh/h]		196	178	175	2931	2931
d1, Uniform Delay [s]		51.93	51.94	51.94	2.29	3.01
k, delay calibration		0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		6.39	7.05	7.16	0.17	0.52
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.77	0.78	0.78	0.22	0.46
d, Delay for Lane Group [s/veh]		58.33	58.99	59.10	2.46	3.53
Lane Group LOS		E	E	E	A	A
Critical Lane Group		No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		4.80	4.40	4.33	1.24	3.42
50th-Percentile Queue Length [ft/ln]		120.08	109.91	108.28	30.97	85.62
95th-Percentile Queue Length [veh/ln]		8.40	7.83	7.74	2.23	6.16
95th-Percentile Queue Length [ft/ln]		209.93	195.87	193.60	55.75	154.12

Movement, Approach, & Intersection Results

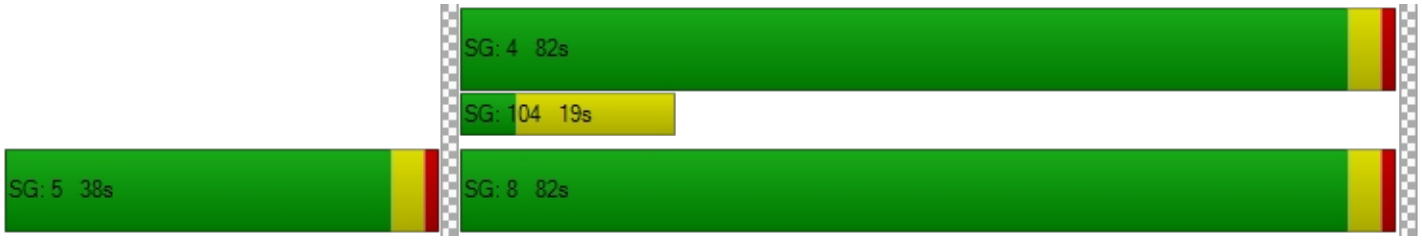
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	58.44	0.00	59.05	0.00	2.46	0.00	0.00	3.53	0.00
Movement LOS				E		E		A			A	
d_A, Approach Delay [s/veh]	0.00			58.79			2.46			3.53		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	13.01											
Intersection LOS	B											
Intersection V/C	0.462											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.250	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1300	1300
d_b, Bicycle Delay [s]	60.00	60.00	7.35	7.35
l_b,int, Bicycle LOS Score for Intersection	4.132	4.835	2.089	2.667
Bicycle LOS	D	E	B	B

Sequence

Ring 1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-5 NB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	24.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.560

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	728	0	379	0	0	0	0	514	0	0	1008	336
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	728	0	379	0	0	0	0	514	0	0	1008	336
Peak Hour Factor	0.9200	1.0000	0.9200	1.0000	1.0000	1.0000	1.0000	0.9200	1.0000	1.0000	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	198	0	103	0	0	0	0	140	0	0	274	91
Total Analysis Volume [veh/h]	791	0	412	0	0	0	0	559	0	0	1096	365
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	5	0	0	5	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	75	0	0	0	0	0	0	45	0	0	45	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	17	0	0	0	0	0	0	14	0	0	3	0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	C
C, Cycle Length [s]	120	120	120		120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00
g_i, Effective Green Time [s]	34	34	34		78	78
g / C, Green / Cycle	0.29	0.29	0.29		0.65	0.65
(v / s)_i Volume / Saturation Flow Rate	0.23	0.23	0.25		0.16	0.31
s, saturation flow rate [veh/h]	1781	1775	1589		3560	3560
c, Capacity [veh/h]	512	510	457		2299	2299
d1, Uniform Delay [s]	39.31	39.35	40.73		8.93	10.87
k, delay calibration	0.11	0.11	0.11		0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	2.67	2.72	5.54		0.25	0.71
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.79	0.88		0.24	0.48
d, Delay for Lane Group [s/veh]	41.98	42.06	46.27		9.18	11.59
Lane Group LOS	D	D	D		A	B
Critical Lane Group	No	No	Yes		No	Yes
50th-Percentile Queue Length [veh/ln]	11.19	11.21	11.91		3.03	7.27
50th-Percentile Queue Length [ft/ln]	279.80	280.20	297.69		75.73	181.73
95th-Percentile Queue Length [veh/ln]	16.68	16.70	17.57		5.45	11.69
95th-Percentile Queue Length [ft/ln]	416.97	417.46	439.17		136.32	292.27

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.02	0.00	46.16	0.00	0.00	0.00	0.00	9.18	0.00	0.00	11.59	0.00
Movement LOS	D		D					A			B	
d_A, Approach Delay [s/veh]	43.44			0.00			9.18			11.59		
Approach LOS	D			A			A			B		
d_I, Intersection Delay [s/veh]	24.52											
Intersection LOS	C											
Intersection V/C	0.560											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.440	1.439	2.743	0.000
Crosswalk LOS	B	A	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	683	683
d_b, Bicycle Delay [s]	60.00	60.00	26.00	26.00
l_b,int, Bicycle LOS Score for Intersection	6.117	4.132	2.021	2.464
Bicycle LOS	F	D	B	B

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Jimmy Durante Blvd at San Dieguito Drive

Control Type:	Roundabout	Delay (sec / veh):	5.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			San Dieguito Dr			San Dieguito Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			San Dieguito Dr			San Dieguito Dr		
Base Volume Input [veh/h]	0	251	9	0	390	6	0	2	4	0	2	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	251	9	0	390	6	0	2	4	0	2	34
Peak Hour Factor	1.0000	0.9200	0.9200	1.0000	0.9200	0.9200	1.0000	0.9200	0.9200	1.0000	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	68	2	0	106	2	0	1	1	0	1	9
Total Analysis Volume [veh/h]	0	273	10	0	424	7	0	2	4	0	2	37
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Number of Conflicting Circulating Lanes	1			1			1			1		
Circulating Flow Rate [veh/h]	2			2			432			278		
Exiting Flow Rate [veh/h]	437			316			9			12		
Demand Flow Rate [veh/h]	0	251	9	0	390	6	0	2	4	0	2	34
Adjusted Demand Flow Rate [veh/h]	0	273	10	0	424	7	0	2	4	0	2	37

Lanes

Overwrite Calculated Critical Headway	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00
A (intercept)	1380.00	1380.00	1380.00	1380.00
B (coefficient)	0.00102	0.00102	0.00102	0.00102
HV Adjustment Factor	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	289	440	7	40
Capacity of Entry and Bypass Lanes [veh/h]	1378	1378	888	1039
Pedestrian Impedance	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	1351	1351	871	1019
X, volume / capacity	0.21	0.32	0.01	0.04

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A
95th-Percentile Queue Length [veh]	0.79	1.39	0.02	0.12
95th-Percentile Queue Length [ft]	19.77	34.75	0.52	2.98
Approach Delay [s/veh]	4.42	5.51	4.20	3.87
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	5.01			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 6: Camino Del Mar at Del Mar Heights Rd

Control Type:	Signalized	Delay (sec / veh):	36.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.385

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Base Volume Input [veh/h]	19	121	64	263	443	2	8	98	28	362	46	293
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	121	64	263	443	2	8	98	28	362	46	293
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	33	17	71	120	1	2	27	8	98	13	80
Total Analysis Volume [veh/h]	21	132	70	286	482	2	9	107	30	393	50	318
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Overlap
Signal Group	0	6	0	0	2	0	0	8	0	0	4	4
Auxiliary Signal Groups												2,4
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	5
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	0	26	0	0	21	0	0	30	0	0	43	43
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	17	0	0	10	0	0	21	0	0	17	17
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall		No			No			No			No	No
Maximum Recall		No			No			No			No	No
Pedestrian Recall		No			No			No			No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	38	38	38	38	38	38	10	10	18	18	74
g / C, Green / Cycle	0.32	0.32	0.32	0.32	0.32	0.32	0.08	0.08	0.15	0.15	0.62
(v / s)_i Volume / Saturation Flow Rate	0.01	0.04	0.04	0.14	0.14	0.14	0.06	0.02	0.12	0.12	0.20
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1860	1699	1846	1589	1781	1800	1589
c, Capacity [veh/h]	563	1125	502	562	587	536	182	129	274	277	981
d1, Uniform Delay [s]	28.40	29.14	29.36	32.86	32.85	32.85	54.00	51.62	49.04	49.01	10.99
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.12	0.21	0.58	2.67	2.55	2.79	3.64	0.91	5.53	5.39	0.88
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.04	0.12	0.14	0.46	0.46	0.46	0.64	0.23	0.81	0.80	0.32
d, Delay for Lane Group [s/veh]	28.52	29.36	29.94	35.54	35.41	35.64	57.64	52.52	54.56	54.40	11.87
Lane Group LOS	C	C	C	D	D	D	E	D	D	D	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.44	1.40	1.54	6.40	6.65	6.11	3.62	0.88	6.80	6.84	4.17
50th-Percentile Queue Length [ft/ln]	11.05	34.92	38.44	159.99	166.27	152.76	90.49	22.04	170.10	171.06	104.27
95th-Percentile Queue Length [veh/ln]	0.80	2.51	2.77	10.55	10.88	10.16	6.52	1.59	11.08	11.13	7.51
95th-Percentile Queue Length [ft/ln]	19.90	62.86	69.20	263.72	272.00	254.10	162.88	39.67	277.05	278.31	187.69

Movement, Approach, & Intersection Results

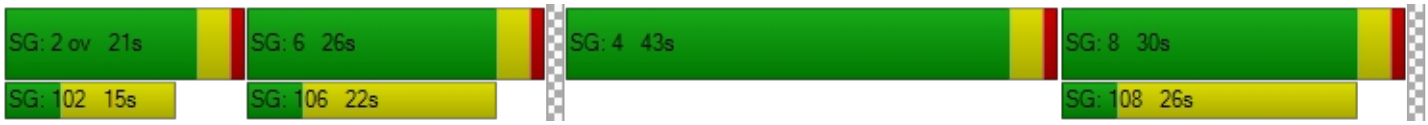
d_M, Delay for Movement [s/veh]	28.52	29.36	29.94	35.52	35.52	35.64	57.64	57.64	52.52	54.49	54.40	11.87
Movement LOS	C	C	C	D	D	D	E	E	D	D	D	B
d_A, Approach Delay [s/veh]	29.46			35.52			56.59			36.67		
Approach LOS	C			D			E			D		
d_I, Intersection Delay [s/veh]	36.89											
Intersection LOS	D											
Intersection V/C	0.385											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	0.00	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.651	0.000	2.027	2.554
Crosswalk LOS	B	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	367	283	433	650
d_b, Bicycle Delay [s]	40.02	44.20	36.82	27.34
l_b,int, Bicycle LOS Score for Intersection	1.744	2.195	1.801	2.815
Bicycle LOS	A	B	A	C

Sequence

Ring 1	2	6	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: 9th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	10.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.305

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			9th St			9th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			9th St			9th St		
Base Volume Input [veh/h]	42	457	8	25	753	36	38	1	33	14	2	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	457	8	25	753	36	38	1	33	14	2	6
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	124	2	7	205	10	10	0	9	4	1	2
Total Analysis Volume [veh/h]	46	497	9	27	818	39	41	1	36	15	2	7
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	15	77	0	13	75	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	7	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	98	98	3	97	97	7	7
g / C, Green / Cycle	0.03	0.82	0.82	0.02	0.81	0.81	0.06	0.06
(v / s)_i Volume / Saturation Flow Rate	0.03	0.14	0.01	0.02	0.23	0.23	0.05	0.02
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1840	1634	1580
c, Capacity [veh/h]	60	2902	1295	44	1508	1484	144	144
d1, Uniform Delay [s]	57.53	2.39	2.07	57.92	2.93	2.93	55.47	53.73
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	18.56	0.13	0.01	12.69	0.48	0.49	3.14	0.54
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.77	0.17	0.01	0.61	0.29	0.29	0.54	0.17
d, Delay for Lane Group [s/veh]	76.09	2.52	2.08	70.62	3.40	3.41	58.61	54.27
Lane Group LOS	E	A	A	E	A	A	E	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.69	0.99	0.03	0.97	2.19	2.16	2.45	0.71
50th-Percentile Queue Length [ft/ln]	42.32	24.81	0.82	24.21	54.77	53.98	61.33	17.86
95th-Percentile Queue Length [veh/ln]	3.05	1.79	0.06	1.74	3.94	3.89	4.42	1.29
95th-Percentile Queue Length [ft/ln]	76.18	44.66	1.48	43.59	98.58	97.17	110.39	32.15

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	76.09	2.52	2.08	70.62	3.41	3.41	58.61	58.61	58.61	54.27	54.27	54.27
Movement LOS	E	A	A	E	A	A	E	E	E	D	D	D
d_A, Approach Delay [s/veh]	8.64			5.46			58.61			54.27		
Approach LOS	A			A			E			D		
d_I, Intersection Delay [s/veh]	10.06											
Intersection LOS	B											
Intersection V/C	0.305											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.720	2.652	1.811	1.760
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1217	1183	433	433
d_b, Bicycle Delay [s]	9.20	10.00	36.82	36.82
l_b,int, Bicycle LOS Score for Intersection	2.015	2.289	1.688	1.599
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: 15th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	23.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.358

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Base Volume Input [veh/h]	88	383	42	88	625	61	44	14	78	24	18	70
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	88	383	42	88	625	61	44	14	78	24	18	70
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	104	11	24	170	17	12	4	21	7	5	19
Total Analysis Volume [veh/h]	96	416	46	96	679	66	48	15	85	26	20	76
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	20	48	0	20	48	0	0	26	0	0	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	10	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	80	80	8	80	80	9	9	8	8	8
g / C, Green / Cycle	0.07	0.66	0.66	0.07	0.66	0.66	0.07	0.07	0.06	0.06	0.06
(v / s)_i Volume / Saturation Flow Rate	0.05	0.13	0.13	0.05	0.20	0.20	0.03	0.05	0.01	0.01	0.05
s, saturation flow rate [veh/h]	1781	1870	1806	1781	1870	1812	1801	1589	1781	1857	1589
c, Capacity [veh/h]	121	1238	1195	121	1238	1199	130	114	116	121	103
d1, Uniform Delay [s]	55.09	7.85	7.85	55.09	8.60	8.61	53.55	54.59	53.14	53.13	55.10
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.98	0.34	0.35	10.98	0.64	0.66	2.80	9.11	0.82	0.77	9.75
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.19	0.19	0.79	0.31	0.31	0.49	0.74	0.20	0.19	0.74
d, Delay for Lane Group [s/veh]	66.07	8.19	8.21	66.07	9.24	9.27	56.35	63.70	53.97	53.90	64.85
Lane Group LOS	E	A	A	E	A	A	E	E	D	D	E
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.23	2.36	2.30	3.23	4.18	4.07	1.93	2.81	0.68	0.69	2.54
50th-Percentile Queue Length [ft/ln]	80.74	58.92	57.41	80.74	104.61	101.63	48.32	70.23	16.99	17.27	63.45
95th-Percentile Queue Length [veh/ln]	5.81	4.24	4.13	5.81	7.53	7.32	3.48	5.06	1.22	1.24	4.57
95th-Percentile Queue Length [ft/ln]	145.34	106.06	103.33	145.34	188.29	182.93	86.97	126.41	30.58	31.09	114.20

Movement, Approach, & Intersection Results

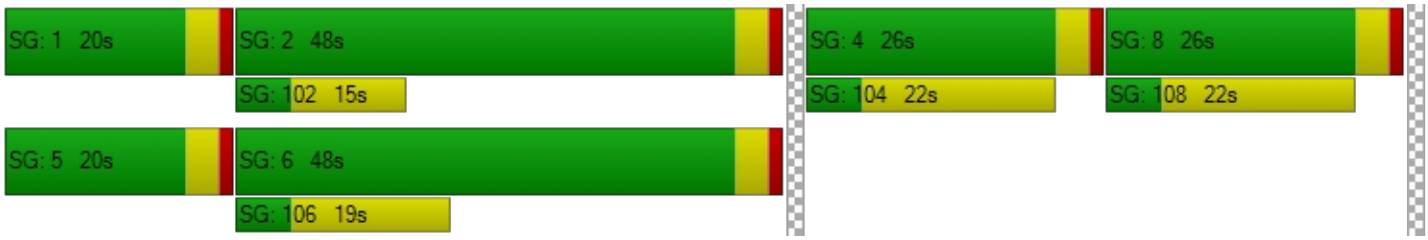
d_M, Delay for Movement [s/veh]	66.07	8.20	8.21	66.07	9.25	9.27	56.35	56.35	63.70	53.97	53.90	64.85
Movement LOS	E	A	A	E	A	A	E	E	E	D	D	E
d_A, Approach Delay [s/veh]	18.15			15.74			60.57			60.73		
Approach LOS	B			B			E			E		
d_I, Intersection Delay [s/veh]	23.81											
Intersection LOS	C											
Intersection V/C	0.358											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.578	2.584	2.063	2.214
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	733	733	367	367
d_b, Bicycle Delay [s]	24.07	24.07	40.02	40.02
l_b,int, Bicycle LOS Score for Intersection	2.020	2.253	1.804	1.761
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Del Mar Housing Element

Vistro File: C:\...\Del Mar PM.vistro
Report File: C:\...\1 EX PM.pdf

Scenario 1 EX PM
5/12/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Camino Del Mar at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.553	35.1	D
2	Jimmy Durante Blvd at Via De La Valle	Signalized	HCM 6th Edition	EB Left	0.575	37.7	D
3	I-5 SB Ramps at Via De La Valle	Signalized	HCM 6th Edition	SB Right	0.459	15.3	B
4	I-5 NB Ramps at Via De La Valle	Signalized	HCM 6th Edition	NB Right	0.448	22.4	C
5	Jimmy Durante Blvd at San Dieguito Drive	Roundabout	HCM 6th Edition	NB Thru		6.9	A
6	Camino Del Mar at Del Mar Heights Rd	Signalized	HCM 6th Edition	EB Thru	0.574	34.6	C
7	9th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.288	6.3	A
8	15th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.577	25.3	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Camino Del Mar at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	35.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.553

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	0	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	44	368	152	269	492	19	9	204	37	223	179	475
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	368	152	269	492	19	9	204	37	223	179	475
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	92	38	67	123	5	2	51	9	56	45	119
Total Analysis Volume [veh/h]	44	368	152	269	492	19	9	204	37	223	179	475
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	32	23	0	37	28	0	0	60	0	0	60	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	15	15	20	32	32	73	73	73	73
g / C, Green / Cycle	0.03	0.13	0.13	0.17	0.26	0.26	0.60	0.60	0.60	0.60
(v / s)_i Volume / Saturation Flow Rate	0.02	0.10	0.10	0.15	0.14	0.14	0.14	0.20	0.10	0.30
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1846	1806	1139	1870	1589
c, Capacity [veh/h]	60	451	202	301	490	484	1122	427	1130	960
d1, Uniform Delay [s]	57.45	51.02	50.59	48.80	37.87	37.87	10.89	28.22	10.40	13.41
k, delay calibration	0.11	0.11	0.11	0.12	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	15.87	3.64	5.64	10.12	0.87	0.88	0.46	4.52	0.30	1.82
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.73	0.82	0.75	0.89	0.52	0.52	0.22	0.52	0.16	0.49
d, Delay for Lane Group [s/veh]	73.33	54.67	56.23	58.92	38.74	38.76	11.35	32.74	10.69	15.23
Lane Group LOS	E	D	E	E	D	D	B	C	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.59	5.61	4.72	8.71	6.58	6.50	3.13	5.68	2.13	7.47
50th-Percentile Queue Length [ft/ln]	39.71	140.25	118.08	217.75	164.60	162.59	78.22	141.98	53.34	186.65
95th-Percentile Queue Length [veh/ln]	2.86	9.49	8.29	13.55	10.79	10.69	5.63	9.59	3.84	11.95
95th-Percentile Queue Length [ft/ln]	71.48	237.36	207.18	338.76	269.80	267.15	140.79	239.69	96.02	298.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	73.33	54.67	56.23	58.92	38.75	38.76	11.35	11.35	11.35	32.74	10.69	15.23
Movement LOS	E	D	E	E	D	D	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	56.54			45.70			11.35			18.76		
Approach LOS	E			D			B			B		
d_I, Intersection Delay [s/veh]	35.14											
Intersection LOS	D											
Intersection V/C	0.553											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.999	2.646	1.970	2.512
Crosswalk LOS	C	B	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	317	400	933	933
d_b, Bicycle Delay [s]	42.50	38.40	17.07	17.07
l_b,int, Bicycle LOS Score for Intersection	2.025	2.203	1.972	3.007
Bicycle LOS	B	B	A	C

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Jimmy Durante Blvd at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	37.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.575

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	183	197	335	377	99	66	58	564	46	405	692	394
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	183	197	335	377	99	66	58	564	46	405	692	394
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	46	49	84	94	25	17	15	141	12	101	173	99
Total Analysis Volume [veh/h]	183	197	335	377	99	66	58	564	46	405	692	394
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	30	0	0	26	0	10	32	0	32	54	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	17	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	18	18	18	16	16	16	5	54	54	17	66	66
g / C, Green / Cycle	0.15	0.15	0.15	0.13	0.13	0.13	0.04	0.45	0.45	0.14	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.10	0.11	0.12	0.11	0.05	0.04	0.03	0.17	0.17	0.12	0.30	0.31
s, saturation flow rate [veh/h]	1781	1870	2813	3459	1870	1589	1781	1870	1821	3459	1870	1649
c, Capacity [veh/h]	261	274	412	455	246	209	75	840	818	483	1022	901
d1, Uniform Delay [s]	48.72	48.86	49.62	50.78	47.77	47.20	56.92	21.82	21.83	50.30	17.71	17.98
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.42	3.54	3.93	3.92	1.06	0.85	15.63	1.24	1.28	3.97	2.18	2.66
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.70	0.72	0.81	0.83	0.40	0.32	0.78	0.37	0.37	0.84	0.56	0.57
d, Delay for Lane Group [s/veh]	52.14	52.41	53.55	54.69	48.83	48.06	72.55	23.06	23.11	54.27	19.89	20.65
Lane Group LOS	D	D	D	D	D	D	E	C	C	D	B	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.46	5.90	5.09	5.76	2.80	1.84	2.07	6.00	5.87	6.19	10.58	9.89
50th-Percentile Queue Length [ft/ln]	136.61	147.53	127.19	144.07	69.94	46.12	51.65	150.08	146.79	154.63	264.43	247.29
95th-Percentile Queue Length [veh/ln]	9.30	9.89	8.79	9.70	5.04	3.32	3.72	10.02	9.85	10.26	15.91	15.05
95th-Percentile Queue Length [ft/ln]	232.45	247.13	219.67	242.49	125.89	83.01	92.98	250.54	246.14	256.59	397.77	376.24

Movement, Approach, & Intersection Results

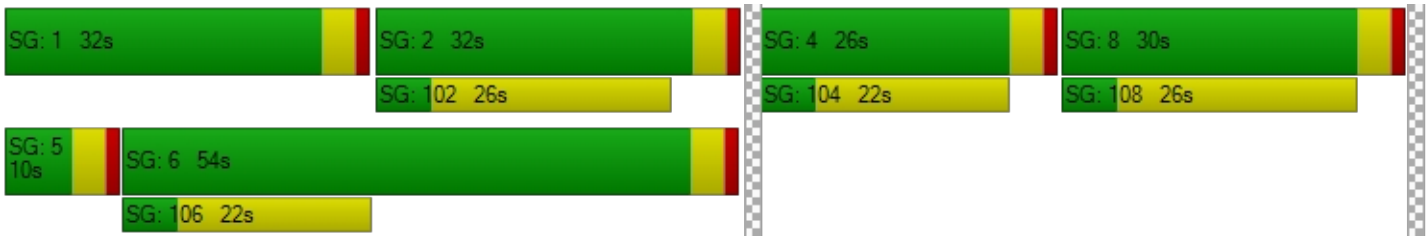
d_M, Delay for Movement [s/veh]	52.14	52.41	53.55	54.69	48.83	48.06	72.55	23.08	23.11	54.27	20.02	20.65
Movement LOS	D	D	D	D	D	D	E	C	C	D	C	C
d_A, Approach Delay [s/veh]	52.88			52.81			27.38			29.49		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	37.67											
Intersection LOS	D											
Intersection V/C	0.575											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.674	2.547	2.629	2.918
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	433	367	467	833
d_b, Bicycle Delay [s]	36.82	40.02	35.27	20.42
l_b,int, Bicycle LOS Score for Intersection	2.739	2.454	2.111	2.790
Bicycle LOS	B	B	B	C

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: I-5 SB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	15.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.459

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	0	304	0	285	0	974	748	0	1218	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	304	0	285	0	974	748	0	1218	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	76	0	71	0	244	187	0	305	0
Total Analysis Volume [veh/h]	0	0	0	304	0	285	0	974	748	0	1218	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	0	0	5	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	47	0	0	0	73	0	0	73	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	21	0	0	0	3	0	0	14	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		17	17	17	95	95
g / C, Green / Cycle		0.14	0.14	0.14	0.79	0.79
(v / s)_i Volume / Saturation Flow Rate		0.12	0.12	0.12	0.27	0.34
s, saturation flow rate [veh/h]		1781	1679	1589	3560	3560
c, Capacity [veh/h]		257	242	229	2810	2810
d1, Uniform Delay [s]		49.74	49.76	49.77	3.67	4.05
k, delay calibration		0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		5.95	6.36	6.76	0.34	0.49
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.81	0.81	0.81	0.35	0.43
d, Delay for Lane Group [s/veh]		55.69	56.12	56.53	4.01	4.54
Lane Group LOS		E	E	E	A	A
Critical Lane Group		No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		6.45	6.12	5.83	2.89	4.00
50th-Percentile Queue Length [ft/ln]		161.17	152.99	145.83	72.28	100.01
95th-Percentile Queue Length [veh/ln]		10.61	10.18	9.79	5.20	7.20
95th-Percentile Queue Length [ft/ln]		265.27	254.41	244.85	130.11	180.01

Movement, Approach, & Intersection Results

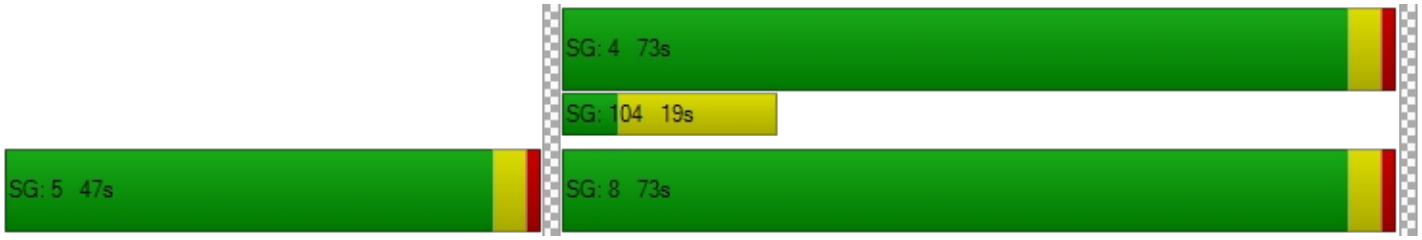
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	55.83	0.00	56.40	0.00	4.01	0.00	0.00	4.54	0.00
Movement LOS				E		E		A			A	
d_A, Approach Delay [s/veh]	0.00			56.10			4.01			4.54		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	15.27											
Intersection LOS	B											
Intersection V/C	0.459											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.290	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1150	1150
d_b, Bicycle Delay [s]	60.00	60.00	10.84	10.84
l_b,int, Bicycle LOS Score for Intersection	4.132	5.104	2.363	2.564
Bicycle LOS	D	F	B	B

Sequence

Ring 1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-5 NB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	22.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.448

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	628	0	375	0	0	0	0	846	0	0	844	349
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	628	0	375	0	0	0	0	846	0	0	844	349
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	157	0	94	0	0	0	0	212	0	0	211	87
Total Analysis Volume [veh/h]	628	0	375	0	0	0	0	846	0	0	844	349
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	5	0	0	5	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	97	0	0	0	0	0	0	23	0	0	23	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	17	0	0	0	0	0	0	14	0	0	3	0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	C
C, Cycle Length [s]	120	120	120		120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00
g_i, Effective Green Time [s]	29	29	29		83	83
g / C, Green / Cycle	0.24	0.24	0.24		0.69	0.69
(v / s)_i Volume / Saturation Flow Rate	0.19	0.19	0.21		0.24	0.24
s, saturation flow rate [veh/h]	1781	1755	1589		3560	3560
c, Capacity [veh/h]	433	427	386		2458	2458
d1, Uniform Delay [s]	42.33	42.47	43.54		7.55	7.54
k, delay calibration	0.11	0.11	0.11		0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	2.97	3.20	5.91		0.38	0.38
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.77	0.78	0.87		0.34	0.34
d, Delay for Lane Group [s/veh]	45.30	45.68	49.45		7.93	7.92
Lane Group LOS	D	D	D		A	A
Critical Lane Group	No	No	Yes		Yes	No
50th-Percentile Queue Length [veh/ln]	9.57	9.62	10.11		4.24	4.23
50th-Percentile Queue Length [ft/ln]	239.18	240.53	252.70		106.06	105.73
95th-Percentile Queue Length [veh/ln]	14.64	14.71	15.32		7.62	7.60
95th-Percentile Queue Length [ft/ln]	365.99	367.70	383.05		190.51	190.05

Movement, Approach, & Intersection Results

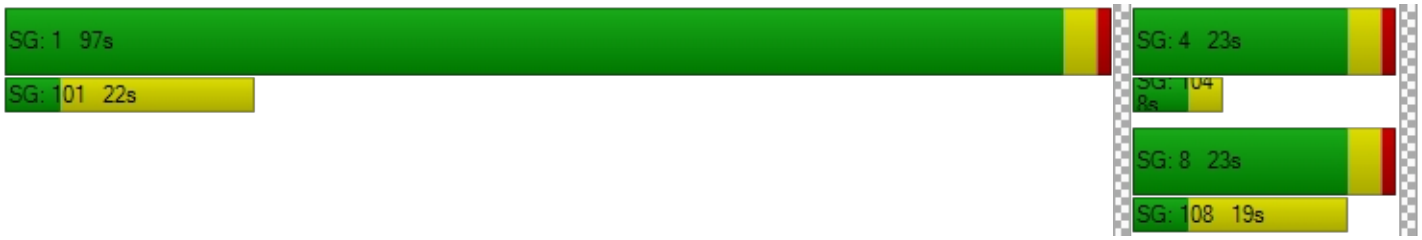
d_M, Delay for Movement [s/veh]	45.47	0.00	49.04	0.00	0.00	0.00	0.00	7.93	0.00	0.00	7.92	0.00
Movement LOS	D		D					A			A	
d_A, Approach Delay [s/veh]	46.81			0.00			7.93			7.92		
Approach LOS	D			A			A			A		
d_I, Intersection Delay [s/veh]	22.41											
Intersection LOS	C											
Intersection V/C	0.448											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.391	1.439	2.711	0.000
Crosswalk LOS	B	A	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	317	317
d_b, Bicycle Delay [s]	60.00	60.00	42.50	42.50
l_b,int, Bicycle LOS Score for Intersection	5.787	4.132	2.258	2.256
Bicycle LOS	F	D	B	B

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Jimmy Durante Blvd at San Dieguito Drive

Control Type:	Roundabout	Delay (sec / veh):	6.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			San Dieguito Dr			San Dieguito Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			San Dieguito Dr			San Dieguito Dr		
Base Volume Input [veh/h]	0	672	20	0	261	3	0	0	1	0	1	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	672	20	0	261	3	0	0	1	0	1	45
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	168	5	0	65	1	0	0	0	0	0	11
Total Analysis Volume [veh/h]	0	672	20	0	261	3	0	0	1	0	1	45
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Number of Conflicting Circulating Lanes	1			1			1			1		
Circulating Flow Rate [veh/h]	0			1			266			685		
Exiting Flow Rate [veh/h]	267			731			4			20		
Demand Flow Rate [veh/h]	0	672	20	0	261	3	0	0	1	0	1	45
Adjusted Demand Flow Rate [veh/h]	0	672	20	0	261	3	0	0	1	0	1	45

Lanes

Overwrite Calculated Critical Headway	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00
A (intercept)	1380.00	1380.00	1380.00	1380.00
B (coefficient)	0.00102	0.00102	0.00102	0.00102
HV Adjustment Factor	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	706	270	2	47
Capacity of Entry and Bypass Lanes [veh/h]	1380	1379	1052	686
Pedestrian Impedance	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	1353	1352	1032	673
X, volume / capacity	0.51	0.20	0.00	0.07

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A
95th-Percentile Queue Length [veh]	3.03	0.72	0.00	0.22
95th-Percentile Queue Length [ft]	75.75	18.11	0.07	5.49
Approach Delay [s/veh]	7.97	4.29	3.50	6.09
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	6.91			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 6: Camino Del Mar at Del Mar Heights Rd

Control Type:	Signalized	Delay (sec / veh):	34.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.574

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Base Volume Input [veh/h]	40	865	262	310	530	13	10	23	18	200	115	365
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	865	262	310	530	13	10	23	18	200	115	365
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	216	66	78	133	3	3	6	5	50	29	91
Total Analysis Volume [veh/h]	40	865	262	310	530	13	10	23	18	200	115	365
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Overlap
Signal Group	0	6	0	0	2	0	0	8	0	0	4	4
Auxiliary Signal Groups												2,4
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	5
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	0	45	0	0	19	0	0	30	0	0	26	26
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	17	0	0	10	0	0	21	0	0	17	17
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall		No			No			No			No	No
Maximum Recall		No			No			No			No	No
Pedestrian Recall		No			No			No			No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	41	41	41	41	41	41	4	4	18	18	71
g / C, Green / Cycle	0.34	0.34	0.34	0.34	0.34	0.34	0.04	0.04	0.15	0.15	0.59
(v / s)_i Volume / Saturation Flow Rate	0.02	0.24	0.16	0.16	0.16	0.16	0.02	0.01	0.09	0.09	0.23
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1862	1687	1404	1589	1781	1844	1589
c, Capacity [veh/h]	610	1220	545	607	635	575	89	56	263	272	939
d1, Uniform Delay [s]	26.52	34.24	31.04	31.02	31.02	31.02	57.37	56.46	47.77	47.74	13.05
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.21	3.50	3.02	2.59	2.48	2.73	2.56	3.20	2.11	2.01	1.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.71	0.48	0.47	0.47	0.47	0.37	0.32	0.59	0.59	0.39
d, Delay for Lane Group [s/veh]	26.73	37.74	34.06	33.62	33.50	33.76	59.93	59.66	49.88	49.76	14.27
Lane Group LOS	C	D	C	C	C	C	E	E	D	D	B
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.81	11.47	6.43	6.91	7.20	6.56	1.06	0.58	4.50	4.62	5.41
50th-Percentile Queue Length [ft/ln]	20.35	286.68	160.71	172.71	179.95	164.08	26.38	14.58	112.38	115.52	135.29
95th-Percentile Queue Length [veh/ln]	1.47	17.02	10.59	11.22	11.60	10.76	1.90	1.05	7.97	8.15	9.23
95th-Percentile Queue Length [ft/ln]	36.63	425.51	264.67	280.47	289.95	269.12	47.49	26.24	199.30	203.65	230.67

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.73	37.74	34.06	33.61	33.62	33.76	59.93	59.93	59.66	49.88	49.76	14.27
Movement LOS	C	D	C	C	C	C	E	E	E	D	D	B
d_A, Approach Delay [s/veh]	36.54			33.62			59.84			30.73		
Approach LOS	D			C			E			C		
d_I, Intersection Delay [s/veh]	34.63											
Intersection LOS	C											
Intersection V/C	0.574											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	0.00	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.779	0.000	2.027	2.564
Crosswalk LOS	C	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	683	250	433	367
d_b, Bicycle Delay [s]	26.00	45.94	36.82	40.02
l_b,int, Bicycle LOS Score for Intersection	2.522	2.263	1.644	2.682
Bicycle LOS	B	B	A	B

Sequence

Ring 1	2	6	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: 9th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	6.3
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.288

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			9th Street			9th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			9th Street			9th Street		
Base Volume Input [veh/h]	22	904	18	23	624	14	15	0	23	19	4	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	904	18	23	624	14	15	0	23	19	4	9
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	226	5	6	156	4	4	0	6	5	1	2
Total Analysis Volume [veh/h]	22	904	18	23	624	14	15	0	23	19	4	9
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	35	55	0	35	55	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	7	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	102	102	3	102	102	4	4
g / C, Green / Cycle	0.02	0.85	0.85	0.02	0.85	0.85	0.03	0.03
(v / s)_i Volume / Saturation Flow Rate	0.01	0.25	0.01	0.01	0.17	0.17	0.02	0.02
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1856	1810	1800
c, Capacity [veh/h]	40	3013	1345	41	1583	1571	97	103
d1, Uniform Delay [s]	58.04	1.90	1.44	57.99	1.70	1.70	57.58	57.39
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.08	0.26	0.02	11.14	0.29	0.29	2.53	1.69
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.55	0.30	0.01	0.56	0.20	0.20	0.39	0.31
d, Delay for Lane Group [s/veh]	69.12	2.16	1.46	69.14	1.99	1.99	60.11	59.08
Lane Group LOS	E	A	A	E	A	A	E	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.79	1.45	0.05	0.82	0.97	0.97	1.21	1.01
50th-Percentile Queue Length [ft/ln]	19.64	36.27	1.18	20.50	24.37	24.23	30.28	25.18
95th-Percentile Queue Length [veh/ln]	1.41	2.61	0.08	1.48	1.75	1.74	2.18	1.81
95th-Percentile Queue Length [ft/ln]	35.35	65.28	2.12	36.89	43.86	43.61	54.50	45.33

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	69.12	2.16	1.46	69.14	1.99	1.99	60.11	60.11	60.11	59.08	59.08	59.08
Movement LOS	E	A	A	E	A	A	E	E	E	E	E	E
d_A, Approach Delay [s/veh]	3.71			4.33			60.11			59.08		
Approach LOS	A			A			E			E		
d_I, Intersection Delay [s/veh]	6.29											
Intersection LOS	A											
Intersection V/C	0.288											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.757	2.646	1.768	1.766
Crosswalk LOS	C	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	850	850	433	433
d_b, Bicycle Delay [s]	19.84	19.84	36.82	36.82
l_b,int, Bicycle LOS Score for Intersection	2.338	2.105	1.622	1.612
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: 15th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	25.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.577

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Base Volume Input [veh/h]	141	1335	61	105	710	108	51	18	96	40	23	128
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	141	1335	61	105	710	108	51	18	96	40	23	128
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	334	15	26	178	27	13	5	24	10	6	32
Total Analysis Volume [veh/h]	141	1335	61	105	710	108	51	18	96	40	23	128
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	35	55	0	13	33	0	0	26	0	0	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	10	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	74	74	9	71	71	9	9	12	12	12
g / C, Green / Cycle	0.10	0.62	0.62	0.07	0.59	0.59	0.08	0.08	0.10	0.10	0.10
(v / s)_i Volume / Saturation Flow Rate	0.08	0.38	0.38	0.06	0.22	0.22	0.04	0.06	0.02	0.02	0.08
s, saturation flow rate [veh/h]	1781	1870	1841	1781	1870	1785	1803	1589	1781	1844	1589
c, Capacity [veh/h]	172	1153	1135	129	1108	1058	143	126	175	182	157
d1, Uniform Delay [s]	53.20	14.12	14.16	54.85	12.83	12.83	52.91	54.15	49.63	49.62	53.03
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.31	2.39	2.46	11.50	0.98	1.03	2.53	9.19	0.48	0.45	9.94
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.82	0.61	0.61	0.81	0.38	0.38	0.48	0.76	0.18	0.18	0.82
d, Delay for Lane Group [s/veh]	62.51	16.51	16.63	66.35	13.81	13.86	55.43	63.35	50.11	50.08	62.97
Lane Group LOS	E	B	B	E	B	B	E	E	D	D	E
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.62	11.86	11.79	3.54	6.05	5.79	2.10	3.16	0.88	0.90	4.21
50th-Percentile Queue Length [ft/ln]	115.41	296.57	294.84	88.51	151.34	144.81	52.40	79.09	22.12	22.59	105.37
95th-Percentile Queue Length [veh/ln]	8.14	17.51	17.43	6.37	10.09	9.74	3.77	5.69	1.59	1.63	7.58
95th-Percentile Queue Length [ft/ln]	203.50	437.78	435.64	159.32	252.22	243.49	94.33	142.36	39.81	40.66	189.55

Movement, Approach, & Intersection Results

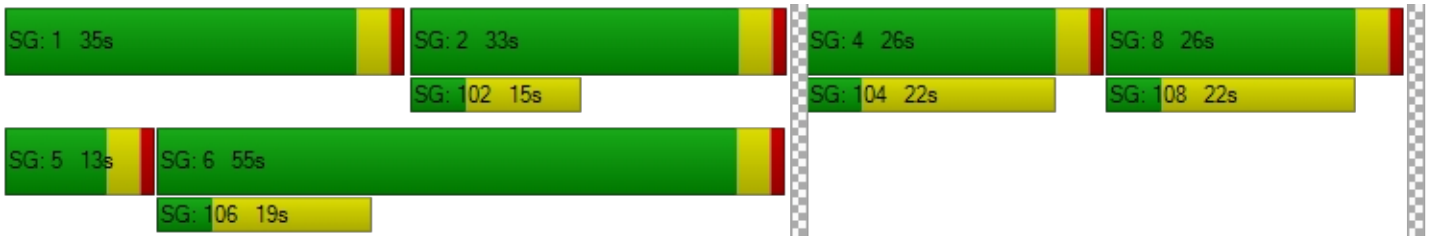
d_M, Delay for Movement [s/veh]	62.51	16.57	16.63	66.35	13.83	13.86	55.43	55.43	63.35	50.11	50.08	62.97
Movement LOS	E	B	B	E	B	B	E	E	E	D	D	E
d_A, Approach Delay [s/veh]	20.78			19.81			60.04			58.72		
Approach LOS	C			B			E			E		
d_I, Intersection Delay [s/veh]	25.34											
Intersection LOS	C											
Intersection V/C	0.577											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.780	2.790	2.097	2.238
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	850	483	367	367
d_b, Bicycle Delay [s]	19.84	34.50	40.02	40.02
l_b,int, Bicycle LOS Score for Intersection	2.828	2.321	1.832	1.875
Bicycle LOS	C	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Del Mar Housing Elemenet

Vistro File: C:\...\Del Mar AM.vistro
Report File: C:\...\2 EX WP AM.pdf

Scenario 2 EX WP AM
5/12/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Camino Del Mar at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.489	34.6	C
2	Jimmy Durante Blvd at Via De La Valle	Signalized	HCM 6th Edition	EB Left	0.593	36.4	D
3	I-5 SB Ramps at Via De La Valle	Signalized	HCM 6th Edition	SB Right	0.468	13.0	B
4	I-5 NB Ramps at Via De La Valle	Signalized	HCM 6th Edition	NB Right	0.565	24.6	C
5	Jimmy Durante Blvd at San Dieguito Drive	Roundabout	HCM 6th Edition	SB Thru		5.0	A
6	Camino Del Mar at Del Mar Heights Rd	Signalized	HCM 6th Edition	EB Thru	0.418	38.1	D
7	9th St at Camino Del Mar	Signalized	HCM 6th Edition	NB Left	0.306	10.0	A
8	15th St at Camino Del Mar	Signalized	HCM 6th Edition	NB Left	0.362	24.1	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Camino Del Mar at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	34.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.489

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	0	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	16	143	132	378	491	21	2	149	23	150	113	175
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	8	0	0	2	4	15	73	15	0	19	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	151	132	378	493	25	17	222	38	150	132	175
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	41	36	103	134	7	5	60	10	41	36	48
Total Analysis Volume [veh/h]	22	164	143	411	536	27	18	241	41	163	143	190
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	32	26	0	64	58	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	13	13	30	41	41	65	65	65	65
g / C, Green / Cycle	0.02	0.11	0.11	0.25	0.34	0.34	0.54	0.54	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.01	0.05	0.09	0.23	0.15	0.15	0.17	0.15	0.08	0.12
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1839	1787	1097	1870	1589
c, Capacity [veh/h]	42	394	176	446	632	621	995	373	1008	857
d1, Uniform Delay [s]	57.95	49.74	52.14	43.84	31.03	31.03	15.26	29.09	13.81	14.49
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.08	0.70	8.68	8.33	0.50	0.51	0.78	3.70	0.30	0.60
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.53	0.42	0.81	0.92	0.45	0.45	0.30	0.44	0.14	0.22
d, Delay for Lane Group [s/veh]	68.04	50.44	60.82	52.17	31.53	31.54	16.04	32.80	14.10	15.08
Lane Group LOS	E	D	E	D	C	C	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.78	2.34	4.63	12.84	6.50	6.40	4.69	4.15	2.01	2.83
50th-Percentile Queue Length [ft/ln]	19.45	58.47	115.75	321.11	162.62	159.93	117.34	103.85	50.36	70.86
95th-Percentile Queue Length [veh/ln]	1.40	4.21	8.16	18.72	10.69	10.55	8.25	7.48	3.63	5.10
95th-Percentile Queue Length [ft/ln]	35.00	105.25	203.97	468.05	267.19	263.63	206.17	186.93	90.65	127.55

Movement, Approach, & Intersection Results

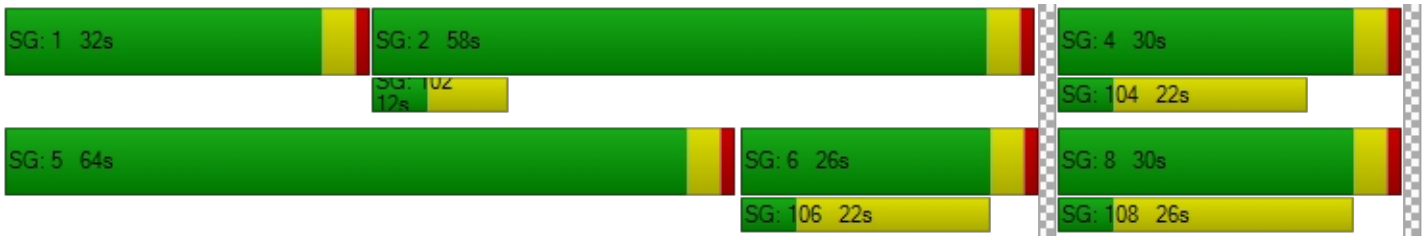
d_M, Delay for Movement [s/veh]	68.04	50.44	60.82	52.17	31.53	31.54	16.04	16.04	16.04	32.80	14.10	15.08
Movement LOS	E	D	E	D	C	C	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	56.13			40.24			16.04			20.62		
Approach LOS	E			D			B			C		
d_I, Intersection Delay [s/veh]	34.64											
Intersection LOS	C											
Intersection V/C	0.489											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.874	2.603	1.970	2.461
Crosswalk LOS	C	B	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	367	900	433	433
d_b, Bicycle Delay [s]	40.02	18.15	36.82	36.82
l_b,int, Bicycle LOS Score for Intersection	1.831	2.363	2.055	2.378
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Jimmy Durante Blvd at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	36.4
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.593

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	27	85	205	469	101	51	51	644	60	438	565	393
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	73	0	0	19	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	85	205	469	101	51	51	717	60	438	584	393
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	23	56	127	27	14	14	195	16	119	159	107
Total Analysis Volume [veh/h]	29	92	223	510	110	55	55	779	65	476	635	427
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	30	0	0	31	0	15	26	0	33	44	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	12	21	21	21	5	52	52	19	67	67
g / C, Green / Cycle	0.10	0.10	0.10	0.17	0.17	0.17	0.04	0.43	0.43	0.16	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.02	0.05	0.08	0.15	0.06	0.03	0.03	0.23	0.23	0.14	0.30	0.31
s, saturation flow rate [veh/h]	1781	1870	2813	3459	1870	1589	1781	1870	1820	3459	1870	1628
c, Capacity [veh/h]	180	189	284	593	321	272	72	811	790	554	1036	902
d1, Uniform Delay [s]	49.28	50.99	52.65	48.32	43.77	42.67	57.03	24.93	24.94	49.06	16.99	17.33
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.41	1.93	4.73	3.81	0.63	0.36	15.59	2.45	2.51	4.01	1.99	2.52
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.16	0.49	0.78	0.86	0.34	0.20	0.77	0.53	0.53	0.86	0.54	0.56
d, Delay for Lane Group [s/veh]	49.70	52.92	57.38	52.13	44.40	43.03	72.62	27.38	27.45	53.07	18.99	19.85
Lane Group LOS	D	D	E	D	D	D	E	C	C	D	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.82	2.72	3.47	7.71	2.95	1.44	1.96	9.41	9.17	7.24	10.04	9.42
50th-Percentile Queue Length [ft/ln]	20.48	68.06	86.68	192.82	73.69	35.92	49.07	235.21	229.32	180.96	251.09	235.52
95th-Percentile Queue Length [veh/ln]	1.47	4.90	6.24	12.27	5.31	2.59	3.53	14.44	14.14	11.65	15.24	14.45
95th-Percentile Queue Length [ft/ln]	36.87	122.51	156.02	306.69	132.64	64.65	88.32	360.97	353.49	291.27	381.02	361.36

Movement, Approach, & Intersection Results

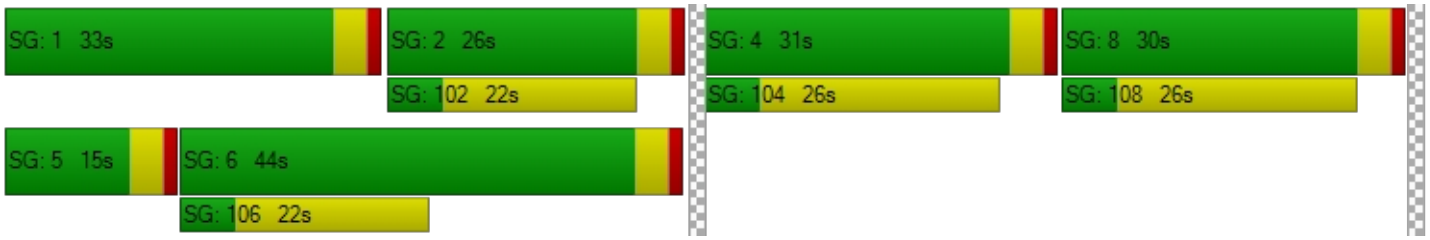
d_M, Delay for Movement [s/veh]	49.70	52.92	57.38	52.13	44.40	43.03	72.62	27.41	27.45	53.07	19.09	19.85
Movement LOS	D	D	E	D	D	D	E	C	C	D	B	B
d_A, Approach Delay [s/veh]	55.54			50.13			30.18			29.82		
Approach LOS	E			D			C			C		
d_I, Intersection Delay [s/veh]	36.44											
Intersection LOS	D											
Intersection V/C	0.593											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.630	2.559	2.631	2.964
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	433	450	367	667
d_b, Bicycle Delay [s]	36.82	36.04	40.02	26.67
l_b,int, Bicycle LOS Score for Intersection	2.127	2.673	2.301	2.828
Bicycle LOS	B	B	B	C

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: I-5 SB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	13.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.468

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	0	159	0	233	0	591	789	0	1235	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	4	0	25	48	0	15	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	159	0	237	0	616	837	0	1250	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9200	1.0000	0.9200	1.0000	0.9200	0.9200	1.0000	0.9200	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	43	0	64	0	167	227	0	340	0
Total Analysis Volume [veh/h]	0	0	0	173	0	258	0	670	910	0	1359	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	0	0	5	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	38	0	0	0	82	0	0	82	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	21	0	0	0	3	0	0	14	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		13	13	13	99	99
g / C, Green / Cycle		0.11	0.11	0.11	0.82	0.82
(v / s)_i Volume / Saturation Flow Rate		0.09	0.09	0.09	0.19	0.38
s, saturation flow rate [veh/h]		1781	1613	1589	3560	3560
c, Capacity [veh/h]		198	180	177	2927	2927
d1, Uniform Delay [s]		51.87	51.87	51.87	2.34	3.07
k, delay calibration		0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		6.40	7.06	7.16	0.18	0.53
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.78	0.78	0.78	0.23	0.46
d, Delay for Lane Group [s/veh]		58.26	58.93	59.03	2.52	3.61
Lane Group LOS		E	E	E	A	A
Critical Lane Group		No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		4.86	4.44	4.38	1.32	3.54
50th-Percentile Queue Length [ft/ln]		121.53	111.03	109.55	33.03	88.42
95th-Percentile Queue Length [veh/ln]		8.48	7.90	7.81	2.38	6.37
95th-Percentile Queue Length [ft/ln]		211.92	197.44	195.37	59.45	159.16

Movement, Approach, & Intersection Results

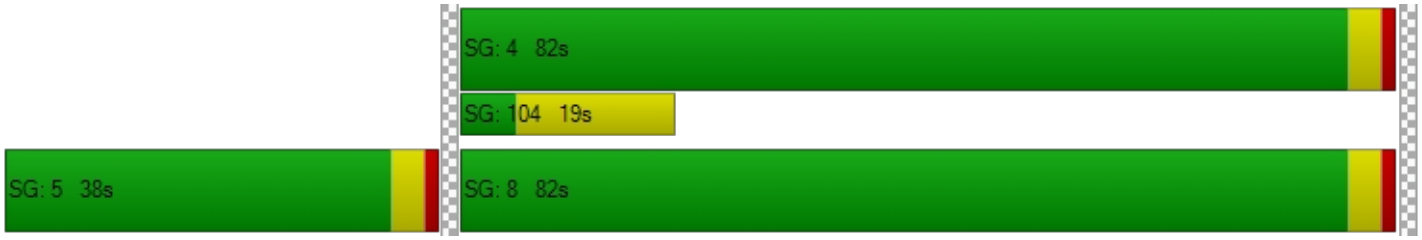
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	58.37	0.00	58.99	0.00	2.52	0.00	0.00	3.61	0.00
Movement LOS				E		E		A			A	
d_A, Approach Delay [s/veh]	0.00			58.72			2.52			3.61		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	12.97											
Intersection LOS	B											
Intersection V/C	0.468											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.251	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1300	1300
d_b, Bicycle Delay [s]	60.00	60.00	7.35	7.35
l_b,int, Bicycle LOS Score for Intersection	4.132	4.844	2.112	2.681
Bicycle LOS	D	E	B	B

Sequence

Ring 1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-5 NB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	24.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.565

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	728	0	379	0	0	0	0	514	0	0	1008	336
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	0	5	0	0	0	0	10	0	0	4	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	740	0	384	0	0	0	0	524	0	0	1012	336
Peak Hour Factor	0.9200	1.0000	0.9200	1.0000	1.0000	1.0000	1.0000	0.9200	1.0000	1.0000	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	201	0	104	0	0	0	0	142	0	0	275	91
Total Analysis Volume [veh/h]	804	0	417	0	0	0	0	570	0	0	1100	365
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	5	0	0	5	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	75	0	0	0	0	0	0	45	0	0	45	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	17	0	0	0	0	0	0	14	0	0	3	0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	C
C, Cycle Length [s]	120	120	120		120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00
g_i, Effective Green Time [s]	35	35	35		77	77
g / C, Green / Cycle	0.29	0.29	0.29		0.64	0.64
(v / s)_i Volume / Saturation Flow Rate	0.23	0.23	0.26		0.16	0.31
s, saturation flow rate [veh/h]	1781	1776	1589		3560	3560
c, Capacity [veh/h]	519	518	463		2285	2285
d1, Uniform Delay [s]	39.04	39.08	40.49		9.16	11.14
k, delay calibration	0.11	0.11	0.11		0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	2.65	2.69	5.51		0.26	0.73
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.79	0.88		0.25	0.48
d, Delay for Lane Group [s/veh]	41.69	41.77	46.00		9.42	11.86
Lane Group LOS	D	D	D		A	B
Critical Lane Group	No	No	Yes		No	Yes
50th-Percentile Queue Length [veh/ln]	11.33	11.35	12.07		3.15	7.42
50th-Percentile Queue Length [ft/ln]	283.34	283.71	301.67		78.66	185.41
95th-Percentile Queue Length [veh/ln]	16.85	16.87	17.76		5.66	11.88
95th-Percentile Queue Length [ft/ln]	421.37	421.83	444.09		141.59	297.07

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.73	0.00	45.90	0.00	0.00	0.00	0.00	9.42	0.00	0.00	11.86	0.00
Movement LOS	D		D					A			B	
d_A, Approach Delay [s/veh]	43.16			0.00			9.42			11.86		
Approach LOS	D			A			A			B		
d_I, Intersection Delay [s/veh]	24.60											
Intersection LOS	C											
Intersection V/C	0.565											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.444	1.439	2.749	0.000
Crosswalk LOS	B	A	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	683	683
d_b, Bicycle Delay [s]	60.00	60.00	26.00	26.00
l_b,int, Bicycle LOS Score for Intersection	6.147	4.132	2.030	2.467
Bicycle LOS	F	D	B	B

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 5: Jimmy Durante Blvd at San Dieguito Drive

Control Type:	Roundabout	Delay (sec / veh):	5.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			San Dieguito Dr			San Dieguito Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			San Dieguito Dr			San Dieguito Dr		
Base Volume Input [veh/h]	0	251	9	0	390	6	0	2	4	0	2	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	251	9	0	390	6	0	2	4	0	2	34
Peak Hour Factor	1.0000	0.9200	0.9200	1.0000	0.9200	0.9200	1.0000	0.9200	0.9200	1.0000	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	68	2	0	106	2	0	1	1	0	1	9
Total Analysis Volume [veh/h]	0	273	10	0	424	7	0	2	4	0	2	37
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Number of Conflicting Circulating Lanes	1			1			1			1		
Circulating Flow Rate [veh/h]	2			2			432			278		
Exiting Flow Rate [veh/h]	437			316			9			12		
Demand Flow Rate [veh/h]	0	251	9	0	390	6	0	2	4	0	2	34
Adjusted Demand Flow Rate [veh/h]	0	273	10	0	424	7	0	2	4	0	2	37

Lanes

Overwrite Calculated Critical Headway	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00
A (intercept)	1380.00	1380.00	1380.00	1380.00
B (coefficient)	0.00102	0.00102	0.00102	0.00102
HV Adjustment Factor	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	289	440	7	40
Capacity of Entry and Bypass Lanes [veh/h]	1378	1378	888	1039
Pedestrian Impedance	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	1351	1351	871	1019
X, volume / capacity	0.21	0.32	0.01	0.04

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A
95th-Percentile Queue Length [veh]	0.79	1.39	0.02	0.12
95th-Percentile Queue Length [ft]	19.77	34.75	0.52	2.98
Approach Delay [s/veh]	4.42	5.51	4.20	3.87
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	5.01			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 6: Camino Del Mar at Del Mar Heights Rd

Control Type:	Signalized	Delay (sec / veh):	38.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.418

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Base Volume Input [veh/h]	19	121	64	263	443	2	8	98	28	362	46	293
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	1	0	0	5	3	13	34	3	0	8	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	122	64	263	448	5	21	132	31	362	54	293
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	33	17	71	122	1	6	36	8	98	15	80
Total Analysis Volume [veh/h]	22	133	70	286	487	5	23	143	34	393	59	318
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Overlap
Signal Group	0	6	0	0	2	0	0	8	0	0	4	4
Auxiliary Signal Groups												2,4
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	5
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	0	26	0	0	21	0	0	30	0	0	43	43
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	17	0	0	10	0	0	21	0	0	17	17
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall		No			No			No			No	No
Maximum Recall		No			No			No			No	No
Pedestrian Recall		No			No			No			No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	36	36	36	36	36	36	13	13	19	19	76
g / C, Green / Cycle	0.30	0.30	0.30	0.30	0.30	0.30	0.11	0.11	0.16	0.16	0.63
(v / s)_i Volume / Saturation Flow Rate	0.01	0.04	0.04	0.15	0.15	0.15	0.09	0.02	0.13	0.13	0.20
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1861	1696	1817	1589	1781	1803	1589
c, Capacity [veh/h]	535	1070	478	534	558	509	234	175	278	282	1006
d1, Uniform Delay [s]	29.72	30.49	30.71	34.43	34.42	34.42	52.24	48.58	48.88	48.86	10.11
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.14	0.24	0.65	3.15	3.01	3.30	3.95	0.54	5.54	5.37	0.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.04	0.12	0.15	0.49	0.49	0.49	0.71	0.19	0.81	0.81	0.32
d, Delay for Lane Group [s/veh]	29.86	30.73	31.35	37.58	37.43	37.72	56.19	49.12	54.42	54.22	10.94
Lane Group LOS	C	C	C	D	D	D	E	D	D	D	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.48	1.45	1.58	6.68	6.95	6.37	5.15	0.96	6.94	6.98	3.95
50th-Percentile Queue Length [ft/ln]	11.91	36.15	39.52	167.11	173.74	159.31	128.74	23.93	173.38	174.45	98.86
95th-Percentile Queue Length [veh/ln]	0.86	2.60	2.85	10.92	11.27	10.51	8.87	1.72	11.25	11.31	7.12
95th-Percentile Queue Length [ft/ln]	21.43	65.07	71.14	273.11	281.83	262.81	221.78	43.07	281.35	282.75	177.95

Movement, Approach, & Intersection Results

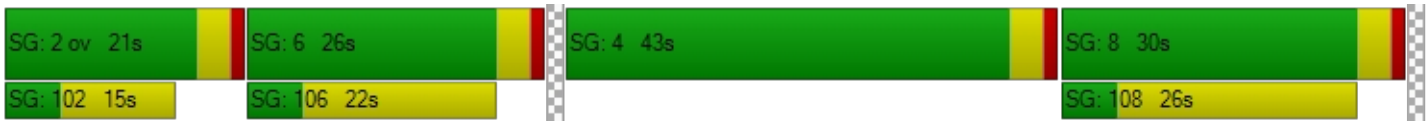
d_M, Delay for Movement [s/veh]	29.86	30.73	31.35	37.57	37.57	37.72	56.19	56.19	49.12	54.34	54.22	10.94
Movement LOS	C	C	C	D	D	D	E	E	D	D	D	B
d_A, Approach Delay [s/veh]	30.84			37.57			54.99			36.41		
Approach LOS	C			D			D			D		
d_I, Intersection Delay [s/veh]	38.12											
Intersection LOS	D											
Intersection V/C	0.418											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	0.00	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.653	0.000	2.048	2.563
Crosswalk LOS	B	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	367	283	433	650
d_b, Bicycle Delay [s]	40.02	44.20	36.82	27.34
l_b,int, Bicycle LOS Score for Intersection	1.745	2.201	1.890	2.830
Bicycle LOS	A	B	A	C

Sequence

Ring 1	2	6	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: 9th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	10.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.306

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			9th St			9th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			9th St			9th St		
Base Volume Input [veh/h]	42	457	8	25	753	36	38	1	33	14	2	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	5	0	7	0	0	0	0	1	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	466	13	25	760	36	38	1	33	15	2	6
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	127	4	7	207	10	10	0	9	4	1	2
Total Analysis Volume [veh/h]	46	507	14	27	826	39	41	1	36	16	2	7
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	15	77	0	13	75	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	7	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	98	98	3	97	97	7	7
g / C, Green / Cycle	0.03	0.82	0.82	0.02	0.81	0.81	0.06	0.06
(v / s)_i Volume / Saturation Flow Rate	0.03	0.14	0.01	0.02	0.23	0.23	0.05	0.02
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1840	1646	1569
c, Capacity [veh/h]	60	2905	1297	44	1510	1486	143	142
d1, Uniform Delay [s]	57.54	2.37	2.05	57.94	2.91	2.91	55.55	53.86
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	18.80	0.13	0.02	12.86	0.48	0.49	3.19	0.58
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.77	0.17	0.01	0.61	0.29	0.29	0.54	0.18
d, Delay for Lane Group [s/veh]	76.34	2.50	2.07	70.79	3.39	3.40	58.74	54.45
Lane Group LOS	E	A	A	E	A	A	E	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.70	1.01	0.05	0.97	2.20	2.17	2.45	0.75
50th-Percentile Queue Length [ft/ln]	42.40	25.23	1.28	24.25	55.12	54.33	61.37	18.64
95th-Percentile Queue Length [veh/ln]	3.05	1.82	0.09	1.75	3.97	3.91	4.42	1.34
95th-Percentile Queue Length [ft/ln]	76.32	45.42	2.30	43.65	99.21	97.80	110.47	33.56

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	76.34	2.50	2.07	70.79	3.39	3.40	58.74	58.74	58.74	54.45	54.45	54.45
Movement LOS	E	A	A	E	A	A	E	E	E	D	D	D
d_A, Approach Delay [s/veh]	8.48			5.43			58.74			54.45		
Approach LOS	A			A			E			D		
d_I, Intersection Delay [s/veh]	9.99											
Intersection LOS	A											
Intersection V/C	0.306											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.726	2.656	1.811	1.763
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1217	1183	433	433
d_b, Bicycle Delay [s]	9.20	10.00	36.82	36.82
l_b,int, Bicycle LOS Score for Intersection	2.027	2.296	1.688	1.601
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: 15th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	24.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.362

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Base Volume Input [veh/h]	88	383	42	88	625	61	44	14	78	24	18	70
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	10	7	0	0	0	0	0	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	88	392	42	98	632	61	44	14	78	24	18	73
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	107	11	27	172	17	12	4	21	7	5	20
Total Analysis Volume [veh/h]	96	426	46	107	687	66	48	15	85	26	20	79
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	20	48	0	20	48	0	0	26	0	0	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	10	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	78	78	9	79	79	9	9	8	8	8
g / C, Green / Cycle	0.07	0.65	0.65	0.07	0.66	0.66	0.07	0.07	0.07	0.07	0.07
(v / s)_i Volume / Saturation Flow Rate	0.05	0.13	0.13	0.06	0.20	0.20	0.03	0.05	0.01	0.01	0.05
s, saturation flow rate [veh/h]	1781	1870	1807	1781	1870	1813	1801	1589	1781	1857	1589
c, Capacity [veh/h]	121	1221	1180	133	1234	1196	130	114	119	124	106
d1, Uniform Delay [s]	55.09	8.28	8.29	54.65	8.73	8.73	53.55	54.59	52.92	52.91	54.98
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.98	0.36	0.37	10.66	0.65	0.67	2.80	9.11	0.77	0.72	9.78
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.20	0.20	0.80	0.31	0.31	0.49	0.74	0.19	0.19	0.74
d, Delay for Lane Group [s/veh]	66.07	8.64	8.66	65.30	9.38	9.40	56.35	63.70	53.69	53.63	64.76
Lane Group LOS	E	A	A	E	A	A	E	E	D	D	E
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.23	2.50	2.43	3.58	4.27	4.15	1.93	2.81	0.68	0.69	2.64
50th-Percentile Queue Length [ft/ln]	80.74	62.43	60.84	89.44	106.83	103.80	48.32	70.23	16.92	17.22	65.89
95th-Percentile Queue Length [veh/ln]	5.81	4.49	4.38	6.44	7.66	7.47	3.48	5.06	1.22	1.24	4.74
95th-Percentile Queue Length [ft/ln]	145.34	112.37	109.51	160.98	191.58	186.83	86.97	126.42	30.46	30.99	118.60

Movement, Approach, & Intersection Results

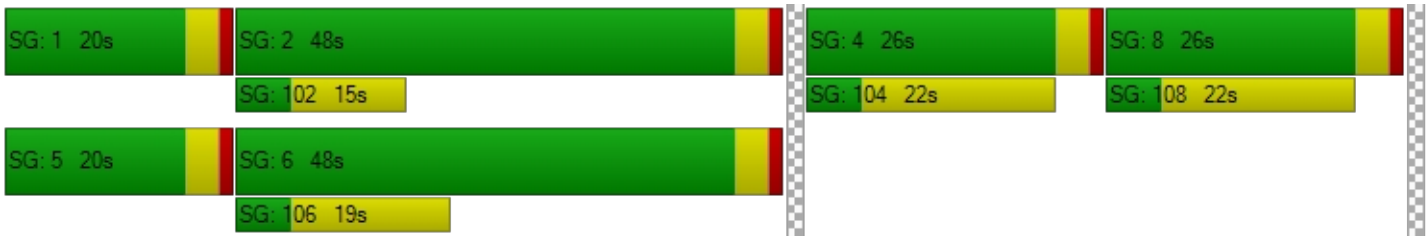
d_M, Delay for Movement [s/veh]	66.07	8.65	8.66	65.30	9.39	9.40	56.35	56.35	63.70	53.69	53.63	64.76
Movement LOS	E	A	A	E	A	A	E	E	E	D	D	E
d_A, Approach Delay [s/veh]	18.36			16.35			60.57			60.67		
Approach LOS	B			B			E			E		
d_I, Intersection Delay [s/veh]	24.12											
Intersection LOS	C											
Intersection V/C	0.362											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.581	2.591	2.063	2.218
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	733	733	367	367
d_b, Bicycle Delay [s]	24.07	24.07	40.02	40.02
l_b,int, Bicycle LOS Score for Intersection	2.028	2.269	1.804	1.766
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Del Mar Housing Element

Vistro File: C:\...\Del Mar PM.vistro
Report File: C:\...\2 EX WP PM.pdf

Scenario 2 EX WP PM
5/12/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Camino Del Mar at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.554	34.6	C
2	Jimmy Durante Blvd at Via De La Valle	Signalized	HCM 6th Edition	EB Left	0.598	37.5	D
3	I-5 SB Ramps at Via De La Valle	Signalized	HCM 6th Edition	SB Right	0.480	15.4	B
4	I-5 NB Ramps at Via De La Valle	Signalized	HCM 6th Edition	NB Right	0.463	22.8	C
5	Jimmy Durante Blvd at San Dieguito Drive	Roundabout	HCM 6th Edition	NB Thru		6.9	A
6	Camino Del Mar at Del Mar Heights Rd	Signalized	HCM 6th Edition	EB Thru	0.592	35.8	D
7	9th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.290	6.4	A
8	15th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.589	26.1	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Camino Del Mar at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	34.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.554

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	0	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	44	368	152	269	492	19	9	204	37	223	179	475
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	17	3	0	0	8	17	7	34	7	0	79	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	61	371	152	269	500	36	16	238	44	223	258	475
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	93	38	67	125	9	4	60	11	56	65	119
Total Analysis Volume [veh/h]	61	371	152	269	500	36	16	238	44	223	258	475
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	32	23	0	37	28	0	0	60	0	0	60	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	15	15	20	30	30	72	72	72	72
g / C, Green / Cycle	0.05	0.13	0.13	0.17	0.25	0.25	0.60	0.60	0.60	0.60
(v / s)_i Volume / Saturation Flow Rate	0.03	0.10	0.10	0.15	0.14	0.15	0.17	0.20	0.14	0.30
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1826	1783	1097	1870	1589
c, Capacity [veh/h]	82	454	203	301	469	458	1107	423	1128	959
d1, Uniform Delay [s]	56.57	50.97	50.49	48.80	39.38	39.38	11.29	27.51	10.95	13.47
k, delay calibration	0.11	0.11	0.11	0.12	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	12.72	3.64	5.46	10.12	1.13	1.16	0.60	4.65	0.47	1.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.75	0.82	0.75	0.89	0.58	0.58	0.27	0.53	0.23	0.50
d, Delay for Lane Group [s/veh]	69.29	54.61	55.95	58.92	40.51	40.54	11.88	32.16	11.42	15.29
Lane Group LOS	E	D	E	E	D	D	B	C	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.12	5.65	4.71	8.71	7.14	6.99	3.86	5.63	3.24	7.49
50th-Percentile Queue Length [ft/ln]	52.91	141.36	117.76	217.75	178.61	174.66	96.62	140.87	81.02	187.17
95th-Percentile Queue Length [veh/ln]	3.81	9.55	8.27	13.55	11.53	11.32	6.96	9.53	5.83	11.97
95th-Percentile Queue Length [ft/ln]	95.24	238.86	206.75	338.76	288.20	283.03	173.92	238.19	145.83	299.36

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	69.29	54.61	55.95	58.92	40.52	40.54	11.88	11.88	11.88	32.16	11.42	15.29
Movement LOS	E	D	E	E	D	D	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	56.50			46.67			11.88			18.18		
Approach LOS	E			D			B			B		
d_I, Intersection Delay [s/veh]	34.62											
Intersection LOS	C											
Intersection V/C	0.554											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
I_p,int, Pedestrian LOS Score for Intersection	3.005	2.663	2.048	2.540
Crosswalk LOS	C	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	317	400	933	933
d_b, Bicycle Delay [s]	42.50	38.40	17.07	17.07
I_b,int, Bicycle LOS Score for Intersection	2.041	2.224	2.051	3.137
Bicycle LOS	B	B	B	C

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Jimmy Durante Blvd at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	37.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.598

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	183	197	335	377	99	66	58	564	46	405	692	394
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	34	0	0	79	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	183	197	335	377	99	66	58	598	46	405	771	394
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	46	49	84	94	25	17	15	150	12	101	193	99
Total Analysis Volume [veh/h]	183	197	335	377	99	66	58	598	46	405	771	394
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	30	0	0	30	0	11	26	0	34	49	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	18	18	18	16	16	16	5	54	54	17	65	65
g / C, Green / Cycle	0.15	0.15	0.15	0.13	0.13	0.13	0.04	0.45	0.45	0.14	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.10	0.11	0.12	0.11	0.05	0.04	0.03	0.17	0.17	0.12	0.32	0.34
s, saturation flow rate [veh/h]	1781	1870	2813	3459	1870	1589	1781	1870	1823	3459	1870	1664
c, Capacity [veh/h]	261	274	412	461	249	212	75	836	815	483	1019	906
d1, Uniform Delay [s]	48.70	48.84	49.60	50.59	47.59	47.03	56.92	22.21	22.22	50.29	18.37	18.75
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.40	3.52	3.90	3.63	1.02	0.83	15.56	1.37	1.41	3.95	2.54	3.16
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.70	0.72	0.81	0.82	0.40	0.31	0.78	0.39	0.39	0.84	0.59	0.62
d, Delay for Lane Group [s/veh]	52.10	52.36	53.50	54.22	48.62	47.86	72.48	23.58	23.63	54.24	20.91	21.92
Lane Group LOS	D	D	D	D	D	D	E	C	C	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.46	5.90	5.08	5.74	2.79	1.84	2.06	6.44	6.31	6.18	11.68	11.18
50th-Percentile Queue Length [ft/ln]	136.53	147.44	127.11	143.39	69.75	46.00	51.62	161.11	157.67	154.55	291.96	279.62
95th-Percentile Queue Length [veh/ln]	9.29	9.88	8.78	9.66	5.02	3.31	3.72	10.61	10.43	10.26	17.28	16.67
95th-Percentile Queue Length [ft/ln]	232.34	247.01	219.55	241.59	125.56	82.80	92.92	265.19	260.64	256.49	432.07	416.74

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	52.10	52.36	53.50	54.22	48.62	47.86	72.48	23.60	23.63	54.24	21.13	21.92
Movement LOS	D	D	D	D	D	D	E	C	C	D	C	C
d_A, Approach Delay [s/veh]	52.83			52.42			27.64			29.87		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	37.54											
Intersection LOS	D											
Intersection V/C	0.598											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.674	2.547	2.651	2.936
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	433	433	367	750
d_b, Bicycle Delay [s]	36.82	36.82	40.02	23.44
l_b,int, Bicycle LOS Score for Intersection	2.739	2.454	2.139	2.855
Bicycle LOS	B	B	B	C

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: I-5 SB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	15.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.480

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	0	304	0	285	0	974	748	0	1218	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	17	0	12	22	0	62	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	304	0	302	0	986	770	0	1280	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	76	0	76	0	247	193	0	320	0
Total Analysis Volume [veh/h]	0	0	0	304	0	302	0	986	770	0	1280	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	0	0	5	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	47	0	0	0	73	0	0	73	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	21	0	0	0	3	0	0	14	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		18	18	18	94	94
g / C, Green / Cycle		0.15	0.15	0.15	0.79	0.79
(v / s)_i Volume / Saturation Flow Rate		0.12	0.12	0.12	0.28	0.36
s, saturation flow rate [veh/h]		1781	1670	1589	3560	3560
c, Capacity [veh/h]		264	247	235	2796	2796
d1, Uniform Delay [s]		49.49	49.51	49.53	3.82	4.32
k, delay calibration		0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		5.88	6.35	6.73	0.35	0.54
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.81	0.81	0.81	0.35	0.46
d, Delay for Lane Group [s/veh]		55.37	55.86	56.26	4.17	4.86
Lane Group LOS		E	E	E	A	A
Critical Lane Group		No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		6.62	6.27	6.01	3.03	4.45
50th-Percentile Queue Length [ft/ln]		165.60	156.73	150.17	75.76	111.30
95th-Percentile Queue Length [veh/ln]		10.84	10.38	10.03	5.45	7.91
95th-Percentile Queue Length [ft/ln]		271.12	259.38	250.66	136.36	197.82

Movement, Approach, & Intersection Results

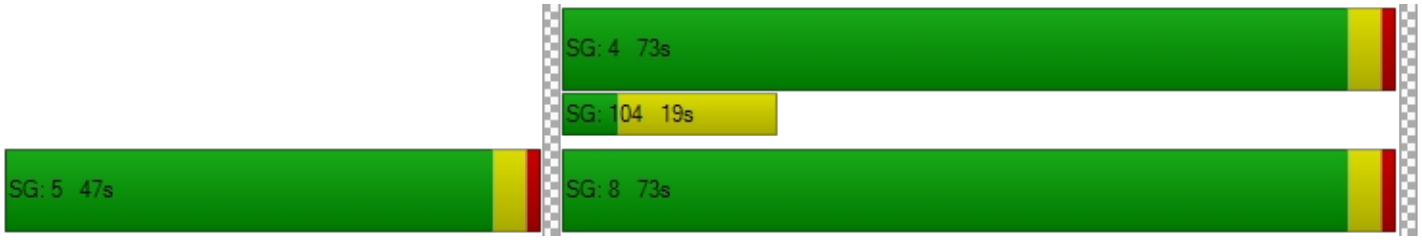
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	55.52	0.00	56.12	0.00	4.17	0.00	0.00	4.86	0.00
Movement LOS				E		E		A			A	
d_A, Approach Delay [s/veh]	0.00			55.81			4.17			4.86		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	15.37											
Intersection LOS	B											
Intersection V/C	0.480											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.294	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1150	1150
d_b, Bicycle Delay [s]	60.00	60.00	10.84	10.84
l_b,int, Bicycle LOS Score for Intersection	4.132	5.132	2.373	2.616
Bicycle LOS	D	F	B	B

Sequence

Ring 1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-5 NB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	22.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.463

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	628	0	375	0	0	0	0	846	0	0	844	349
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	51	0	2	0	0	0	0	5	0	0	17	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	679	0	377	0	0	0	0	851	0	0	861	349
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	170	0	94	0	0	0	0	213	0	0	215	87
Total Analysis Volume [veh/h]	679	0	377	0	0	0	0	851	0	0	861	349
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	5	0	0	5	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	97	0	0	0	0	0	0	23	0	0	23	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	17	0	0	0	0	0	0	14	0	0	3	0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	C
C, Cycle Length [s]	120	120	120		120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00
g_i, Effective Green Time [s]	30	30	30		82	82
g / C, Green / Cycle	0.25	0.25	0.25		0.68	0.68
(v / s)_i Volume / Saturation Flow Rate	0.20	0.20	0.22		0.24	0.24
s, saturation flow rate [veh/h]	1781	1766	1589		3560	3560
c, Capacity [veh/h]	453	450	405		2417	2417
d1, Uniform Delay [s]	41.55	41.64	42.82		8.14	8.17
k, delay calibration	0.11	0.11	0.11		0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	2.89	3.03	5.84		0.40	0.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.78	0.87		0.35	0.36
d, Delay for Lane Group [s/veh]	44.44	44.67	48.66		8.54	8.58
Lane Group LOS	D	D	D		A	A
Critical Lane Group	No	No	Yes		No	Yes
50th-Percentile Queue Length [veh/ln]	10.01	10.04	10.60		4.50	4.57
50th-Percentile Queue Length [ft/ln]	250.25	251.10	264.93		112.44	114.19
95th-Percentile Queue Length [veh/ln]	15.20	15.24	15.94		7.98	8.07
95th-Percentile Queue Length [ft/ln]	379.97	381.04	398.39		199.39	201.82

Movement, Approach, & Intersection Results

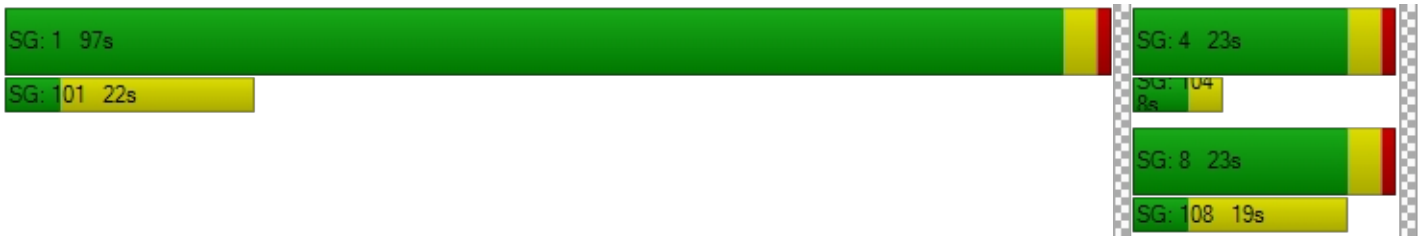
d_M, Delay for Movement [s/veh]	44.55	0.00	48.40	0.00	0.00	0.00	0.00	8.54	0.00	0.00	8.58	0.00
Movement LOS	D		D					A			A	
d_A, Approach Delay [s/veh]	45.92			0.00			8.54			8.58		
Approach LOS	D			A			A			A		
d_I, Intersection Delay [s/veh]	22.81											
Intersection LOS	C											
Intersection V/C	0.463											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.404	1.439	2.729	0.000
Crosswalk LOS	B	A	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	317	317
d_b, Bicycle Delay [s]	60.00	60.00	42.50	42.50
l_b,int, Bicycle LOS Score for Intersection	5.875	4.132	2.262	2.270
Bicycle LOS	F	D	B	B

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Jimmy Durante Blvd at San Dieguito Drive

Control Type:	Roundabout	Delay (sec / veh):	6.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			San Dieguito Dr			San Dieguito Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			San Dieguito Dr			San Dieguito Dr		
Base Volume Input [veh/h]	0	672	20	0	261	3	0	0	1	0	1	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	672	20	0	261	3	0	0	1	0	1	45
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	168	5	0	65	1	0	0	0	0	0	11
Total Analysis Volume [veh/h]	0	672	20	0	261	3	0	0	1	0	1	45
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Number of Conflicting Circulating Lanes	1			1			1			1		
Circulating Flow Rate [veh/h]	0			1			266			685		
Exiting Flow Rate [veh/h]	267			731			4			20		
Demand Flow Rate [veh/h]	0	672	20	0	261	3	0	0	1	0	1	45
Adjusted Demand Flow Rate [veh/h]	0	672	20	0	261	3	0	0	1	0	1	45

Lanes

Overwrite Calculated Critical Headway	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00
A (intercept)	1380.00	1380.00	1380.00	1380.00
B (coefficient)	0.00102	0.00102	0.00102	0.00102
HV Adjustment Factor	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	706	270	2	47
Capacity of Entry and Bypass Lanes [veh/h]	1380	1379	1052	686
Pedestrian Impedance	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	1353	1352	1032	673
X, volume / capacity	0.51	0.20	0.00	0.07

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A
95th-Percentile Queue Length [veh]	3.03	0.72	0.00	0.22
95th-Percentile Queue Length [ft]	75.75	18.11	0.07	5.49
Approach Delay [s/veh]	7.97	4.29	3.50	6.09
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	6.91			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 6: Camino Del Mar at Del Mar Heights Rd

Control Type:	Signalized	Delay (sec / veh):	35.8
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.592

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Base Volume Input [veh/h]	40	865	262	310	530	13	10	23	18	200	115	365
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	6	0	0	2	13	5	17	1	0	38	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	43	871	262	310	532	26	15	40	19	200	153	365
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	218	66	78	133	7	4	10	5	50	38	91
Total Analysis Volume [veh/h]	43	871	262	310	532	26	15	40	19	200	153	365
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Overlap
Signal Group	0	6	0	0	2	0	0	8	0	0	4	4
Auxiliary Signal Groups												2,4
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	5
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	0	45	0	0	19	0	0	30	0	0	26	26
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	17	0	0	10	0	0	21	0	0	17	17
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall		No			No			No			No	No
Maximum Recall		No			No			No			No	No
Pedestrian Recall		No			No			No			No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	40	40	40	40	40	40	6	6	18	18	72
g / C, Green / Cycle	0.34	0.34	0.34	0.34	0.34	0.34	0.05	0.05	0.15	0.15	0.60
(v / s)_i Volume / Saturation Flow Rate	0.02	0.24	0.16	0.16	0.16	0.16	0.04	0.01	0.10	0.10	0.23
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1864	1674	1548	1589	1781	1856	1589
c, Capacity [veh/h]	599	1197	534	598	626	562	113	77	261	272	949
d1, Uniform Delay [s]	27.10	35.01	31.66	31.64	31.64	31.64	56.46	54.99	48.44	48.39	12.64
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.23	3.90	3.20	2.82	2.69	2.99	3.21	1.65	2.92	2.73	1.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.73	0.49	0.49	0.49	0.49	0.49	0.25	0.67	0.66	0.38
d, Delay for Lane Group [s/veh]	27.33	38.91	34.86	34.46	34.33	34.63	59.67	56.64	51.35	51.12	13.82
Lane Group LOS	C	D	C	C	C	C	E	E	D	D	B
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.89	11.75	6.51	7.16	7.47	6.75	1.75	0.59	5.13	5.28	5.30
50th-Percentile Queue Length [ft/ln]	22.18	293.72	162.87	179.01	186.70	168.83	43.68	14.73	128.30	132.08	132.54
95th-Percentile Queue Length [veh/ln]	1.60	17.37	10.70	11.55	11.95	11.02	3.15	1.06	8.85	9.05	9.08
95th-Percentile Queue Length [ft/ln]	39.92	434.25	267.52	288.72	298.75	275.38	78.63	26.52	221.19	226.32	226.94

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	27.33	38.91	34.86	34.45	34.47	34.63	59.67	59.67	56.64	51.35	51.12	13.82
Movement LOS	C	D	C	C	C	C	E	E	E	D	D	B
d_A, Approach Delay [s/veh]	37.58			34.47			58.89			32.21		
Approach LOS	D			C			E			C		
d_I, Intersection Delay [s/veh]	35.83											
Intersection LOS	D											
Intersection V/C	0.592											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	0.00	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.781	0.000	2.052	2.574
Crosswalk LOS	C	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	683	250	433	367
d_b, Bicycle Delay [s]	26.00	45.94	36.82	40.02
l_b,int, Bicycle LOS Score for Intersection	2.530	2.276	1.682	2.744
Bicycle LOS	B	B	A	B

Sequence

Ring 1	2	6	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: 9th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	6.4
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.290

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			9th Street			9th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			9th Street			9th Street		
Base Volume Input [veh/h]	22	904	18	23	624	14	15	0	23	19	4	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	2	0	10	0	0	0	0	5	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	913	20	23	634	14	15	0	23	24	4	9
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	228	5	6	159	4	4	0	6	6	1	2
Total Analysis Volume [veh/h]	22	913	20	23	634	14	15	0	23	24	4	9
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	35	55	0	35	55	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	7	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	102	102	3	102	102	4	4
g / C, Green / Cycle	0.02	0.85	0.85	0.02	0.85	0.85	0.03	0.03
(v / s)_i Volume / Saturation Flow Rate	0.01	0.26	0.01	0.01	0.17	0.17	0.02	0.02
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1856	1814	1795
c, Capacity [veh/h]	40	3013	1345	41	1583	1571	97	104
d1, Uniform Delay [s]	58.04	1.91	1.44	57.99	1.71	1.71	57.58	57.55
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.08	0.26	0.02	11.14	0.29	0.30	2.53	2.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.55	0.30	0.01	0.56	0.21	0.21	0.39	0.35
d, Delay for Lane Group [s/veh]	69.12	2.17	1.46	69.14	2.00	2.00	60.11	59.58
Lane Group LOS	E	A	A	E	A	A	E	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.79	1.47	0.05	0.82	0.99	0.99	1.21	1.17
50th-Percentile Queue Length [ft/ln]	19.64	36.76	1.31	20.50	24.83	24.69	30.27	29.27
95th-Percentile Queue Length [veh/ln]	1.41	2.65	0.09	1.48	1.79	1.78	2.18	2.11
95th-Percentile Queue Length [ft/ln]	35.35	66.16	2.36	36.89	44.70	44.44	54.49	52.69

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	69.12	2.17	1.46	69.14	2.00	2.00	60.11	60.11	60.11	59.58	59.58	59.58
Movement LOS	E	A	A	E	A	A	E	E	E	E	E	E
d_A, Approach Delay [s/veh]	3.70			4.30			60.11			59.58		
Approach LOS	A			A			E			E		
d_I, Intersection Delay [s/veh]	6.41											
Intersection LOS	A											
Intersection V/C	0.290											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.768	2.650	1.768	1.769
Crosswalk LOS	C	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	850	850	433	433
d_b, Bicycle Delay [s]	19.84	19.84	36.82	36.82
l_b,int, Bicycle LOS Score for Intersection	2.347	2.113	1.622	1.621
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: 15th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	26.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.589

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Base Volume Input [veh/h]	141	1335	61	105	710	108	51	18	96	40	23	128
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	5	10	0	0	0	0	0	0	11
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	141	1344	61	110	720	108	51	18	96	40	23	139
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	336	15	28	180	27	13	5	24	10	6	35
Total Analysis Volume [veh/h]	141	1344	61	110	720	108	51	18	96	40	23	139
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	35	55	0	13	33	0	0	26	0	0	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	10	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	73	73	9	70	70	9	9	13	13	13
g / C, Green / Cycle	0.10	0.61	0.61	0.08	0.59	0.59	0.08	0.08	0.11	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.08	0.38	0.38	0.06	0.23	0.23	0.04	0.06	0.02	0.02	0.09
s, saturation flow rate [veh/h]	1781	1870	1842	1781	1870	1786	1803	1589	1781	1844	1589
c, Capacity [veh/h]	172	1136	1118	134	1095	1046	143	126	188	194	167
d1, Uniform Delay [s]	53.20	14.87	14.92	54.72	13.31	13.31	52.91	54.16	48.88	48.87	52.63
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.31	2.57	2.64	11.83	1.03	1.08	2.53	9.21	0.41	0.39	10.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.82	0.62	0.63	0.82	0.39	0.39	0.48	0.76	0.17	0.16	0.83
d, Delay for Lane Group [s/veh]	62.51	17.44	17.56	66.54	14.34	14.39	55.44	63.36	49.29	49.26	62.66
Lane Group LOS	E	B	B	E	B	B	E	E	D	D	E
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.62	12.37	12.30	3.72	6.28	6.01	2.10	3.16	0.88	0.89	4.57
50th-Percentile Queue Length [ft/ln]	115.41	309.28	307.60	92.89	156.98	150.28	52.41	79.10	21.88	22.37	114.27
95th-Percentile Queue Length [veh/ln]	8.14	18.14	18.06	6.69	10.39	10.03	3.77	5.70	1.58	1.61	8.08
95th-Percentile Queue Length [ft/ln]	203.50	453.49	451.41	167.20	259.72	250.81	94.33	142.38	39.39	40.27	201.92

Movement, Approach, & Intersection Results

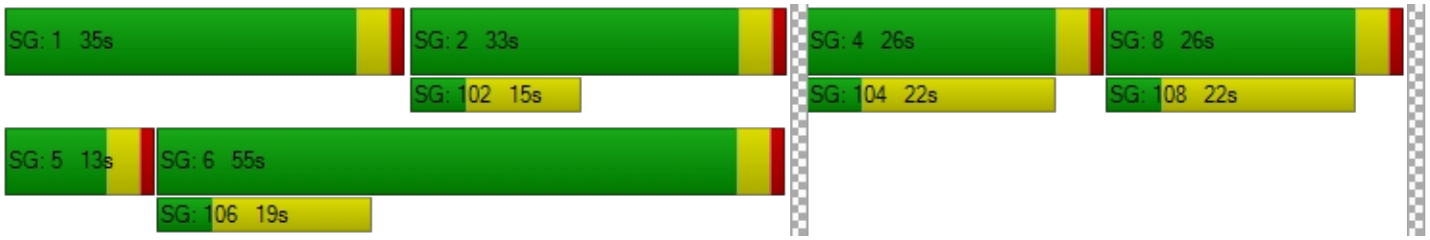
d_M, Delay for Movement [s/veh]	62.51	17.49	17.56	66.54	14.36	14.39	55.44	55.44	63.36	49.29	49.26	62.66
Movement LOS	E	B	B	E	B	B	E	E	E	D	D	E
d_A, Approach Delay [s/veh]	21.60			20.48			60.05			58.49		
Approach LOS	C			C			E			E		
d_I, Intersection Delay [s/veh]	26.07											
Intersection LOS	C											
Intersection V/C	0.589											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.783	2.797	2.097	2.242
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	850	483	367	367
d_b, Bicycle Delay [s]	19.84	34.50	40.02	40.02
l_b,int, Bicycle LOS Score for Intersection	2.835	2.333	1.832	1.893
Bicycle LOS	C	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Del Mar Housing Element

Vistro File: C:\...\Del Mar PM.vistro
Report File: C:\...\3 WEEKEND PM.pdf

Scenario 3 WEEKEND PM
5/29/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Camino Del Mar at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.559	38.3	D
2	Jimmy Durante Blvd at Via De La Valle	Signalized	HCM 6th Edition	EB Left	0.567	35.7	D
3	I-5 SB Ramps at Via De La Valle	Signalized	HCM 6th Edition	SB Right	0.369	16.5	B
4	I-5 NB Ramps at Via De La Valle	Signalized	HCM 6th Edition	NB Right	0.466	22.3	C
6	Camino Del Mar at Del Mar Heights Rd	Signalized	HCM 6th Edition	EB Thru	0.551	34.5	C
8	15th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.488	32.0	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Camino Del Mar at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	38.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.559

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	0	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	33	350	246	255	395	23	8	94	42	269	100	214
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	350	246	255	395	23	8	94	42	269	100	214
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	95	67	69	107	6	2	26	11	73	27	58
Total Analysis Volume [veh/h]	36	380	267	277	429	25	9	102	46	292	109	233
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	59	23	0	53	17	0	0	44	0	0	44	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	23	23	21	40	40	64	64	64	64
g / C, Green / Cycle	0.03	0.19	0.19	0.17	0.34	0.34	0.53	0.53	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.02	0.11	0.17	0.16	0.12	0.12	0.09	0.24	0.06	0.15
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1834	1752	1239	1870	1589
c, Capacity [veh/h]	53	686	306	310	630	618	966	409	997	847
d1, Uniform Delay [s]	57.62	43.78	47.01	48.45	30.07	30.07	14.34	34.41	13.89	15.32
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	13.82	0.70	7.64	8.83	0.35	0.36	0.36	10.14	0.22	0.80
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.67	0.55	0.87	0.89	0.36	0.36	0.16	0.71	0.11	0.27
d, Delay for Lane Group [s/veh]	71.45	44.49	54.65	57.28	30.42	30.43	14.70	44.55	14.11	16.13
Lane Group LOS	E	D	D	E	C	C	B	D	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.29	5.18	8.36	8.84	5.08	4.99	2.28	8.73	1.53	3.65
50th-Percentile Queue Length [ft/ln]	32.19	129.44	209.02	221.11	126.89	124.65	57.00	218.13	38.21	91.25
95th-Percentile Queue Length [veh/ln]	2.32	8.91	13.10	13.72	8.77	8.65	4.10	13.57	2.75	6.57
95th-Percentile Queue Length [ft/ln]	57.93	222.73	327.57	343.04	219.26	216.20	102.59	339.24	68.78	164.25

Movement, Approach, & Intersection Results

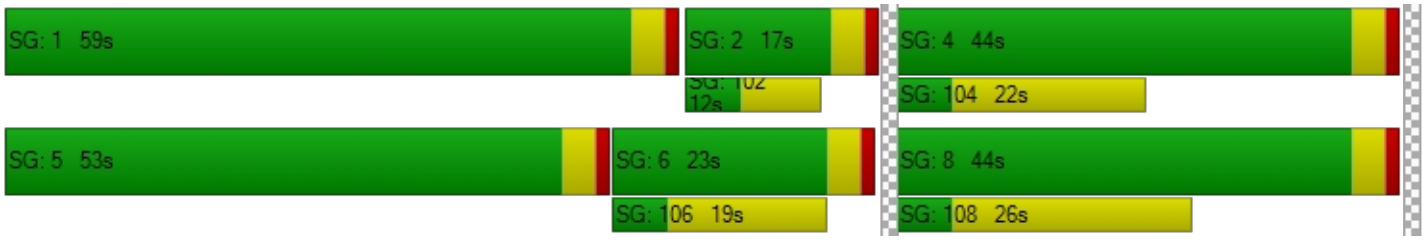
d_M, Delay for Movement [s/veh]	71.45	44.49	54.65	57.28	30.43	30.43	14.70	14.70	14.70	44.55	14.11	16.13
Movement LOS	E	D	D	E	C	C	B	B	B	D	B	B
d_A, Approach Delay [s/veh]	49.88			40.60			14.70			28.87		
Approach LOS	D			D			B			C		
d_I, Intersection Delay [s/veh]	38.26											
Intersection LOS	D											
Intersection V/C	0.559											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	3.119	2.592	1.890	2.458
Crosswalk LOS	C	B	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	317	217	667	667
d_b, Bicycle Delay [s]	42.50	47.70	26.67	26.67
l_b,int, Bicycle LOS Score for Intersection	2.123	2.163	1.819	2.606
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Jimmy Durante Blvd at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	35.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.567

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	58	76	430	222	67	42	54	759	35	313	601	163
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	76	430	222	67	42	54	759	35	313	601	163
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	21	117	60	18	11	15	206	10	85	163	44
Total Analysis Volume [veh/h]	63	83	467	241	73	46	59	825	38	340	653	177
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	34	0	0	30	0	10	37	0	19	46	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	23	23	23	11	11	11	5	56	56	14	65	65
g / C, Green / Cycle	0.19	0.19	0.19	0.09	0.09	0.09	0.04	0.47	0.47	0.11	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.04	0.04	0.17	0.07	0.04	0.03	0.03	0.23	0.23	0.10	0.23	0.23
s, saturation flow rate [veh/h]	1781	1870	2813	3459	1870	1589	1781	1870	1841	3459	1870	1735
c, Capacity [veh/h]	341	358	539	322	174	148	76	874	861	397	1009	936
d1, Uniform Delay [s]	40.67	41.05	47.04	53.05	51.36	50.82	56.88	22.16	22.16	52.16	16.52	16.53
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.26	0.33	4.39	3.49	1.61	1.18	15.44	2.02	2.05	5.44	1.32	1.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.18	0.23	0.87	0.75	0.42	0.31	0.78	0.50	0.50	0.86	0.43	0.43
d, Delay for Lane Group [s/veh]	40.93	41.38	51.43	56.54	52.96	52.01	72.32	24.18	24.22	57.60	17.84	17.96
Lane Group LOS	D	D	D	E	D	D	E	C	C	E	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.60	2.12	7.07	3.70	2.16	1.35	2.10	8.90	8.77	5.32	7.31	6.84
50th-Percentile Queue Length [ft/ln]	39.92	53.09	176.71	92.53	53.92	33.63	52.43	222.42	219.19	133.00	182.84	170.93
95th-Percentile Queue Length [veh/ln]	2.87	3.82	11.43	6.66	3.88	2.42	3.77	13.79	13.62	9.10	11.75	11.13
95th-Percentile Queue Length [ft/ln]	71.85	95.55	285.71	166.55	97.05	60.53	94.37	344.72	340.59	227.56	293.72	278.14

Movement, Approach, & Intersection Results

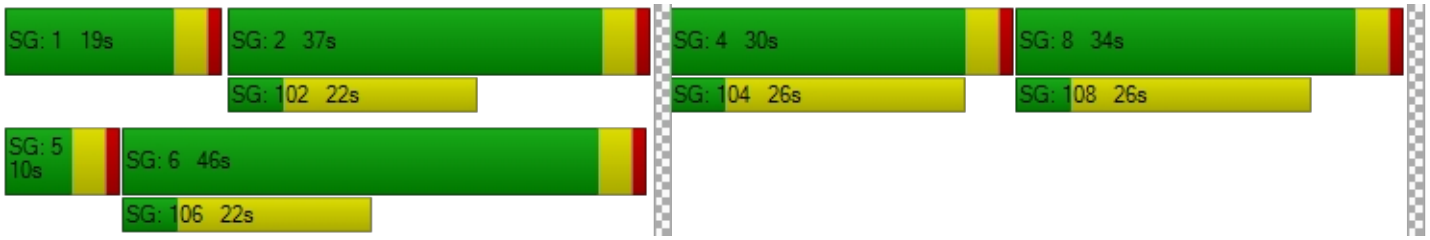
d_M, Delay for Movement [s/veh]	40.93	41.38	51.43	56.54	52.96	52.01	72.32	24.20	24.22	57.60	17.88	17.96
Movement LOS	D	D	D	E	D	D	E	C	C	E	B	B
d_A, Approach Delay [s/veh]	48.99			55.24			27.28			29.43		
Approach LOS	D			E			C			C		
d_I, Intersection Delay [s/veh]	35.73											
Intersection LOS	D											
Intersection V/C	0.567											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.641	2.447	2.643	2.907
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	500	433	550	700
d_b, Bicycle Delay [s]	33.75	36.82	31.54	25.35
l_b,int, Bicycle LOS Score for Intersection	2.571	2.154	2.320	2.525
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: I-5 SB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	16.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.369

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	0	253	0	268	0	839	688	0	787	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	253	0	268	0	839	688	0	787	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9200	1.0000	0.9200	1.0000	0.9200	0.9200	1.0000	0.9200	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	69	0	73	0	228	187	0	214	0
Total Analysis Volume [veh/h]	0	0	0	275	0	291	0	912	748	0	855	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	0	0	5	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	46	0	0	0	74	0	0	74	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	21	0	0	0	3	0	0	14	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		17	17	17	95	95
g / C, Green / Cycle		0.14	0.14	0.14	0.79	0.79
(v / s)_i Volume / Saturation Flow Rate		0.11	0.11	0.11	0.26	0.24
s, saturation flow rate [veh/h]		1781	1661	1589	3560	3560
c, Capacity [veh/h]		249	232	222	2826	2826
d1, Uniform Delay [s]		50.04	50.05	50.06	3.43	3.36
k, delay calibration		0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		6.04	6.50	6.80	0.30	0.28
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.80	0.81	0.81	0.32	0.30
d, Delay for Lane Group [s/veh]		56.08	56.55	56.86	3.73	3.63
Lane Group LOS		E	E	E	A	A
Critical Lane Group		No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		6.24	5.86	5.63	2.55	2.34
50th-Percentile Queue Length [ft/ln]		155.93	146.43	140.74	63.70	58.44
95th-Percentile Queue Length [veh/ln]		10.33	9.83	9.52	4.59	4.21
95th-Percentile Queue Length [ft/ln]		258.32	245.66	238.02	114.66	105.19

Movement, Approach, & Intersection Results

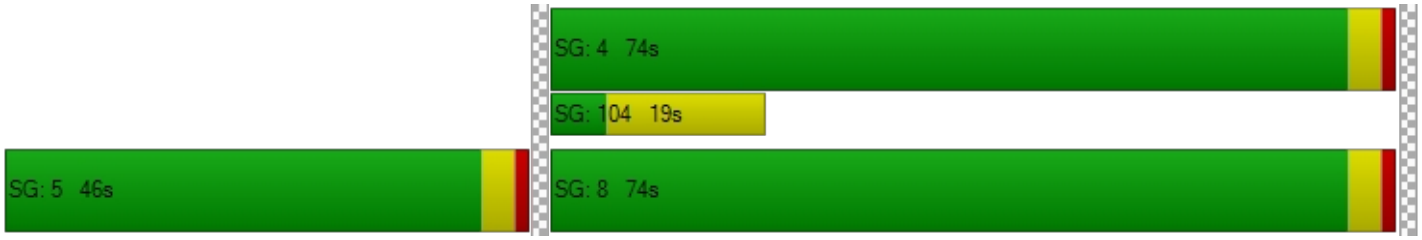
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	56.22	0.00	56.75	0.00	3.73	0.00	0.00	3.63	0.00
Movement LOS				E		E		A			A	
d_A, Approach Delay [s/veh]	0.00			56.48			3.73			3.63		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	16.49											
Intersection LOS	B											
Intersection V/C	0.369											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.284	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1167	1167
d_b, Bicycle Delay [s]	60.00	60.00	10.42	10.42
l_b,int, Bicycle LOS Score for Intersection	4.132	5.066	2.312	2.265
Bicycle LOS	D	F	B	B

Sequence

Ring 1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-5 NB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	22.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.466

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	434	0	465	0	0	0	0	715	0	0	854	416
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	434	0	465	0	0	0	0	715	0	0	854	416
Peak Hour Factor	0.9200	1.0000	0.9200	1.0000	1.0000	1.0000	1.0000	0.9200	1.0000	1.0000	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	118	0	126	0	0	0	0	194	0	0	232	113
Total Analysis Volume [veh/h]	472	0	505	0	0	0	0	777	0	0	928	452
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	5	0	0	5	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	54	0	0	0	0	0	0	66	0	0	66	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	17	0	0	0	0	0	0	14	0	0	3	0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	C
C, Cycle Length [s]	120	120	120		120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00
g_i, Effective Green Time [s]	28	28	28		84	84
g / C, Green / Cycle	0.24	0.24	0.24		0.70	0.70
(v / s)_i Volume / Saturation Flow Rate	0.18	0.19	0.20		0.22	0.26
s, saturation flow rate [veh/h]	1781	1670	1589		3560	3560
c, Capacity [veh/h]	422	396	377		2479	2479
d1, Uniform Delay [s]	42.72	43.37	43.91		7.09	7.49
k, delay calibration	0.11	0.11	0.11		0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	3.01	4.30	5.96		0.33	0.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.77	0.82	0.86		0.31	0.37
d, Delay for Lane Group [s/veh]	45.73	47.67	49.87		7.42	7.93
Lane Group LOS	D	D	D		A	A
Critical Lane Group	No	No	Yes		No	Yes
50th-Percentile Queue Length [veh/ln]	9.35	9.60	9.87		3.70	4.68
50th-Percentile Queue Length [ft/ln]	233.70	240.10	246.71		92.52	116.98
95th-Percentile Queue Length [veh/ln]	14.36	14.69	15.02		6.66	8.23
95th-Percentile Queue Length [ft/ln]	359.06	367.16	375.51		166.54	205.66

Movement, Approach, & Intersection Results

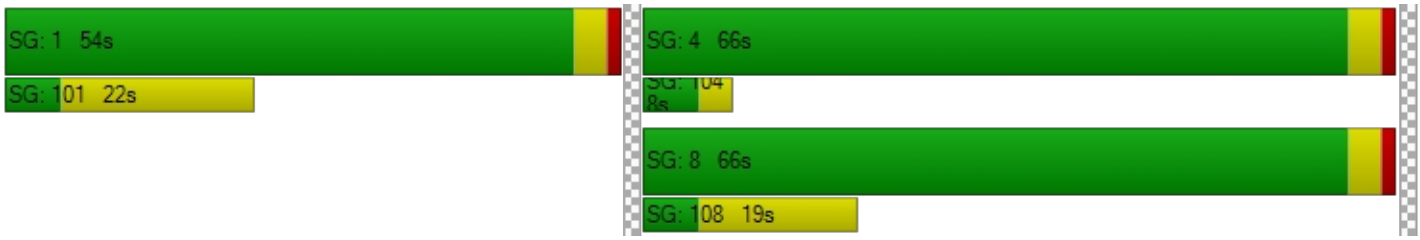
d_M, Delay for Movement [s/veh]	46.34	0.00	49.09	0.00	0.00	0.00	0.00	7.42	0.00	0.00	7.93	0.00
Movement LOS	D		D					A			A	
d_A, Approach Delay [s/veh]	47.76			0.00			7.42			7.93		
Approach LOS	D			A			A			A		
d_I, Intersection Delay [s/veh]	22.29											
Intersection LOS	C											
Intersection V/C	0.466											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.384	1.439	2.677	0.000
Crosswalk LOS	B	A	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1033	1033
d_b, Bicycle Delay [s]	60.00	60.00	14.02	14.02
l_b,int, Bicycle LOS Score for Intersection	5.744	4.132	2.201	2.325
Bicycle LOS	F	D	B	B

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Camino Del Mar at Del Mar Heights Rd

Control Type:	Signalized	Delay (sec / veh):	34.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.551

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Base Volume Input [veh/h]	68	300	119	484	500	14	12	61	21	98	70	461
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	68	300	119	484	500	14	12	61	21	98	70	461
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	82	32	132	136	4	3	17	6	27	19	125
Total Analysis Volume [veh/h]	74	326	129	526	543	15	13	66	23	107	76	501
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Overlap
Signal Group	0	6	0	0	2	0	0	8	0	0	4	4
Auxiliary Signal Groups												2,4
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	5
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	0	26	0	0	38	0	0	30	0	0	26	26
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	17	0	0	10	0	0	21	0	0	17	17
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall		No			No			No			No	No
Maximum Recall		No			No			No			No	No
Pedestrian Recall		No			No			No			No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	37	37	37	38	38	38	7	7	22	22	75
g / C, Green / Cycle	0.31	0.31	0.31	0.31	0.31	0.31	0.06	0.06	0.18	0.18	0.62
(v / s)_i Volume / Saturation Flow Rate	0.04	0.09	0.08	0.20	0.20	0.20	0.04	0.01	0.05	0.05	0.32
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1830	1689	1809	1589	1781	1853	1589
c, Capacity [veh/h]	554	1108	495	557	573	528	144	96	325	338	989
d1, Uniform Delay [s]	29.70	31.33	30.98	35.62	35.62	35.62	55.36	53.77	42.25	42.23	12.51
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.50	0.68	1.28	5.88	5.73	6.19	3.24	1.28	0.46	0.44	1.85
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.13	0.29	0.26	0.65	0.65	0.65	0.55	0.24	0.28	0.28	0.51
d, Delay for Lane Group [s/veh]	30.20	32.01	32.25	41.51	41.34	41.80	58.59	55.04	42.71	42.67	14.37
Lane Group LOS	C	C	C	D	D	D	E	E	D	D	B
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.63	3.70	2.99	10.09	10.34	9.60	2.48	0.70	2.35	2.43	7.63
50th-Percentile Queue Length [ft/ln]	40.63	92.56	74.78	252.13	258.41	240.04	62.00	17.46	58.73	60.66	190.73
95th-Percentile Queue Length [veh/ln]	2.93	6.66	5.38	15.29	15.61	14.68	4.46	1.26	4.23	4.37	12.16
95th-Percentile Queue Length [ft/ln]	73.14	166.61	134.61	382.34	390.22	367.08	111.60	31.43	105.72	109.18	303.97

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.20	32.01	32.25	41.45	41.62	41.80	58.59	58.59	55.04	42.71	42.67	14.37
Movement LOS	C	C	C	D	D	D	E	E	E	D	D	B
d_A, Approach Delay [s/veh]	31.81			41.54			57.79			21.94		
Approach LOS	C			D			E			C		
d_I, Intersection Delay [s/veh]	34.50											
Intersection LOS	C											
Intersection V/C	0.551											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	0.00	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.663	0.000	2.042	2.589
Crosswalk LOS	B	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	367	567	433	367
d_b, Bicycle Delay [s]	40.02	30.82	36.82	40.02
l_b,int, Bicycle LOS Score for Intersection	1.996	2.454	1.728	2.688
Bicycle LOS	A	B	A	B

Sequence

Ring 1	2	6	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: 15th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	32.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.488

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Base Volume Input [veh/h]	189	486	52	79	526	119	89	22	194	48	36	68
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	189	486	52	79	526	119	89	22	194	48	36	68
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	51	132	14	21	143	32	24	6	53	13	10	18
Total Analysis Volume [veh/h]	205	528	57	86	572	129	97	24	211	52	39	74
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	44	36	0	27	19	0	0	31	0	0	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	10	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	70	70	7	62	62	18	18	8	8	8
g / C, Green / Cycle	0.13	0.59	0.59	0.06	0.52	0.52	0.15	0.15	0.06	0.06	0.06
(v / s)_i Volume / Saturation Flow Rate	0.12	0.16	0.16	0.05	0.19	0.19	0.07	0.13	0.03	0.02	0.05
s, saturation flow rate [veh/h]	1781	1870	1807	1781	1870	1752	1798	1589	1781	1856	1589
c, Capacity [veh/h]	238	1096	1059	111	962	902	276	244	116	121	104
d1, Uniform Delay [s]	50.90	12.24	12.24	55.43	17.53	17.54	46.12	49.60	53.79	53.76	54.99
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.90	0.61	0.63	10.90	1.12	1.20	1.10	8.98	2.10	1.96	8.77
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.27	0.27	0.77	0.38	0.38	0.44	0.87	0.39	0.38	0.71
d, Delay for Lane Group [s/veh]	59.80	12.85	12.87	66.33	18.65	18.74	47.22	58.58	55.89	55.72	63.76
Lane Group LOS	E	B	B	E	B	B	D	E	E	E	E
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.61	4.04	3.91	2.90	6.25	5.89	3.37	6.77	1.37	1.40	2.45
50th-Percentile Queue Length [ft/ln]	165.33	100.94	97.82	72.52	156.16	147.24	84.30	169.33	34.32	35.03	61.20
95th-Percentile Queue Length [veh/ln]	10.83	7.27	7.04	5.22	10.34	9.87	6.07	11.04	2.47	2.52	4.41
95th-Percentile Queue Length [ft/ln]	270.76	181.69	176.08	130.54	258.62	246.74	151.73	276.04	61.77	63.05	110.16

Movement, Approach, & Intersection Results

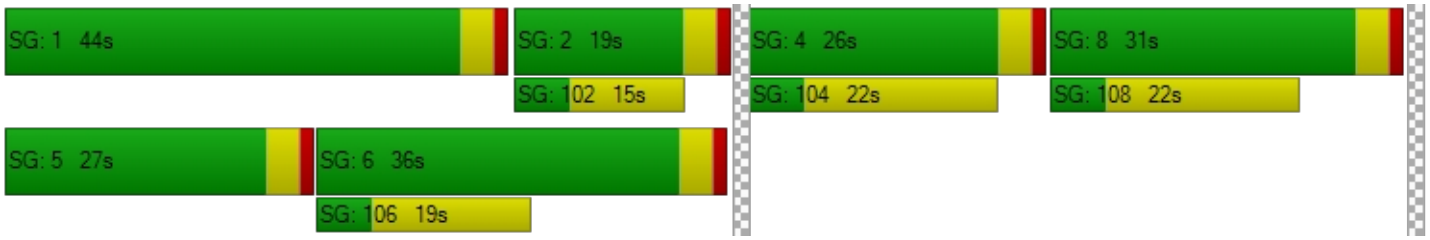
d_M, Delay for Movement [s/veh]	59.80	12.86	12.87	66.33	18.68	18.74	47.22	47.22	58.58	55.89	55.72	63.76
Movement LOS	E	B	B	E	B	B	D	D	E	E	E	E
d_A, Approach Delay [s/veh]	25.04			23.90			54.44			59.37		
Approach LOS	C			C			D			E		
d_I, Intersection Delay [s/veh]	32.04											
Intersection LOS	C											
Intersection V/C	0.488											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.632	2.605	2.185	2.227
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	533	250	450	367
d_b, Bicycle Delay [s]	32.27	45.94	36.04	40.02
l_b,int, Bicycle LOS Score for Intersection	2.211	2.209	2.107	1.832
Bicycle LOS	B	B	B	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Del Mar Housing Element

Vistro File: C:\...\Del Mar PM.vistro
Report File: C:\...\4 WEEKEND WP PM.pdf

Scenario 4 WEEKEND WP PM
5/29/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Camino Del Mar at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.573	36.2	D
2	Jimmy Durante Blvd at Via De La Valle	Signalized	HCM 6th Edition	EB Left	0.580	35.5	D
3	I-5 SB Ramps at Via De La Valle	Signalized	HCM 6th Edition	SB Right	0.377	16.4	B
4	I-5 NB Ramps at Via De La Valle	Signalized	HCM 6th Edition	NB Right	0.477	22.6	C
6	Camino Del Mar at Del Mar Heights Rd	Signalized	HCM 6th Edition	EB Thru	0.578	36.0	D
8	15th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.496	32.4	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Camino Del Mar at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	36.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.573

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	0	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	33	350	246	255	395	23	8	94	42	269	100	214
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	5	0	0	5	11	11	48	11	0	50	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	355	246	255	400	34	19	142	53	269	150	214
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	96	67	69	109	9	5	39	14	73	41	58
Total Analysis Volume [veh/h]	48	386	267	277	435	37	21	154	58	292	163	233
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	61	23	0	57	19	0	0	40	0	0	40	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	23	23	21	40	40	64	64	64	64
g / C, Green / Cycle	0.04	0.19	0.19	0.17	0.33	0.33	0.53	0.53	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.03	0.11	0.17	0.16	0.13	0.13	0.13	0.25	0.09	0.15
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1819	1732	1169	1870	1589
c, Capacity [veh/h]	65	686	306	311	618	601	955	466	996	847
d1, Uniform Delay [s]	57.21	43.85	46.99	48.43	30.85	30.85	15.05	28.94	14.34	15.34
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	14.56	0.73	7.60	8.75	0.40	0.41	0.61	6.27	0.35	0.80
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.73	0.56	0.87	0.89	0.39	0.39	0.24	0.63	0.16	0.28
d, Delay for Lane Group [s/veh]	71.77	44.58	54.59	57.18	31.24	31.26	15.66	35.21	14.70	16.15
Lane Group LOS	E	D	D	E	C	C	B	D	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.71	5.27	8.36	8.84	5.39	5.25	3.56	7.67	2.36	3.65
50th-Percentile Queue Length [ft/ln]	42.69	131.73	208.89	220.94	134.75	131.34	88.97	191.77	59.07	91.32
95th-Percentile Queue Length [veh/ln]	3.07	9.03	13.10	13.71	9.20	9.01	6.41	12.21	4.25	6.57
95th-Percentile Queue Length [ft/ln]	76.84	225.84	327.41	342.83	229.94	225.31	160.14	305.33	106.33	164.37

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	71.77	44.58	54.59	57.18	31.25	31.26	15.66	15.66	15.66	35.21	14.70	16.15
Movement LOS	E	D	D	E	C	C	B	B	B	D	B	B
d_A, Approach Delay [s/veh]	50.25			40.84			15.66			23.89		
Approach LOS	D			D			B			C		
d_I, Intersection Delay [s/veh]	36.23											
Intersection LOS	D											
Intersection V/C	0.573											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	3.125	2.616	1.965	2.484
Crosswalk LOS	C	B	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	317	250	600	600
d_b, Bicycle Delay [s]	42.50	45.94	29.40	29.40
l_b,int, Bicycle LOS Score for Intersection	2.138	2.178	1.944	2.695
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Jimmy Durante Blvd at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	35.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.580

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	58	76	430	222	67	42	54	759	35	313	601	163
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	48	0	0	50	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	76	430	222	67	42	54	807	35	313	651	163
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	21	117	60	18	11	15	219	10	85	177	44
Total Analysis Volume [veh/h]	63	83	467	241	73	46	59	877	38	340	708	177
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	38	0	0	30	0	22	26	0	26	30	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	23	23	23	11	11	11	5	56	56	14	65	65
g / C, Green / Cycle	0.19	0.19	0.19	0.09	0.09	0.09	0.04	0.46	0.46	0.12	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.04	0.04	0.17	0.07	0.04	0.03	0.03	0.25	0.25	0.10	0.24	0.25
s, saturation flow rate [veh/h]	1781	1870	2813	3459	1870	1589	1781	1870	1843	3459	1870	1743
c, Capacity [veh/h]	341	358	539	320	173	147	78	868	856	410	1008	940
d1, Uniform Delay [s]	40.66	41.04	47.03	53.13	51.43	50.90	56.76	22.85	22.85	51.70	16.87	16.89
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.26	0.33	4.38	3.62	1.64	1.20	13.95	2.32	2.35	4.37	1.47	1.59
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.18	0.23	0.87	0.75	0.42	0.31	0.76	0.53	0.53	0.83	0.45	0.46
d, Delay for Lane Group [s/veh]	40.92	41.37	51.40	56.74	53.07	52.10	70.71	25.17	25.21	56.07	18.34	18.49
Lane Group LOS	D	D	D	E	D	D	E	C	C	E	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.60	2.12	7.07	3.71	2.16	1.35	2.07	9.71	9.57	5.25	7.95	7.48
50th-Percentile Queue Length [ft/ln]	39.91	53.08	176.65	92.67	53.96	33.65	51.78	242.67	239.34	131.13	198.65	186.99
95th-Percentile Queue Length [veh/ln]	2.87	3.82	11.43	6.67	3.89	2.42	3.73	14.82	14.65	9.00	12.57	11.96
95th-Percentile Queue Length [ft/ln]	71.84	95.54	285.64	166.81	97.13	60.57	93.21	370.41	366.20	225.03	314.23	299.12

Movement, Approach, & Intersection Results

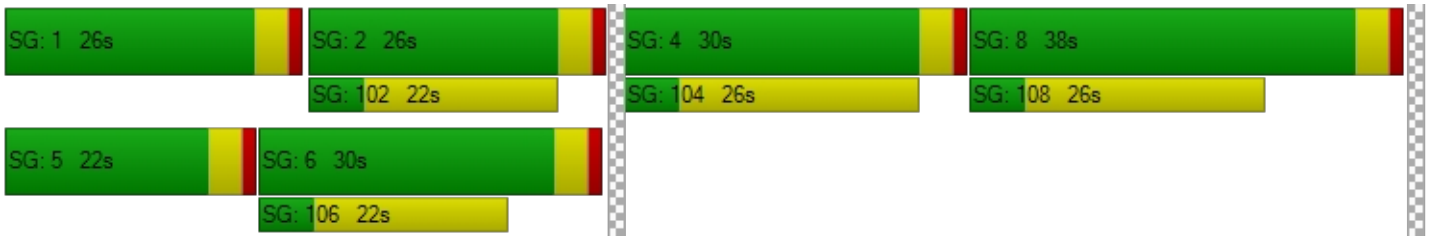
d_M, Delay for Movement [s/veh]	40.92	41.37	51.40	56.74	53.07	52.10	70.71	25.19	25.21	56.07	18.39	18.49
Movement LOS	D	D	D	E	D	D	E	C	C	E	B	B
d_A, Approach Delay [s/veh]	48.97			55.40			27.95			28.86		
Approach LOS	D			E			C			C		
d_I, Intersection Delay [s/veh]	35.48											
Intersection LOS	D											
Intersection V/C	0.580											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.641	2.447	2.664	2.925
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	567	433	367	433
d_b, Bicycle Delay [s]	30.82	36.82	40.02	36.82
l_b,int, Bicycle LOS Score for Intersection	2.571	2.154	2.363	2.570
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: I-5 SB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	16.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.377

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	0	253	0	268	0	839	688	0	787	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	11	0	18	30	0	39	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	253	0	279	0	857	718	0	826	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9200	1.0000	0.9200	1.0000	0.9200	0.9200	1.0000	0.9200	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	69	0	76	0	233	195	0	224	0
Total Analysis Volume [veh/h]	0	0	0	275	0	303	0	932	780	0	898	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	0	0	5	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	44	0	0	0	76	0	0	76	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	21	0	0	0	3	0	0	14	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		17	17	17	95	95
g / C, Green / Cycle		0.14	0.14	0.14	0.79	0.79
(v / s)_i Volume / Saturation Flow Rate		0.11	0.12	0.12	0.26	0.25
s, saturation flow rate [veh/h]		1781	1655	1589	3560	3560
c, Capacity [veh/h]		253	235	226	2817	2817
d1, Uniform Delay [s]		49.89	49.90	49.91	3.54	3.50
k, delay calibration		0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		6.04	6.54	6.83	0.32	0.30
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.81	0.81	0.81	0.33	0.32
d, Delay for Lane Group [s/veh]		55.93	56.44	56.74	3.86	3.80
Lane Group LOS		E	E	E	A	A
Critical Lane Group		No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		6.37	5.97	5.76	2.68	2.55
50th-Percentile Queue Length [ft/ln]		159.20	149.17	143.88	66.99	63.71
95th-Percentile Queue Length [veh/ln]		10.51	9.97	9.69	4.82	4.59
95th-Percentile Queue Length [ft/ln]		262.67	249.32	242.23	120.58	114.67

Movement, Approach, & Intersection Results

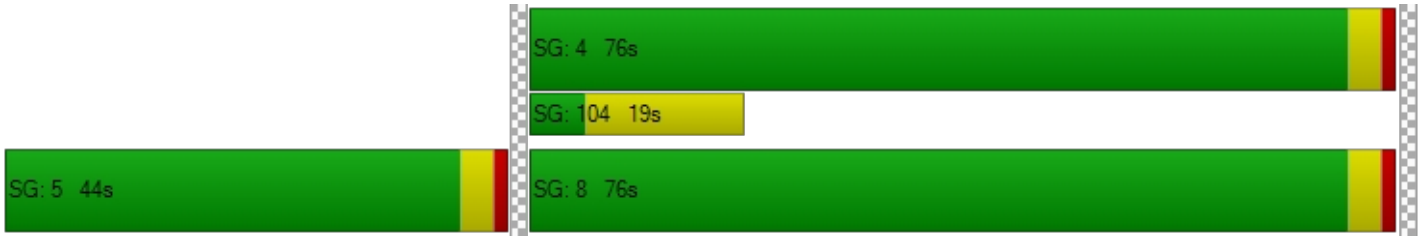
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	56.08	0.00	56.63	0.00	3.86	0.00	0.00	3.80	0.00
Movement LOS				E		E		A			A	
d_A, Approach Delay [s/veh]	0.00			56.36			3.86			3.80		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	16.44											
Intersection LOS	B											
Intersection V/C	0.377											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.287	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1200	1200
d_b, Bicycle Delay [s]	60.00	60.00	9.60	9.60
l_b,int, Bicycle LOS Score for Intersection	4.132	5.086	2.329	2.300
Bicycle LOS	D	F	B	B

Sequence

Ring 1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-5 NB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	22.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.477

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	434	0	465	0	0	0	0	715	0	0	854	416
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	32	0	3	0	0	0	0	7	0	0	11	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	466	0	468	0	0	0	0	722	0	0	865	416
Peak Hour Factor	0.9200	1.0000	0.9200	1.0000	1.0000	1.0000	1.0000	0.9200	1.0000	1.0000	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	127	0	127	0	0	0	0	196	0	0	235	113
Total Analysis Volume [veh/h]	507	0	509	0	0	0	0	785	0	0	940	452
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	5	0	0	5	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	84	0	0	0	0	0	0	36	0	0	36	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	17	0	0	0	0	0	0	14	0	0	3	0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	C
C, Cycle Length [s]	120	120	120		120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00
g_i, Effective Green Time [s]	29	29	29		83	83
g / C, Green / Cycle	0.25	0.25	0.25		0.69	0.69
(v / s)_i Volume / Saturation Flow Rate	0.19	0.20	0.21		0.22	0.26
s, saturation flow rate [veh/h]	1781	1679	1589		3560	3560
c, Capacity [veh/h]	438	413	391		2447	2447
d1, Uniform Delay [s]	42.12	42.73	43.34		7.53	7.97
k, delay calibration	0.11	0.11	0.11		0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	2.94	4.08	5.86		0.35	0.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.77	0.82	0.87		0.32	0.38
d, Delay for Lane Group [s/veh]	45.06	46.80	49.21		7.87	8.43
Lane Group LOS	D	D	D		A	A
Critical Lane Group	No	No	Yes		No	Yes
50th-Percentile Queue Length [veh/ln]	9.67	9.92	10.22		3.90	4.96
50th-Percentile Queue Length [ft/ln]	241.76	247.88	255.51		97.58	123.91
95th-Percentile Queue Length [veh/ln]	14.77	15.08	15.46		7.03	8.61
95th-Percentile Queue Length [ft/ln]	369.26	376.98	386.59		175.64	215.19

Movement, Approach, & Intersection Results

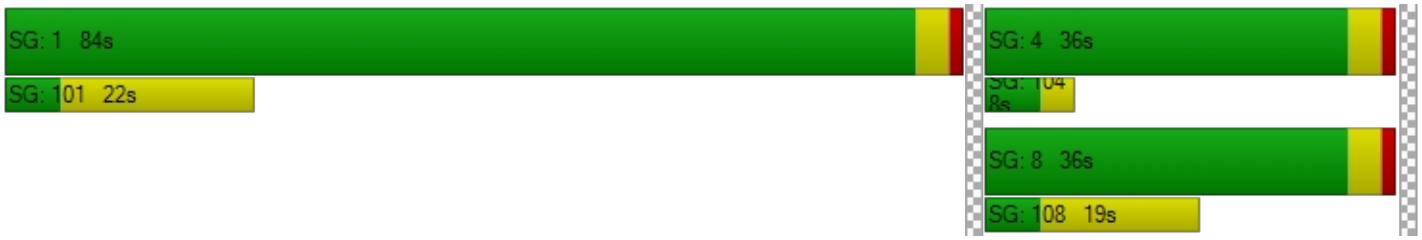
d_M, Delay for Movement [s/veh]	45.64	0.00	48.40	0.00	0.00	0.00	0.00	7.87	0.00	0.00	8.43	0.00
Movement LOS	D		D					A			A	
d_A, Approach Delay [s/veh]	47.02			0.00			7.87			8.43		
Approach LOS	D			A			A			A		
d_I, Intersection Delay [s/veh]	22.57											
Intersection LOS	C											
Intersection V/C	0.477											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.394	1.439	2.690	0.000
Crosswalk LOS	B	A	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	533	533
d_b, Bicycle Delay [s]	60.00	60.00	32.27	32.27
l_b,int, Bicycle LOS Score for Intersection	5.809	4.132	2.207	2.335
Bicycle LOS	F	D	B	B

Sequence

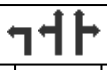
Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Camino Del Mar at Del Mar Heights Rd

Control Type:	Signalized	Delay (sec / veh):	36.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.578

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Base Volume Input [veh/h]	68	300	119	484	500	14	12	61	21	98	70	461
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	4	0	0	4	8	8	24	2	0	24	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	304	119	484	504	22	20	85	23	98	94	461
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	83	32	132	137	6	5	23	6	27	26	125
Total Analysis Volume [veh/h]	76	330	129	526	548	24	22	92	25	107	102	501
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Overlap
Signal Group	0	6	0	0	2	0	0	8	0	0	4	4
Auxiliary Signal Groups												2,4
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	5
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	0	26	0	0	37	0	0	31	0	0	26	26
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	17	0	0	10	0	0	21	0	0	17	17
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall		No			No			No			No	No
Maximum Recall		No			No			No			No	No
Pedestrian Recall		No			No			No			No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	36	36	36	36	36	36	10	10	22	22	76
g / C, Green / Cycle	0.30	0.30	0.30	0.30	0.30	0.30	0.08	0.08	0.18	0.18	0.63
(v / s)_i Volume / Saturation Flow Rate	0.04	0.09	0.08	0.21	0.21	0.21	0.06	0.02	0.06	0.06	0.32
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1832	1681	1793	1589	1781	1866	1589
c, Capacity [veh/h]	536	1072	478	539	554	508	181	129	324	340	1005
d1, Uniform Delay [s]	30.62	32.31	31.90	36.84	36.83	36.83	54.03	51.47	42.59	42.56	11.84
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.55	0.75	1.38	6.96	6.76	7.34	3.57	0.72	0.55	0.52	1.77
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.14	0.31	0.27	0.69	0.69	0.69	0.63	0.19	0.32	0.31	0.50
d, Delay for Lane Group [s/veh]	31.18	33.06	33.29	43.79	43.59	44.17	57.60	52.20	43.14	43.08	13.61
Lane Group LOS	C	C	C	D	D	D	E	D	D	D	B
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.70	3.82	3.05	10.54	10.81	10.00	3.56	0.73	2.70	2.80	7.36
50th-Percentile Queue Length [ft/ln]	42.56	95.53	76.21	263.53	270.23	249.96	88.95	18.28	67.52	69.96	183.96
95th-Percentile Queue Length [veh/ln]	3.06	6.88	5.49	15.87	16.20	15.18	6.40	1.32	4.86	5.04	11.81
95th-Percentile Queue Length [ft/ln]	76.60	171.96	137.17	396.65	405.03	379.60	160.11	32.91	121.54	125.93	295.18

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.18	33.06	33.29	43.73	43.93	44.17	57.60	57.60	52.20	43.14	43.08	13.61
Movement LOS	C	C	C	D	D	D	E	E	D	D	D	B
d_A, Approach Delay [s/veh]	32.84			43.84			56.63			22.29		
Approach LOS	C			D			E			C		
d_I, Intersection Delay [s/veh]	36.02											
Intersection LOS	D											
Intersection V/C	0.578											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	0.00	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.666	0.000	2.066	2.599
Crosswalk LOS	B	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	367	550	450	367
d_b, Bicycle Delay [s]	40.02	31.54	36.04	40.02
l_b,int, Bicycle LOS Score for Intersection	2.001	2.465	1.789	2.731
Bicycle LOS	B	B	A	B

Sequence

Ring 1	2	6	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: 15th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	32.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.496

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Base Volume Input [veh/h]	189	486	52	79	526	119	89	22	194	48	36	68
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	7	9	0	0	0	0	0	0	7
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	189	495	52	86	535	119	89	22	194	48	36	75
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	51	135	14	23	145	32	24	6	53	13	10	20
Total Analysis Volume [veh/h]	205	538	57	93	582	129	97	24	211	52	39	82
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	42	36	0	26	20	0	0	32	0	0	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	10	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	69	69	8	61	61	18	18	8	8	8
g / C, Green / Cycle	0.13	0.58	0.58	0.07	0.51	0.51	0.15	0.15	0.07	0.07	0.07
(v / s)_i Volume / Saturation Flow Rate	0.12	0.16	0.16	0.05	0.20	0.20	0.07	0.13	0.03	0.02	0.05
s, saturation flow rate [veh/h]	1781	1870	1808	1781	1870	1754	1798	1589	1781	1856	1589
c, Capacity [veh/h]	238	1078	1042	119	953	894	276	244	125	130	112
d1, Uniform Delay [s]	50.91	12.84	12.85	55.14	17.95	17.96	46.11	49.59	53.21	53.19	54.69
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.95	0.65	0.67	10.64	1.18	1.26	1.10	8.96	1.73	1.62	8.96
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.28	0.28	0.78	0.38	0.39	0.44	0.87	0.36	0.35	0.73
d, Delay for Lane Group [s/veh]	59.86	13.49	13.52	65.78	19.12	19.21	47.21	58.56	54.94	54.81	63.65
Lane Group LOS	E	B	B	E	B	B	D	E	D	D	E
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.62	4.24	4.11	3.12	6.44	6.07	3.37	6.77	1.36	1.39	2.71
50th-Percentile Queue Length [ft/ln]	165.41	105.96	102.73	78.05	160.94	151.80	84.29	169.31	33.92	34.67	67.73
95th-Percentile Queue Length [veh/ln]	10.83	7.61	7.40	5.62	10.60	10.11	6.07	11.04	2.44	2.50	4.88
95th-Percentile Queue Length [ft/ln]	270.87	190.37	184.91	140.48	264.97	252.83	151.73	276.00	61.05	62.40	121.91

Movement, Approach, & Intersection Results

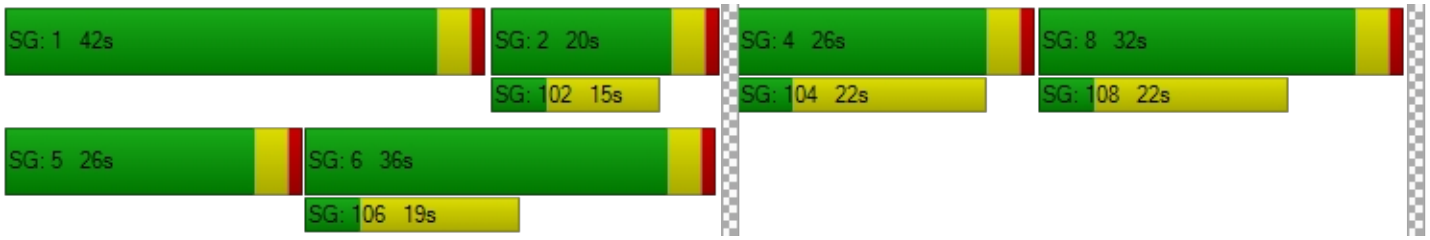
d_M, Delay for Movement [s/veh]	59.86	13.50	13.52	65.78	19.16	19.21	47.21	47.21	58.56	54.94	54.81	63.65
Movement LOS	E	B	B	E	B	B	D	D	E	D	D	E
d_A, Approach Delay [s/veh]	25.38			24.56			54.42			59.04		
Approach LOS	C			C			D			E		
d_I, Intersection Delay [s/veh]	32.40											
Intersection LOS	C											
Intersection V/C	0.496											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.636	2.612	2.185	2.231
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	533	267	467	367
d_b, Bicycle Delay [s]	32.27	45.07	35.27	40.02
l_b,int, Bicycle LOS Score for Intersection	2.220	2.223	2.107	1.845
Bicycle LOS	B	B	B	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Del Mar Housing Elemenet

Vistro File: C:\...\Del Mar AM.vistro
Report File: C:\...\5 FAIR AM.pdf

Scenario 3 FAIR AM
5/12/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Camino Del Mar at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.487	34.5	C
2	Jimmy Durante Blvd at Via De La Valle	Signalized	HCM 6th Edition	EB Left	0.549	34.6	C
3	I-5 SB Ramps at Via De La Valle	Signalized	HCM 6th Edition	SB Right	0.419	15.3	B
4	I-5 NB Ramps at Via De La Valle	Signalized	HCM 6th Edition	NB Right	0.513	24.8	C
8	15th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.380	24.4	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Camino Del Mar at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	34.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.487

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	0	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	24	164	125	370	411	7	3	152	21	193	103	176
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	164	125	370	411	7	3	152	21	193	103	176
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	45	34	101	112	2	1	41	6	52	28	48
Total Analysis Volume [veh/h]	26	178	136	402	447	8	3	165	23	210	112	191
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	59	26	0	64	31	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	13	13	29	39	39	66	66	66	66
g / C, Green / Cycle	0.02	0.11	0.11	0.25	0.33	0.33	0.55	0.55	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.01	0.05	0.09	0.23	0.12	0.12	0.10	0.18	0.06	0.12
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1858	1828	1195	1870	1589
c, Capacity [veh/h]	45	378	169	436	610	607	1033	631	1026	872
d1, Uniform Delay [s]	57.88	50.44	52.41	44.16	31.01	31.01	13.65	17.21	13.00	13.89
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.55	0.91	8.65	8.40	0.38	0.38	0.39	1.42	0.21	0.58
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.58	0.47	0.80	0.92	0.37	0.37	0.18	0.33	0.11	0.22
d, Delay for Lane Group [s/veh]	69.43	51.35	61.05	52.56	31.39	31.39	14.04	18.63	13.22	14.47
Lane Group LOS	E	D	E	D	C	C	B	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.92	2.57	4.41	12.59	5.15	5.12	2.71	3.69	1.51	2.78
50th-Percentile Queue Length [ft/ln]	23.12	64.21	110.19	314.66	128.69	127.92	67.66	92.33	37.75	69.50
95th-Percentile Queue Length [veh/ln]	1.66	4.62	7.85	18.40	8.87	8.83	4.87	6.65	2.72	5.00
95th-Percentile Queue Length [ft/ln]	41.61	115.58	196.26	460.12	221.71	220.66	121.79	166.20	67.95	125.09

Movement, Approach, & Intersection Results

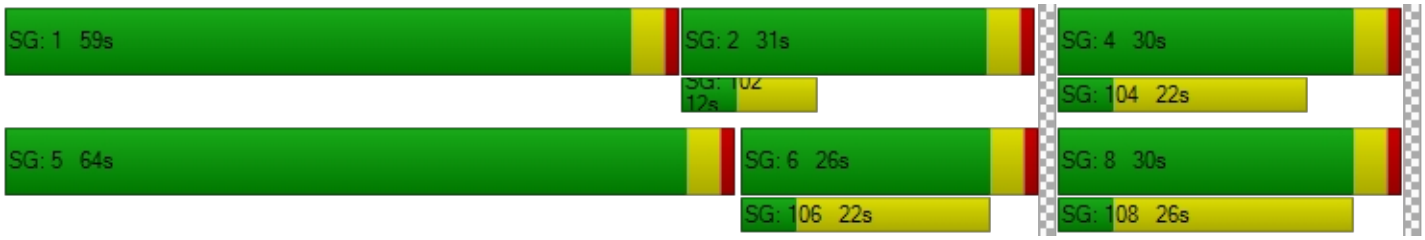
d_M, Delay for Movement [s/veh]	69.43	51.35	61.05	52.56	31.39	31.39	14.04	14.04	14.04	18.63	13.22	14.47
Movement LOS	E	D	E	D	C	C	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	56.62			41.32			14.04			15.90		
Approach LOS	E			D			B			B		
d_I, Intersection Delay [s/veh]	34.46											
Intersection LOS	C											
Intersection V/C	0.487											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.933	2.559	1.894	2.443
Crosswalk LOS	C	B	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	367	450	433	433
d_b, Bicycle Delay [s]	40.02	36.04	36.82	36.82
l_b,int, Bicycle LOS Score for Intersection	1.840	2.267	1.875	2.406
Bicycle LOS	A	B	A	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Jimmy Durante Blvd at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	34.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.549

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	33	68	223	337	67	60	51	692	45	446	655	211
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	68	223	337	67	60	51	692	45	446	655	211
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	18	61	92	18	16	14	188	12	121	178	57
Total Analysis Volume [veh/h]	36	74	242	366	73	65	55	752	49	485	712	229
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	30	0	0	30	0	24	26	0	34	36	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	13	13	16	16	16	5	56	56	20	71	71
g / C, Green / Cycle	0.11	0.11	0.11	0.13	0.13	0.13	0.04	0.47	0.47	0.16	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.09	0.11	0.04	0.04	0.03	0.22	0.22	0.14	0.26	0.26
s, saturation flow rate [veh/h]	1781	1870	2813	3459	1870	1589	1781	1870	1830	3459	1870	1717
c, Capacity [veh/h]	192	202	304	448	242	206	73	871	852	565	1100	1010
d1, Uniform Delay [s]	48.72	49.71	52.23	50.83	47.30	47.39	56.95	21.85	21.85	48.86	13.76	13.85
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.46	1.11	4.76	3.69	0.69	0.87	14.47	1.78	1.82	3.95	1.29	1.45
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.19	0.37	0.80	0.82	0.30	0.32	0.75	0.46	0.46	0.86	0.44	0.45
d, Delay for Lane Group [s/veh]	49.19	50.81	56.99	54.52	47.99	48.26	71.41	23.63	23.68	52.82	15.05	15.30
Lane Group LOS	D	D	E	D	D	D	E	C	C	D	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.01	2.13	3.76	5.58	2.03	1.82	1.94	8.13	7.97	7.36	7.51	7.10
50th-Percentile Queue Length [ft/ln]	25.29	53.29	93.91	139.45	50.79	45.52	48.61	203.27	199.24	184.12	187.64	177.45
95th-Percentile Queue Length [veh/ln]	1.82	3.84	6.76	9.45	3.66	3.28	3.50	12.81	12.60	11.82	12.00	11.47
95th-Percentile Queue Length [ft/ln]	45.52	95.92	169.03	236.29	91.43	81.93	87.50	320.18	314.98	295.38	299.97	286.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	49.19	50.81	56.99	54.52	47.99	48.26	71.41	23.65	23.68	52.82	15.13	15.30
Movement LOS	D	D	E	D	D	D	E	C	C	D	B	B
d_A, Approach Delay [s/veh]	54.89			52.77			26.72			27.97		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	34.63											
Intersection LOS	C											
Intersection V/C	0.549											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.624	2.483	2.641	2.921
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	433	433	367	533
d_b, Bicycle Delay [s]	36.82	36.82	40.02	32.27
l_b,int, Bicycle LOS Score for Intersection	2.140	2.391	2.266	2.736
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: I-5 SB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	15.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.419

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	0	188	0	254	0	510	742	0	1059	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	188	0	254	0	510	742	0	1059	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9200	1.0000	0.9200	1.0000	0.9200	0.9200	1.0000	0.9200	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	51	0	69	0	139	202	0	288	0
Total Analysis Volume [veh/h]	0	0	0	204	0	276	0	554	807	0	1151	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	0	0	5	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	41	0	0	0	79	0	0	79	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	21	0	0	0	3	0	0	14	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		15	15	15	97	97
g / C, Green / Cycle		0.12	0.12	0.12	0.81	0.81
(v / s)_i Volume / Saturation Flow Rate		0.10	0.10	0.10	0.16	0.32
s, saturation flow rate [veh/h]		1781	1626	1589	3560	3560
c, Capacity [veh/h]		217	198	193	2890	2890
d1, Uniform Delay [s]		51.20	51.20	51.20	2.52	3.15
k, delay calibration		0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		6.31	6.87	7.02	0.15	0.41
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.79	0.79	0.79	0.19	0.40
d, Delay for Lane Group [s/veh]		57.51	58.07	58.22	2.67	3.56
Lane Group LOS		E	E	E	A	A
Critical Lane Group		No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		5.38	4.94	4.84	1.16	3.03
50th-Percentile Queue Length [ft/ln]		134.50	123.60	121.00	29.09	75.71
95th-Percentile Queue Length [veh/ln]		9.18	8.59	8.45	2.09	5.45
95th-Percentile Queue Length [ft/ln]		229.60	214.76	211.20	52.36	136.27

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	57.63	0.00	58.16	0.00	2.67	0.00	0.00	3.56	0.00
Movement LOS				E		E		A			A	
d_A, Approach Delay [s/veh]	0.00			57.92			2.67			3.56		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	15.27											
Intersection LOS	B											
Intersection V/C	0.419											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.263	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1250	1250
d_b, Bicycle Delay [s]	60.00	60.00	8.44	8.44
l_b,int, Bicycle LOS Score for Intersection	4.132	4.924	2.017	2.509
Bicycle LOS	D	E	B	B

Sequence

Ring 1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-5 NB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	24.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.513

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	650	0	414	0	0	0	0	481	0	0	886	274
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	650	0	414	0	0	0	0	481	0	0	886	274
Peak Hour Factor	0.9200	1.0000	0.9200	1.0000	1.0000	1.0000	1.0000	0.9200	1.0000	1.0000	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	177	0	113	0	0	0	0	131	0	0	241	74
Total Analysis Volume [veh/h]	707	0	450	0	0	0	0	523	0	0	963	298
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	5	0	0	5	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	70	0	0	0	0	0	0	50	0	0	50	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	17	0	0	0	0	0	0	14	0	0	3	0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	C
C, Cycle Length [s]	120	120	120		120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00
g_i, Effective Green Time [s]	33	33	33		79	79
g / C, Green / Cycle	0.28	0.28	0.28		0.66	0.66
(v / s)_i Volume / Saturation Flow Rate	0.22	0.22	0.24		0.15	0.27
s, saturation flow rate [veh/h]	1781	1746	1589		3560	3560
c, Capacity [veh/h]	494	484	441		2335	2335
d1, Uniform Delay [s]	39.99	40.21	41.37		8.33	9.74
k, delay calibration	0.11	0.11	0.11		0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	2.73	3.04	5.60		0.22	0.54
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.80	0.87		0.22	0.41
d, Delay for Lane Group [s/veh]	42.72	43.25	46.97		8.55	10.28
Lane Group LOS	D	D	D		A	B
Critical Lane Group	No	No	Yes		No	Yes
50th-Percentile Queue Length [veh/ln]	10.83	10.92	11.50		2.69	5.82
50th-Percentile Queue Length [ft/ln]	270.63	272.96	287.43		67.37	145.57
95th-Percentile Queue Length [veh/ln]	16.22	16.34	17.06		4.85	9.78
95th-Percentile Queue Length [ft/ln]	405.53	408.44	426.45		121.27	244.50

Movement, Approach, & Intersection Results

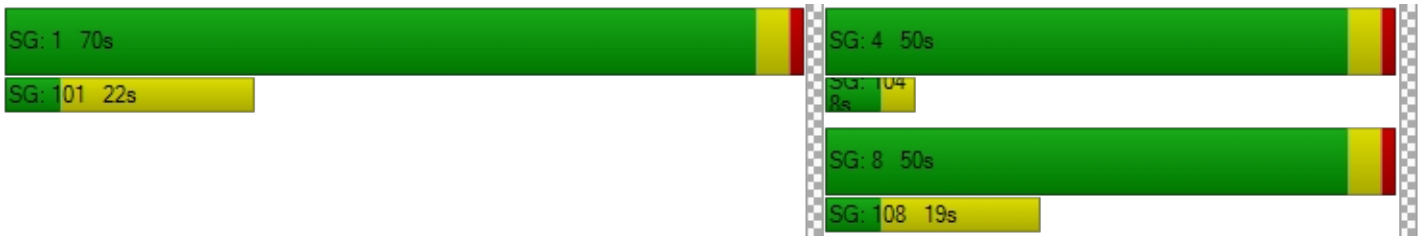
d_M, Delay for Movement [s/veh]	42.96	0.00	46.44	0.00	0.00	0.00	0.00	8.55	0.00	0.00	10.28	0.00
Movement LOS	D		D					A			B	
d_A, Approach Delay [s/veh]	44.31			0.00			8.55			10.28		
Approach LOS	D			A			A			B		
d_I, Intersection Delay [s/veh]	24.83											
Intersection LOS	C											
Intersection V/C	0.513											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.428	1.439	2.681	0.000
Crosswalk LOS	B	A	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	767	767
d_b, Bicycle Delay [s]	60.00	60.00	22.82	22.82
l_b,int, Bicycle LOS Score for Intersection	6.041	4.132	1.991	2.354
Bicycle LOS	F	D	A	B

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: 15th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	24.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.380

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Base Volume Input [veh/h]	114	304	40	76	659	55	32	10	94	26	11	52
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	114	304	40	76	659	55	32	10	94	26	11	52
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	83	11	21	179	15	9	3	26	7	3	14
Total Analysis Volume [veh/h]	124	330	43	83	716	60	35	11	102	28	12	57
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	22	51	0	17	46	0	0	26	0	0	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	10	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	81	81	7	78	78	10	10	6	6	6
g / C, Green / Cycle	0.09	0.67	0.67	0.06	0.65	0.65	0.08	0.08	0.05	0.05	0.05
(v / s)_i Volume / Saturation Flow Rate	0.07	0.10	0.10	0.05	0.21	0.21	0.03	0.06	0.01	0.01	0.04
s, saturation flow rate [veh/h]	1781	1870	1796	1781	1870	1820	1801	1589	1781	1833	1589
c, Capacity [veh/h]	152	1258	1208	106	1210	1178	148	131	93	95	83
d1, Uniform Delay [s]	53.97	7.14	7.15	55.68	9.46	9.46	51.85	53.99	54.53	54.52	55.93
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.21	0.25	0.27	11.90	0.71	0.73	1.17	9.56	1.15	1.09	9.79
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.82	0.15	0.15	0.78	0.32	0.33	0.31	0.78	0.21	0.21	0.69
d, Delay for Lane Group [s/veh]	64.18	7.40	7.42	67.57	10.17	10.20	53.02	63.54	55.68	55.61	65.72
Lane Group LOS	E	A	A	E	B	B	D	E	E	E	E
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.11	1.77	1.72	2.83	4.65	4.53	1.36	3.37	0.61	0.61	1.92
50th-Percentile Queue Length [ft/ln]	102.77	44.32	43.10	70.71	116.17	113.26	33.91	84.20	15.19	15.32	48.08
95th-Percentile Queue Length [veh/ln]	7.40	3.19	3.10	5.09	8.18	8.02	2.44	6.06	1.09	1.10	3.46
95th-Percentile Queue Length [ft/ln]	184.98	79.77	77.59	127.29	204.55	200.53	61.04	151.56	27.34	27.58	86.54

Movement, Approach, & Intersection Results

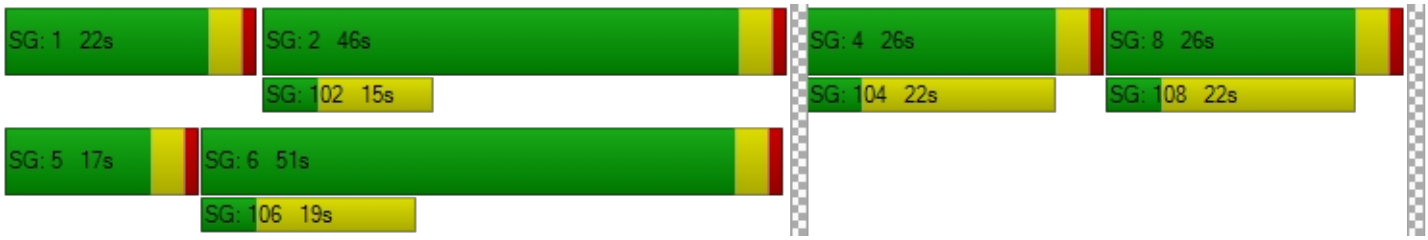
d_M, Delay for Movement [s/veh]	64.18	7.41	7.42	67.57	10.18	10.20	53.02	53.02	63.54	55.68	55.61	65.72
Movement LOS	E	A	A	E	B	B	D	D	E	E	E	E
d_A, Approach Delay [s/veh]	21.57			15.73			60.27			61.56		
Approach LOS	C			B			E			E		
d_I, Intersection Delay [s/veh]	24.44											
Intersection LOS	C											
Intersection V/C	0.380											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.577	2.565	2.067	2.203
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	783	700	367	367
d_b, Bicycle Delay [s]	22.20	25.35	40.02	40.02
l_b,int, Bicycle LOS Score for Intersection	1.970	2.268	1.804	1.720
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Del Mar Housing Element

Vistro File: C:\...\Del Mar PM.vistro
Report File: C:\...\5 FAIR PM.pdf

Scenario 5 FAIR PM
5/12/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Camino Del Mar at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.506	37.0	D
2	Jimmy Durante Blvd at Via De La Valle	Signalized	HCM 6th Edition	EB Left	0.824	55.2	E
3	I-5 SB Ramps at Via De La Valle	Signalized	HCM 6th Edition	SB Right	0.507	17.4	B
4	I-5 NB Ramps at Via De La Valle	Signalized	HCM 6th Edition	NB Right	0.471	24.7	C
8	15th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.480	26.6	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Camino Del Mar at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	37.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.506

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	0	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	54	566	168	254	397	20	12	101	44	208	104	325
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	54	566	168	254	397	20	12	101	44	208	104	325
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	142	42	64	99	5	3	25	11	52	26	81
Total Analysis Volume [veh/h]	54	566	168	254	397	20	12	101	44	208	104	325
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	69	23	0	64	18	0	0	33	0	0	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	22	22	19	37	37	66	66	66	66
g / C, Green / Cycle	0.04	0.19	0.19	0.16	0.31	0.31	0.55	0.55	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.03	0.16	0.11	0.14	0.11	0.11	0.09	0.17	0.06	0.20
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1839	1738	1243	1870	1589
c, Capacity [veh/h]	74	661	295	288	572	562	993	480	1034	879
d1, Uniform Delay [s]	56.86	47.31	44.49	49.20	32.58	32.59	13.15	25.70	12.70	15.08
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	13.04	3.34	1.73	8.77	0.39	0.40	0.34	2.84	0.19	1.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.73	0.86	0.57	0.88	0.37	0.37	0.16	0.43	0.10	0.37
d, Delay for Lane Group [s/veh]	69.90	50.65	46.22	57.97	32.98	32.99	13.49	28.54	12.90	16.27
Lane Group LOS	E	D	D	E	C	C	B	C	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.89	8.47	4.70	8.13	4.85	4.78	2.16	4.86	1.38	5.20
50th-Percentile Queue Length [ft/ln]	47.18	211.74	117.48	203.20	121.31	119.52	54.06	121.44	34.47	130.01
95th-Percentile Queue Length [veh/ln]	3.40	13.24	8.25	12.80	8.46	8.37	3.89	8.47	2.48	8.94
95th-Percentile Queue Length [ft/ln]	84.93	331.06	206.35	320.09	211.62	209.16	97.31	211.80	62.05	223.51

Movement, Approach, & Intersection Results

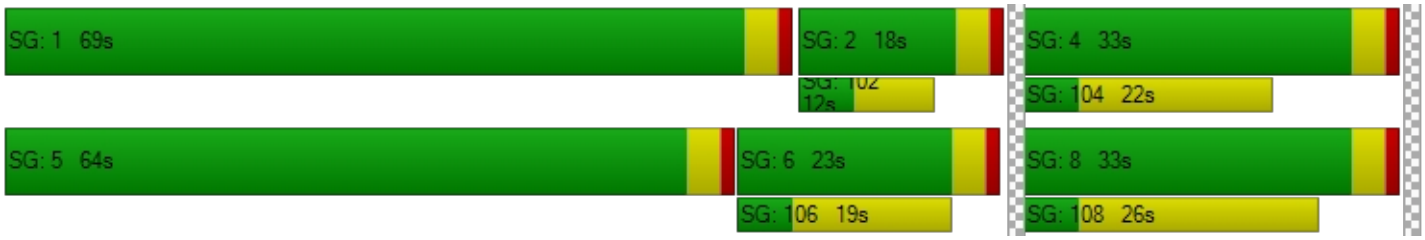
d_M, Delay for Movement [s/veh]	69.90	50.65	46.22	57.97	32.98	32.99	13.49	13.49	13.49	28.54	12.90	16.27
Movement LOS	E	D	D	E	C	C	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	51.02			42.44			13.49			19.73		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	37.01											
Intersection LOS	D											
Intersection V/C	0.506											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.997	2.639	1.893	2.429
Crosswalk LOS	C	B	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	317	233	483	483
d_b, Bicycle Delay [s]	42.50	46.82	34.50	34.50
l_b,int, Bicycle LOS Score for Intersection	2.210	2.113	1.819	2.611
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Jimmy Durante Blvd at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	55.2
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.824

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	217	181	1123	207	113	88	48	459	59	769	724	238
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	217	181	1123	207	113	88	48	459	59	769	724	238
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	45	281	52	28	22	12	115	15	192	181	60
Total Analysis Volume [veh/h]	217	181	1123	207	113	88	48	459	59	769	724	238
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	34	0	0	30	0	9	26	0	30	47	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	46	46	46	10	10	10	4	22	22	26	44	44
g / C, Green / Cycle	0.38	0.38	0.38	0.08	0.08	0.08	0.03	0.18	0.18	0.22	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.12	0.10	0.40	0.06	0.06	0.06	0.03	0.14	0.14	0.22	0.26	0.28
s, saturation flow rate [veh/h]	1781	1870	2813	3459	1870	1589	1781	1870	1797	3459	1870	1717
c, Capacity [veh/h]	680	714	1074	290	157	133	62	345	331	749	685	629
d1, Uniform Delay [s]	26.12	25.39	37.10	53.58	53.61	53.32	57.46	46.44	46.49	47.00	32.61	33.22
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.27	0.18	26.88	3.28	6.13	5.50	18.62	14.77	15.67	22.46	6.25	8.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.25	1.05	0.71	0.72	0.66	0.78	0.76	0.77	1.03	0.71	0.75
d, Delay for Lane Group [s/veh]	26.38	25.58	63.97	56.85	59.74	58.82	76.08	61.21	62.16	69.46	38.86	41.27
Lane Group LOS	C	C	F	E	E	E	E	E	E	F	D	D
Critical Lane Group	No	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.43	3.58	19.39	3.18	3.59	2.78	1.76	8.87	8.66	13.45	13.28	13.31
50th-Percentile Queue Length [ft/ln]	110.64	89.62	484.67	79.42	89.83	69.50	44.10	221.68	216.49	336.19	332.07	332.81
95th-Percentile Queue Length [veh/ln]	7.88	6.45	27.44	5.72	6.47	5.00	3.18	13.75	13.49	19.74	19.26	19.30
95th-Percentile Queue Length [ft/ln]	196.90	161.31	686.00	142.95	161.69	125.09	79.39	343.77	337.14	493.55	481.50	482.40

Movement, Approach, & Intersection Results

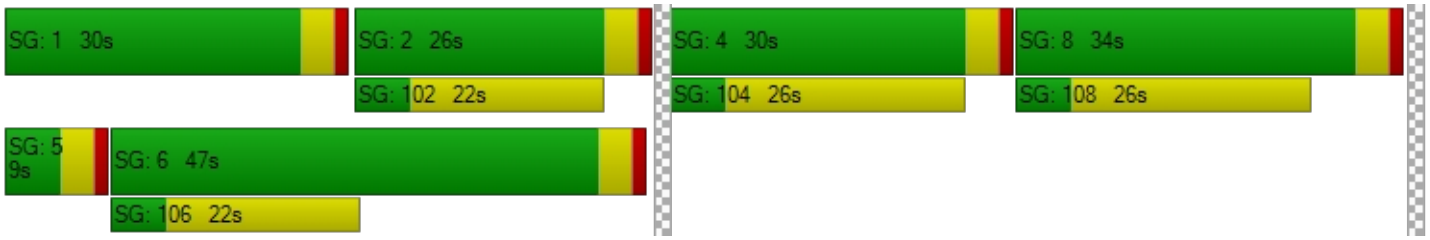
d_M, Delay for Movement [s/veh]	26.38	25.58	63.97	56.85	59.74	58.82	76.08	61.61	62.16	69.46	39.64	41.27
Movement LOS	C	C	F	E	E	E	E	E	E	F	D	D
d_A, Approach Delay [s/veh]	54.04			58.08			62.90			53.11		
Approach LOS	D			E			E			D		
d_I, Intersection Delay [s/veh]	55.24											
Intersection LOS	E											
Intersection V/C	0.824											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.868	2.486	2.626	3.040
Crosswalk LOS	C	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	500	433	367	717
d_b, Bicycle Delay [s]	33.75	36.82	40.02	24.70
l_b,int, Bicycle LOS Score for Intersection	4.069	2.233	2.027	2.988
Bicycle LOS	D	B	B	C

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: I-5 SB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	17.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.507

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	0	247	0	368	0	510	795	0	1364	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	247	0	368	0	510	795	0	1364	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	62	0	92	0	128	199	0	341	0
Total Analysis Volume [veh/h]	0	0	0	247	0	368	0	510	795	0	1364	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	0	0	5	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	33	0	0	0	87	0	0	87	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	21	0	0	0	3	0	0	14	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		18	18	18	94	94
g / C, Green / Cycle		0.15	0.15	0.15	0.78	0.78
(v / s)_i Volume / Saturation Flow Rate		0.12	0.12	0.12	0.14	0.38
s, saturation flow rate [veh/h]		1781	1614	1589	3560	3560
c, Capacity [veh/h]		267	242	238	2789	2789
d1, Uniform Delay [s]		49.43	49.47	49.48	3.29	4.56
k, delay calibration		0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		6.15	6.94	7.08	0.14	0.62
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.82	0.82	0.83	0.18	0.49
d, Delay for Lane Group [s/veh]		55.58	56.42	56.56	3.43	5.18
Lane Group LOS		E	E	E	A	A
Critical Lane Group		No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		6.81	6.27	6.19	1.34	5.00
50th-Percentile Queue Length [ft/ln]		170.27	156.69	154.68	33.46	125.05
95th-Percentile Queue Length [veh/ln]		11.09	10.37	10.27	2.41	8.67
95th-Percentile Queue Length [ft/ln]		277.27	259.34	256.66	60.23	216.75

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	55.71	0.00	56.50	0.00	3.43	0.00	0.00	5.18	0.00
Movement LOS				E		E		A			A	
d_A, Approach Delay [s/veh]	0.00			56.16			3.43			5.18		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	17.42											
Intersection LOS	B											
Intersection V/C	0.507											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.296	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1383	1383
d_b, Bicycle Delay [s]	60.00	60.00	5.70	5.70
l_b,int, Bicycle LOS Score for Intersection	4.132	5.147	1.980	2.685
Bicycle LOS	D	F	A	B

Sequence

Ring 1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-5 NB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	24.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.471

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	768	0	430	0	0	0	0	782	0	0	747	309
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	768	0	430	0	0	0	0	782	0	0	747	309
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	192	0	108	0	0	0	0	196	0	0	187	77
Total Analysis Volume [veh/h]	768	0	430	0	0	0	0	782	0	0	747	309
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	5	0	0	5	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	75	0	0	0	0	0	0	45	0	0	45	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	17	0	0	0	0	0	0	14	0	0	3	0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	C
C, Cycle Length [s]	120	120	120		120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00
g_i, Effective Green Time [s]	34	34	34		78	78
g / C, Green / Cycle	0.29	0.29	0.29		0.65	0.65
(v / s)_i Volume / Saturation Flow Rate	0.22	0.23	0.25		0.22	0.21
s, saturation flow rate [veh/h]	1781	1765	1589		3560	3560
c, Capacity [veh/h]	510	506	455		2303	2303
d1, Uniform Delay [s]	39.37	39.48	40.79		9.59	9.47
k, delay calibration	0.11	0.11	0.11		0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	2.67	2.81	5.53		0.40	0.37
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.79	0.88		0.34	0.32
d, Delay for Lane Group [s/veh]	42.05	42.29	46.33		9.99	9.84
Lane Group LOS	D	D	D		A	A
Critical Lane Group	No	No	Yes		Yes	No
50th-Percentile Queue Length [veh/ln]	11.15	11.20	11.86		4.57	4.31
50th-Percentile Queue Length [ft/ln]	278.78	279.89	296.52		114.19	107.69
95th-Percentile Queue Length [veh/ln]	16.63	16.68	17.51		8.07	7.71
95th-Percentile Queue Length [ft/ln]	415.69	417.08	437.72		201.82	192.79

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.16	0.00	46.04	0.00	0.00	0.00	0.00	9.99	0.00	0.00	9.84	0.00
Movement LOS	D		D					A			A	
d_A, Approach Delay [s/veh]	43.55			0.00			9.99			9.84		
Approach LOS	D			A			A			A		
d_I, Intersection Delay [s/veh]	24.70											
Intersection LOS	C											
Intersection V/C	0.471											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.438	1.439	2.706	0.000
Crosswalk LOS	B	A	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	683	683
d_b, Bicycle Delay [s]	60.00	60.00	26.00	26.00
l_b,int, Bicycle LOS Score for Intersection	6.109	4.132	2.205	2.176
Bicycle LOS	F	D	B	B

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: 15th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	26.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.480

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Base Volume Input [veh/h]	175	899	52	66	765	56	61	16	121	34	37	132
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	175	899	52	66	765	56	61	16	121	34	37	132
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	44	225	13	17	191	14	15	4	30	9	9	33
Total Analysis Volume [veh/h]	175	899	52	66	765	56	61	16	121	34	37	132
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	45	42	0	26	23	0	0	26	0	0	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	10	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	75	75	6	67	67	11	11	12	12	12
g / C, Green / Cycle	0.12	0.62	0.62	0.05	0.55	0.55	0.09	0.09	0.10	0.10	0.10
(v / s)_i Volume / Saturation Flow Rate	0.10	0.26	0.26	0.04	0.22	0.22	0.04	0.08	0.02	0.02	0.08
s, saturation flow rate [veh/h]	1781	1870	1834	1781	1870	1826	1799	1589	1781	1870	1589
c, Capacity [veh/h]	208	1162	1140	87	1035	1011	171	151	180	189	161
d1, Uniform Delay [s]	51.92	11.56	11.56	56.37	15.36	15.36	51.32	53.17	49.42	49.46	52.87
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.90	1.09	1.11	12.58	1.16	1.19	1.84	9.32	0.50	0.50	9.90
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.84	0.41	0.41	0.76	0.40	0.40	0.45	0.80	0.19	0.20	0.82
d, Delay for Lane Group [s/veh]	60.82	12.65	12.67	68.95	16.52	16.55	53.16	62.49	49.92	49.96	62.77
Lane Group LOS	E	B	B	E	B	B	D	E	D	D	E
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.67	6.62	6.50	2.28	6.72	6.57	2.28	3.96	0.96	1.05	4.34
50th-Percentile Queue Length [ft/ln]	141.78	165.42	162.53	57.01	168.06	164.30	57.06	99.12	24.10	26.21	108.52
95th-Percentile Queue Length [veh/ln]	9.58	10.84	10.68	4.10	10.97	10.78	4.11	7.14	1.74	1.89	7.76
95th-Percentile Queue Length [ft/ln]	239.42	270.89	267.07	102.62	274.37	269.41	102.71	178.41	43.38	47.19	193.94

Movement, Approach, & Intersection Results

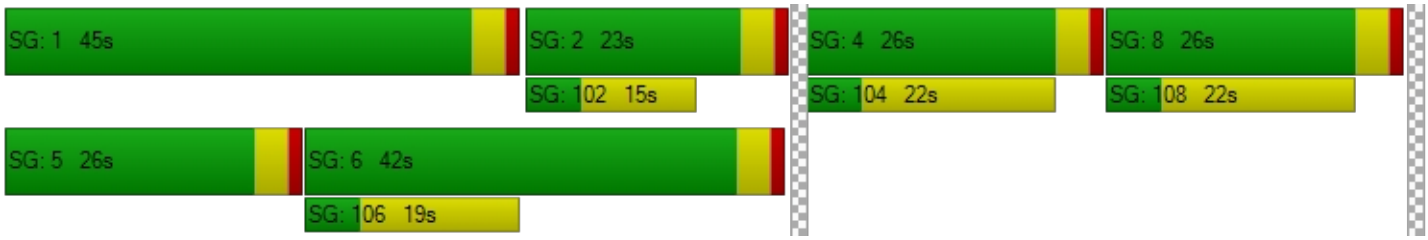
d_M, Delay for Movement [s/veh]	60.82	12.66	12.67	68.95	16.53	16.55	53.16	53.16	62.49	49.92	49.96	62.77
Movement LOS	E	B	B	E	B	B	D	D	E	D	D	E
d_A, Approach Delay [s/veh]	20.15			20.43			58.86			58.28		
Approach LOS	C			C			E			E		
d_I, Intersection Delay [s/veh]	26.63											
Intersection LOS	C											
Intersection V/C	0.480											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.714	2.701	2.107	2.228
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	633	317	367	367
d_b, Bicycle Delay [s]	28.02	42.50	40.02	40.02
l_b,int, Bicycle LOS Score for Intersection	2.489	2.291	1.886	1.895
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Del Mar Housing Elemenet

Vistro File: C:\...\Del Mar AM.vistro
Report File: C:\...\6 FAIR WP AM.pdf

Scenario 4 FAIR WP AM
5/12/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Camino Del Mar at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.503	35.1	D
2	Jimmy Durante Blvd at Via De La Valle	Signalized	HCM 6th Edition	EB Left	0.570	34.5	C
3	I-5 SB Ramps at Via De La Valle	Signalized	HCM 6th Edition	SB Right	0.425	15.1	B
4	I-5 NB Ramps at Via De La Valle	Signalized	HCM 6th Edition	NB Right	0.518	24.9	C
8	15th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.384	24.7	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Camino Del Mar at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	35.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.503

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	0	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	24	164	125	370	411	7	3	152	21	193	103	176
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	8	0	0	2	4	15	73	15	0	19	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	172	125	370	413	11	18	225	36	193	122	176
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	47	34	101	112	3	5	61	10	52	33	48
Total Analysis Volume [veh/h]	30	187	136	402	449	12	20	245	39	210	133	191
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	59	26	0	64	31	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	13	13	29	39	39	66	66	66	66
g / C, Green / Cycle	0.03	0.11	0.11	0.25	0.32	0.32	0.55	0.55	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.02	0.05	0.09	0.23	0.12	0.12	0.17	0.19	0.07	0.12
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1853	1792	1095	1870	1589
c, Capacity [veh/h]	48	379	169	436	607	601	1015	405	1026	872
d1, Uniform Delay [s]	57.76	50.56	52.39	44.16	31.26	31.26	14.67	28.88	13.17	13.90
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	12.22	1.00	8.58	8.40	0.40	0.40	0.76	4.70	0.26	0.58
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.62	0.49	0.80	0.92	0.38	0.38	0.30	0.52	0.13	0.22
d, Delay for Lane Group [s/veh]	69.97	51.56	60.97	52.56	31.66	31.66	15.43	33.58	13.43	14.48
Lane Group LOS	E	D	E	D	C	C	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.07	2.71	4.40	12.59	5.25	5.21	4.65	5.39	1.82	2.78
50th-Percentile Queue Length [ft/ln]	26.66	67.68	110.11	314.66	131.32	130.15	116.23	134.77	45.41	69.52
95th-Percentile Queue Length [veh/ln]	1.92	4.87	7.85	18.40	9.01	8.95	8.19	9.20	3.27	5.01
95th-Percentile Queue Length [ft/ln]	47.98	121.82	196.16	460.12	225.29	223.70	204.63	229.97	81.73	125.14

Movement, Approach, & Intersection Results

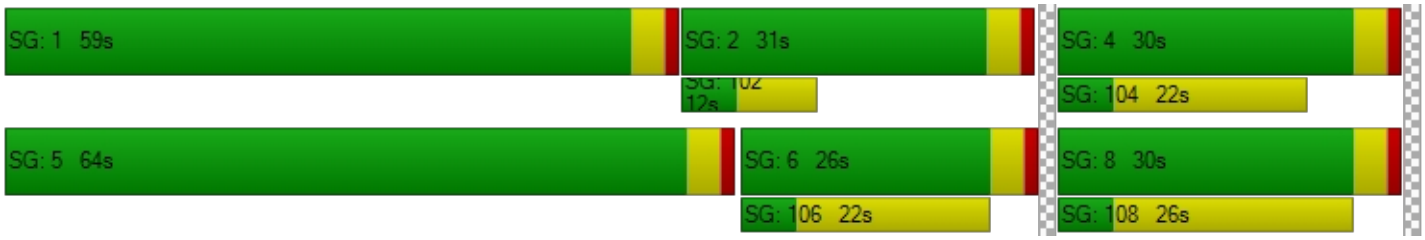
d_M, Delay for Movement [s/veh]	69.97	51.56	60.97	52.56	31.66	31.66	15.43	15.43	15.43	33.58	13.43	14.48
Movement LOS	E	D	E	D	C	C	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	56.75			41.40			15.43			21.73		
Approach LOS	E			D			B			C		
d_I, Intersection Delay [s/veh]	35.08											
Intersection LOS	D											
Intersection V/C	0.503											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.938	2.589	1.964	2.467
Crosswalk LOS	C	B	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	367	450	433	433
d_b, Bicycle Delay [s]	40.02	36.04	36.82	36.82
l_b,int, Bicycle LOS Score for Intersection	1.851	2.272	2.061	2.441
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Jimmy Durante Blvd at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	34.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.570

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	33	68	223	337	67	60	51	692	45	446	655	211
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	73	0	0	19	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	68	223	337	67	60	51	765	45	446	674	211
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	18	61	92	18	16	14	208	12	121	183	57
Total Analysis Volume [veh/h]	36	74	242	366	73	65	55	832	49	485	733	229
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	30	0	0	30	0	24	26	0	34	36	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	13	13	16	16	16	5	56	56	20	71	71
g / C, Green / Cycle	0.11	0.11	0.11	0.13	0.13	0.13	0.04	0.47	0.47	0.16	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.02	0.04	0.09	0.11	0.04	0.04	0.03	0.24	0.24	0.14	0.27	0.27
s, saturation flow rate [veh/h]	1781	1870	2813	3459	1870	1589	1781	1870	1834	3459	1870	1721
c, Capacity [veh/h]	192	202	304	448	242	206	73	871	854	565	1100	1012
d1, Uniform Delay [s]	48.72	49.71	52.23	50.83	47.30	47.39	56.95	22.47	22.47	48.86	13.86	13.96
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.46	1.11	4.76	3.69	0.69	0.87	14.47	2.14	2.18	3.95	1.34	1.51
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.19	0.37	0.80	0.82	0.30	0.32	0.75	0.51	0.51	0.86	0.45	0.46
d, Delay for Lane Group [s/veh]	49.19	50.81	56.99	54.52	47.99	48.26	71.41	24.60	24.65	52.82	15.20	15.46
Lane Group LOS	D	D	E	D	D	D	E	C	C	D	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.01	2.13	3.76	5.58	2.03	1.82	1.94	9.22	9.05	7.36	7.72	7.33
50th-Percentile Queue Length [ft/ln]	25.29	53.29	93.91	139.45	50.79	45.52	48.61	230.42	226.19	184.12	193.03	183.25
95th-Percentile Queue Length [veh/ln]	1.82	3.84	6.76	9.45	3.66	3.28	3.50	14.20	13.98	11.82	12.28	11.77
95th-Percentile Queue Length [ft/ln]	45.52	95.92	169.03	236.29	91.43	81.93	87.50	354.89	349.52	295.38	306.96	294.25

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	49.19	50.81	56.99	54.52	47.99	48.26	71.41	24.62	24.65	52.82	15.29	15.46
Movement LOS	D	D	E	D	D	D	E	C	C	D	B	B
d_A, Approach Delay [s/veh]	54.89			52.77			27.37			27.89		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	34.55											
Intersection LOS	C											
Intersection V/C	0.570											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.624	2.483	2.660	2.937
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	433	433	367	533
d_b, Bicycle Delay [s]	36.82	36.82	40.02	32.27
l_b,int, Bicycle LOS Score for Intersection	2.140	2.391	2.332	2.753
Bicycle LOS	B	B	B	C

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: I-5 SB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	15.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.425

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	0	188	0	254	0	510	742	0	1059	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	4	0	25	48	0	15	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	188	0	258	0	535	790	0	1074	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9200	1.0000	0.9200	1.0000	0.9200	0.9200	1.0000	0.9200	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	51	0	70	0	145	215	0	292	0
Total Analysis Volume [veh/h]	0	0	0	204	0	280	0	582	859	0	1167	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	0	0	5	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	41	0	0	0	79	0	0	79	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	21	0	0	0	3	0	0	14	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		15	15	15	97	97
g / C, Green / Cycle		0.12	0.12	0.12	0.81	0.81
(v / s)_i Volume / Saturation Flow Rate		0.10	0.10	0.10	0.16	0.33
s, saturation flow rate [veh/h]		1781	1624	1589	3560	3560
c, Capacity [veh/h]		218	199	195	2887	2887
d1, Uniform Delay [s]		51.15	51.15	51.15	2.57	3.20
k, delay calibration		0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		6.30	6.87	7.01	0.16	0.42
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.79	0.79	0.79	0.20	0.40
d, Delay for Lane Group [s/veh]		57.45	58.02	58.16	2.73	3.62
Lane Group LOS		E	E	E	A	A
Critical Lane Group		No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		5.43	4.98	4.88	1.24	3.12
50th-Percentile Queue Length [ft/ln]		135.63	124.50	122.01	31.11	77.93
95th-Percentile Queue Length [veh/ln]		9.25	8.64	8.50	2.24	5.61
95th-Percentile Queue Length [ft/ln]		231.13	215.99	212.59	56.00	140.28

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	57.56	0.00	58.10	0.00	2.73	0.00	0.00	3.62	0.00
Movement LOS				E		E		A			A	
d_A, Approach Delay [s/veh]	0.00			57.86			2.73			3.62		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	15.14											
Intersection LOS	B											
Intersection V/C	0.425											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.264	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1250	1250
d_b, Bicycle Delay [s]	60.00	60.00	8.44	8.44
l_b,int, Bicycle LOS Score for Intersection	4.132	4.931	2.040	2.522
Bicycle LOS	D	E	B	B

Sequence

Ring 1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-5 NB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	24.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.518

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	650	0	414	0	0	0	0	481	0	0	886	274
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	0	5	0	0	0	0	10	0	0	4	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	662	0	419	0	0	0	0	491	0	0	890	274
Peak Hour Factor	0.9200	1.0000	0.9200	1.0000	1.0000	1.0000	1.0000	0.9200	1.0000	1.0000	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	180	0	114	0	0	0	0	133	0	0	242	74
Total Analysis Volume [veh/h]	720	0	455	0	0	0	0	534	0	0	967	298
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	5	0	0	5	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	70	0	0	0	0	0	0	50	0	0	50	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	17	0	0	0	0	0	0	14	0	0	3	0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	C
C, Cycle Length [s]	120	120	120		120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00
g_i, Effective Green Time [s]	34	34	34		78	78
g / C, Green / Cycle	0.28	0.28	0.28		0.65	0.65
(v / s)_i Volume / Saturation Flow Rate	0.22	0.22	0.25		0.15	0.27
s, saturation flow rate [veh/h]	1781	1747	1589		3560	3560
c, Capacity [veh/h]	501	491	447		2321	2321
d1, Uniform Delay [s]	39.73	39.95	41.12		8.55	9.98
k, delay calibration	0.11	0.11	0.11		0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	2.71	3.01	5.58		0.23	0.55
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.80	0.88		0.23	0.42
d, Delay for Lane Group [s/veh]	42.43	42.95	46.70		8.78	10.53
Lane Group LOS	D	D	D		A	B
Critical Lane Group	No	No	Yes		No	Yes
50th-Percentile Queue Length [veh/ln]	10.97	11.06	11.66		2.80	5.95
50th-Percentile Queue Length [ft/ln]	274.23	276.54	291.46		70.10	148.65
95th-Percentile Queue Length [veh/ln]	16.40	16.52	17.26		5.05	9.95
95th-Percentile Queue Length [ft/ln]	410.02	412.91	431.45		126.19	248.63

Movement, Approach, & Intersection Results

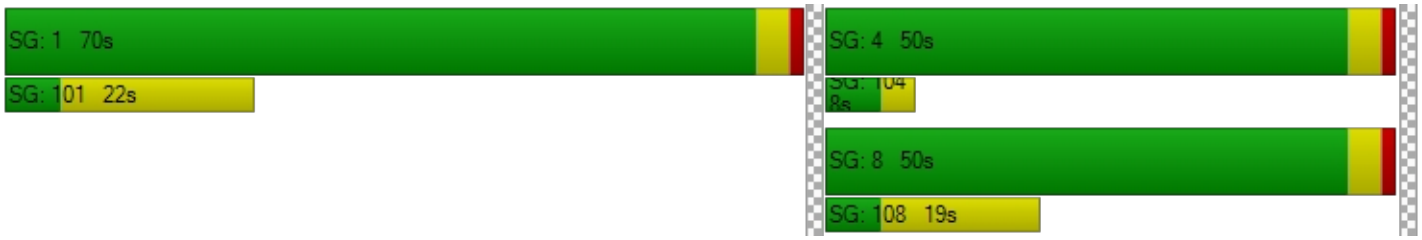
d_M, Delay for Movement [s/veh]	42.67	0.00	46.18	0.00	0.00	0.00	0.00	8.78	0.00	0.00	10.53	0.00
Movement LOS	D		D					A			B	
d_A, Approach Delay [s/veh]	44.03			0.00			8.78			10.53		
Approach LOS	D			A			A			B		
d_I, Intersection Delay [s/veh]	24.89											
Intersection LOS	C											
Intersection V/C	0.518											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.433	1.439	2.688	0.000
Crosswalk LOS	B	A	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	767	767
d_b, Bicycle Delay [s]	60.00	60.00	22.82	22.82
l_b,int, Bicycle LOS Score for Intersection	6.071	4.132	2.000	2.357
Bicycle LOS	F	D	B	B

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: 15th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	24.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.384

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Base Volume Input [veh/h]	114	304	40	76	659	55	32	10	94	26	11	52
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	10	7	0	0	0	0	0	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	114	313	40	86	666	55	32	10	94	26	11	55
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	85	11	23	181	15	9	3	26	7	3	15
Total Analysis Volume [veh/h]	124	340	43	93	724	60	35	11	102	28	12	60
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	22	51	0	17	46	0	0	26	0	0	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	10	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	80	80	8	78	78	10	10	6	6	6
g / C, Green / Cycle	0.09	0.67	0.67	0.07	0.65	0.65	0.08	0.08	0.05	0.05	0.05
(v / s)_i Volume / Saturation Flow Rate	0.07	0.10	0.10	0.05	0.21	0.21	0.03	0.06	0.01	0.01	0.04
s, saturation flow rate [veh/h]	1781	1870	1798	1781	1870	1820	1801	1589	1781	1833	1589
c, Capacity [veh/h]	152	1243	1195	117	1206	1174	148	131	96	99	86
d1, Uniform Delay [s]	53.97	7.54	7.54	55.25	9.59	9.59	51.85	53.99	54.30	54.29	55.80
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.21	0.27	0.28	11.38	0.73	0.75	1.17	9.56	1.05	1.00	9.82
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.82	0.16	0.16	0.79	0.33	0.33	0.31	0.78	0.21	0.20	0.70
d, Delay for Lane Group [s/veh]	64.18	7.80	7.83	66.64	10.32	10.35	53.02	63.55	55.36	55.29	65.63
Lane Group LOS	E	A	A	E	B	B	D	E	E	E	E
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.11	1.89	1.84	3.14	4.74	4.62	1.36	3.37	0.60	0.61	2.02
50th-Percentile Queue Length [ft/ln]	102.77	47.19	45.91	78.59	118.57	115.61	33.91	84.20	15.12	15.26	50.54
95th-Percentile Queue Length [veh/ln]	7.40	3.40	3.31	5.66	8.31	8.15	2.44	6.06	1.09	1.10	3.64
95th-Percentile Queue Length [ft/ln]	184.98	84.94	82.64	141.46	207.86	203.78	61.04	151.56	27.21	27.46	90.96

Movement, Approach, & Intersection Results

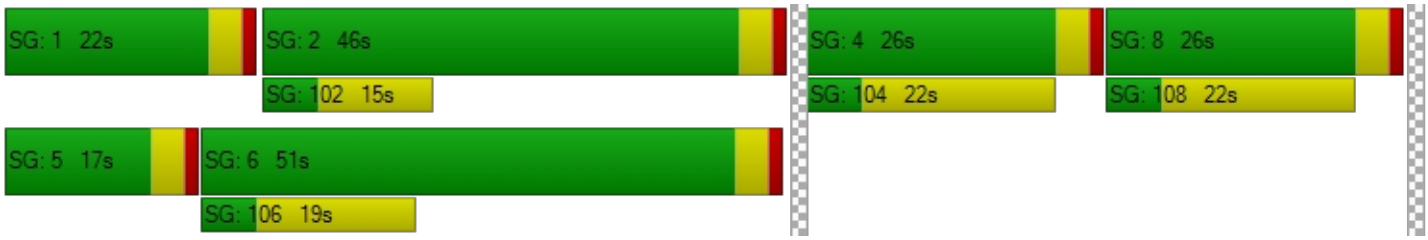
d_M, Delay for Movement [s/veh]	64.18	7.81	7.83	66.64	10.33	10.35	53.02	53.02	63.55	55.36	55.29	65.63
Movement LOS	E	A	A	E	B	B	D	D	E	E	E	E
d_A, Approach Delay [s/veh]	21.60			16.30			60.28			61.51		
Approach LOS	C			B			E			E		
d_I, Intersection Delay [s/veh]	24.71											
Intersection LOS	C											
Intersection V/C	0.384											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.580	2.571	2.067	2.207
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	783	700	367	367
d_b, Bicycle Delay [s]	22.20	25.35	40.02	40.02
l_b,int, Bicycle LOS Score for Intersection	1.978	2.283	1.804	1.725
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Del Mar Housing Element

Vistro File: C:\...\Del Mar PM.vistro
Report File: C:\...\6 FAIR WP PM.pdf

Scenario 6 FAIR WP PM
5/12/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Camino Del Mar at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.507	36.1	D
2	Jimmy Durante Blvd at Via De La Valle	Signalized	HCM 6th Edition	EB Left	0.833	56.4	E
3	I-5 SB Ramps at Via De La Valle	Signalized	HCM 6th Edition	SB Right	0.528	17.5	B
4	I-5 NB Ramps at Via De La Valle	Signalized	HCM 6th Edition	NB Right	0.483	24.9	C
8	15th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.489	27.2	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Camino Del Mar at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	36.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.507

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	0	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	54	566	168	254	397	20	12	101	44	208	104	325
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	17	3	0	0	8	17	7	34	7	0	79	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	71	569	168	254	405	37	19	135	51	208	183	325
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	142	42	64	101	9	5	34	13	52	46	81
Total Analysis Volume [veh/h]	71	569	168	254	405	37	19	135	51	208	183	325
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	69	23	0	64	18	0	0	33	0	0	33	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	22	22	19	35	35	66	66	66	66
g / C, Green / Cycle	0.05	0.19	0.19	0.16	0.30	0.30	0.55	0.55	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.04	0.16	0.11	0.14	0.12	0.12	0.12	0.17	0.10	0.20
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1816	1723	1197	1870	1589
c, Capacity [veh/h]	95	664	296	288	551	535	984	496	1032	877
d1, Uniform Delay [s]	56.00	47.26	44.40	49.20	33.92	33.93	13.60	23.95	13.35	15.14
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.02	3.33	1.70	8.77	0.48	0.50	0.48	2.59	0.38	1.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.75	0.86	0.57	0.88	0.41	0.41	0.21	0.42	0.18	0.37
d, Delay for Lane Group [s/veh]	67.02	50.59	46.10	57.97	34.40	34.43	14.08	26.53	13.72	16.34
Lane Group LOS	E	D	D	E	C	C	B	C	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.41	8.51	4.69	8.13	5.32	5.18	2.92	4.64	2.55	5.21
50th-Percentile Queue Length [ft/ln]	60.32	212.81	117.30	203.20	132.96	129.50	72.99	116.06	63.77	130.33
95th-Percentile Queue Length [veh/ln]	4.34	13.30	8.24	12.80	9.10	8.91	5.26	8.18	4.59	8.96
95th-Percentile Queue Length [ft/ln]	108.58	332.43	206.11	320.09	227.51	222.81	131.38	204.40	114.78	223.94

Movement, Approach, & Intersection Results

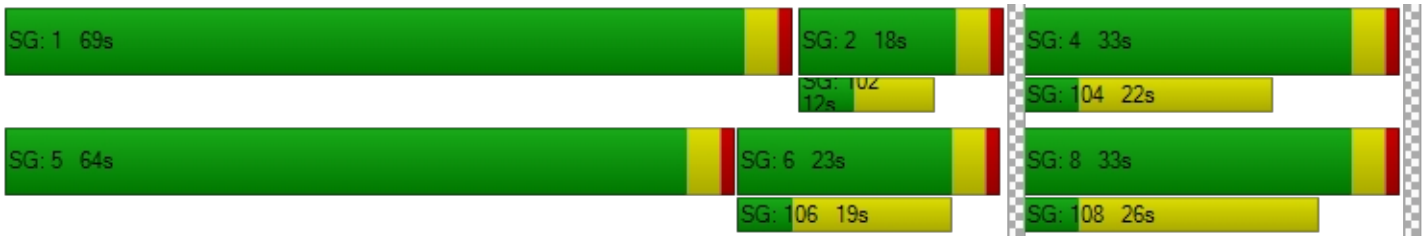
d_M, Delay for Movement [s/veh]	67.02	50.59	46.10	57.97	34.41	34.43	14.08	14.08	14.08	26.53	13.72	16.34
Movement LOS	E	D	D	E	C	C	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	51.10			43.01			14.08			18.63		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	36.06											
Intersection LOS	D											
Intersection V/C	0.507											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	3.003	2.656	1.972	2.457
Crosswalk LOS	C	B	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	317	233	483	483
d_b, Bicycle Delay [s]	42.50	46.82	34.50	34.50
l_b,int, Bicycle LOS Score for Intersection	2.226	2.134	1.898	2.741
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Jimmy Durante Blvd at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	56.4
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.833

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	217	181	1123	207	113	88	48	459	59	769	724	238
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	34	0	0	79	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	217	181	1123	207	113	88	48	493	59	769	803	238
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	45	281	52	28	22	12	123	15	192	201	60
Total Analysis Volume [veh/h]	217	181	1123	207	113	88	48	493	59	769	803	238
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	34	0	0	30	0	9	26	0	30	47	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	46	46	46	10	10	10	4	22	22	26	44	44
g / C, Green / Cycle	0.38	0.38	0.38	0.08	0.08	0.08	0.03	0.18	0.18	0.22	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.12	0.10	0.40	0.06	0.06	0.06	0.03	0.15	0.15	0.22	0.28	0.30
s, saturation flow rate [veh/h]	1781	1870	2813	3459	1870	1589	1781	1870	1801	3459	1870	1729
c, Capacity [veh/h]	680	714	1074	290	157	133	62	345	332	749	685	634
d1, Uniform Delay [s]	26.12	25.39	37.10	53.58	53.61	53.32	57.46	46.94	46.99	47.00	33.50	34.29
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.27	0.18	26.88	3.28	6.13	5.50	18.62	18.57	19.57	22.46	8.05	10.91
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.25	1.05	0.71	0.72	0.66	0.78	0.81	0.82	1.03	0.77	0.81
d, Delay for Lane Group [s/veh]	26.38	25.58	63.97	56.85	59.74	58.82	76.08	65.51	66.56	69.46	41.55	45.21
Lane Group LOS	C	C	F	E	E	E	E	E	E	F	D	D
Critical Lane Group	No	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.43	3.58	19.39	3.18	3.59	2.78	1.76	9.80	9.58	13.45	14.89	15.31
50th-Percentile Queue Length [ft/ln]	110.64	89.62	484.67	79.42	89.83	69.50	44.10	245.06	239.57	336.19	372.18	382.73
95th-Percentile Queue Length [veh/ln]	7.88	6.45	27.44	5.72	6.47	5.00	3.18	14.94	14.66	19.74	21.22	21.73
95th-Percentile Queue Length [ft/ln]	196.90	161.31	686.00	142.95	161.69	125.09	79.39	373.43	366.49	493.55	530.38	543.15

Movement, Approach, & Intersection Results

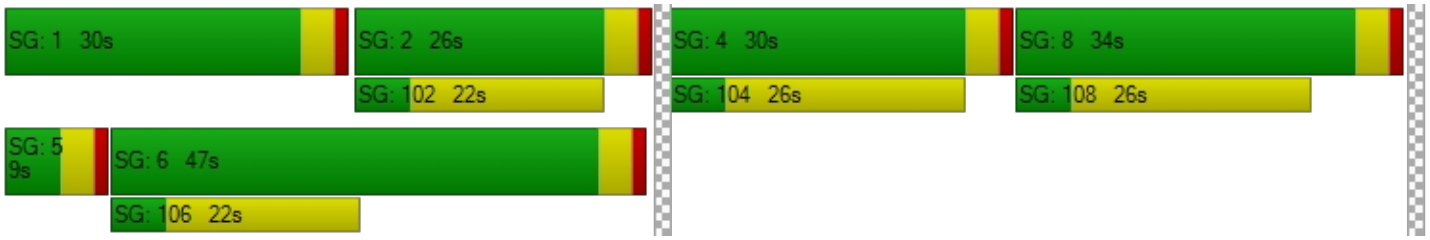
d_M, Delay for Movement [s/veh]	26.38	25.58	63.97	56.85	59.74	58.82	76.08	65.96	66.56	69.46	42.81	45.21
Movement LOS	C	C	F	E	E	E	E	E	E	F	D	D
d_A, Approach Delay [s/veh]	54.04			58.08			66.83			54.45		
Approach LOS	D			E			E			D		
d_I, Intersection Delay [s/veh]	56.36											
Intersection LOS	E											
Intersection V/C	0.833											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.868	2.486	2.648	3.058
Crosswalk LOS	C	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	500	433	367	717
d_b, Bicycle Delay [s]	33.75	36.82	40.02	24.70
l_b,int, Bicycle LOS Score for Intersection	4.069	2.233	2.055	3.053
Bicycle LOS	D	B	B	C

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: I-5 SB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	17.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.528

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	0	247	0	368	0	510	795	0	1364	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	17	0	12	22	0	62	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	247	0	385	0	522	817	0	1426	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	62	0	96	0	131	204	0	357	0
Total Analysis Volume [veh/h]	0	0	0	247	0	385	0	522	817	0	1426	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	0	0	5	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	33	0	0	0	87	0	0	87	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	21	0	0	0	3	0	0	14	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		18	18	18	94	94
g / C, Green / Cycle		0.15	0.15	0.15	0.78	0.78
(v / s)_i Volume / Saturation Flow Rate		0.13	0.13	0.13	0.15	0.40
s, saturation flow rate [veh/h]		1781	1608	1589	3560	3560
c, Capacity [veh/h]		274	247	244	2776	2776
d1, Uniform Delay [s]		49.19	49.25	49.26	3.41	4.86
k, delay calibration		0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		6.09	6.98	7.09	0.15	0.68
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.82	0.83	0.83	0.19	0.51
d, Delay for Lane Group [s/veh]		55.28	56.23	56.35	3.56	5.54
Lane Group LOS		E	E	E	A	A
Critical Lane Group		No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		6.99	6.43	6.36	1.41	5.54
50th-Percentile Queue Length [ft/ln]		174.64	160.65	159.11	35.34	138.40
95th-Percentile Queue Length [veh/ln]		11.32	10.58	10.50	2.54	9.39
95th-Percentile Queue Length [ft/ln]		283.01	264.58	262.54	63.62	234.87

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	55.41	0.00	56.29	0.00	3.56	0.00	0.00	5.54	0.00
Movement LOS				E		E		A			A	
d_A, Approach Delay [s/veh]	0.00			55.93			3.56			5.54		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	17.48											
Intersection LOS	B											
Intersection V/C	0.528											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.300	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1383	1383
d_b, Bicycle Delay [s]	60.00	60.00	5.70	5.70
l_b,int, Bicycle LOS Score for Intersection	4.132	5.175	1.990	2.736
Bicycle LOS	D	F	A	B

Sequence

Ring 1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-5 NB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	24.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.483

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	768	0	430	0	0	0	0	782	0	0	747	309
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	51	0	2	0	0	0	0	5	0	0	17	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	819	0	432	0	0	0	0	787	0	0	764	309
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	205	0	108	0	0	0	0	197	0	0	191	77
Total Analysis Volume [veh/h]	819	0	432	0	0	0	0	787	0	0	764	309
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	5	0	0	5	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	75	0	0	0	0	0	0	45	0	0	45	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	17	0	0	0	0	0	0	14	0	0	3	0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	C
C, Cycle Length [s]	120	120	120		120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00
g_i, Effective Green Time [s]	36	36	36		76	76
g / C, Green / Cycle	0.30	0.30	0.30		0.64	0.64
(v / s)_i Volume / Saturation Flow Rate	0.23	0.24	0.26		0.22	0.21
s, saturation flow rate [veh/h]	1781	1773	1589		3560	3560
c, Capacity [veh/h]	531	529	474		2262	2262
d1, Uniform Delay [s]	38.60	38.65	40.08		10.25	10.16
k, delay calibration	0.11	0.11	0.11		0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	2.61	2.68	5.47		0.42	0.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.79	0.88		0.35	0.34
d, Delay for Lane Group [s/veh]	41.21	41.33	45.55		10.67	10.57
Lane Group LOS	D	D	D		B	B
Critical Lane Group	No	No	Yes		Yes	No
50th-Percentile Queue Length [veh/ln]	11.57	11.59	12.33		4.81	4.63
50th-Percentile Queue Length [ft/ln]	289.18	289.74	308.24		120.16	115.66
95th-Percentile Queue Length [veh/ln]	17.14	17.17	18.09		8.40	8.15
95th-Percentile Queue Length [ft/ln]	428.62	429.32	452.21		210.04	203.85

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.27	0.00	45.40	0.00	0.00	0.00	0.00	10.67	0.00	0.00	10.57	0.00
Movement LOS	D		D					B			B	
d_A, Approach Delay [s/veh]	42.70			0.00			10.67			10.57		
Approach LOS	D			A			B			B		
d_I, Intersection Delay [s/veh]	24.94											
Intersection LOS	C											
Intersection V/C	0.483											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.451	1.439	2.724	0.000
Crosswalk LOS	B	A	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	683	683
d_b, Bicycle Delay [s]	60.00	60.00	26.00	26.00
l_b,int, Bicycle LOS Score for Intersection	6.197	4.132	2.209	2.190
Bicycle LOS	F	D	B	B

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: 15th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	27.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.489

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Base Volume Input [veh/h]	175	899	52	66	765	56	61	16	121	34	37	132
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	5	10	0	0	0	0	0	0	11
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	175	908	52	71	775	56	61	16	121	34	37	143
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	44	227	13	18	194	14	15	4	30	9	9	36
Total Analysis Volume [veh/h]	175	908	52	71	775	56	61	16	121	34	37	143
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	45	42	0	26	23	0	0	26	0	0	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	10	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	73	73	6	66	66	11	11	13	13	13
g / C, Green / Cycle	0.12	0.61	0.61	0.05	0.55	0.55	0.09	0.09	0.11	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.10	0.26	0.26	0.04	0.22	0.22	0.04	0.08	0.02	0.02	0.09
s, saturation flow rate [veh/h]	1781	1870	1835	1781	1870	1826	1799	1589	1781	1870	1589
c, Capacity [veh/h]	208	1143	1121	93	1023	999	171	151	192	202	172
d1, Uniform Delay [s]	51.92	12.24	12.24	56.13	15.89	15.89	51.32	53.18	48.67	48.71	52.46
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.90	1.15	1.18	12.05	1.22	1.25	1.85	9.33	0.43	0.43	10.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.84	0.42	0.42	0.76	0.41	0.41	0.45	0.80	0.18	0.18	0.83
d, Delay for Lane Group [s/veh]	60.82	13.39	13.41	68.17	17.11	17.14	53.17	62.51	49.11	49.14	62.46
Lane Group LOS	E	B	B	E	B	B	D	E	D	D	E
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.67	6.94	6.82	2.44	6.96	6.80	2.28	3.97	0.95	1.04	4.70
50th-Percentile Queue Length [ft/ln]	141.78	173.39	170.40	60.89	173.98	170.12	57.07	99.14	23.85	25.95	117.42
95th-Percentile Queue Length [veh/ln]	9.58	11.25	11.10	4.38	11.29	11.08	4.11	7.14	1.72	1.87	8.25
95th-Percentile Queue Length [ft/ln]	239.42	281.37	277.45	109.59	282.14	277.07	102.72	178.45	42.93	46.71	206.27

Movement, Approach, & Intersection Results

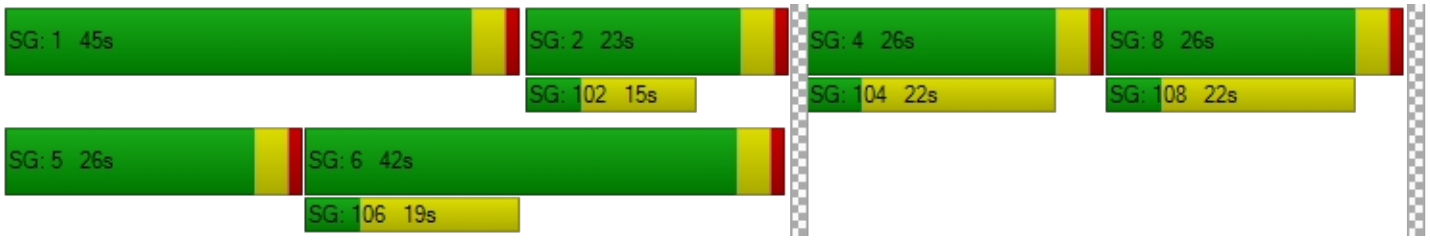
d_M, Delay for Movement [s/veh]	60.82	13.40	13.41	68.17	17.12	17.14	53.17	53.17	62.51	49.11	49.14	62.46
Movement LOS	E	B	B	E	B	B	D	D	E	D	D	E
d_A, Approach Delay [s/veh]	20.71			21.14			58.88			58.04		
Approach LOS	C			C			E			E		
d_I, Intersection Delay [s/veh]	27.22											
Intersection LOS	C											
Intersection V/C	0.489											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.718	2.708	2.107	2.232
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	633	317	367	367
d_b, Bicycle Delay [s]	28.02	42.50	40.02	40.02
l_b,int, Bicycle LOS Score for Intersection	2.496	2.304	1.886	1.913
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Del Mar Housing Element

Vistro File: C:\...\Del Mar PM.vistro
Report File: C:\...\7 FAIR WEEKEND PM.pdf

Scenario 7 FAIR WEEKEND PM
5/12/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Camino Del Mar at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.411	38.0	D
2	Jimmy Durante Blvd at Via De La Valle	Signalized	HCM 6th Edition	EB Left	0.556	37.2	D
3	I-5 SB Ramps at Via De La Valle	Signalized	HCM 6th Edition	SB Right	0.478	16.6	B
4	I-5 NB Ramps at Via De La Valle	Signalized	HCM 6th Edition	NB Right	0.112	58.6	E
8	15th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.433	26.5	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Camino Del Mar at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	38.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.411

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	0	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	30	393	213	231	495	14	12	80	34	188	64	192
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	30	393	213	231	495	14	12	80	34	188	64	192
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	98	53	58	124	4	3	20	9	47	16	48
Total Analysis Volume [veh/h]	30	393	213	231	495	14	12	80	34	188	64	192
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	33	23	0	59	49	0	0	38	0	0	38	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	19	19	18	34	34	71	71	71	71
g / C, Green / Cycle	0.03	0.16	0.16	0.15	0.28	0.28	0.59	0.59	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.02	0.11	0.13	0.13	0.14	0.14	0.07	0.15	0.03	0.12
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1852	1731	1278	1870	1589
c, Capacity [veh/h]	48	566	253	264	524	519	1059	581	1108	942
d1, Uniform Delay [s]	57.76	47.72	49.02	50.00	36.02	36.03	10.71	19.31	10.30	11.32
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	12.22	1.55	7.50	8.84	0.71	0.71	0.23	1.48	0.10	0.49
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.62	0.69	0.84	0.87	0.49	0.49	0.12	0.32	0.06	0.20
d, Delay for Lane Group [s/veh]	69.98	49.27	56.52	58.84	36.73	36.74	10.94	20.79	10.40	11.81
Lane Group LOS	E	D	E	E	D	D	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.07	5.68	6.71	7.42	6.35	6.30	1.52	3.67	0.74	2.46
50th-Percentile Queue Length [ft/ln]	26.66	141.94	167.82	185.49	158.83	157.42	37.90	91.82	18.47	61.53
95th-Percentile Queue Length [veh/ln]	1.92	9.59	10.96	11.89	10.49	10.41	2.73	6.61	1.33	4.43
95th-Percentile Queue Length [ft/ln]	47.98	239.63	274.05	297.17	262.17	260.31	68.22	165.28	33.24	110.75

Movement, Approach, & Intersection Results

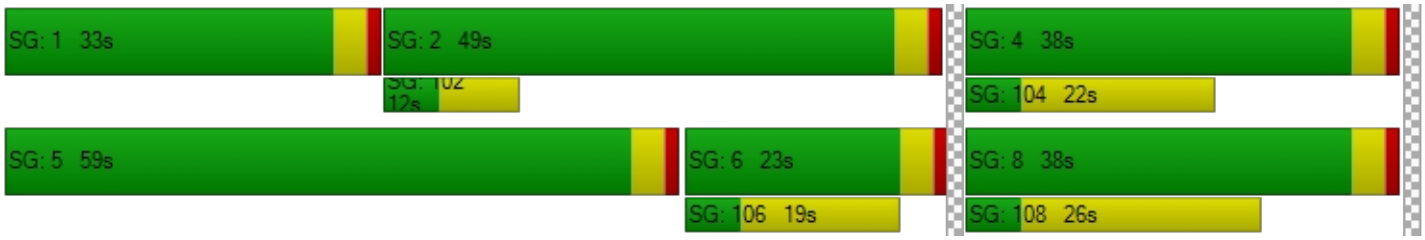
d_M, Delay for Movement [s/veh]	69.98	49.27	56.52	58.84	36.73	36.74	10.94	10.94	10.94	20.79	10.40	11.81
Movement LOS	E	D	E	E	D	D	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	52.67			43.63			10.94			15.41		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	38.03											
Intersection LOS	D											
Intersection V/C	0.411											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.955	2.593	1.844	2.382
Crosswalk LOS	C	B	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	317	750	567	567
d_b, Bicycle Delay [s]	42.50	23.44	30.82	30.82
l_b,int, Bicycle LOS Score for Intersection	2.084	2.170	1.768	2.292
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Jimmy Durante Blvd at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	37.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.556

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	135	83	6	234	75	60	29	563	62	837	496	153
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	135	83	6	234	75	60	29	563	62	837	496	153
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	34	21	2	59	19	15	7	141	16	209	124	38
Total Analysis Volume [veh/h]	135	83	6	234	75	60	29	563	62	837	496	153
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	30	0	0	30	0	34	26	0	34	26	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	11	11	11	11	3	52	52	30	79	79
g / C, Green / Cycle	0.09	0.09	0.09	0.09	0.09	0.09	0.03	0.43	0.43	0.25	0.66	0.66
(v / s)_i Volume / Saturation Flow Rate	0.08	0.04	0.00	0.07	0.04	0.04	0.02	0.17	0.17	0.24	0.18	0.18
s, saturation flow rate [veh/h]	1781	1870	2813	3459	1870	1589	1781	1870	1806	3459	1870	1722
c, Capacity [veh/h]	169	178	268	312	169	144	48	806	779	865	1224	1127
d1, Uniform Delay [s]	53.16	51.41	49.23	53.25	51.73	51.60	57.78	23.38	23.40	44.53	8.72	8.76
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.26	1.90	0.03	3.60	1.83	1.93	11.98	1.44	1.50	8.54	0.55	0.62
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.47	0.02	0.75	0.44	0.42	0.61	0.39	0.40	0.97	0.27	0.28
d, Delay for Lane Group [s/veh]	61.42	53.31	49.27	56.86	53.55	53.53	69.76	24.82	24.90	53.07	9.27	9.38
Lane Group LOS	E	D	D	E	D	D	E	C	C	D	A	A
Critical Lane Group	Yes	No	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.37	2.46	0.08	3.60	2.23	1.79	1.03	6.46	6.28	13.24	3.69	3.51
50th-Percentile Queue Length [ft/ln]	109.35	61.59	2.08	90.00	55.75	44.71	25.75	161.60	157.04	330.91	92.27	87.71
95th-Percentile Queue Length [veh/ln]	7.80	4.43	0.15	6.48	4.01	3.22	1.85	10.63	10.39	19.20	6.64	6.32
95th-Percentile Queue Length [ft/ln]	195.10	110.85	3.75	162.01	100.35	80.47	46.35	265.84	259.80	480.08	166.08	157.88

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	61.42	53.31	49.27	56.86	53.55	53.53	69.76	24.85	24.90	53.07	9.31	9.38
Movement LOS	E	D	D	E	D	D	E	C	C	D	A	A
d_A, Approach Delay [s/veh]	58.09			55.64			26.85			33.96		
Approach LOS	E			E			C			C		
d_I, Intersection Delay [s/veh]	37.17											
Intersection LOS	D											
Intersection V/C	0.556											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.663	2.439	2.577	2.840
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	433	433	367	367
d_b, Bicycle Delay [s]	36.82	36.82	40.02	40.02
l_b,int, Bicycle LOS Score for Intersection	1.929	2.168	2.099	2.786
Bicycle LOS	A	B	B	C

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: I-5 SB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	16.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.478

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	0	271	0	359	0	800	1056	0	1251	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	271	0	359	0	800	1056	0	1251	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	68	0	90	0	200	264	0	313	0
Total Analysis Volume [veh/h]	0	0	0	271	0	359	0	800	1056	0	1251	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	0	0	5	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	50	0	0	0	70	0	0	70	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	21	0	0	0	3	0	0	14	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		18	18	18	94	94
g / C, Green / Cycle		0.15	0.15	0.15	0.78	0.78
(v / s)_i Volume / Saturation Flow Rate		0.13	0.13	0.13	0.22	0.35
s, saturation flow rate [veh/h]		1781	1630	1589	3560	3560
c, Capacity [veh/h]		275	252	245	2773	2773
d1, Uniform Delay [s]		49.05	49.10	49.11	3.78	4.52
k, delay calibration		0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		5.71	6.41	6.63	0.26	0.53
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.81	0.82	0.82	0.29	0.45
d, Delay for Lane Group [s/veh]		54.75	55.51	55.74	4.05	5.05
Lane Group LOS		D	E	E	A	A
Critical Lane Group		No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		6.90	6.41	6.28	2.40	4.50
50th-Percentile Queue Length [ft/ln]		172.50	160.33	157.01	60.04	112.62
95th-Percentile Queue Length [veh/ln]		11.21	10.57	10.39	4.32	7.99
95th-Percentile Queue Length [ft/ln]		280.19	264.16	259.76	108.07	199.64

Movement, Approach, & Intersection Results

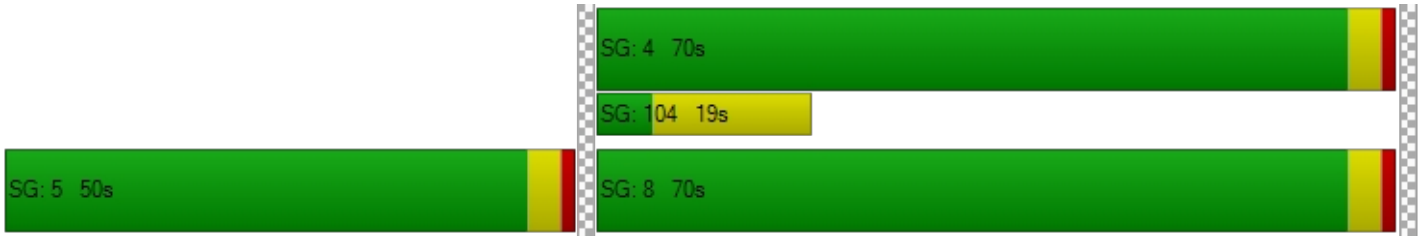
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	54.91	0.00	55.64	0.00	4.05	0.00	0.00	5.05	0.00
Movement LOS				D		E		A			A	
d_A, Approach Delay [s/veh]	0.00			55.31			4.05			5.05		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	16.56											
Intersection LOS	B											
Intersection V/C	0.478											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.300	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1100	1100
d_b, Bicycle Delay [s]	60.00	60.00	12.15	12.15
l_b,int, Bicycle LOS Score for Intersection	4.132	5.172	2.220	2.592
Bicycle LOS	D	F	B	B

Sequence

Ring 1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-5 NB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	58.6
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.112

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	356	0	0	0	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	356	0	0	0	0	0	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	89	0	0	0	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	356	0	0	0	0	0	0	0	0	0
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	5	0	0	5	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	97	0	0	0	0	0	0	23	0	0	23	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	17	0	0	0	0	0	0	14	0	0	3	0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	C
C, Cycle Length [s]	120	120	120		120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00
g_i, Effective Green Time [s]	16	16	16		96	96
g / C, Green / Cycle	0.13	0.13	0.13		0.80	0.80
(v / s)_i Volume / Saturation Flow Rate	0.00	0.11	0.11		0.00	0.00
s, saturation flow rate [veh/h]	1781	1589	1589		3560	3560
c, Capacity [veh/h]	240	214	214		2843	2843
d1, Uniform Delay [s]	0.00	50.56	50.56		0.00	0.00
k, delay calibration	0.11	0.11	0.11		0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	0.00	8.01	8.01		0.00	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.83	0.83		0.00	0.00
d, Delay for Lane Group [s/veh]	0.00	58.58	58.58		0.00	0.00
Lane Group LOS	A	E	E		A	A
Critical Lane Group	No	Yes	No		No	No
50th-Percentile Queue Length [veh/ln]	0.00	5.68	5.68		0.00	0.00
50th-Percentile Queue Length [ft/ln]	0.00	142.06	142.06		0.00	0.00
95th-Percentile Queue Length [veh/ln]	0.00	9.59	9.59		0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	239.80	239.80		0.00	0.00

Movement, Approach, & Intersection Results

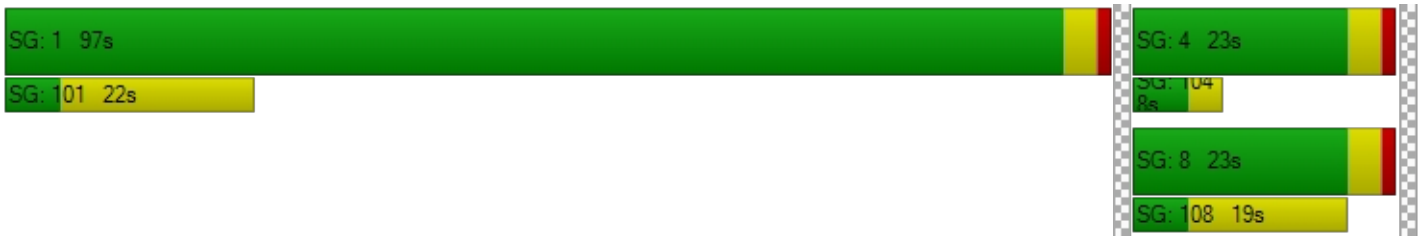
d_M, Delay for Movement [s/veh]	29.29	0.00	58.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	C		E					A			A	
d_A, Approach Delay [s/veh]	58.58			0.00			0.00			0.00		
Approach LOS	E			A			A			A		
d_I, Intersection Delay [s/veh]	58.58											
Intersection LOS	E											
Intersection V/C	0.112											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.233	1.439	2.146	0.000
Crosswalk LOS	B	A	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	317	317
d_b, Bicycle Delay [s]	60.00	60.00	42.50	42.50
l_b,int, Bicycle LOS Score for Intersection	4.720	4.132	1.560	1.560
Bicycle LOS	E	D	A	A

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 8: 15th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	26.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.433

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Base Volume Input [veh/h]	180	452	62	84	734	70	54	21	159	37	11	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	180	452	62	84	734	70	54	21	159	37	11	20
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	113	16	21	184	18	14	5	40	9	3	5
Total Analysis Volume [veh/h]	180	452	62	84	734	70	54	21	159	37	11	20
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	27	51	0	17	41	0	0	26	0	0	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	10	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	78	78	7	71	71	14	14	5	5	5
g / C, Green / Cycle	0.12	0.65	0.65	0.06	0.59	0.59	0.12	0.12	0.04	0.04	0.04
(v / s)_i Volume / Saturation Flow Rate	0.10	0.14	0.14	0.05	0.22	0.22	0.04	0.10	0.01	0.01	0.01
s, saturation flow rate [veh/h]	1781	1870	1792	1781	1870	1813	1805	1589	1781	1821	1589
c, Capacity [veh/h]	210	1213	1163	107	1105	1071	216	190	69	70	61
d1, Uniform Delay [s]	51.93	8.61	8.62	55.63	12.85	12.85	48.54	51.69	56.23	56.21	56.18
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.66	0.41	0.43	11.84	0.95	0.98	0.96	9.36	3.01	2.88	3.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.22	0.22	0.79	0.37	0.37	0.35	0.84	0.35	0.34	0.33
d, Delay for Lane Group [s/veh]	61.59	9.02	9.05	67.47	13.80	13.83	49.50	61.06	59.24	59.09	59.23
Lane Group LOS	E	A	A	E	B	B	D	E	E	E	E
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.87	2.82	2.72	2.86	5.89	5.72	2.13	5.17	0.77	0.77	0.64
50th-Percentile Queue Length [ft/ln]	146.86	70.47	67.96	71.50	147.31	143.12	53.22	129.26	19.13	19.20	16.08
95th-Percentile Queue Length [veh/ln]	9.85	5.07	4.89	5.15	9.87	9.65	3.83	8.90	1.38	1.38	1.16
95th-Percentile Queue Length [ft/ln]	246.23	126.85	122.32	128.70	246.84	241.22	95.80	222.49	34.44	34.56	28.94

Movement, Approach, & Intersection Results

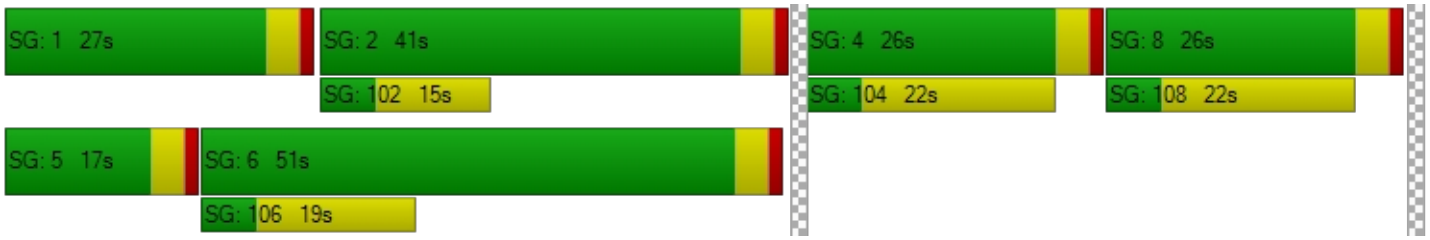
d_M, Delay for Movement [s/veh]	61.59	9.03	9.05	67.47	13.82	13.83	49.50	49.50	61.06	59.19	59.09	59.23
Movement LOS	E	A	A	E	B	B	D	D	E	E	E	E
d_A, Approach Delay [s/veh]	22.66			18.89			57.35			59.18		
Approach LOS	C			B			E			E		
d_I, Intersection Delay [s/veh]	26.51											
Intersection LOS	C											
Intersection V/C	0.433											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.632	2.591	2.116	2.204
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	783	617	367	367
d_b, Bicycle Delay [s]	22.20	28.70	40.02	40.02
l_b,int, Bicycle LOS Score for Intersection	2.132	2.292	1.946	1.672
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Del Mar Housing Element

Vistro File: C:\...\Del Mar PM.vistro
Report File: C:\...\8 FAIR WEEKEND WP PM.pdf

Scenario 8 FAIR WEEKEND WP PM
5/28/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Camino Del Mar at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.419	36.9	D
2	Jimmy Durante Blvd at Via De La Valle	Signalized	HCM 6th Edition	EB Left	0.569	36.6	D
3	I-5 SB Ramps at Via De La Valle	Signalized	HCM 6th Edition	SB Right	0.491	16.6	B
4	I-5 NB Ramps at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.489	27.6	C
8	15th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.439	26.8	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Camino Del Mar at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	36.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.419

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	0	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	30	393	213	231	495	14	12	80	34	188	64	192
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	5	0	0	5	11	11	48	11	0	50	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	398	213	231	500	25	23	128	45	188	114	192
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	100	53	58	125	6	6	32	11	47	29	48
Total Analysis Volume [veh/h]	41	398	213	231	500	25	23	128	45	188	114	192
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	33	35	0	36	38	0	0	49	0	0	49	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	19	19	18	33	33	71	71	71	71
g / C, Green / Cycle	0.03	0.16	0.16	0.15	0.27	0.27	0.59	0.59	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.02	0.11	0.13	0.13	0.14	0.14	0.11	0.16	0.06	0.12
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1839	1715	1212	1870	1589
c, Capacity [veh/h]	58	566	253	263	513	504	1051	585	1109	943
d1, Uniform Delay [s]	57.46	47.77	48.99	50.08	36.83	36.83	11.14	17.99	10.57	11.29
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	14.36	1.60	7.43	9.15	0.81	0.82	0.39	1.45	0.19	0.49
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.70	0.70	0.84	0.88	0.52	0.52	0.19	0.32	0.10	0.20
d, Delay for Lane Group [s/veh]	71.82	49.37	56.42	59.23	37.63	37.65	11.54	19.44	10.76	11.78
Lane Group LOS	E	D	E	E	D	D	B	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.47	5.76	6.71	7.45	6.68	6.58	2.46	3.51	1.35	2.46
50th-Percentile Queue Length [ft/ln]	36.64	144.02	167.70	186.13	166.96	164.39	61.52	87.71	33.80	61.42
95th-Percentile Queue Length [veh/ln]	2.64	9.70	10.96	11.92	10.92	10.78	4.43	6.32	2.43	4.42
95th-Percentile Queue Length [ft/ln]	65.95	242.43	273.89	298.00	272.91	269.52	110.73	157.88	60.84	110.55

Movement, Approach, & Intersection Results

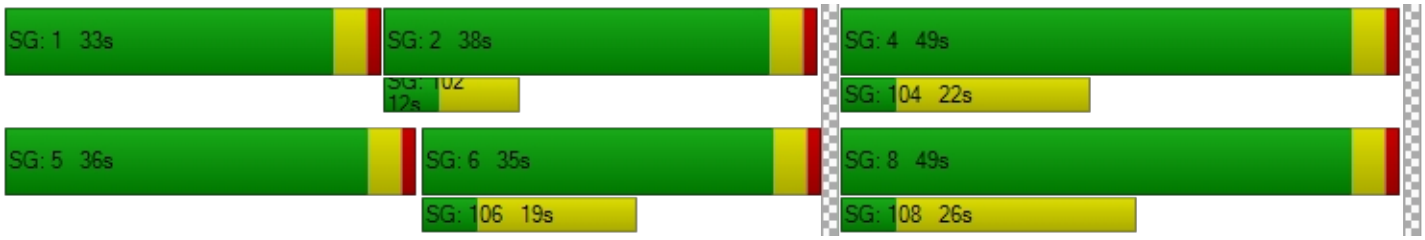
d_M, Delay for Movement [s/veh]	71.82	49.37	56.42	59.23	37.64	37.65	11.54	11.54	11.54	19.44	10.76	11.78
Movement LOS	E	D	E	E	D	D	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	53.09			44.24			11.54			14.46		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	36.92											
Intersection LOS	D											
Intersection V/C	0.419											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.961	2.615	1.913	2.406
Crosswalk LOS	C	B	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	517	567	750	750
d_b, Bicycle Delay [s]	33.00	30.82	23.44	23.44
l_b,int, Bicycle LOS Score for Intersection	2.098	2.183	1.883	2.375
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Jimmy Durante Blvd at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	36.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.569

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	135	83	6	234	75	60	29	563	62	837	496	153
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	48	0	0	50	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	135	83	6	234	75	60	29	611	62	837	546	153
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	34	21	2	59	19	15	7	153	16	209	137	38
Total Analysis Volume [veh/h]	135	83	6	234	75	60	29	611	62	837	546	153
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	30	0	0	30	0	34	26	0	34	26	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	11	11	11	11	3	52	52	30	79	79
g / C, Green / Cycle	0.09	0.09	0.09	0.09	0.09	0.09	0.03	0.43	0.43	0.25	0.66	0.66
(v / s)_i Volume / Saturation Flow Rate	0.08	0.04	0.00	0.07	0.04	0.04	0.02	0.18	0.18	0.24	0.19	0.20
s, saturation flow rate [veh/h]	1781	1870	2813	3459	1870	1589	1781	1870	1810	3459	1870	1733
c, Capacity [veh/h]	169	178	268	312	169	144	48	806	781	865	1224	1134
d1, Uniform Delay [s]	53.16	51.41	49.23	53.25	51.73	51.60	57.78	23.75	23.76	44.53	8.86	8.91
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.26	1.90	0.03	3.60	1.83	1.93	11.98	1.63	1.69	8.54	0.61	0.68
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.47	0.02	0.75	0.44	0.42	0.61	0.42	0.42	0.97	0.29	0.30
d, Delay for Lane Group [s/veh]	61.42	53.31	49.27	56.86	53.55	53.53	69.76	25.38	25.45	53.07	9.47	9.59
Lane Group LOS	E	D	D	E	D	D	E	C	C	D	A	A
Critical Lane Group	Yes	No	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.37	2.46	0.08	3.60	2.23	1.79	1.03	7.08	6.89	13.24	4.02	3.86
50th-Percentile Queue Length [ft/ln]	109.35	61.59	2.08	90.00	55.75	44.71	25.75	176.96	172.13	330.91	100.60	96.55
95th-Percentile Queue Length [veh/ln]	7.80	4.43	0.15	6.48	4.01	3.22	1.85	11.44	11.19	19.20	7.24	6.95
95th-Percentile Queue Length [ft/ln]	195.10	110.85	3.75	162.01	100.35	80.47	46.35	286.04	279.71	480.08	181.09	173.80

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	61.42	53.31	49.27	56.86	53.55	53.53	69.76	25.41	25.45	53.07	9.51	9.59
Movement LOS	E	D	D	E	D	D	E	C	C	D	A	A
d_A, Approach Delay [s/veh]	58.09			55.64			27.25			33.25		
Approach LOS	E			E			C			C		
d_I, Intersection Delay [s/veh]	36.65											
Intersection LOS	D											
Intersection V/C	0.569											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.663	2.439	2.596	2.856
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	433	433	367	367
d_b, Bicycle Delay [s]	36.82	36.82	40.02	40.02
l_b,int, Bicycle LOS Score for Intersection	1.929	2.168	2.139	2.827
Bicycle LOS	A	B	B	C

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: I-5 SB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	16.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.491

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	0	271	0	359	0	800	1056	0	1251	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	11	0	18	30	0	39	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	271	0	370	0	818	1086	0	1290	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	68	0	93	0	205	272	0	323	0
Total Analysis Volume [veh/h]	0	0	0	271	0	370	0	818	1086	0	1290	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	0	0	5	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	34	0	0	0	86	0	0	86	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	21	0	0	0	3	0	0	14	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		19	19	19	93	93
g / C, Green / Cycle		0.15	0.15	0.15	0.78	0.78
(v / s)_i Volume / Saturation Flow Rate		0.13	0.13	0.13	0.23	0.36
s, saturation flow rate [veh/h]		1781	1626	1589	3560	3560
c, Capacity [veh/h]		277	253	247	2770	2770
d1, Uniform Delay [s]		49.05	49.11	49.13	3.84	4.64
k, delay calibration		0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		5.97	6.78	6.99	0.27	0.57
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.82	0.83	0.83	0.30	0.47
d, Delay for Lane Group [s/veh]		55.02	55.89	56.12	4.11	5.21
Lane Group LOS		E	E	E	A	A
Critical Lane Group		No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		7.04	6.55	6.43	2.49	4.76
50th-Percentile Queue Length [ft/ln]		176.07	163.64	160.66	62.26	119.05
95th-Percentile Queue Length [veh/ln]		11.39	10.74	10.58	4.48	8.34
95th-Percentile Queue Length [ft/ln]		284.87	268.54	264.59	112.07	208.52

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	55.20	0.00	56.02	0.00	4.11	0.00	0.00	5.21	0.00
Movement LOS				E		E		A			A	
d_A, Approach Delay [s/veh]	0.00			55.66			4.11			5.21		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	16.65											
Intersection LOS	B											
Intersection V/C	0.491											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.303	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1367	1367
d_b, Bicycle Delay [s]	60.00	60.00	6.02	6.02
l_b,int, Bicycle LOS Score for Intersection	4.132	5.190	2.234	2.624
Bicycle LOS	D	F	B	B

Sequence

Ring 1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-5 NB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	27.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.489

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	1026	0	356	0	0	0	0	518	0	0	671	881
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	32	0	3	0	0	0	0	7	0	0	11	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1058	0	359	0	0	0	0	525	0	0	682	881
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	265	0	90	0	0	0	0	131	0	0	171	220
Total Analysis Volume [veh/h]	1058	0	359	0	0	0	0	525	0	0	682	881
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	5	0	0	5	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	97	0	0	0	0	0	0	23	0	0	23	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	17	0	0	0	0	0	0	14	0	0	3	0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	C
C, Cycle Length [s]	120	120	120		120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00
g_i, Effective Green Time [s]	40	40	40		72	72
g / C, Green / Cycle	0.33	0.33	0.33		0.60	0.60
(v / s)_i Volume / Saturation Flow Rate	0.30	0.30	0.23		0.15	0.19
s, saturation flow rate [veh/h]	1781	1781	1589		3560	3560
c, Capacity [veh/h]	596	596	532		2131	2131
d1, Uniform Delay [s]	37.77	37.77	34.29		11.34	11.96
k, delay calibration	0.11	0.11	0.11		0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	4.69	4.69	1.50		0.28	0.40
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.89	0.89	0.67		0.25	0.32
d, Delay for Lane Group [s/veh]	42.46	42.46	35.79		11.62	12.36
Lane Group LOS	D	D	D		B	B
Critical Lane Group	Yes	No	No		No	Yes
50th-Percentile Queue Length [veh/ln]	15.31	15.31	9.18		3.31	4.54
50th-Percentile Queue Length [ft/ln]	382.71	382.71	229.41		82.69	113.42
95th-Percentile Queue Length [veh/ln]	21.73	21.73	14.14		5.95	8.03
95th-Percentile Queue Length [ft/ln]	543.13	543.13	353.61		148.85	200.75

Movement, Approach, & Intersection Results

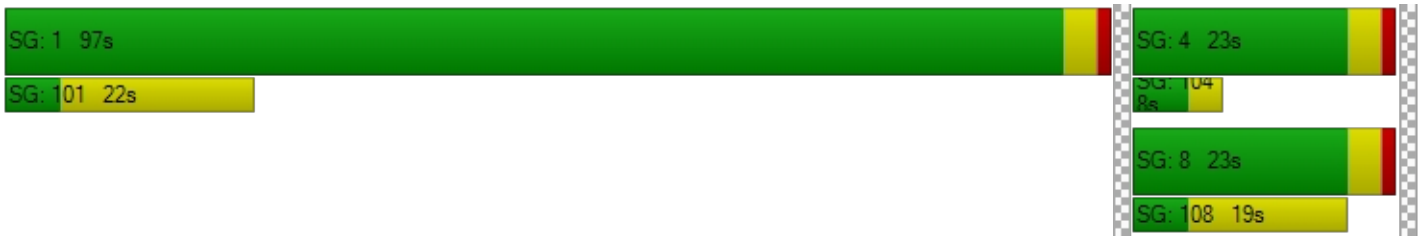
d_M, Delay for Movement [s/veh]	42.46	0.00	35.79	0.00	0.00	0.00	0.00	11.62	0.00	0.00	12.36	0.00
Movement LOS	D		D					B			B	
d_A, Approach Delay [s/veh]	40.77			0.00			11.62			12.36		
Approach LOS	D			A			B			B		
d_I, Intersection Delay [s/veh]	27.55											
Intersection LOS	C											
Intersection V/C	0.489											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.492	1.439	2.698	0.000
Crosswalk LOS	B	A	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	317	317
d_b, Bicycle Delay [s]	60.00	60.00	42.50	42.50
l_b,int, Bicycle LOS Score for Intersection	6.470	4.132	1.993	2.122
Bicycle LOS	F	D	A	B

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: 15th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	26.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.439

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Base Volume Input [veh/h]	180	452	62	84	734	70	54	21	159	37	11	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	7	9	0	0	0	0	0	0	7
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	180	461	62	91	743	70	54	21	159	37	11	27
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	115	16	23	186	18	14	5	40	9	3	7
Total Analysis Volume [veh/h]	180	461	62	91	743	70	54	21	159	37	11	27
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	28	50	0	18	40	0	0	26	0	0	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	10	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	77	77	8	71	71	14	14	5	5	5
g / C, Green / Cycle	0.12	0.64	0.64	0.06	0.59	0.59	0.12	0.12	0.04	0.04	0.04
(v / s)_i Volume / Saturation Flow Rate	0.10	0.14	0.14	0.05	0.22	0.22	0.04	0.10	0.01	0.01	0.02
s, saturation flow rate [veh/h]	1781	1870	1793	1781	1870	1814	1805	1589	1781	1821	1589
c, Capacity [veh/h]	210	1203	1154	115	1103	1070	216	190	70	72	63
d1, Uniform Delay [s]	51.92	8.91	8.91	55.32	12.96	12.96	48.54	51.70	56.12	56.11	56.32
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.58	0.43	0.45	11.37	0.97	1.00	0.96	9.36	2.84	2.72	4.63
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.22	0.22	0.79	0.37	0.37	0.35	0.84	0.34	0.34	0.43
d, Delay for Lane Group [s/veh]	61.50	9.33	9.36	66.69	13.93	13.96	49.50	61.06	58.96	58.83	60.95
Lane Group LOS	E	A	A	E	B	B	D	E	E	E	E
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.87	2.93	2.83	3.08	6.00	5.83	2.13	5.17	0.76	0.77	0.88
50th-Percentile Queue Length [ft/ln]	146.74	73.35	70.76	76.94	149.90	145.67	53.22	129.27	19.06	19.14	22.03
95th-Percentile Queue Length [veh/ln]	9.84	5.28	5.09	5.54	10.01	9.79	3.83	8.90	1.37	1.38	1.59
95th-Percentile Queue Length [ft/ln]	246.07	132.03	127.36	138.49	250.30	244.64	95.80	222.50	34.31	34.45	39.66

Movement, Approach, & Intersection Results

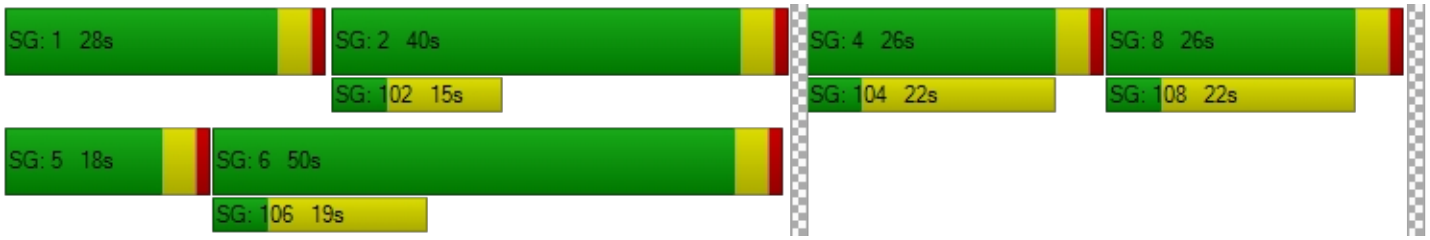
d_M, Delay for Movement [s/veh]	61.50	9.34	9.36	66.69	13.94	13.96	49.50	49.50	61.06	58.92	58.83	60.95
Movement LOS	E	A	A	E	B	B	D	D	E	E	E	E
d_A, Approach Delay [s/veh]	22.70			19.25			57.35			59.64		
Approach LOS	C			B			E			E		
d_I, Intersection Delay [s/veh]	26.75											
Intersection LOS	C											
Intersection V/C	0.439											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.635	2.597	2.116	2.207
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	767	600	367	367
d_b, Bicycle Delay [s]	22.82	29.40	40.02	40.02
l_b,int, Bicycle LOS Score for Intersection	2.140	2.305	1.946	1.683
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Del Mar Housing Element

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Report File: C:\...\9 HORSE RACES PM.pdf

Scenario 9 HORSE RACES PM
5/12/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Camino Del Mar at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.530	36.0	D
2	Jimmy Durante Blvd at Via De La Valle	Signalized	HCM 6th Edition	EB Left	0.621	39.0	D
3	I-5 SB Ramps at Via De La Valle	Signalized	HCM 6th Edition	SB Right	0.381	16.4	B
4	I-5 NB Ramps at Via De La Valle	Signalized	HCM 6th Edition	NB Right	0.397	23.0	C
6	Camino Del Mar at Del Mar Heights Rd	Signalized	HCM 6th Edition	EB Thru	0.755	38.5	D
8	15th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.596	26.2	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Camino Del Mar at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	36.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.530

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	0	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	58	625	121	233	405	18	13	125	40	214	155	356
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	625	121	233	405	18	13	125	40	214	155	356
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	156	30	58	101	5	3	31	10	54	39	89
Total Analysis Volume [veh/h]	58	625	121	233	405	18	13	125	40	214	155	356
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	70	23	0	63	16	0	0	34	0	0	34	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	24	24	18	37	37	66	66	66	66
g / C, Green / Cycle	0.04	0.20	0.20	0.15	0.31	0.31	0.55	0.55	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.03	0.18	0.08	0.13	0.11	0.11	0.10	0.18	0.08	0.22
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1842	1752	1220	1870	1589
c, Capacity [veh/h]	79	719	321	266	575	566	993	460	1026	872
d1, Uniform Delay [s]	56.65	46.35	41.36	49.92	32.49	32.50	13.58	26.94	13.34	15.76
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	12.40	3.40	0.73	8.81	0.40	0.40	0.40	3.36	0.31	1.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.74	0.87	0.38	0.87	0.37	0.37	0.18	0.47	0.15	0.41
d, Delay for Lane Group [s/veh]	69.04	49.74	42.09	58.74	32.89	32.91	13.97	30.29	13.65	17.18
Lane Group LOS	E	D	D	E	C	C	B	C	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.01	9.33	3.17	7.48	4.91	4.85	2.51	5.17	2.14	5.92
50th-Percentile Queue Length [ft/ln]	50.26	233.20	79.28	187.00	122.84	121.25	62.80	129.20	53.61	148.07
95th-Percentile Queue Length [veh/ln]	3.62	14.34	5.71	11.97	8.55	8.46	4.52	8.90	3.86	9.91
95th-Percentile Queue Length [ft/ln]	90.46	358.42	142.70	299.13	213.72	211.54	113.03	222.41	96.50	247.85

Movement, Approach, & Intersection Results

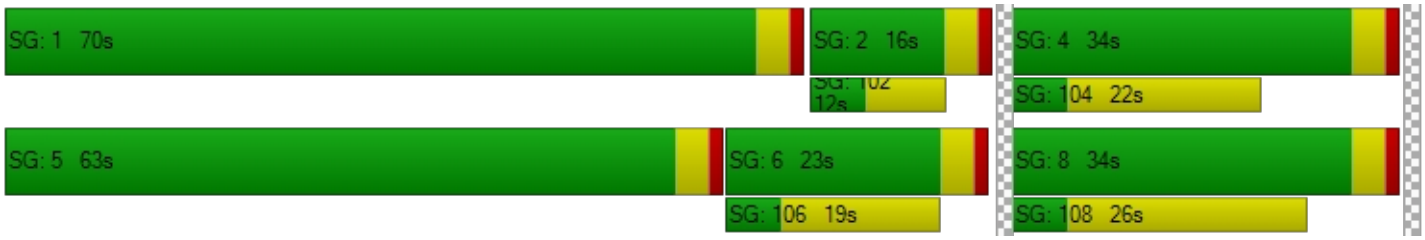
d_M, Delay for Movement [s/veh]	69.04	49.74	42.09	58.74	32.90	32.91	13.97	13.97	13.97	30.29	13.65	17.18
Movement LOS	E	D	D	E	C	C	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	49.98			42.08			13.97			20.30		
Approach LOS	D			D			B			C		
d_I, Intersection Delay [s/veh]	35.97											
Intersection LOS	D											
Intersection V/C	0.530											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	3.010	2.655	1.929	2.440
Crosswalk LOS	C	B	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	317	200	500	500
d_b, Bicycle Delay [s]	42.50	48.60	33.75	33.75
l_b,int, Bicycle LOS Score for Intersection	2.223	2.101	1.853	2.756
Bicycle LOS	B	B	A	C

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Jimmy Durante Blvd at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	39.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.621

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	97	180	598	302	93	61	48	499	25	345	706	326
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	97	180	598	302	93	61	48	499	25	345	706	326
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	45	150	76	23	15	12	125	6	86	177	82
Total Analysis Volume [veh/h]	97	180	598	302	93	61	48	499	25	345	706	326
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	36	0	0	31	0	10	30	0	23	43	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	29	13	13	13	4	47	47	14	58	58
g / C, Green / Cycle	0.24	0.24	0.24	0.11	0.11	0.11	0.03	0.40	0.40	0.12	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.05	0.10	0.21	0.09	0.05	0.04	0.03	0.14	0.14	0.10	0.29	0.29
s, saturation flow rate [veh/h]	1781	1870	2813	3459	1870	1589	1781	1870	1839	3459	1870	1674
c, Capacity [veh/h]	430	451	679	387	209	178	62	738	726	411	895	801
d1, Uniform Delay [s]	36.52	38.21	43.86	51.85	49.80	49.22	57.44	25.60	25.61	51.75	22.93	23.10
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.26	0.57	3.94	3.45	1.48	1.14	18.10	1.35	1.38	4.66	3.01	3.51
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.23	0.40	0.88	0.78	0.44	0.34	0.77	0.36	0.36	0.84	0.60	0.61
d, Delay for Lane Group [s/veh]	36.79	38.78	47.80	55.31	51.28	50.35	75.53	26.95	26.99	56.41	25.94	26.61
Lane Group LOS	D	D	D	E	D	D	E	C	C	E	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.33	4.53	8.88	4.61	2.70	1.75	1.76	5.58	5.51	5.34	11.73	10.87
50th-Percentile Queue Length [ft/ln]	58.25	113.34	221.97	115.23	67.57	43.81	43.93	139.55	137.80	133.56	293.31	271.79
95th-Percentile Queue Length [veh/ln]	4.19	8.03	13.77	8.13	4.86	3.15	3.16	9.46	9.36	9.13	17.35	16.28
95th-Percentile Queue Length [ft/ln]	104.84	200.64	344.14	203.26	121.62	78.85	79.07	236.41	234.05	228.33	433.74	406.98

Movement, Approach, & Intersection Results

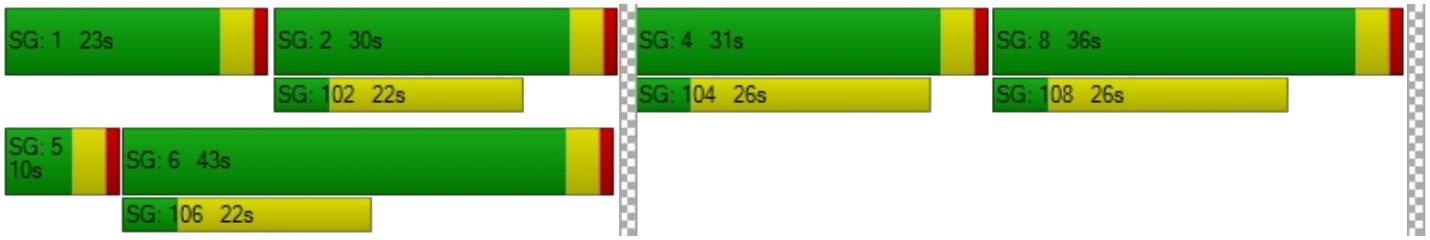
d_M, Delay for Movement [s/veh]	36.79	38.78	47.80	55.31	51.28	50.35	75.53	26.97	26.99	56.41	26.10	26.61
Movement LOS	D	D	D	E	D	D	E	C	C	E	C	C
d_A, Approach Delay [s/veh]	44.72			53.82			31.04			33.81		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	39.02											
Intersection LOS	D											
Intersection V/C	0.621											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.686	2.512	2.595	2.919
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	533	450	433	650
d_b, Bicycle Delay [s]	32.27	36.04	36.82	27.34
l_b,int, Bicycle LOS Score for Intersection	3.003	2.312	2.032	2.696
Bicycle LOS	C	B	B	B

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: I-5 SB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	16.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.381

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	0	283	0	294	0	872	532	0	948	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	283	0	294	0	872	532	0	948	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	71	0	74	0	218	133	0	237	0
Total Analysis Volume [veh/h]	0	0	0	283	0	294	0	872	532	0	948	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	0	0	5	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	46	0	0	0	74	0	0	74	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	21	0	0	0	3	0	0	14	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		17	17	17	95	95
g / C, Green / Cycle		0.14	0.14	0.14	0.79	0.79
(v / s)_i Volume / Saturation Flow Rate		0.11	0.11	0.11	0.24	0.27
s, saturation flow rate [veh/h]		1781	1664	1589	3560	3560
c, Capacity [veh/h]		253	236	225	2818	2818
d1, Uniform Delay [s]		49.89	49.91	49.92	3.45	3.56
k, delay calibration		0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		6.00	6.46	6.79	0.29	0.32
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.81	0.81	0.81	0.31	0.34
d, Delay for Lane Group [s/veh]		55.90	56.37	56.71	3.74	3.88
Lane Group LOS		E	E	E	A	A
Critical Lane Group		No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		6.35	5.97	5.73	2.44	2.74
50th-Percentile Queue Length [ft/ln]		158.63	149.29	143.34	61.11	68.40
95th-Percentile Queue Length [veh/ln]		10.48	9.98	9.66	4.40	4.92
95th-Percentile Queue Length [ft/ln]		261.91	249.48	241.51	109.99	123.12

Movement, Approach, & Intersection Results

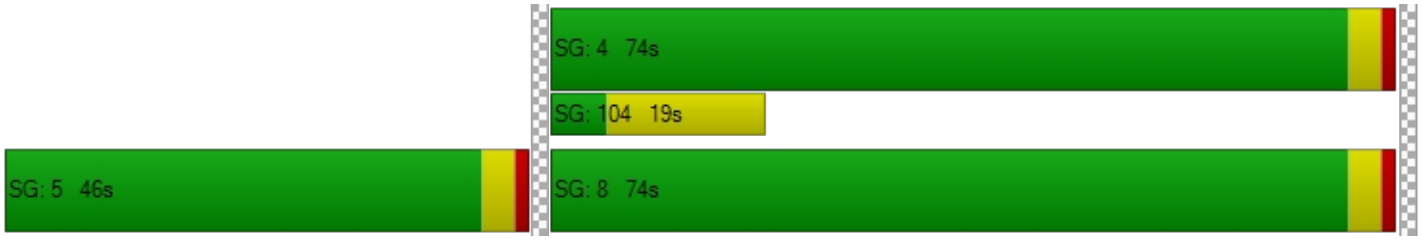
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	56.04	0.00	56.59	0.00	3.74	0.00	0.00	3.88	0.00
Movement LOS				E		E		A			A	
d_A, Approach Delay [s/veh]	0.00			56.31			3.74			3.88		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	16.45											
Intersection LOS	B											
Intersection V/C	0.381											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.287	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1167	1167
d_b, Bicycle Delay [s]	60.00	60.00	10.42	10.42
l_b,int, Bicycle LOS Score for Intersection	4.132	5.084	2.279	2.342
Bicycle LOS	D	F	B	B

Sequence

Ring 1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-5 NB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	23.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.397

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	498	0	417	0	0	0	0	741	0	0	698	387
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	498	0	417	0	0	0	0	741	0	0	698	387
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	125	0	104	0	0	0	0	185	0	0	175	97
Total Analysis Volume [veh/h]	498	0	417	0	0	0	0	741	0	0	698	387
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	5	0	0	5	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	81	0	0	0	0	0	0	39	0	0	39	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	17	0	0	0	0	0	0	14	0	0	3	0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	C
C, Cycle Length [s]	120	120	120		120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00
g_i, Effective Green Time [s]	26	26	26		86	86
g / C, Green / Cycle	0.22	0.22	0.22		0.71	0.71
(v / s)_i Volume / Saturation Flow Rate	0.17	0.18	0.19		0.21	0.20
s, saturation flow rate [veh/h]	1781	1703	1589		3560	3560
c, Capacity [veh/h]	393	376	351		2537	2537
d1, Uniform Delay [s]	44.07	44.39	44.92		6.26	6.17
k, delay calibration	0.11	0.11	0.11		0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	3.49	4.27	6.02		0.29	0.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.81	0.86		0.29	0.28
d, Delay for Lane Group [s/veh]	47.56	48.67	50.94		6.56	6.44
Lane Group LOS	D	D	D		A	A
Critical Lane Group	No	No	Yes		Yes	No
50th-Percentile Queue Length [veh/ln]	9.02	9.06	9.15		3.22	2.99
50th-Percentile Queue Length [ft/ln]	225.50	226.41	228.80		80.62	74.78
95th-Percentile Queue Length [veh/ln]	13.95	13.99	14.11		5.80	5.38
95th-Percentile Queue Length [ft/ln]	348.64	349.80	352.83		145.11	134.60

Movement, Approach, & Intersection Results

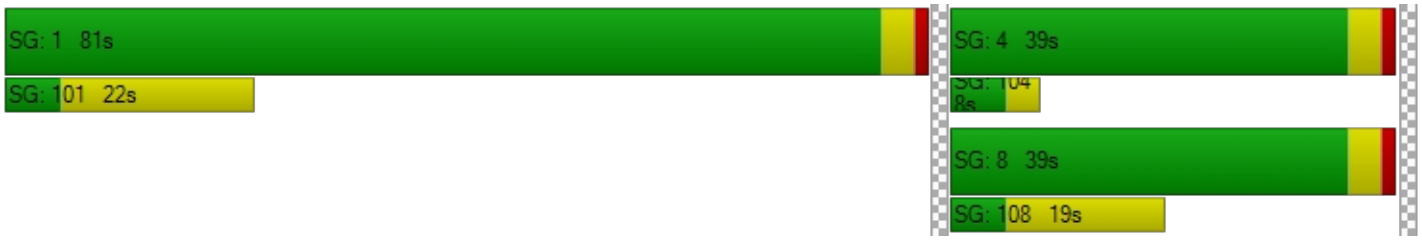
d_M, Delay for Movement [s/veh]	47.99	0.00	50.32	0.00	0.00	0.00	0.00	6.56	0.00	0.00	6.44	0.00
Movement LOS	D		D					A			A	
d_A, Approach Delay [s/veh]	49.04			0.00			6.56			6.44		
Approach LOS	D			A			A			A		
d_I, Intersection Delay [s/veh]	23.03											
Intersection LOS	C											
Intersection V/C	0.397											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.369	1.439	2.618	0.000
Crosswalk LOS	B	A	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	583	583
d_b, Bicycle Delay [s]	60.00	60.00	30.10	30.10
l_b,int, Bicycle LOS Score for Intersection	5.642	4.132	2.171	2.135
Bicycle LOS	F	D	B	B

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Camino Del Mar at Del Mar Heights Rd

Control Type:	Signalized	Delay (sec / veh):	38.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.755

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Base Volume Input [veh/h]	86	800	421	433	667	13	12	48	17	168	115	589
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	86	800	421	433	667	13	12	48	17	168	115	589
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	200	105	108	167	3	3	12	4	42	29	147
Total Analysis Volume [veh/h]	86	800	421	433	667	13	12	48	17	168	115	589
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Overlap
Signal Group	0	6	0	0	2	0	0	8	0	0	4	4
Auxiliary Signal Groups												2,4
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	5
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	0	39	0	0	25	0	0	30	0	0	26	26
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	17	0	0	10	0	0	21	0	0	17	17
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall		No			No			No			No	No
Maximum Recall		No			No			No			No	No
Pedestrian Recall		No			No			No			No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	38	38	38	38	38	38	6	6	22	22	74
g / C, Green / Cycle	0.32	0.32	0.32	0.32	0.32	0.32	0.05	0.05	0.18	0.18	0.62
(v / s)_i Volume / Saturation Flow Rate	0.05	0.22	0.26	0.21	0.21	0.21	0.03	0.01	0.08	0.08	0.37
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1855	1691	1770	1589	1781	1852	1589
c, Capacity [veh/h]	567	1133	506	564	587	535	122	77	327	340	978
d1, Uniform Delay [s]	29.29	35.96	37.92	35.44	35.43	35.43	56.20	54.91	43.44	43.35	14.13
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.57	3.71	14.74	5.98	5.73	6.27	3.06	1.42	0.90	0.83	2.75
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.15	0.71	0.83	0.66	0.66	0.66	0.49	0.22	0.43	0.42	0.60
d, Delay for Lane Group [s/veh]	29.86	39.67	52.67	41.41	41.16	41.70	59.26	56.33	44.34	44.18	16.88
Lane Group LOS	C	D	D	D	D	D	E	E	D	D	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.88	10.82	13.43	10.29	10.67	9.80	1.90	0.53	3.79	3.84	10.05
50th-Percentile Queue Length [ft/ln]	47.05	270.49	335.87	257.23	266.74	245.05	47.39	13.16	94.80	95.92	251.35
95th-Percentile Queue Length [veh/ln]	3.39	16.21	19.45	15.55	16.03	14.94	3.41	0.95	6.83	6.91	15.25
95th-Percentile Queue Length [ft/ln]	84.70	405.36	486.15	388.75	400.67	373.41	85.30	23.69	170.65	172.65	381.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.86	39.67	52.67	41.38	41.44	41.70	59.26	59.26	56.33	44.34	44.18	16.88
Movement LOS	C	D	D	D	D	D	E	E	E	D	D	B
d_A, Approach Delay [s/veh]	43.21			41.42			58.61			25.76		
Approach LOS	D			D			E			C		
d_I, Intersection Delay [s/veh]	38.45											
Intersection LOS	D											
Intersection V/C	0.755											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	0.00	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.819	0.000	2.050	2.661
Crosswalk LOS	C	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	350	433	367
d_b, Bicycle Delay [s]	30.10	40.84	36.82	40.02
l_b,int, Bicycle LOS Score for Intersection	2.638	2.478	1.687	2.998
Bicycle LOS	B	B	A	C

Sequence

Ring 1	2	6	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: 15th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	26.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.596

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Base Volume Input [veh/h]	159	1431	43	71	585	112	62	17	153	43	14	100
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	159	1431	43	71	585	112	62	17	153	43	14	100
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	358	11	18	146	28	16	4	38	11	4	25
Total Analysis Volume [veh/h]	159	1431	43	71	585	112	62	17	153	43	14	100
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	41	57	0	10	26	0	0	27	0	0	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	10	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	74	74	6	68	68	14	14	10	10	10
g / C, Green / Cycle	0.11	0.62	0.62	0.05	0.56	0.56	0.12	0.12	0.08	0.08	0.08
(v / s)_i Volume / Saturation Flow Rate	0.09	0.40	0.40	0.04	0.19	0.19	0.04	0.10	0.02	0.02	0.06
s, saturation flow rate [veh/h]	1781	1870	1851	1781	1870	1767	1799	1589	1781	1823	1589
c, Capacity [veh/h]	191	1160	1148	89	1053	995	208	184	144	147	128
d1, Uniform Delay [s]	52.51	14.30	14.35	56.40	14.17	14.17	49.08	51.93	51.52	51.51	54.11
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.03	2.68	2.74	14.79	0.88	0.93	1.14	9.36	0.66	0.64	9.75
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.64	0.64	0.80	0.34	0.34	0.38	0.83	0.20	0.19	0.78
d, Delay for Lane Group [s/veh]	61.54	16.98	17.09	71.18	15.04	15.11	50.22	61.29	52.18	52.15	63.85
Lane Group LOS	E	B	B	E	B	B	D	E	D	D	E
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.17	12.79	12.77	2.49	5.42	5.15	2.26	4.98	0.83	0.84	3.31
50th-Percentile Queue Length [ft/ln]	129.34	319.71	319.24	62.35	135.38	128.67	56.59	124.53	20.63	20.88	82.76
95th-Percentile Queue Length [veh/ln]	8.90	18.65	18.63	4.49	9.23	8.87	4.07	8.64	1.49	1.50	5.96
95th-Percentile Queue Length [ft/ln]	222.60	466.32	465.76	112.24	230.78	221.68	101.87	216.03	37.14	37.59	148.97

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	61.54	17.03	17.09	71.18	15.07	15.11	50.22	50.22	61.29	52.18	52.15	63.85
Movement LOS	E	B	B	E	B	B	D	D	E	D	D	E
d_A, Approach Delay [s/veh]	21.37			20.26			57.52			59.61		
Approach LOS	C			C			E			E		
d_I, Intersection Delay [s/veh]	26.22											
Intersection LOS	C											
Intersection V/C	0.596											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.786	2.775	2.123	2.217
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	883	367	383	367
d_b, Bicycle Delay [s]	18.70	40.02	39.20	40.02
l_b,int, Bicycle LOS Score for Intersection	2.907	2.193	1.942	1.819
Bicycle LOS	C	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Del Mar Housing Element

Vistro File: C:\...\Del Mar PM.vistro
Report File: C:\...\10 HORSE RACES WP PM.pdf

Scenario 10 HORSE RACES WP PM
5/12/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Camino Del Mar at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.531	35.2	D
2	Jimmy Durante Blvd at Via De La Valle	Signalized	HCM 6th Edition	EB Left	0.643	39.1	D
3	I-5 SB Ramps at Via De La Valle	Signalized	HCM 6th Edition	SB Right	0.402	16.4	B
4	I-5 NB Ramps at Via De La Valle	Signalized	HCM 6th Edition	NB Right	0.412	23.3	C
6	Camino Del Mar at Del Mar Heights Rd	Signalized	HCM 6th Edition	EB Thru	0.772	39.7	D
8	15th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.608	27.0	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Camino Del Mar at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	35.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.531

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	0	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	58	625	121	233	405	18	13	125	40	214	155	356
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	17	3	0	0	8	17	7	34	7	0	79	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	75	628	121	233	413	35	20	159	47	214	234	356
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	157	30	58	103	9	5	40	12	54	59	89
Total Analysis Volume [veh/h]	75	628	121	233	413	35	20	159	47	214	234	356
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	70	23	0	63	16	0	0	34	0	0	34	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	24	24	18	36	36	66	66	66	66
g / C, Green / Cycle	0.06	0.20	0.20	0.15	0.30	0.30	0.55	0.55	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.04	0.18	0.08	0.13	0.12	0.12	0.13	0.18	0.13	0.22
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1819	1732	1176	1870	1589
c, Capacity [veh/h]	100	722	322	266	554	539	981	477	1024	870
d1, Uniform Delay [s]	55.81	46.29	41.27	49.92	33.81	33.82	14.04	25.14	14.04	15.83
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.69	3.39	0.72	8.81	0.49	0.50	0.55	3.04	0.52	1.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.75	0.87	0.38	0.87	0.41	0.41	0.23	0.45	0.23	0.41
d, Delay for Lane Group [s/veh]	66.50	49.68	41.99	58.74	34.30	34.32	14.59	28.18	14.56	17.25
Lane Group LOS	E	D	D	E	C	C	B	C	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.54	9.37	3.17	7.48	5.38	5.25	3.30	4.95	3.41	5.94
50th-Percentile Queue Length [ft/ln]	63.41	234.25	79.17	187.00	134.49	131.25	82.49	123.64	85.22	148.43
95th-Percentile Queue Length [veh/ln]	4.57	14.39	5.70	11.97	9.18	9.01	5.94	8.59	6.14	9.93
95th-Percentile Queue Length [ft/ln]	114.14	359.76	142.50	299.13	229.58	225.20	148.48	214.82	153.40	248.34

Movement, Approach, & Intersection Results

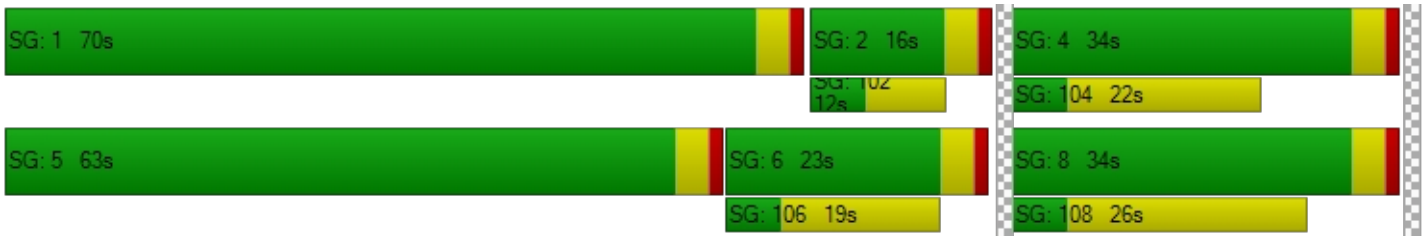
d_M, Delay for Movement [s/veh]	66.50	49.68	41.99	58.74	34.31	34.32	14.59	14.59	14.59	28.18	14.56	17.25
Movement LOS	E	D	D	E	C	C	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	50.09			42.67			14.59			19.37		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	35.19											
Intersection LOS	D											
Intersection V/C	0.531											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	3.016	2.672	2.008	2.467
Crosswalk LOS	C	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	317	200	500	500
d_b, Bicycle Delay [s]	42.50	48.60	33.75	33.75
l_b,int, Bicycle LOS Score for Intersection	2.239	2.121	1.933	2.886
Bicycle LOS	B	B	A	C

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Jimmy Durante Blvd at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	39.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.643

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	97	180	598	302	93	61	48	499	25	345	706	326
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	34	0	0	79	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	97	180	598	302	93	61	48	533	25	345	785	326
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	45	150	76	23	15	12	133	6	86	196	82
Total Analysis Volume [veh/h]	97	180	598	302	93	61	48	533	25	345	785	326
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	36	0	0	31	0	10	30	0	23	43	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	29	13	13	13	4	47	47	14	58	58
g / C, Green / Cycle	0.24	0.24	0.24	0.11	0.11	0.11	0.03	0.40	0.40	0.12	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.05	0.10	0.21	0.09	0.05	0.04	0.03	0.15	0.15	0.10	0.31	0.32
s, saturation flow rate [veh/h]	1781	1870	2813	3459	1870	1589	1781	1870	1841	3459	1870	1688
c, Capacity [veh/h]	430	451	679	387	209	178	62	738	726	411	895	808
d1, Uniform Delay [s]	36.52	38.21	43.86	51.85	49.80	49.22	57.44	25.87	25.88	51.75	23.59	23.86
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.26	0.57	3.94	3.45	1.48	1.14	18.10	1.49	1.52	4.66	3.57	4.22
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.23	0.40	0.88	0.78	0.44	0.34	0.77	0.38	0.38	0.84	0.64	0.66
d, Delay for Lane Group [s/veh]	36.79	38.78	47.80	55.31	51.28	50.35	75.53	27.36	27.40	56.41	27.17	28.08
Lane Group LOS	D	D	D	E	D	D	E	C	C	E	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.33	4.53	8.88	4.61	2.70	1.75	1.76	6.01	5.94	5.34	12.97	12.25
50th-Percentile Queue Length [ft/ln]	58.25	113.34	221.97	115.23	67.57	43.81	43.93	150.36	148.52	133.56	324.33	306.22
95th-Percentile Queue Length [veh/ln]	4.19	8.03	13.77	8.13	4.86	3.15	3.16	10.04	9.94	9.13	18.88	17.99
95th-Percentile Queue Length [ft/ln]	104.84	200.64	344.14	203.26	121.62	78.85	79.07	250.91	248.45	228.33	472.00	449.71

Movement, Approach, & Intersection Results

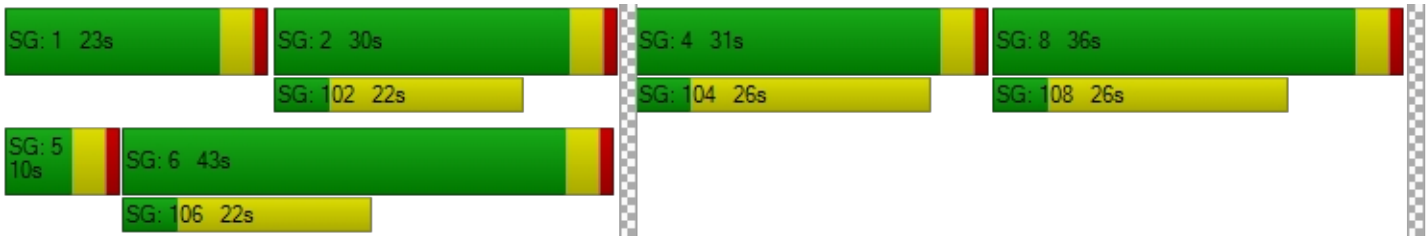
d_M, Delay for Movement [s/veh]	36.79	38.78	47.80	55.31	51.28	50.35	75.53	27.38	27.40	56.41	27.41	28.08
Movement LOS	D	D	D	E	D	D	E	C	C	E	C	C
d_A, Approach Delay [s/veh]	44.72			53.82			31.20			34.43		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	39.11											
Intersection LOS	D											
Intersection V/C	0.643											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.686	2.512	2.617	2.938
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	533	450	433	650
d_b, Bicycle Delay [s]	32.27	36.04	36.82	27.34
l_b,int, Bicycle LOS Score for Intersection	3.003	2.312	2.060	2.761
Bicycle LOS	C	B	B	C

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: I-5 SB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	16.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.402

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	0	283	0	294	0	872	532	0	948	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	17	0	12	22	0	62	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	283	0	311	0	884	554	0	1010	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	71	0	78	0	221	139	0	253	0
Total Analysis Volume [veh/h]	0	0	0	283	0	311	0	884	554	0	1010	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	0	0	5	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	46	0	0	0	74	0	0	74	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	21	0	0	0	3	0	0	14	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		17	17	17	95	95
g / C, Green / Cycle		0.14	0.14	0.14	0.79	0.79
(v / s)_i Volume / Saturation Flow Rate		0.12	0.12	0.12	0.25	0.28
s, saturation flow rate [veh/h]		1781	1656	1589	3560	3560
c, Capacity [veh/h]		259	241	232	2804	2804
d1, Uniform Delay [s]		49.64	49.66	49.68	3.60	3.78
k, delay calibration		0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		5.94	6.46	6.76	0.30	0.36
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.81	0.81	0.81	0.32	0.36
d, Delay for Lane Group [s/veh]		55.58	56.12	56.44	3.89	4.14
Lane Group LOS		E	E	E	A	A
Critical Lane Group		No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		6.52	6.12	5.91	2.57	3.08
50th-Percentile Queue Length [ft/ln]		163.10	153.05	147.67	64.15	76.98
95th-Percentile Queue Length [veh/ln]		10.71	10.18	9.89	4.62	5.54
95th-Percentile Queue Length [ft/ln]		267.83	254.49	247.32	115.46	138.56

Movement, Approach, & Intersection Results

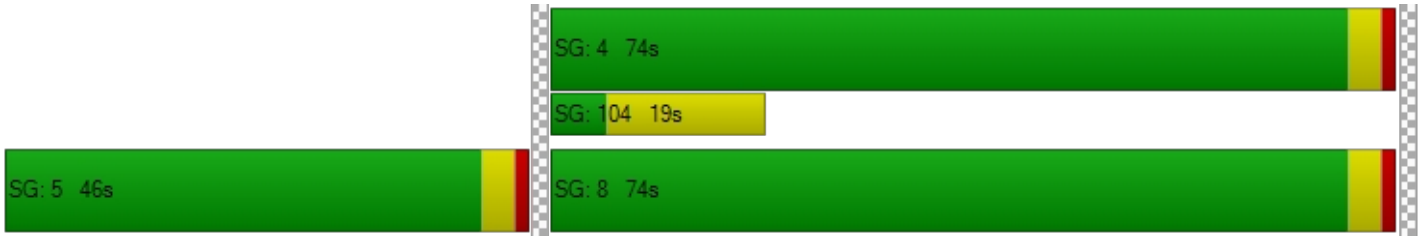
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	55.74	0.00	56.32	0.00	3.89	0.00	0.00	4.14	0.00
Movement LOS				E		E		A			A	
d_A, Approach Delay [s/veh]	0.00			56.03			3.89			4.14		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	16.44											
Intersection LOS	B											
Intersection V/C	0.402											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.291	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1167	1167
d_b, Bicycle Delay [s]	60.00	60.00	10.42	10.42
l_b,int, Bicycle LOS Score for Intersection	4.132	5.113	2.289	2.393
Bicycle LOS	D	F	B	B

Sequence

Ring 1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-5 NB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	23.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.412

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	498	0	417	0	0	0	0	741	0	0	698	387
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	51	0	2	0	0	0	0	5	0	0	17	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	549	0	419	0	0	0	0	746	0	0	715	387
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	137	0	105	0	0	0	0	187	0	0	179	97
Total Analysis Volume [veh/h]	549	0	419	0	0	0	0	746	0	0	715	387
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	5	0	0	5	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	81	0	0	0	0	0	0	39	0	0	39	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	17	0	0	0	0	0	0	14	0	0	3	0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	C
C, Cycle Length [s]	120	120	120		120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00
g_i, Effective Green Time [s]	28	28	28		84	84
g / C, Green / Cycle	0.23	0.23	0.23		0.70	0.70
(v / s)_i Volume / Saturation Flow Rate	0.18	0.19	0.20		0.21	0.20
s, saturation flow rate [veh/h]	1781	1719	1589		3560	3560
c, Capacity [veh/h]	418	404	373		2487	2487
d1, Uniform Delay [s]	42.91	43.25	44.06		6.90	6.83
k, delay calibration	0.11	0.11	0.11		0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	3.06	3.69	5.99		0.31	0.29
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.77	0.80	0.86		0.30	0.29
d, Delay for Lane Group [s/veh]	45.97	46.94	50.04		7.21	7.12
Lane Group LOS	D	D	D		A	A
Critical Lane Group	No	No	Yes		Yes	No
50th-Percentile Queue Length [veh/ln]	9.29	9.41	9.77		3.48	3.30
50th-Percentile Queue Length [ft/ln]	232.27	235.32	244.28		86.95	82.41
95th-Percentile Queue Length [veh/ln]	14.29	14.44	14.90		6.26	5.93
95th-Percentile Queue Length [ft/ln]	357.24	361.11	372.45		156.50	148.34

Movement, Approach, & Intersection Results

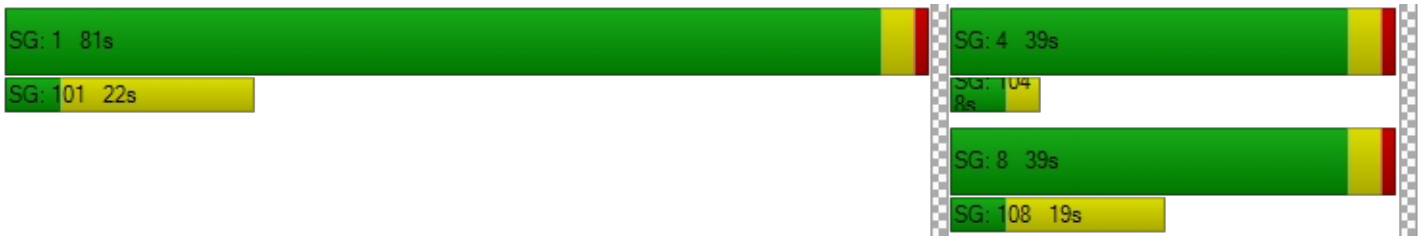
d_M, Delay for Movement [s/veh]	46.37	0.00	49.33	0.00	0.00	0.00	0.00	7.21	0.00	0.00	7.12	0.00
Movement LOS	D		D					A			A	
d_A, Approach Delay [s/veh]	47.65			0.00			7.21			7.12		
Approach LOS	D			A			A			A		
d_I, Intersection Delay [s/veh]	23.30											
Intersection LOS	C											
Intersection V/C	0.412											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.382	1.439	2.636	0.000
Crosswalk LOS	B	A	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	583	583
d_b, Bicycle Delay [s]	60.00	60.00	30.10	30.10
l_b,int, Bicycle LOS Score for Intersection	5.730	4.132	2.175	2.149
Bicycle LOS	F	D	B	B

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Camino Del Mar at Del Mar Heights Rd

Control Type:	Signalized	Delay (sec / veh):	39.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.772

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Base Volume Input [veh/h]	86	800	421	433	667	13	12	48	17	168	115	589
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	6	0	0	2	13	5	17	1	0	38	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	89	806	421	433	669	26	17	65	18	168	153	589
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	202	105	108	167	7	4	16	5	42	38	147
Total Analysis Volume [veh/h]	89	806	421	433	669	26	17	65	18	168	153	589
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Overlap
Signal Group	0	6	0	0	2	0	0	8	0	0	4	4
Auxiliary Signal Groups												2,4
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	5
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	0	39	0	0	25	0	0	30	0	0	26	26
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	17	0	0	10	0	0	21	0	0	17	17
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall		No			No			No			No	No
Maximum Recall		No			No			No			No	No
Pedestrian Recall		No			No			No			No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	37	37	37	37	37	37	7	7	22	22	75
g / C, Green / Cycle	0.31	0.31	0.31	0.31	0.31	0.31	0.06	0.06	0.18	0.18	0.62
(v / s)_i Volume / Saturation Flow Rate	0.05	0.23	0.26	0.21	0.21	0.21	0.05	0.01	0.09	0.09	0.37
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1857	1680	1786	1589	1781	1865	1589
c, Capacity [veh/h]	555	1109	495	553	577	522	146	97	327	342	988
d1, Uniform Delay [s]	29.94	36.77	38.69	36.20	36.19	36.20	55.35	53.47	43.96	43.81	13.63
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.62	4.18	16.58	6.71	6.43	7.08	3.38	0.90	1.13	1.01	2.65
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.16	0.73	0.85	0.68	0.68	0.68	0.56	0.18	0.49	0.47	0.60
d, Delay for Lane Group [s/veh]	30.56	40.95	55.28	42.92	42.62	43.27	58.73	54.37	45.09	44.82	16.28
Lane Group LOS	C	D	E	D	D	D	E	D	D	D	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.98	11.10	13.77	10.67	11.07	10.11	2.58	0.54	4.37	4.40	9.82
50th-Percentile Queue Length [ft/ln]	49.39	277.44	344.33	266.70	276.63	252.66	64.45	13.54	109.23	109.92	245.53
95th-Percentile Queue Length [veh/ln]	3.56	16.56	19.86	16.02	16.52	15.32	4.64	0.98	7.80	7.84	14.96
95th-Percentile Queue Length [ft/ln]	88.90	414.02	496.50	400.61	413.01	383.00	116.01	24.38	194.93	195.89	374.01

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.56	40.95	55.28	42.88	42.94	43.27	58.73	58.73	54.37	45.09	44.82	16.28
Movement LOS	C	D	E	D	D	D	E	E	D	D	D	B
d_A, Approach Delay [s/veh]	44.83			42.93			57.95			26.39		
Approach LOS	D			D			E			C		
d_I, Intersection Delay [s/veh]	39.73											
Intersection LOS	D											
Intersection V/C	0.772											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	0.00	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.821	0.000	2.075	2.672
Crosswalk LOS	C	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	350	433	367
d_b, Bicycle Delay [s]	30.10	40.84	36.82	40.02
l_b,int, Bicycle LOS Score for Intersection	2.645	2.490	1.725	3.061
Bicycle LOS	B	B	A	C

Sequence

Ring 1	2	6	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: 15th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	27.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.608

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Base Volume Input [veh/h]	159	1431	43	71	585	112	62	17	153	43	14	100
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	5	10	0	0	0	0	0	0	11
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	159	1440	43	76	595	112	62	17	153	43	14	111
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	360	11	19	149	28	16	4	38	11	4	28
Total Analysis Volume [veh/h]	159	1440	43	76	595	112	62	17	153	43	14	111
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	41	57	0	10	26	0	0	27	0	0	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	10	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	74	74	6	67	67	14	14	10	10	10
g / C, Green / Cycle	0.11	0.61	0.61	0.05	0.56	0.56	0.12	0.12	0.09	0.09	0.09
(v / s)_i Volume / Saturation Flow Rate	0.09	0.40	0.40	0.04	0.19	0.19	0.04	0.10	0.02	0.02	0.07
s, saturation flow rate [veh/h]	1781	1870	1851	1781	1870	1768	1799	1589	1781	1823	1589
c, Capacity [veh/h]	191	1147	1135	89	1040	983	208	184	156	160	139
d1, Uniform Delay [s]	52.51	14.89	14.93	56.56	14.67	14.67	49.09	51.93	50.75	50.74	53.69
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.03	2.84	2.91	19.61	0.93	0.98	1.14	9.38	0.55	0.53	9.86
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.65	0.65	0.85	0.35	0.35	0.38	0.83	0.18	0.18	0.80
d, Delay for Lane Group [s/veh]	61.54	17.73	17.84	76.17	15.59	15.66	50.23	61.31	51.30	51.27	63.54
Lane Group LOS	E	B	B	E	B	B	D	E	D	D	E
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.17	13.23	13.22	2.77	5.62	5.34	2.26	4.98	0.82	0.83	3.67
50th-Percentile Queue Length [ft/ln]	129.34	330.87	330.49	69.25	140.51	133.58	56.60	124.55	20.40	20.66	91.68
95th-Percentile Queue Length [veh/ln]	8.90	19.20	19.18	4.99	9.51	9.13	4.08	8.64	1.47	1.49	6.60
95th-Percentile Queue Length [ft/ln]	222.60	480.02	479.56	124.65	237.71	228.36	101.88	216.07	36.71	37.18	165.03

Movement, Approach, & Intersection Results

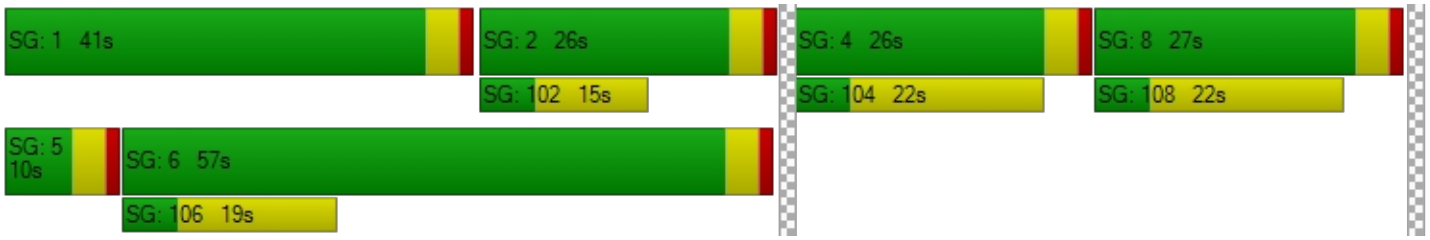
d_M, Delay for Movement [s/veh]	61.54	17.78	17.84	76.17	15.62	15.66	50.23	50.23	61.31	51.30	51.27	63.54
Movement LOS	E	B	B	E	B	B	D	D	E	D	D	E
d_A, Approach Delay [s/veh]	22.02			21.50			57.54			59.38		
Approach LOS	C			C			E			E		
d_I, Intersection Delay [s/veh]	27.02											
Intersection LOS	C											
Intersection V/C	0.608											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.790	2.782	2.123	2.220
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	883	367	383	367
d_b, Bicycle Delay [s]	18.70	40.02	39.20	40.02
l_b,int, Bicycle LOS Score for Intersection	2.914	2.206	1.942	1.837
Bicycle LOS	C	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Del Mar Housing Element

Vistro File: C:\...\Del Mar PM.vistro
Scenario 11 HORSE RACES WEEKEND PM
Report File: C:\...\11 HORSE RACES WEEKEND PM.pdf
5/12/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Camino Del Mar at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.527	37.7	D
2	Jimmy Durante Blvd at Via De La Valle	Signalized	HCM 6th Edition	EB Left	0.658	40.9	D
3	I-5 SB Ramps at Via De La Valle	Signalized	HCM 6th Edition	SB Right	0.353	15.1	B
4	I-5 NB Ramps at Via De La Valle	Signalized	HCM 6th Edition	NB Right	0.368	23.3	C
6	Camino Del Mar at Del Mar Heights Rd	Signalized	HCM 6th Edition	EB Thru	0.519	33.1	C
8	15th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.459	29.7	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Camino Del Mar at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	37.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.527

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	0	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	33	389	231	219	415	20	13	93	38	326	88	149
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	389	231	219	415	20	13	93	38	326	88	149
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	97	58	55	104	5	3	23	10	82	22	37
Total Analysis Volume [veh/h]	33	389	231	219	415	20	13	93	38	326	88	149
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	58	23	0	53	18	0	0	44	0	0	44	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	20	20	17	34	34	71	71	71	71
g / C, Green / Cycle	0.03	0.17	0.17	0.14	0.28	0.28	0.59	0.59	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.02	0.11	0.15	0.12	0.12	0.12	0.08	0.26	0.05	0.09
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1840	1734	1259	1870	1589
c, Capacity [veh/h]	52	606	270	252	528	519	1053	561	1100	935
d1, Uniform Delay [s]	57.59	46.39	48.35	50.42	35.02	35.03	11.06	24.41	10.67	11.22
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.76	1.14	7.56	8.91	0.52	0.53	0.27	4.35	0.14	0.36
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.63	0.64	0.85	0.87	0.42	0.42	0.14	0.58	0.08	0.16
d, Delay for Lane Group [s/veh]	69.34	47.53	55.90	59.33	35.54	35.56	11.33	28.76	10.81	11.58
Lane Group LOS	E	D	E	E	D	D	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.16	5.51	7.26	7.05	5.29	5.22	1.78	7.68	1.04	1.88
50th-Percentile Queue Length [ft/ln]	29.08	137.67	181.61	176.27	132.32	130.48	44.39	191.91	26.09	46.88
95th-Percentile Queue Length [veh/ln]	2.09	9.36	11.68	11.41	9.07	8.97	3.20	12.22	1.88	3.38
95th-Percentile Queue Length [ft/ln]	52.34	233.88	292.12	285.13	226.65	224.15	79.90	305.50	46.96	84.39

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	69.34	47.53	55.90	59.33	35.55	35.56	11.33	11.33	11.33	28.76	10.81	11.58
Movement LOS	E	D	E	E	D	D	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	51.60			43.51			11.33			21.41		
Approach LOS	D			D			B			C		
d_I, Intersection Delay [s/veh]	37.65											
Intersection LOS	D											
Intersection V/C	0.527											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	3.165	2.569	1.869	2.416
Crosswalk LOS	C	B	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	317	233	667	667
d_b, Bicycle Delay [s]	42.50	46.82	26.67	26.67
l_b,int, Bicycle LOS Score for Intersection	2.098	2.099	1.797	2.489
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Jimmy Durante Blvd at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	40.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.658

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	112	81	956	212	80	40	44	541	52	329	481	147
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	112	81	956	212	80	40	44	541	52	329	481	147
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	20	239	53	20	10	11	135	13	82	120	37
Total Analysis Volume [veh/h]	112	81	956	212	80	40	44	541	52	329	481	147
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	47	0	0	30	0	15	26	0	17	28	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	45	45	45	10	10	10	4	36	36	13	45	45
g / C, Green / Cycle	0.37	0.37	0.37	0.08	0.08	0.08	0.03	0.30	0.30	0.11	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.06	0.04	0.34	0.06	0.04	0.03	0.02	0.16	0.16	0.10	0.17	0.17
s, saturation flow rate [veh/h]	1781	1870	2813	3459	1870	1589	1781	1870	1813	3459	1870	1722
c, Capacity [veh/h]	664	697	1049	290	157	133	58	564	547	375	706	650
d1, Uniform Delay [s]	25.18	24.67	35.74	53.66	52.62	51.67	57.58	34.86	34.88	52.72	28.17	28.17
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.12	0.07	3.50	3.56	2.56	1.25	18.18	3.58	3.71	6.67	2.18	2.37
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.17	0.12	0.91	0.73	0.51	0.30	0.76	0.53	0.53	0.88	0.46	0.46
d, Delay for Lane Group [s/veh]	25.30	24.74	39.24	57.22	55.19	52.92	75.76	38.43	38.60	59.39	30.35	30.54
Lane Group LOS	C	C	D	E	E	D	E	D	D	E	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.18	1.54	13.56	3.27	2.42	1.18	1.62	7.86	7.67	5.23	7.50	6.94
50th-Percentile Queue Length [ft/ln]	54.38	38.49	338.90	81.69	60.60	29.54	40.44	196.48	191.79	130.65	187.49	173.46
95th-Percentile Queue Length [veh/ln]	3.92	2.77	19.59	5.88	4.36	2.13	2.91	12.46	12.21	8.97	11.99	11.26
95th-Percentile Queue Length [ft/ln]	97.89	69.29	489.85	147.05	109.08	53.17	72.79	311.42	305.36	224.37	299.77	281.45

Movement, Approach, & Intersection Results

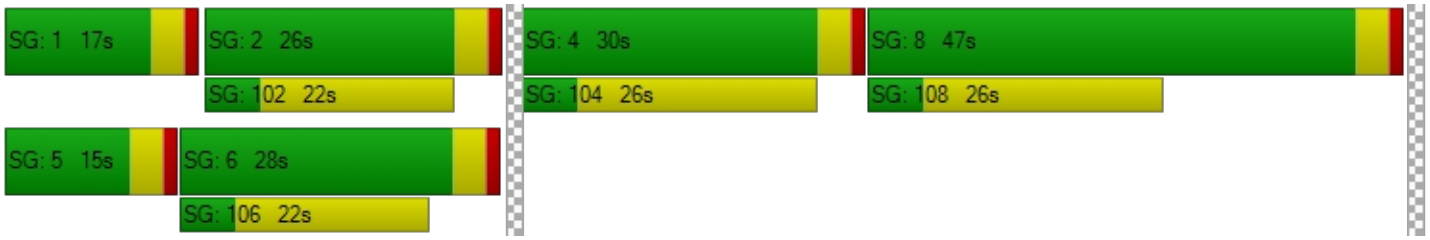
d_M, Delay for Movement [s/veh]	25.30	24.74	39.24	57.22	55.19	52.92	75.76	38.51	38.60	59.39	30.41	30.54
Movement LOS	C	C	D	E	E	D	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	36.86			56.21			41.09			40.39		
Approach LOS	D			E			D			D		
d_I, Intersection Delay [s/veh]	40.93											
Intersection LOS	D											
Intersection V/C	0.658											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.730	2.433	2.563	2.901
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	717	433	367	400
d_b, Bicycle Delay [s]	24.70	36.82	40.02	38.40
l_b,int, Bicycle LOS Score for Intersection	3.455	2.107	2.085	2.349
Bicycle LOS	C	B	B	B

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: I-5 SB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	15.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.353

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	0	227	0	245	0	924	760	0	742	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	227	0	245	0	924	760	0	742	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	57	0	61	0	231	190	0	186	0
Total Analysis Volume [veh/h]	0	0	0	227	0	245	0	924	760	0	742	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	0	0	5	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	40	0	0	0	80	0	0	80	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	21	0	0	0	3	0	0	14	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		14	14	14	98	98
g / C, Green / Cycle		0.12	0.12	0.12	0.81	0.81
(v / s)_i Volume / Saturation Flow Rate		0.09	0.09	0.09	0.26	0.21
s, saturation flow rate [veh/h]		1781	1658	1589	3560	3560
c, Capacity [veh/h]		212	198	190	2898	2898
d1, Uniform Delay [s]		51.36	51.36	51.36	2.80	2.62
k, delay calibration		0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		6.35	6.79	7.07	0.29	0.21
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.79	0.79	0.79	0.32	0.26
d, Delay for Lane Group [s/veh]		57.71	58.16	58.43	3.09	2.83
Lane Group LOS		E	E	E	A	A
Critical Lane Group		No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		5.26	4.92	4.74	2.17	1.63
50th-Percentile Queue Length [ft/ln]		131.59	123.12	118.40	54.17	40.65
95th-Percentile Queue Length [veh/ln]		9.03	8.56	8.30	3.90	2.93
95th-Percentile Queue Length [ft/ln]		225.65	214.11	207.62	97.51	73.17

Movement, Approach, & Intersection Results

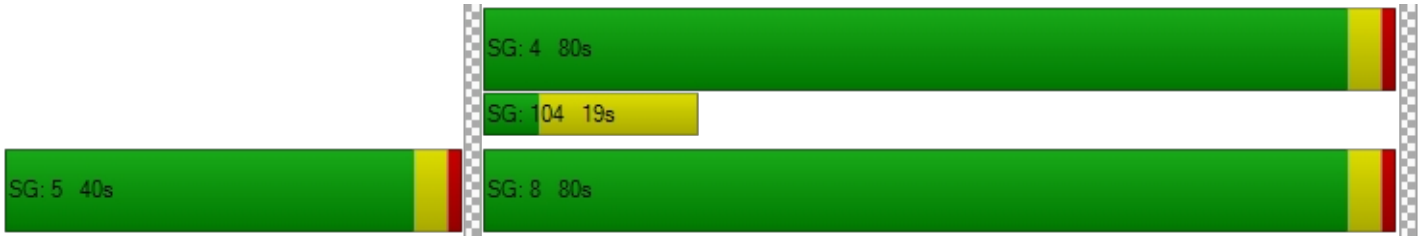
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	57.84	0.00	58.33	0.00	3.09	0.00	0.00	2.83	0.00
Movement LOS				E		E		A			A	
d_A, Approach Delay [s/veh]	0.00			58.09			3.09			2.83		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	15.14											
Intersection LOS	B											
Intersection V/C	0.353											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.261	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1267	1267
d_b, Bicycle Delay [s]	60.00	60.00	8.07	8.07
l_b,int, Bicycle LOS Score for Intersection	4.132	4.911	2.322	2.172
Bicycle LOS	D	E	B	B

Sequence

Ring 1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-5 NB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	23.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.368

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	475	0	374	0	0	0	0	619	0	0	694	280
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	475	0	374	0	0	0	0	619	0	0	694	280
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	119	0	94	0	0	0	0	155	0	0	174	70
Total Analysis Volume [veh/h]	475	0	374	0	0	0	0	619	0	0	694	280
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	5	0	0	5	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	71	0	0	0	0	0	0	49	0	0	49	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	17	0	0	0	0	0	0	14	0	0	3	0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	C
C, Cycle Length [s]	120	120	120		120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00
g_i, Effective Green Time [s]	24	24	24		88	88
g / C, Green / Cycle	0.20	0.20	0.20		0.73	0.73
(v / s)_i Volume / Saturation Flow Rate	0.16	0.17	0.17		0.17	0.19
s, saturation flow rate [veh/h]	1781	1709	1589		3560	3560
c, Capacity [veh/h]	363	348	324		2598	2598
d1, Uniform Delay [s]	45.43	45.63	45.99		5.31	5.45
k, delay calibration	0.11	0.11	0.11		0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	4.07	4.71	6.16		0.22	0.25
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.82	0.85		0.24	0.27
d, Delay for Lane Group [s/veh]	49.51	50.34	52.15		5.53	5.70
Lane Group LOS	D	D	D		A	A
Critical Lane Group	No	No	Yes		No	Yes
50th-Percentile Queue Length [veh/ln]	8.61	8.54	8.42		2.36	2.72
50th-Percentile Queue Length [ft/ln]	215.25	213.39	210.53		59.11	68.03
95th-Percentile Queue Length [veh/ln]	13.42	13.33	13.18		4.26	4.90
95th-Percentile Queue Length [ft/ln]	335.56	333.18	329.51		106.40	122.46

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	49.84	0.00	51.70	0.00	0.00	0.00	0.00	5.53	0.00	0.00	5.70	0.00
Movement LOS	D		D					A			A	
d_A, Approach Delay [s/veh]	50.64			0.00			5.53			5.70		
Approach LOS	D			A			A			A		
d_I, Intersection Delay [s/veh]	23.30											
Intersection LOS	C											
Intersection V/C	0.368											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.353	1.439	2.582	0.000
Crosswalk LOS	B	A	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	750	750
d_b, Bicycle Delay [s]	60.00	60.00	23.44	23.44
l_b,int, Bicycle LOS Score for Intersection	5.533	4.132	2.070	2.132
Bicycle LOS	F	D	B	B

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Camino Del Mar at Del Mar Heights Rd

Control Type:	Signalized	Delay (sec / veh):	33.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.519

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Base Volume Input [veh/h]	51	397	90	429	510	12	6	79	27	104	70	437
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	51	397	90	429	510	12	6	79	27	104	70	437
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	99	23	107	128	3	2	20	7	26	18	109
Total Analysis Volume [veh/h]	51	397	90	429	510	12	6	79	27	104	70	437
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Overlap
Signal Group	0	6	0	0	2	0	0	8	0	0	4	4
Auxiliary Signal Groups												2,4
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	5
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	0	26	0	0	20	0	0	48	0	0	26	26
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	17	0	0	10	0	0	21	0	0	17	17
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall		No			No			No			No	No
Maximum Recall		No			No			No			No	No
Pedestrian Recall		No			No			No			No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	38	38	38	38	38	38	8	8	20	20	74
g / C, Green / Cycle	0.32	0.32	0.32	0.32	0.32	0.32	0.06	0.06	0.17	0.17	0.61
(v / s)_i Volume / Saturation Flow Rate	0.03	0.11	0.06	0.18	0.18	0.18	0.05	0.02	0.05	0.05	0.27
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1839	1690	1849	1589	1781	1851	1589
c, Capacity [veh/h]	567	1134	506	567	585	538	150	101	296	308	977
d1, Uniform Delay [s]	28.68	31.36	29.53	33.98	33.98	33.98	55.12	53.52	43.80	43.80	12.28
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.31	0.85	0.77	4.01	3.88	4.22	3.35	1.39	0.53	0.51	1.48
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.35	0.18	0.56	0.56	0.56	0.57	0.27	0.29	0.29	0.45
d, Delay for Lane Group [s/veh]	29.00	32.21	30.30	37.99	37.86	38.20	58.47	54.91	44.33	44.31	13.76
Lane Group LOS	C	C	C	D	D	D	E	D	D	D	B
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.09	4.56	2.00	8.34	8.59	7.94	2.66	0.82	2.28	2.36	6.40
50th-Percentile Queue Length [ft/ln]	27.26	114.10	49.99	208.43	214.75	198.56	66.62	20.45	56.94	58.97	160.12
95th-Percentile Queue Length [veh/ln]	1.96	8.07	3.60	13.07	13.40	12.56	4.80	1.47	4.10	4.25	10.56
95th-Percentile Queue Length [ft/ln]	49.07	201.69	89.97	326.82	334.91	314.11	119.92	36.81	102.49	106.14	263.89

Movement, Approach, & Intersection Results

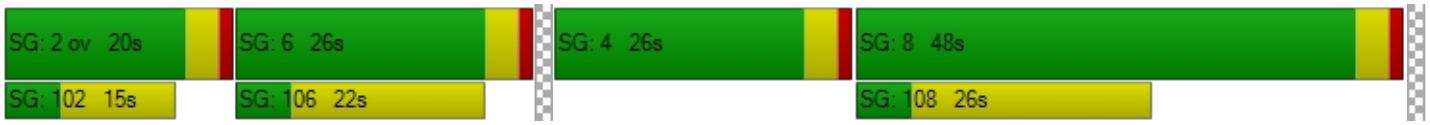
d_M, Delay for Movement [s/veh]	29.00	32.21	30.30	37.95	38.06	38.20	58.47	58.47	54.91	44.33	44.31	13.76
Movement LOS	C	C	C	D	D	D	E	E	D	D	D	B
d_A, Approach Delay [s/veh]	31.59			38.01			57.61			22.46		
Approach LOS	C			D			E			C		
d_I, Intersection Delay [s/veh]	33.15											
Intersection LOS	C											
Intersection V/C	0.519											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	0.00	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.660	0.000	2.035	2.551
Crosswalk LOS	B	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	367	267	733	367
d_b, Bicycle Delay [s]	40.02	45.07	24.07	40.02
l_b,int, Bicycle LOS Score for Intersection	2.003	2.344	1.744	2.568
Bicycle LOS	B	B	A	B

Sequence

Ring 1	2	6	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: 15th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	29.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.459

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Base Volume Input [veh/h]	202	528	66	57	553	118	58	31	197	54	27	57
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	202	528	66	57	553	118	58	31	197	54	27	57
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	51	132	17	14	138	30	15	8	49	14	7	14
Total Analysis Volume [veh/h]	202	528	66	57	553	118	58	31	197	54	27	57
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	41	43	0	20	22	0	0	31	0	0	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	10	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	75	75	5	65	65	17	17	6	6	6
g / C, Green / Cycle	0.13	0.63	0.63	0.04	0.54	0.54	0.14	0.14	0.05	0.05	0.05
(v / s)_i Volume / Saturation Flow Rate	0.11	0.16	0.16	0.03	0.18	0.19	0.05	0.12	0.02	0.02	0.04
s, saturation flow rate [veh/h]	1781	1870	1798	1781	1870	1758	1811	1589	1781	1839	1589
c, Capacity [veh/h]	235	1172	1127	75	1004	944	261	229	96	100	86
d1, Uniform Delay [s]	51.02	9.99	9.99	56.88	15.78	15.80	46.24	50.19	54.92	54.90	55.67
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.98	0.53	0.56	14.54	0.94	1.00	0.77	9.19	2.85	2.69	8.40
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.26	0.26	0.76	0.34	0.35	0.34	0.86	0.42	0.41	0.66
d, Delay for Lane Group [s/veh]	60.00	10.52	10.54	71.41	16.72	16.80	47.02	59.38	57.77	57.58	64.07
Lane Group LOS	E	B	B	E	B	B	D	E	E	E	E
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.52	3.62	3.49	2.01	5.57	5.27	2.46	6.35	1.25	1.27	1.89
50th-Percentile Queue Length [ft/ln]	163.11	90.44	87.26	50.34	139.14	131.79	61.43	158.83	31.36	31.77	47.37
95th-Percentile Queue Length [veh/ln]	10.71	6.51	6.28	3.62	9.43	9.04	4.42	10.49	2.26	2.29	3.41
95th-Percentile Queue Length [ft/ln]	267.84	162.79	157.08	90.61	235.86	225.93	110.57	262.17	56.45	57.18	85.27

Movement, Approach, & Intersection Results

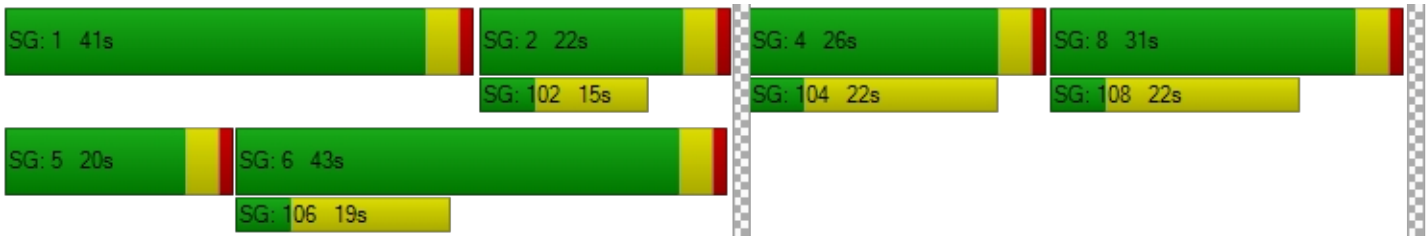
d_M, Delay for Movement [s/veh]	60.00	10.53	10.54	71.41	16.75	16.80	47.02	47.02	59.38	57.72	57.58	64.07
Movement LOS	E	B	B	E	B	B	D	D	E	E	E	E
d_A, Approach Delay [s/veh]	23.08			21.04			55.53			60.32		
Approach LOS	C			C			E			E		
d_I, Intersection Delay [s/veh]	29.72											
Intersection LOS	C											
Intersection V/C	0.459											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.627	2.582	2.161	2.217
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	650	300	450	367
d_b, Bicycle Delay [s]	27.34	43.35	36.04	40.02
l_b,int, Bicycle LOS Score for Intersection	2.216	2.160	2.032	1.787
Bicycle LOS	B	B	B	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Del Mar Housing Element

Vistro File: C:\...\Del Mar PM.vistro
Report File: C:\...\12 HORSE RACES WEEKEND WP PM.pdf

Scenario 12 HORSE RACES WEEKEND WP PM
5/28/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Camino Del Mar at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.542	36.4	D
2	Jimmy Durante Blvd at Via De La Valle	Signalized	HCM 6th Edition	EB Left	0.670	41.1	D
3	I-5 SB Ramps at Via De La Valle	Signalized	HCM 6th Edition	SB Right	0.361	15.1	B
4	I-5 NB Ramps at Via De La Valle	Signalized	HCM 6th Edition	NB Right	0.379	23.5	C
6	Camino Del Mar at Del Mar Heights Rd	Signalized	HCM 6th Edition	EB Thru	0.543	34.3	C
8	15th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.465	30.1	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Camino Del Mar at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	36.4
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.542

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	0	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	33	389	231	219	415	20	13	93	38	326	88	149
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	5	0	0	5	11	11	48	11	0	50	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	394	231	219	420	31	24	141	49	326	138	149
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	99	58	55	105	8	6	35	12	82	35	37
Total Analysis Volume [veh/h]	44	394	231	219	420	31	24	141	49	326	138	149
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	61	23	0	56	18	0	0	41	0	0	41	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	20	20	17	33	33	71	71	71	71
g / C, Green / Cycle	0.03	0.17	0.17	0.14	0.28	0.28	0.59	0.59	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.02	0.11	0.15	0.12	0.12	0.12	0.12	0.27	0.07	0.09
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1825	1718	1193	1870	1589
c, Capacity [veh/h]	60	606	271	252	520	507	1044	568	1100	935
d1, Uniform Delay [s]	57.42	46.45	48.33	50.42	35.63	35.64	11.55	22.66	10.98	11.23
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	15.45	1.18	7.52	8.88	0.58	0.60	0.44	4.18	0.23	0.36
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.73	0.65	0.85	0.87	0.44	0.44	0.20	0.57	0.13	0.16
d, Delay for Lane Group [s/veh]	72.87	47.63	55.86	59.30	36.21	36.24	11.99	26.84	11.22	11.59
Lane Group LOS	E	D	E	E	D	D	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.58	5.59	7.26	7.05	5.58	5.46	2.76	7.37	1.69	1.88
50th-Percentile Queue Length [ft/ln]	39.57	139.68	181.53	176.22	139.47	136.54	69.03	184.37	42.16	46.91
95th-Percentile Queue Length [veh/ln]	2.85	9.46	11.68	11.40	9.45	9.29	4.97	11.83	3.04	3.38
95th-Percentile Queue Length [ft/ln]	71.22	236.59	292.01	285.07	236.30	232.36	124.25	295.72	75.88	84.43

Movement, Approach, & Intersection Results

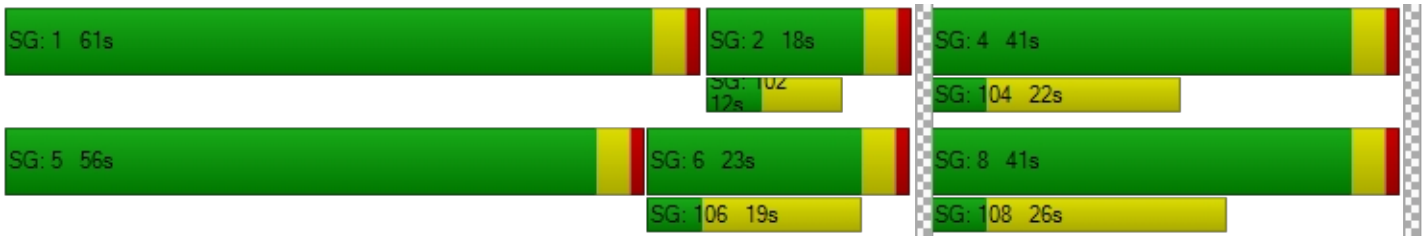
d_M, Delay for Movement [s/veh]	72.87	47.63	55.86	59.30	36.22	36.24	11.99	11.99	11.99	26.84	11.22	11.59
Movement LOS	E	D	E	E	D	D	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	52.13			43.77			11.99			19.62		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	36.38											
Intersection LOS	D											
Intersection V/C	0.542											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	3.170	2.590	1.938	2.440
Crosswalk LOS	C	B	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	317	233	617	617
d_b, Bicycle Delay [s]	42.50	46.82	28.70	28.70
l_b,int, Bicycle LOS Score for Intersection	2.112	2.112	1.913	2.571
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Jimmy Durante Blvd at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	41.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.670

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	112	81	956	212	80	40	44	541	52	329	481	147
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	48	0	0	50	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	112	81	956	212	80	40	44	589	52	329	531	147
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	20	239	53	20	10	11	147	13	82	133	37
Total Analysis Volume [veh/h]	112	81	956	212	80	40	44	589	52	329	531	147
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	47	0	0	30	0	14	26	0	17	29	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	45	45	45	10	10	10	4	36	36	13	45	45
g / C, Green / Cycle	0.37	0.37	0.37	0.08	0.08	0.08	0.03	0.30	0.30	0.11	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.06	0.04	0.34	0.06	0.04	0.03	0.02	0.17	0.17	0.10	0.19	0.19
s, saturation flow rate [veh/h]	1781	1870	2813	3459	1870	1589	1781	1870	1817	3459	1870	1732
c, Capacity [veh/h]	664	697	1049	290	157	133	58	564	548	375	706	654
d1, Uniform Delay [s]	25.18	24.67	35.74	53.66	52.62	51.67	57.59	35.40	35.42	52.72	28.63	28.63
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.12	0.07	3.50	3.56	2.56	1.25	18.33	4.23	4.38	6.67	2.51	2.70
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.17	0.12	0.91	0.73	0.51	0.30	0.76	0.58	0.58	0.88	0.50	0.50
d, Delay for Lane Group [s/veh]	25.30	24.74	39.24	57.22	55.19	52.92	75.92	39.63	39.80	59.39	31.14	31.34
Lane Group LOS	C	C	D	E	E	D	E	D	D	E	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.18	1.54	13.56	3.27	2.42	1.18	1.62	8.67	8.47	5.23	8.23	7.66
50th-Percentile Queue Length [ft/ln]	54.38	38.49	338.90	81.69	60.60	29.54	40.49	216.78	211.81	130.65	205.72	191.47
95th-Percentile Queue Length [veh/ln]	3.92	2.77	19.59	5.88	4.36	2.13	2.91	13.50	13.25	8.97	12.93	12.20
95th-Percentile Queue Length [ft/ln]	97.89	69.29	489.85	147.05	109.08	53.17	72.87	337.52	331.15	224.37	323.33	304.94

Movement, Approach, & Intersection Results

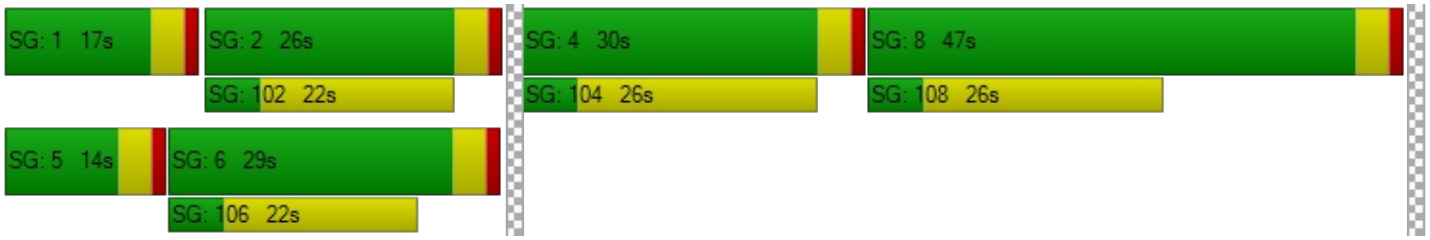
d_M, Delay for Movement [s/veh]	25.30	24.74	39.24	57.22	55.19	52.92	75.92	39.71	39.80	59.39	31.20	31.34
Movement LOS	C	C	D	E	E	D	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	36.86			56.21			42.04			40.43		
Approach LOS	D			E			D			D		
d_I, Intersection Delay [s/veh]	41.14											
Intersection LOS	D											
Intersection V/C	0.670											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.730	2.433	2.582	2.917
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	717	433	367	417
d_b, Bicycle Delay [s]	24.70	36.82	40.02	37.60
l_b,int, Bicycle LOS Score for Intersection	3.455	2.107	2.125	2.390
Bicycle LOS	C	B	B	B

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: I-5 SB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	15.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.361

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	0	227	0	245	0	924	760	0	742	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	11	0	18	30	0	39	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	227	0	256	0	942	790	0	781	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	57	0	64	0	236	198	0	195	0
Total Analysis Volume [veh/h]	0	0	0	227	0	256	0	942	790	0	781	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	0	0	5	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	41	0	0	0	79	0	0	79	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	21	0	0	0	3	0	0	14	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		15	15	15	97	97
g / C, Green / Cycle		0.12	0.12	0.12	0.81	0.81
(v / s)_i Volume / Saturation Flow Rate		0.10	0.10	0.10	0.26	0.22
s, saturation flow rate [veh/h]		1781	1652	1589	3560	3560
c, Capacity [veh/h]		217	201	194	2889	2889
d1, Uniform Delay [s]		51.20	51.20	51.20	2.90	2.73
k, delay calibration		0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		6.31	6.77	7.02	0.30	0.23
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.79	0.79	0.79	0.33	0.27
d, Delay for Lane Group [s/veh]		57.51	57.97	58.22	3.20	2.96
Lane Group LOS		E	E	E	A	A
Critical Lane Group		No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		5.39	5.02	4.85	2.28	1.78
50th-Percentile Queue Length [ft/ln]		134.66	125.54	121.14	56.98	44.46
95th-Percentile Queue Length [veh/ln]		9.19	8.70	8.46	4.10	3.20
95th-Percentile Queue Length [ft/ln]		229.82	217.42	211.39	102.56	80.02

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	57.64	0.00	58.13	0.00	3.20	0.00	0.00	2.96	0.00
Movement LOS				E		E		A			A	
d_A, Approach Delay [s/veh]	0.00			57.89			3.20			2.96		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	15.09											
Intersection LOS	B											
Intersection V/C	0.361											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.264	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1250	1250
d_b, Bicycle Delay [s]	60.00	60.00	8.44	8.44
l_b,int, Bicycle LOS Score for Intersection	4.132	4.929	2.337	2.204
Bicycle LOS	D	E	B	B

Sequence

Ring 1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-5 NB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	23.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.379

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	475	0	374	0	0	0	0	619	0	0	694	280
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	32	0	3	0	0	0	0	7	0	0	11	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	507	0	377	0	0	0	0	626	0	0	705	280
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	127	0	94	0	0	0	0	157	0	0	176	70
Total Analysis Volume [veh/h]	507	0	377	0	0	0	0	626	0	0	705	280
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	5	0	0	5	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	76	0	0	0	0	0	0	44	0	0	44	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	17	0	0	0	0	0	0	14	0	0	3	0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	C
C, Cycle Length [s]	120	120	120		120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00
g_i, Effective Green Time [s]	25	25	25		87	87
g / C, Green / Cycle	0.21	0.21	0.21		0.72	0.72
(v / s)_i Volume / Saturation Flow Rate	0.17	0.17	0.18		0.18	0.20
s, saturation flow rate [veh/h]	1781	1719	1589		3560	3560
c, Capacity [veh/h]	378	365	338		2566	2566
d1, Uniform Delay [s]	44.74	44.96	45.44		5.67	5.83
k, delay calibration	0.11	0.11	0.11		0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	3.77	4.35	6.10		0.23	0.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.81	0.85		0.24	0.27
d, Delay for Lane Group [s/veh]	48.51	49.30	51.54		5.90	6.10
Lane Group LOS	D	D	D		A	A
Critical Lane Group	No	No	Yes		No	Yes
50th-Percentile Queue Length [veh/ln]	8.83	8.81	8.80		2.51	2.90
50th-Percentile Queue Length [ft/ln]	220.78	220.31	219.97		62.72	72.62
95th-Percentile Queue Length [veh/ln]	13.70	13.68	13.66		4.52	5.23
95th-Percentile Queue Length [ft/ln]	342.62	342.02	341.58		112.89	130.72

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	48.84	0.00	51.04	0.00	0.00	0.00	0.00	5.90	0.00	0.00	6.10	0.00
Movement LOS	D		D					A			A	
d_A, Approach Delay [s/veh]	49.76			0.00			5.90			6.10		
Approach LOS	D			A			A			A		
d_I, Intersection Delay [s/veh]	23.47											
Intersection LOS	C											
Intersection V/C	0.379											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.362	1.439	2.594	0.000
Crosswalk LOS	B	A	B	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	667	667
d_b, Bicycle Delay [s]	60.00	60.00	26.67	26.67
l_b,int, Bicycle LOS Score for Intersection	5.591	4.132	2.076	2.141
Bicycle LOS	F	D	B	B

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Camino Del Mar at Del Mar Heights Rd

Control Type:	Signalized	Delay (sec / veh):	34.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.543

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Base Volume Input [veh/h]	51	397	90	429	510	12	6	79	27	104	70	437
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	4	0	0	4	8	8	24	2	0	24	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	53	401	90	429	514	20	14	103	29	104	94	437
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	100	23	107	129	5	4	26	7	26	24	109
Total Analysis Volume [veh/h]	53	401	90	429	514	20	14	103	29	104	94	437
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Overlap
Signal Group	0	6	0	0	2	0	0	8	0	0	4	4
Auxiliary Signal Groups												2,4
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	5
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	0	26	0	0	34	0	0	34	0	0	26	26
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	17	0	0	10	0	0	21	0	0	17	17
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall		No			No			No			No	No
Maximum Recall		No			No			No			No	No
Pedestrian Recall		No			No			No			No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	37	37	37	37	37	37	10	10	20	20	75
g / C, Green / Cycle	0.31	0.31	0.31	0.31	0.31	0.31	0.08	0.08	0.16	0.16	0.62
(v / s)_i Volume / Saturation Flow Rate	0.03	0.11	0.06	0.18	0.18	0.18	0.06	0.02	0.05	0.05	0.27
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1841	1682	1829	1589	1781	1863	1589
c, Capacity [veh/h]	552	1104	493	554	573	523	184	131	290	304	991
d1, Uniform Delay [s]	29.43	32.18	30.27	34.79	34.79	34.79	53.93	51.46	44.44	44.43	11.75
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.35	0.93	0.81	4.45	4.30	4.70	3.60	0.84	0.67	0.64	1.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.10	0.36	0.18	0.58	0.58	0.58	0.64	0.22	0.33	0.33	0.44
d, Delay for Lane Group [s/veh]	29.78	33.11	31.09	39.23	39.09	39.49	57.53	52.31	45.11	45.07	13.17
Lane Group LOS	C	C	C	D	D	D	E	D	D	D	B
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.15	4.68	2.03	8.62	8.89	8.18	3.65	0.85	2.62	2.72	6.23
50th-Percentile Queue Length [ft/ln]	28.78	117.12	50.74	215.50	222.19	204.49	91.22	21.25	65.40	68.07	155.71
95th-Percentile Queue Length [veh/ln]	2.07	8.23	3.65	13.44	13.78	12.87	6.57	1.53	4.71	4.90	10.32
95th-Percentile Queue Length [ft/ln]	51.81	205.86	91.32	335.88	344.43	321.75	164.20	38.24	117.73	122.53	258.03

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.78	33.11	31.09	39.20	39.31	39.49	57.53	57.53	52.31	45.11	45.07	13.17
Movement LOS	C	C	C	D	D	D	E	E	D	D	D	B
d_A, Approach Delay [s/veh]	32.45			39.27			56.49			23.13		
Approach LOS	C			D			E			C		
d_I, Intersection Delay [s/veh]	34.27											
Intersection LOS	C											
Intersection V/C	0.543											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	0.00	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.662	0.000	2.057	2.560
Crosswalk LOS	B	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	367	500	500	367
d_b, Bicycle Delay [s]	40.02	33.75	33.75	40.02
l_b,int, Bicycle LOS Score for Intersection	2.008	2.354	1.801	2.607
Bicycle LOS	B	B	A	B

Sequence

Ring 1	2	6	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: 15th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	30.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.465

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Base Volume Input [veh/h]	202	528	66	57	553	118	58	31	197	54	27	57
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	7	9	0	0	0	0	0	0	7
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	202	537	66	64	562	118	58	31	197	54	27	64
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	51	134	17	16	141	30	15	8	49	14	7	16
Total Analysis Volume [veh/h]	202	537	66	64	562	118	58	31	197	54	27	64
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	42	41	0	21	20	0	0	32	0	0	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	10	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	74	74	6	64	64	17	17	7	7	7
g / C, Green / Cycle	0.13	0.62	0.62	0.05	0.53	0.53	0.14	0.14	0.06	0.06	0.06
(v / s)_i Volume / Saturation Flow Rate	0.11	0.16	0.16	0.04	0.19	0.19	0.05	0.12	0.02	0.02	0.04
s, saturation flow rate [veh/h]	1781	1870	1799	1781	1870	1759	1811	1589	1781	1839	1589
c, Capacity [veh/h]	235	1154	1110	84	995	936	261	229	104	108	93
d1, Uniform Delay [s]	51.01	10.53	10.53	56.51	16.14	16.16	46.24	50.19	54.40	54.38	55.40
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.95	0.56	0.59	13.30	0.98	1.04	0.77	9.17	2.31	2.19	8.64
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.27	0.27	0.76	0.35	0.35	0.34	0.86	0.38	0.38	0.69
d, Delay for Lane Group [s/veh]	59.96	11.09	11.12	69.82	17.12	17.20	47.01	59.36	56.71	56.57	64.04
Lane Group LOS	E	B	B	E	B	B	D	E	E	E	E
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.52	3.80	3.67	2.23	5.73	5.42	2.46	6.35	1.24	1.26	2.12
50th-Percentile Queue Length [ft/ln]	163.06	95.07	91.76	55.69	143.15	135.61	61.43	158.80	30.96	31.40	53.11
95th-Percentile Queue Length [veh/ln]	10.71	6.85	6.61	4.01	9.65	9.24	4.42	10.49	2.23	2.26	3.82
95th-Percentile Queue Length [ft/ln]	267.78	171.13	165.18	100.24	241.26	231.10	110.57	262.14	55.73	56.52	95.61

Movement, Approach, & Intersection Results

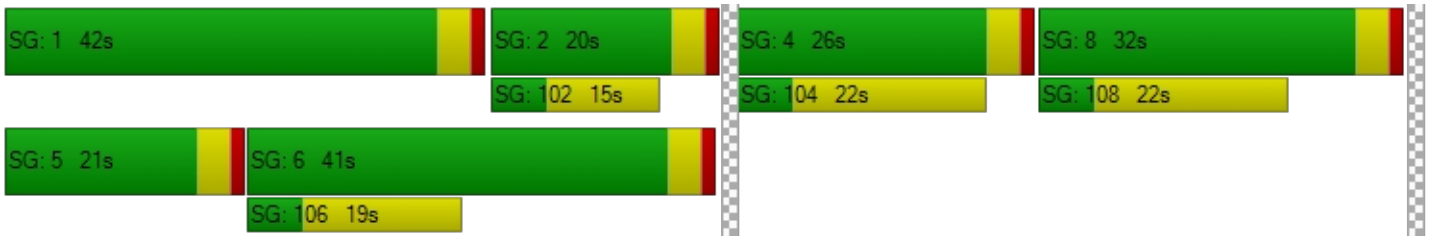
d_M, Delay for Movement [s/veh]	59.96	11.11	11.12	69.82	17.15	17.20	47.01	47.01	59.36	56.68	56.57	64.04
Movement LOS	E	B	B	E	B	B	D	D	E	E	E	E
d_A, Approach Delay [s/veh]	23.37			21.69			55.52			59.91		
Approach LOS	C			C			E			E		
d_I, Intersection Delay [s/veh]	30.06											
Intersection LOS	C											
Intersection V/C	0.465											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.631	2.589	2.161	2.221
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	617	267	467	367
d_b, Bicycle Delay [s]	28.70	45.07	35.27	40.02
l_b,int, Bicycle LOS Score for Intersection	2.224	2.173	2.032	1.799
Bicycle LOS	B	B	B	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Del Mar Housing Elemenet

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Report File: C:\...\13 FY 2035 AM.pdf

Scenario 5 FY 2035 AM
5/12/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Camino Del Mar at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.567	35.0	C
2	Jimmy Durante Blvd at Via De La Valle	Signalized	HCM 6th Edition	EB Left	0.748	46.3	D
3	I-5 SB Ramps at Via De La Valle	Signalized	HCM 6th Edition	SB Right	0.498	13.2	B
4	I-5 NB Ramps at Via De La Valle	Signalized	HCM 6th Edition	NB Right	0.726	26.3	C
5	Jimmy Durante Blvd at San Dieguito Drive	Roundabout	HCM 6th Edition	SB Thru		5.4	A
6	Camino Del Mar at Del Mar Heights Rd	Signalized	HCM 6th Edition	EB Thru	0.524	39.1	D
7	9th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.349	50.0	D
8	15th St at Camino Del Mar	Signalized	HCM 6th Edition	NB Left	0.386	24.4	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Camino Del Mar at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	35.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.567

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	0	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	20	180	150	500	620	25	5	170	30	170	130	230
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	180	150	500	620	25	5	170	30	170	130	230
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	49	41	136	168	7	1	46	8	46	35	63
Total Analysis Volume [veh/h]	22	196	163	543	674	27	5	185	33	185	141	250
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	33	26	0	64	57	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	15	15	39	51	51	54	54	54	54
g / C, Green / Cycle	0.02	0.12	0.12	0.32	0.43	0.43	0.45	0.45	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.01	0.06	0.10	0.30	0.19	0.19	0.12	0.16	0.08	0.16
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1845	1817	1163	1870	1589
c, Capacity [veh/h]	40	440	197	578	796	785	851	474	845	718
d1, Uniform Delay [s]	58.05	48.76	51.34	39.38	24.38	24.39	20.55	26.06	19.51	21.40
k, delay calibration	0.11	0.11	0.11	0.18	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.18	0.71	8.62	11.97	0.39	0.39	0.75	2.40	0.43	1.33
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.55	0.45	0.83	0.94	0.44	0.44	0.26	0.39	0.17	0.35
d, Delay for Lane Group [s/veh]	69.22	49.46	59.96	51.35	24.77	24.78	21.30	28.46	19.94	22.74
Lane Group LOS	E	D	E	D	C	C	C	C	B	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.79	2.77	5.25	17.26	7.15	7.06	4.09	4.18	2.45	4.83
50th-Percentile Queue Length [ft/ln]	19.66	69.34	131.32	431.42	178.67	176.51	102.19	104.42	61.18	120.79
95th-Percentile Queue Length [veh/ln]	1.42	4.99	9.01	24.07	11.53	11.42	7.36	7.52	4.40	8.44
95th-Percentile Queue Length [ft/ln]	35.39	124.81	225.28	601.73	288.27	285.46	183.95	187.96	110.12	210.92

Movement, Approach, & Intersection Results

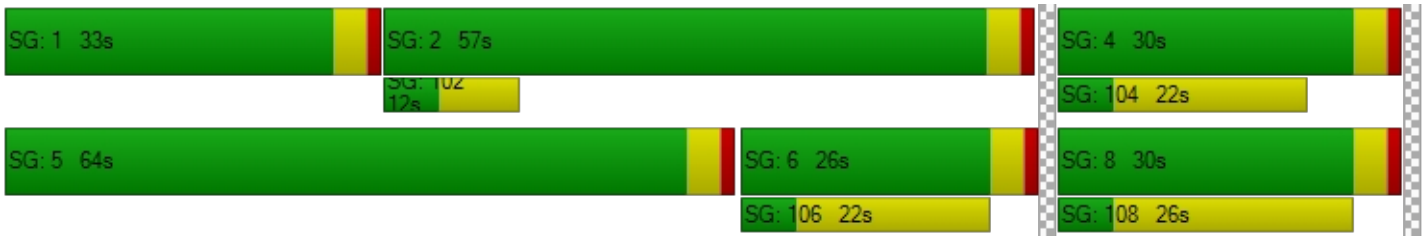
d_M, Delay for Movement [s/veh]	69.22	49.46	59.96	51.35	24.78	24.78	21.30	21.30	21.30	28.46	19.94	22.74
Movement LOS	E	D	E	D	C	C	C	C	C	C	B	C
d_A, Approach Delay [s/veh]	55.10			36.37			21.30			23.89		
Approach LOS	E			D			C			C		
d_I, Intersection Delay [s/veh]	34.96											
Intersection LOS	C											
Intersection V/C	0.567											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.938	2.653	1.931	2.504
Crosswalk LOS	C	B	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	367	883	433	433
d_b, Bicycle Delay [s]	40.02	18.70	36.82	36.82
l_b,int, Bicycle LOS Score for Intersection	1.874	2.586	1.928	2.510
Bicycle LOS	A	B	A	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Jimmy Durante Blvd at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	46.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.748

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	40	130	290	650	150	70	70	700	80	630	610	540
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	130	290	650	150	70	70	700	80	630	610	540
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	35	79	177	41	19	19	190	22	171	166	147
Total Analysis Volume [veh/h]	43	141	315	707	163	76	76	761	87	685	663	587
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	30	0	0	30	0	10	27	0	33	50	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	16	26	26	26	6	36	36	26	56	56
g / C, Green / Cycle	0.13	0.13	0.13	0.22	0.22	0.22	0.05	0.30	0.30	0.22	0.47	0.47
(v / s)_i Volume / Saturation Flow Rate	0.02	0.08	0.11	0.20	0.09	0.05	0.04	0.23	0.23	0.20	0.33	0.39
s, saturation flow rate [veh/h]	1781	1870	2813	3459	1870	1589	1781	1870	1803	3459	1870	1604
c, Capacity [veh/h]	240	252	379	749	405	344	89	556	537	753	870	746
d1, Uniform Delay [s]	46.02	48.58	50.58	46.28	40.33	38.67	56.56	38.50	38.50	45.79	25.80	28.09
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.35	1.94	4.73	6.83	0.64	0.32	19.61	10.18	10.52	4.67	5.11	10.75
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.18	0.56	0.83	0.94	0.40	0.22	0.85	0.78	0.78	0.91	0.72	0.84
d, Delay for Lane Group [s/veh]	46.38	50.52	55.31	53.11	40.98	38.98	76.17	48.67	49.02	50.46	30.91	38.84
Lane Group LOS	D	D	E	D	D	D	E	D	D	D	C	D
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.17	4.10	4.85	11.03	4.22	1.88	2.77	13.09	12.68	10.40	15.29	17.47
50th-Percentile Queue Length [ft/ln]	29.19	102.39	121.37	275.78	105.50	47.11	69.25	327.20	316.88	259.88	382.27	436.83
95th-Percentile Queue Length [veh/ln]	2.10	7.37	8.47	16.48	7.59	3.39	4.99	19.02	18.51	15.68	21.70	24.33
95th-Percentile Queue Length [ft/ln]	52.55	184.31	211.70	411.95	189.73	84.80	124.65	475.52	462.85	392.07	542.59	608.22

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	46.38	50.52	55.31	53.11	40.98	38.98	76.17	48.82	49.02	50.46	31.35	38.84
Movement LOS	D	D	E	D	D	D	E	D	D	D	C	D
d_A, Approach Delay [s/veh]	53.19			49.88			51.09			40.39		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	46.26											
Intersection LOS	D											
Intersection V/C	0.748											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.701	2.656	2.648	3.072
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	433	433	383	767
d_b, Bicycle Delay [s]	36.82	36.82	39.20	22.82
l_b,int, Bicycle LOS Score for Intersection	2.383	3.121	2.322	3.156
Bicycle LOS	B	C	B	C

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: I-5 SB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	13.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.498

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	0	170	0	250	0	640	1150	0	1330	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	170	0	250	0	640	1150	0	1330	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9200	1.0000	0.9200	1.0000	0.9200	0.9200	1.0000	0.9200	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	46	0	68	0	174	313	0	361	0
Total Analysis Volume [veh/h]	0	0	0	185	0	272	0	696	1250	0	1446	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	0	0	5	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	39	0	0	0	81	0	0	81	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	21	0	0	0	3	0	0	14	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		14	14	14	98	98
g / C, Green / Cycle		0.12	0.12	0.12	0.82	0.82
(v / s)_i Volume / Saturation Flow Rate		0.09	0.09	0.09	0.20	0.41
s, saturation flow rate [veh/h]		1781	1615	1589	3560	3560
c, Capacity [veh/h]		208	189	186	2907	2907
d1, Uniform Delay [s]		51.52	51.52	51.52	2.51	3.40
k, delay calibration		0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		6.37	7.00	7.10	0.19	0.61
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.78	0.78	0.78	0.24	0.50
d, Delay for Lane Group [s/veh]		57.89	58.52	58.62	2.71	4.01
Lane Group LOS		E	E	E	A	A
Critical Lane Group		No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		5.14	4.70	4.63	1.47	4.15
50th-Percentile Queue Length [ft/ln]		128.61	117.49	115.77	36.64	103.76
95th-Percentile Queue Length [veh/ln]		8.86	8.25	8.16	2.64	7.47
95th-Percentile Queue Length [ft/ln]		221.61	206.37	204.00	65.96	186.78

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	57.99	0.00	58.58	0.00	2.71	0.00	0.00	4.01	0.00
Movement LOS				E		E		A			A	
d_A, Approach Delay [s/veh]	0.00			58.33			2.71			4.01		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	13.21											
Intersection LOS	B											
Intersection V/C	0.498											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.258	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1283	1283
d_b, Bicycle Delay [s]	60.00	60.00	7.70	7.70
l_b,int, Bicycle LOS Score for Intersection	4.132	4.886	2.134	2.753
Bicycle LOS	D	E	B	C

Sequence

Ring 1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-5 NB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	26.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.726

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	850	0	460	0	0	0	0	710	0	0	1400	380
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	850	0	460	0	0	0	0	710	0	0	1400	380
Peak Hour Factor	0.9200	1.0000	0.9200	1.0000	1.0000	1.0000	1.0000	0.9200	1.0000	1.0000	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	231	0	125	0	0	0	0	193	0	0	380	103
Total Analysis Volume [veh/h]	924	0	500	0	0	0	0	772	0	0	1522	413
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	5	0	0	5	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	63	0	0	0	0	0	0	57	0	0	57	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	17	0	0	0	0	0	0	14	0	0	3	0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	C
C, Cycle Length [s]	120	120	120		120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00
g_i, Effective Green Time [s]	40	40	40		72	72
g / C, Green / Cycle	0.34	0.34	0.34		0.60	0.60
(v / s)_i Volume / Saturation Flow Rate	0.27	0.27	0.30		0.22	0.43
s, saturation flow rate [veh/h]	1781	1770	1589		3560	3560
c, Capacity [veh/h]	598	595	534		2127	2127
d1, Uniform Delay [s]	36.07	36.15	37.72		12.42	16.99
k, delay calibration	0.13	0.13	0.18		0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	2.85	3.01	8.18		0.48	2.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.80	0.89		0.36	0.72
d, Delay for Lane Group [s/veh]	38.92	39.16	45.90		12.90	19.09
Lane Group LOS	D	D	D		B	B
Critical Lane Group	No	No	Yes		No	Yes
50th-Percentile Queue Length [veh/ln]	12.95	13.00	14.26		5.32	14.59
50th-Percentile Queue Length [ft/ln]	323.70	325.03	356.48		133.06	364.74
95th-Percentile Queue Length [veh/ln]	18.85	18.91	20.45		9.11	20.85
95th-Percentile Queue Length [ft/ln]	471.23	472.87	511.31		227.65	521.35

Movement, Approach, & Intersection Results

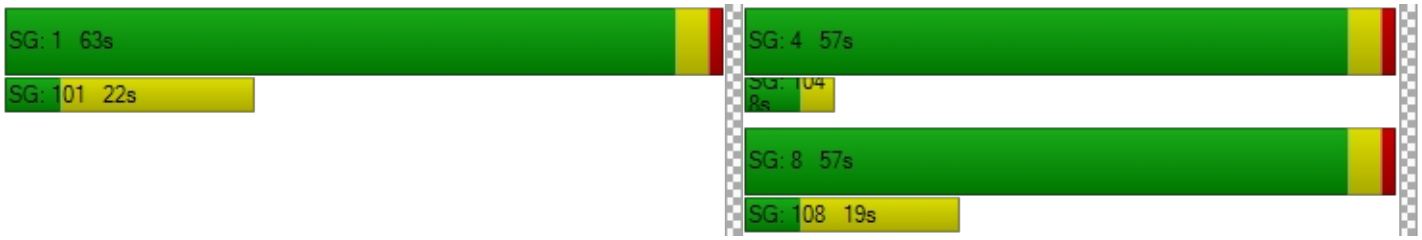
d_M, Delay for Movement [s/veh]	39.04	0.00	45.56	0.00	0.00	0.00	0.00	12.90	0.00	0.00	19.09	0.00
Movement LOS	D		D					B			B	
d_A, Approach Delay [s/veh]	41.33			0.00			12.90			19.09		
Approach LOS	D			A			B			B		
d_I, Intersection Delay [s/veh]	26.32											
Intersection LOS	C											
Intersection V/C	0.726											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.493	1.439	2.931	0.000
Crosswalk LOS	B	A	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	883	883
d_b, Bicycle Delay [s]	60.00	60.00	18.70	18.70
l_b,int, Bicycle LOS Score for Intersection	6.482	4.132	2.197	2.815
Bicycle LOS	F	D	B	C

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Jimmy Durante Blvd at San Dieguito Drive

Control Type:	Roundabout	Delay (sec / veh):	5.4
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			San Dieguito Dr			San Dieguito Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			San Dieguito Dr			San Dieguito Dr		
Base Volume Input [veh/h]	0	288	11	0	447	7	0	2	5	0	2	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	288	11	0	447	7	0	2	5	0	2	39
Peak Hour Factor	1.0000	0.9200	0.9200	1.0000	0.9200	0.9200	1.0000	0.9200	0.9200	1.0000	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	78	3	0	121	2	0	1	1	0	1	11
Total Analysis Volume [veh/h]	0	313	12	0	486	8	0	2	5	0	2	42
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Number of Conflicting Circulating Lanes	1			1			1			1		
Circulating Flow Rate [veh/h]	2			2			496			319		
Exiting Flow Rate [veh/h]	501			362			10			14		
Demand Flow Rate [veh/h]	0	288	11	0	447	7	0	2	5	0	2	39
Adjusted Demand Flow Rate [veh/h]	0	313	12	0	486	8	0	2	5	0	2	42

Lanes

Overwrite Calculated Critical Headway	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00
A (intercept)	1380.00	1380.00	1380.00	1380.00
B (coefficient)	0.00102	0.00102	0.00102	0.00102
HV Adjustment Factor	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	332	504	8	45
Capacity of Entry and Bypass Lanes [veh/h]	1378	1378	833	997
Pedestrian Impedance	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	1351	1351	816	977
X, volume / capacity	0.24	0.37	0.01	0.05

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A
95th-Percentile Queue Length [veh]	0.94	1.70	0.03	0.14
95th-Percentile Queue Length [ft]	23.60	42.60	0.65	3.53
Approach Delay [s/veh]	4.71	6.03	4.49	4.08
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	5.43			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 6: Camino Del Mar at Del Mar Heights Rd

Control Type:	Signalized	Delay (sec / veh):	39.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.524

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Base Volume Input [veh/h]	20	140	90	390	520	5	10	110	30	500	50	430
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	140	90	390	520	5	10	110	30	500	50	430
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	38	24	106	141	1	3	30	8	136	14	117
Total Analysis Volume [veh/h]	22	152	98	424	565	5	11	120	33	543	54	467
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Overlap
Signal Group	0	6	0	0	2	0	0	8	0	0	4	4
Auxiliary Signal Groups												2,4
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	5
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	0	26	0	0	19	0	0	30	0	0	45	45
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	17	0	0	10	0	0	21	0	0	17	17
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall		No			No			No			No	No
Maximum Recall		No			No			No			No	No
Pedestrian Recall		No			No			No			No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	35	35	35	35	35	35	11	11	24	24	77
g / C, Green / Cycle	0.29	0.29	0.29	0.29	0.29	0.29	0.09	0.09	0.20	0.20	0.65
(v / s)_i Volume / Saturation Flow Rate	0.01	0.04	0.06	0.19	0.19	0.19	0.07	0.02	0.17	0.17	0.29
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1845	1697	1844	1589	1781	1796	1589
c, Capacity [veh/h]	513	1025	458	511	530	487	198	143	360	363	1026
d1, Uniform Delay [s]	30.80	31.78	32.42	37.50	37.50	37.50	53.48	50.77	45.90	45.82	10.68
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.16	0.31	1.07	6.30	6.09	6.60	3.76	0.82	4.94	4.69	1.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.04	0.15	0.21	0.65	0.65	0.65	0.66	0.23	0.83	0.82	0.46
d, Delay for Lane Group [s/veh]	30.96	32.08	33.49	43.81	43.59	44.11	57.24	51.59	50.84	50.51	12.14
Lane Group LOS	C	C	C	D	D	D	E	D	D	D	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.49	1.70	2.31	9.42	9.73	9.02	4.08	0.96	9.00	8.97	6.33
50th-Percentile Queue Length [ft/ln]	12.17	42.46	57.82	235.60	243.35	225.50	102.00	23.96	225.06	224.16	158.25
95th-Percentile Queue Length [veh/ln]	0.88	3.06	4.16	14.46	14.85	13.95	7.34	1.73	13.92	13.88	10.46
95th-Percentile Queue Length [ft/ln]	21.90	76.42	104.07	361.47	371.27	348.64	183.61	43.13	348.08	346.93	261.40

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.96	32.08	33.49	43.76	43.88	44.11	57.24	57.24	51.59	50.69	50.51	12.14
Movement LOS	C	C	C	D	D	D	E	E	D	D	D	B
d_A, Approach Delay [s/veh]	32.50			43.83			56.11			33.76		
Approach LOS	C			D			E			C		
d_I, Intersection Delay [s/veh]	39.11											
Intersection LOS	D											
Intersection V/C	0.524											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	0.00	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.698	0.000	2.035	2.648
Crosswalk LOS	B	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	367	250	433	683
d_b, Bicycle Delay [s]	40.02	45.94	36.82	26.00
l_b,int, Bicycle LOS Score for Intersection	1.784	2.380	1.830	3.315
Bicycle LOS	A	B	A	C

Sequence

Ring 1	2	6	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: 9th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	50.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.349

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			9th St			9th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			9th St			9th St		
Base Volume Input [veh/h]	48	522	10	29	860	41	43	1	37	16	2	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	522	10	29	860	41	43	1	37	16	2	7
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	142	3	8	234	11	12	0	10	4	1	2
Total Analysis Volume [veh/h]	52	567	11	32	935	45	47	1	40	17	2	8
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	62	81	0	90	28	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	7	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	C
C, Cycle Length [s]	201	201	201	201	201	201	201	201
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	90	90	5	88	88	13	13
g / C, Green / Cycle	0.04	0.45	0.45	0.02	0.44	0.44	0.06	0.06
(v / s)_i Volume / Saturation Flow Rate	0.03	0.16	0.01	0.02	0.26	0.26	0.06	0.02
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1840	1586	1337
c, Capacity [veh/h]	67	1601	715	43	816	803	129	115
d1, Uniform Delay [s]	95.87	36.19	30.64	97.46	43.41	43.41	92.91	89.55
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	17.14	0.61	0.04	22.13	3.33	3.38	6.13	1.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.35	0.02	0.74	0.61	0.61	0.68	0.23
d, Delay for Lane Group [s/veh]	113.01	36.81	30.68	119.59	46.74	46.79	99.05	90.58
Lane Group LOS	F	D	C	F	D	D	F	F
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	3.04	9.53	0.32	1.95	19.96	19.65	4.81	1.39
50th-Percentile Queue Length [ft/ln]	76.08	238.14	7.91	48.66	498.93	491.23	120.37	34.77
95th-Percentile Queue Length [veh/ln]	5.48	14.59	0.57	3.50	27.28	26.92	8.41	2.50
95th-Percentile Queue Length [ft/ln]	136.95	364.68	14.23	87.58	682.09	672.97	210.34	62.59

Movement, Approach, & Intersection Results

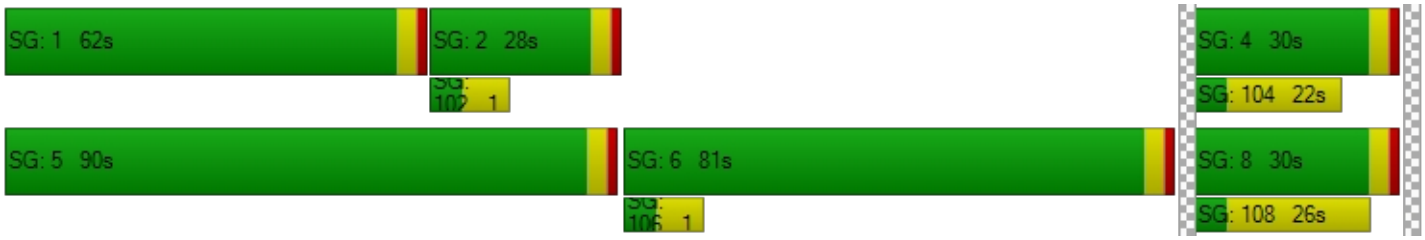
d_M, Delay for Movement [s/veh]	113.01	36.81	30.68	119.59	46.76	46.79	99.05	99.05	99.05	90.58	90.58	90.58
Movement LOS	F	D	C	F	D	D	F	F	F	F	F	F
d_A, Approach Delay [s/veh]	42.99			49.07			99.05			90.58		
Approach LOS	D			D			F			F		
d_I, Intersection Delay [s/veh]	50.03											
Intersection LOS	D											
Intersection V/C	0.349											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.756	2.701	1.821	1.765
Crosswalk LOS	C	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1283	400	433	433
d_b, Bicycle Delay [s]	7.70	38.40	36.82	36.82
l_b,int, Bicycle LOS Score for Intersection	2.079	2.395	1.705	1.604
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: 15th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	24.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.386

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Base Volume Input [veh/h]	90	420	50	100	680	70	50	20	80	30	20	80
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	420	50	100	680	70	50	20	80	30	20	80
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	114	14	27	185	19	14	5	22	8	5	22
Total Analysis Volume [veh/h]	98	457	54	109	739	76	54	22	87	33	22	87
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	22	45	0	23	46	0	0	26	0	0	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	10	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	77	77	9	78	78	9	9	9	9	9
g / C, Green / Cycle	0.07	0.65	0.65	0.08	0.65	0.65	0.07	0.07	0.07	0.07	0.07
(v / s)_i Volume / Saturation Flow Rate	0.06	0.14	0.14	0.06	0.22	0.22	0.04	0.05	0.02	0.02	0.05
s, saturation flow rate [veh/h]	1781	1870	1802	1781	1870	1809	1806	1589	1781	1851	1589
c, Capacity [veh/h]	124	1205	1161	136	1218	1178	133	117	129	134	115
d1, Uniform Delay [s]	54.98	8.82	8.82	54.53	9.38	9.38	53.75	54.47	52.43	52.41	54.62
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.74	0.41	0.43	10.37	0.76	0.79	3.82	8.93	0.81	0.76	9.64
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.22	0.22	0.80	0.34	0.34	0.57	0.74	0.21	0.21	0.76
d, Delay for Lane Group [s/veh]	65.72	9.22	9.25	64.89	10.14	10.16	57.57	63.39	53.24	53.17	64.26
Lane Group LOS	E	A	A	E	B	B	E	E	D	D	E
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.29	2.83	2.75	3.63	4.89	4.74	2.36	2.87	0.80	0.82	2.89
50th-Percentile Queue Length [ft/ln]	82.19	70.84	68.79	90.80	122.36	118.62	59.08	71.69	20.11	20.47	72.23
95th-Percentile Queue Length [veh/ln]	5.92	5.10	4.95	6.54	8.52	8.32	4.25	5.16	1.45	1.47	5.20
95th-Percentile Queue Length [ft/ln]	147.94	127.51	123.82	163.45	213.06	207.92	106.34	129.04	36.20	36.85	130.02

Movement, Approach, & Intersection Results

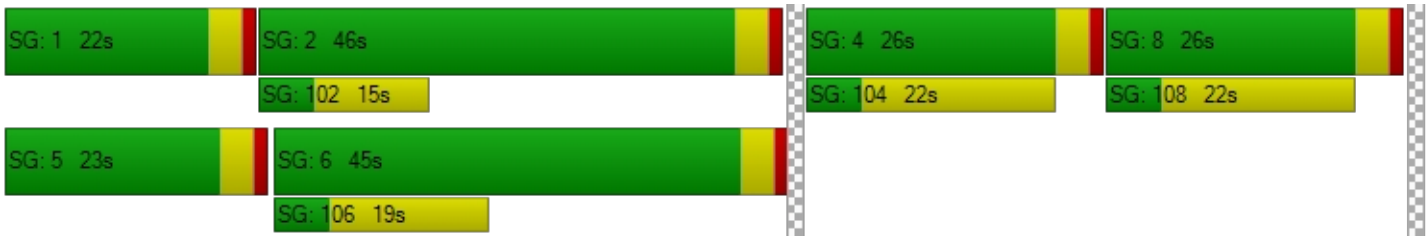
d_M, Delay for Movement [s/veh]	65.72	9.24	9.25	64.89	10.15	10.16	57.57	57.57	63.39	53.24	53.17	64.26
Movement LOS	E	A	A	E	B	B	E	E	E	D	D	E
d_A, Approach Delay [s/veh]	18.33			16.61			60.68			59.98		
Approach LOS	B			B			E			E		
d_I, Intersection Delay [s/veh]	24.44											
Intersection LOS	C											
Intersection V/C	0.386											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.601	2.612	2.072	2.226
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	683	700	367	367
d_b, Bicycle Delay [s]	26.00	25.35	40.02	40.02
l_b,int, Bicycle LOS Score for Intersection	2.062	2.322	1.829	1.794
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Del Mar Housing Element

Vistro File: C:\...\Del Mar PM.vistro
Report File: C:\...\13 FY 2035 PM.pdf

Scenario 13 FY 2035 PM
5/12/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Camino Del Mar at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.814	39.9	D
2	Jimmy Durante Blvd at Via De La Valle	Signalized	HCM 6th Edition	EB Left	0.758	46.6	D
3	I-5 SB Ramps at Via De La Valle	Signalized	HCM 6th Edition	SB Right	0.495	15.7	B
4	I-5 NB Ramps at Via De La Valle	Signalized	HCM 6th Edition	NB Right	0.580	22.7	C
5	Jimmy Durante Blvd at San Dieguito Drive	Roundabout	HCM 6th Edition	NB Thru		7.9	A
6	Camino Del Mar at Del Mar Heights Rd	Signalized	HCM 6th Edition	EB Thru	0.746	40.3	D
7	9th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.328	6.5	A
8	15th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.624	26.9	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Camino Del Mar at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	39.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.814

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	0	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	50	810	170	350	620	20	10	230	40	250	200	620
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	50	810	170	350	620	20	10	230	40	250	200	620
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	203	43	88	155	5	3	58	10	63	50	155
Total Analysis Volume [veh/h]	50	810	170	350	620	20	10	230	40	250	200	620
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	57	27	0	51	21	0	0	42	0	0	42	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	31	31	26	52	52	51	51	51	51
g / C, Green / Cycle	0.04	0.26	0.26	0.22	0.43	0.43	0.43	0.43	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.03	0.23	0.11	0.20	0.17	0.17	0.15	0.23	0.11	0.39
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1849	1810	1109	1870	1589
c, Capacity [veh/h]	68	913	408	384	811	802	806	402	801	680
d1, Uniform Delay [s]	57.12	42.94	37.15	45.96	23.23	23.23	23.18	32.99	21.97	32.17
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	14.32	3.15	0.68	8.64	0.31	0.32	1.18	7.06	0.75	18.53
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.74	0.89	0.42	0.91	0.40	0.40	0.35	0.62	0.25	0.91
d, Delay for Lane Group [s/veh]	71.44	46.10	37.83	54.60	23.55	23.55	24.37	40.05	22.72	50.70
Lane Group LOS	E	D	D	D	C	C	C	D	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.77	11.88	4.25	11.06	6.28	6.21	5.62	6.96	3.79	19.95
50th-Percentile Queue Length [ft/ln]	44.30	297.01	106.14	276.41	156.88	155.18	140.44	173.95	94.75	498.77
95th-Percentile Queue Length [veh/ln]	3.19	17.53	7.62	16.51	10.38	10.29	9.50	11.28	6.82	27.28
95th-Percentile Queue Length [ft/ln]	79.75	438.32	190.62	412.74	259.59	257.33	237.61	282.09	170.55	681.90

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	71.44	46.10	37.83	54.60	23.55	23.55	24.37	24.37	24.37	40.05	22.72	50.70
Movement LOS	E	D	D	D	C	C	C	C	C	D	C	D
d_A, Approach Delay [s/veh]	45.96			34.53			24.37			42.98		
Approach LOS	D			C			C			D		
d_I, Intersection Delay [s/veh]	39.86											
Intersection LOS	D											
Intersection V/C	0.814											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	3.139	2.803	1.998	2.590
Crosswalk LOS	C	C	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	383	283	633	633
d_b, Bicycle Delay [s]	39.20	44.20	28.02	28.02
l_b,int, Bicycle LOS Score for Intersection	2.409	2.376	2.022	3.325
Bicycle LOS	B	B	B	C

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Jimmy Durante Blvd at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	46.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.758

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	250	300	480	520	150	90	80	610	60	580	750	540
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	250	300	480	520	150	90	80	610	60	580	750	540
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	63	75	120	130	38	23	20	153	15	145	188	135
Total Analysis Volume [veh/h]	250	300	480	520	150	90	80	610	60	580	750	540
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	30	0	0	30	0	10	26	0	34	50	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	24	24	24	21	21	21	6	36	36	23	53	53
g / C, Green / Cycle	0.20	0.20	0.20	0.17	0.17	0.17	0.05	0.30	0.30	0.19	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.14	0.16	0.17	0.15	0.08	0.06	0.04	0.18	0.18	0.17	0.35	0.39
s, saturation flow rate [veh/h]	1781	1870	2813	3459	1870	1589	1781	1870	1812	3459	1870	1627
c, Capacity [veh/h]	355	372	560	605	327	278	89	564	547	661	828	720
d1, Uniform Delay [s]	44.77	45.84	46.41	48.09	44.42	43.31	56.70	35.75	35.76	47.18	28.61	30.65
k, delay calibration	0.12	0.17	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.78	6.51	3.92	3.73	1.00	0.67	24.98	4.71	4.88	3.96	7.48	14.97
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.71	0.81	0.86	0.86	0.46	0.32	0.90	0.60	0.60	0.88	0.79	0.89
d, Delay for Lane Group [s/veh]	47.56	52.36	50.33	51.82	45.42	43.98	81.67	40.46	40.64	51.14	36.09	45.62
Lane Group LOS	D	D	D	D	D	D	F	D	D	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	7.20	9.18	7.20	7.85	4.11	2.40	3.03	9.20	8.96	8.76	17.42	19.45
50th-Percentile Queue Length [ft/ln]	179.97	229.54	179.88	196.28	102.71	60.04	75.72	230.07	223.96	218.97	435.58	486.22
95th-Percentile Queue Length [veh/ln]	11.60	14.15	11.59	12.45	7.40	4.32	5.45	14.18	13.87	13.61	24.27	26.68
95th-Percentile Queue Length [ft/ln]	289.98	353.78	289.86	311.17	184.88	108.08	136.29	354.45	346.68	340.31	606.71	667.03

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.56	52.36	50.33	51.82	45.42	43.98	81.67	40.54	40.64	51.14	37.33	45.62
Movement LOS	D	D	D	D	D	D	F	D	D	D	D	D
d_A, Approach Delay [s/veh]	50.25			49.63			44.94			44.01		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	46.59											
Intersection LOS	D											
Intersection V/C	0.758											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.764	2.643	2.674	3.034
Crosswalk LOS	C	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	433	433	367	767
d_b, Bicycle Delay [s]	36.82	36.82	40.02	22.82
l_b,int, Bicycle LOS Score for Intersection	3.259	2.814	2.178	3.102
Bicycle LOS	C	C	B	C

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: I-5 SB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	15.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.495

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	0	330	0	310	0	1050	1090	0	1310	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	330	0	310	0	1050	1090	0	1310	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	83	0	78	0	263	273	0	328	0
Total Analysis Volume [veh/h]	0	0	0	330	0	310	0	1050	1090	0	1310	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	0	0	5	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	34	0	0	0	86	0	0	86	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	21	0	0	0	3	0	0	14	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		18	18	18	94	94
g / C, Green / Cycle		0.15	0.15	0.15	0.78	0.78
(v / s)_i Volume / Saturation Flow Rate		0.13	0.13	0.13	0.29	0.37
s, saturation flow rate [veh/h]		1781	1679	1589	3560	3560
c, Capacity [veh/h]		274	258	245	2775	2775
d1, Uniform Delay [s]		49.14	49.18	49.22	4.14	4.62
k, delay calibration		0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		5.98	6.49	7.00	0.39	0.58
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.82	0.82	0.83	0.38	0.47
d, Delay for Lane Group [s/veh]		55.13	55.68	56.22	4.54	5.20
Lane Group LOS		E	E	E	A	A
Critical Lane Group		No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		6.97	6.65	6.36	3.46	4.83
50th-Percentile Queue Length [ft/ln]		174.23	166.13	158.95	86.50	120.68
95th-Percentile Queue Length [veh/ln]		11.30	10.87	10.49	6.23	8.43
95th-Percentile Queue Length [ft/ln]		282.47	271.82	262.33	155.70	210.76

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	55.32	0.00	56.04	0.00	4.54	0.00	0.00	5.20	0.00
Movement LOS				E		E		A			A	
d_A, Approach Delay [s/veh]	0.00			55.66			4.54			5.20		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	15.73											
Intersection LOS	B											
Intersection V/C	0.495											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.302	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1367	1367
d_b, Bicycle Delay [s]	60.00	60.00	6.02	6.02
l_b,int, Bicycle LOS Score for Intersection	4.132	5.188	2.426	2.640
Bicycle LOS	D	F	B	B

Sequence

Ring 1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-5 NB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	22.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.580

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	740	0	460	0	0	0	0	1170	0	0	1170	390
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	740	0	460	0	0	0	0	1170	0	0	1170	390
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	185	0	115	0	0	0	0	293	0	0	293	98
Total Analysis Volume [veh/h]	740	0	460	0	0	0	0	1170	0	0	1170	390
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	5	0	0	5	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	75	0	0	0	0	0	0	45	0	0	45	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	17	0	0	0	0	0	0	14	0	0	3	0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	C
C, Cycle Length [s]	120	120	120		120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00
g_i, Effective Green Time [s]	34	34	34		78	78
g / C, Green / Cycle	0.29	0.29	0.29		0.65	0.65
(v / s)_i Volume / Saturation Flow Rate	0.22	0.23	0.25		0.33	0.33
s, saturation flow rate [veh/h]	1781	1749	1589		3560	3560
c, Capacity [veh/h]	511	502	456		2301	2301
d1, Uniform Delay [s]	39.33	39.54	40.76		11.18	11.18
k, delay calibration	0.11	0.11	0.11		0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	2.66	2.94	5.52		0.81	0.81
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.78	0.80	0.88		0.51	0.51
d, Delay for Lane Group [s/veh]	42.00	42.48	46.27		11.99	11.99
Lane Group LOS	D	D	D		B	B
Critical Lane Group	No	No	Yes		No	Yes
50th-Percentile Queue Length [veh/ln]	11.16	11.25	11.88		7.99	7.99
50th-Percentile Queue Length [ft/ln]	279.12	281.33	296.88		199.83	199.83
95th-Percentile Queue Length [veh/ln]	16.64	16.75	17.53		12.63	12.63
95th-Percentile Queue Length [ft/ln]	416.11	418.86	438.17		315.75	315.75

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.22	0.00	45.78	0.00	0.00	0.00	0.00	11.99	0.00	0.00	11.99	0.00
Movement LOS	D		D					B			B	
d_A, Approach Delay [s/veh]	43.58			0.00			11.99			11.99		
Approach LOS	D			A			B			B		
d_I, Intersection Delay [s/veh]	22.70											
Intersection LOS	C											
Intersection V/C	0.580											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.439	1.439	2.897	0.000
Crosswalk LOS	B	A	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	683	683
d_b, Bicycle Delay [s]	60.00	60.00	26.00	26.00
l_b,int, Bicycle LOS Score for Intersection	6.112	4.132	2.525	2.525
Bicycle LOS	F	D	B	B

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Jimmy Durante Blvd at San Dieguito Drive

Control Type:	Roundabout	Delay (sec / veh):	7.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			San Dieguito Dr			San Dieguito Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			San Dieguito Dr			San Dieguito Dr		
Base Volume Input [veh/h]	0	771	23	0	300	4	0	0	1	0	1	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	771	23	0	300	4	0	0	1	0	1	51
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	193	6	0	75	1	0	0	0	0	0	13
Total Analysis Volume [veh/h]	0	771	23	0	300	4	0	0	1	0	1	51
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Number of Conflicting Circulating Lanes	1			1			1			1		
Circulating Flow Rate [veh/h]	0			1			306			786		
Exiting Flow Rate [veh/h]	307			838			5			23		
Demand Flow Rate [veh/h]	0	771	23	0	300	4	0	0	1	0	1	51
Adjusted Demand Flow Rate [veh/h]	0	771	23	0	300	4	0	0	1	0	1	51

Lanes

Overwrite Calculated Critical Headway	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00
A (intercept)	1380.00	1380.00	1380.00	1380.00
B (coefficient)	0.00102	0.00102	0.00102	0.00102
HV Adjustment Factor	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	810	311	2	54
Capacity of Entry and Bypass Lanes [veh/h]	1380	1379	1011	619
Pedestrian Impedance	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	1353	1352	991	607
X, volume / capacity	0.59	0.22	0.00	0.09

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A
95th-Percentile Queue Length [veh]	4.03	0.86	0.00	0.28
95th-Percentile Queue Length [ft]	100.73	21.62	0.08	7.00
Approach Delay [s/veh]	9.30	4.56	3.64	6.92
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	7.94			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 6: Camino Del Mar at Del Mar Heights Rd

Control Type:	Signalized	Delay (sec / veh):	40.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.746

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Base Volume Input [veh/h]	40	1020	360	460	630	15	10	30	20	280	130	540
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	1020	360	460	630	15	10	30	20	280	130	540
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	255	90	115	158	4	3	8	5	70	33	135
Total Analysis Volume [veh/h]	40	1020	360	460	630	15	10	30	20	280	130	540
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Overlap
Signal Group	0	6	0	0	2	0	0	8	0	0	4	4
Auxiliary Signal Groups												2,4
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	5
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	0	45	0	0	19	0	0	30	0	0	26	26
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	17	0	0	10	0	0	21	0	0	17	17
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall		No			No			No			No	No
Maximum Recall		No			No			No			No	No
Pedestrian Recall		No			No			No			No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	39	39	39	39	39	39	5	5	22	22	73
g / C, Green / Cycle	0.32	0.32	0.32	0.32	0.32	0.32	0.04	0.04	0.18	0.18	0.61
(v / s)_i Volume / Saturation Flow Rate	0.02	0.29	0.23	0.21	0.21	0.21	0.03	0.01	0.11	0.11	0.34
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1848	1689	1496	1589	1781	1836	1589
c, Capacity [veh/h]	576	1152	514	573	595	544	94	60	327	337	969
d1, Uniform Delay [s]	28.08	38.48	35.49	34.83	34.83	34.82	57.22	56.25	45.21	45.05	13.84
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.23	10.09	7.72	5.53	5.33	5.81	3.01	3.18	1.98	1.79	2.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.89	0.70	0.65	0.65	0.65	0.42	0.33	0.63	0.61	0.56
d, Delay for Lane Group [s/veh]	28.32	48.57	43.22	40.36	40.15	40.64	60.23	59.43	47.19	46.84	16.15
Lane Group LOS	C	D	D	D	D	D	E	E	D	D	B
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.84	15.69	10.27	10.10	10.44	9.61	1.28	0.64	5.81	5.79	8.88
50th-Percentile Queue Length [ft/ln]	21.07	392.20	256.67	252.40	260.91	240.22	32.00	16.10	145.21	144.82	222.01
95th-Percentile Queue Length [veh/ln]	1.52	22.18	15.52	15.31	15.73	14.69	2.30	1.16	9.76	9.74	13.77
95th-Percentile Queue Length [ft/ln]	37.93	554.60	388.04	382.68	393.37	367.31	57.60	28.97	244.03	243.49	344.19

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.32	48.57	43.22	40.32	40.41	40.64	60.23	60.23	59.43	47.19	46.84	16.15
Movement LOS	C	D	D	D	D	D	E	E	E	D	D	B
d_A, Approach Delay [s/veh]	46.64			40.38			59.96			29.47		
Approach LOS	D			D			E			C		
d_I, Intersection Delay [s/veh]	40.30											
Intersection LOS	D											
Intersection V/C	0.746											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	0.00	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.850	0.000	2.035	2.666
Crosswalk LOS	C	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	683	250	433	367
d_b, Bicycle Delay [s]	26.00	45.94	36.82	40.02
l_b,int, Bicycle LOS Score for Intersection	2.731	2.471	1.659	3.127
Bicycle LOS	B	B	A	C

Sequence

Ring 1	2	6	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: 9th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	6.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.328

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			9th Street			9th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			9th Street			9th Street		
Base Volume Input [veh/h]	25	1033	20	26	713	16	17	0	26	22	5	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	1033	20	26	713	16	17	0	26	22	5	11
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	258	5	7	178	4	4	0	7	6	1	3
Total Analysis Volume [veh/h]	25	1033	20	26	713	16	17	0	26	22	5	11
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	34	56	0	34	56	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	7	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	101	101	3	101	101	4	4
g / C, Green / Cycle	0.02	0.84	0.84	0.02	0.84	0.84	0.03	0.03
(v / s)_i Volume / Saturation Flow Rate	0.01	0.29	0.01	0.01	0.20	0.20	0.02	0.02
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1856	1812	1803
c, Capacity [veh/h]	44	3000	1339	45	1576	1564	101	106
d1, Uniform Delay [s]	57.92	2.10	1.51	57.88	1.84	1.84	57.52	57.36
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.38	0.31	0.02	11.50	0.34	0.35	2.84	2.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.57	0.34	0.01	0.58	0.23	0.23	0.43	0.36
d, Delay for Lane Group [s/veh]	69.29	2.41	1.53	69.38	2.18	2.19	60.37	59.40
Lane Group LOS	E	A	A	E	A	A	E	E
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.89	1.83	0.05	0.92	1.21	1.20	1.37	1.20
50th-Percentile Queue Length [ft/ln]	22.23	45.83	1.37	23.10	30.15	29.96	34.33	30.01
95th-Percentile Queue Length [veh/ln]	1.60	3.30	0.10	1.66	2.17	2.16	2.47	2.16
95th-Percentile Queue Length [ft/ln]	40.02	82.50	2.47	41.59	54.27	53.93	61.80	54.01

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	69.29	2.41	1.53	69.38	2.18	2.19	60.37	60.37	60.37	59.40	59.40	59.40
Movement LOS	E	A	A	E	A	A	E	E	E	E	E	E
d_A, Approach Delay [s/veh]	3.95			4.50			60.37			59.40		
Approach LOS	A			A			E			E		
d_I, Intersection Delay [s/veh]	6.53											
Intersection LOS	A											
Intersection V/C	0.328											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.798	2.693	1.773	1.771
Crosswalk LOS	C	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	867	867	433	433
d_b, Bicycle Delay [s]	19.27	19.27	36.82	36.82
l_b,int, Bicycle LOS Score for Intersection	2.449	2.182	1.631	1.622
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: 15th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	26.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.624

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Base Volume Input [veh/h]	150	1450	70	110	770	120	50	20	100	40	30	140
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	150	1450	70	110	770	120	50	20	100	40	30	140
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	363	18	28	193	30	13	5	25	10	8	35
Total Analysis Volume [veh/h]	150	1450	70	110	770	120	50	20	100	40	30	140
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	33	55	0	13	35	0	0	26	0	0	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	10	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	73	73	9	69	69	10	10	13	13	13
g / C, Green / Cycle	0.10	0.60	0.60	0.08	0.58	0.58	0.08	0.08	0.11	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.08	0.41	0.41	0.06	0.24	0.24	0.04	0.06	0.02	0.02	0.09
s, saturation flow rate [veh/h]	1781	1870	1840	1781	1870	1783	1805	1589	1781	1856	1589
c, Capacity [veh/h]	181	1129	1111	134	1080	1030	147	130	189	197	169
d1, Uniform Delay [s]	52.89	15.90	15.99	54.72	14.16	14.17	52.64	54.00	48.89	48.88	52.58
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.35	3.25	3.38	11.83	1.21	1.27	2.36	9.24	0.46	0.43	9.98
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.68	0.68	0.82	0.42	0.42	0.47	0.77	0.18	0.18	0.83
d, Delay for Lane Group [s/veh]	62.24	19.15	19.37	66.54	15.38	15.44	55.01	63.24	49.35	49.31	62.55
Lane Group LOS	E	B	B	E	B	B	E	E	D	D	E
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.90	14.30	14.30	3.72	7.10	6.78	2.12	3.29	0.97	1.00	4.60
50th-Percentile Queue Length [ft/ln]	122.61	357.49	357.41	92.89	177.39	169.57	52.91	82.32	24.28	24.94	115.00
95th-Percentile Queue Length [veh/ln]	8.54	20.50	20.50	6.69	11.46	11.05	3.81	5.93	1.75	1.80	8.12
95th-Percentile Queue Length [ft/ln]	213.40	512.54	512.43	167.20	286.60	276.35	95.25	148.18	43.71	44.90	202.93

Movement, Approach, & Intersection Results

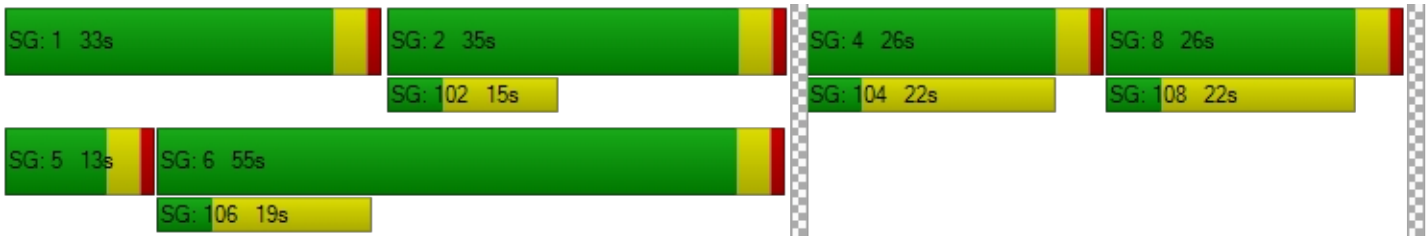
d_M, Delay for Movement [s/veh]	62.24	19.25	19.37	66.54	15.40	15.44	55.01	55.01	63.24	49.35	49.31	62.55
Movement LOS	E	B	B	E	B	B	E	E	E	D	D	E
d_A, Approach Delay [s/veh]	23.12			21.03			59.85			58.15		
Approach LOS	C			C			E			E		
d_I, Intersection Delay [s/veh]	26.89											
Intersection LOS	C											
Intersection V/C	0.624											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.818	2.830	2.108	2.246
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	850	517	367	367
d_b, Bicycle Delay [s]	19.84	33.00	40.02	40.02
l_b,int, Bicycle LOS Score for Intersection	2.937	2.385	1.840	1.906
Bicycle LOS	C	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Del Mar Housing Elemenet

Vistro File: C:\...\Del Mar AM.vistro
Report File: C:\...\14 FY 2035 WP AM.pdf

Scenario 6 FY 2035 WP AM
5/12/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Camino Del Mar at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.595	35.9	D
2	Jimmy Durante Blvd at Via De La Valle	Signalized	HCM 6th Edition	EB Left	0.766	47.7	D
3	I-5 SB Ramps at Via De La Valle	Signalized	HCM 6th Edition	SB Right	0.503	13.2	B
4	I-5 NB Ramps at Via De La Valle	Signalized	HCM 6th Edition	NB Right	0.731	26.5	C
5	Jimmy Durante Blvd at San Dieguito Drive	Roundabout	HCM 6th Edition	SB Thru		5.4	A
6	Camino Del Mar at Del Mar Heights Rd	Signalized	HCM 6th Edition	EB Thru	0.560	40.7	D
7	9th St at Camino Del Mar	Signalized	HCM 6th Edition	NB Left	0.349	10.4	B
8	15th St at Camino Del Mar	Signalized	HCM 6th Edition	NB Left	0.390	24.8	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Camino Del Mar at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	35.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.595

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	0	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	20	180	150	500	620	25	5	170	30	170	130	230
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	8	0	0	2	4	15	73	15	0	19	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	188	150	500	622	29	20	243	45	170	149	230
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	51	41	136	169	8	5	66	12	46	40	63
Total Analysis Volume [veh/h]	26	204	163	543	676	32	22	264	49	185	162	250
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	33	26	0	64	57	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	15	15	39	51	51	54	54	54	54
g / C, Green / Cycle	0.02	0.12	0.12	0.32	0.42	0.42	0.45	0.45	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.01	0.06	0.10	0.30	0.19	0.19	0.19	0.17	0.09	0.16
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1840	1788	1066	1870	1589
c, Capacity [veh/h]	45	441	197	578	792	779	839	308	844	718
d1, Uniform Delay [s]	57.88	48.86	51.32	39.38	24.65	24.65	22.11	36.46	19.76	21.41
k, delay calibration	0.11	0.11	0.11	0.18	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.55	0.76	8.57	11.97	0.40	0.41	1.42	8.42	0.51	1.33
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.58	0.46	0.83	0.94	0.45	0.45	0.40	0.60	0.19	0.35
d, Delay for Lane Group [s/veh]	69.43	49.62	59.89	51.35	25.05	25.06	23.53	44.89	20.26	22.75
Lane Group LOS	E	D	E	D	C	C	C	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.92	2.89	5.25	17.26	7.28	7.18	6.65	5.53	2.85	4.83
50th-Percentile Queue Length [ft/ln]	23.11	72.36	131.24	431.42	182.01	179.45	166.22	138.19	71.23	120.83
95th-Percentile Queue Length [veh/ln]	1.66	5.21	9.01	24.07	11.71	11.57	10.88	9.38	5.13	8.44
95th-Percentile Queue Length [ft/ln]	41.61	130.25	225.17	601.73	292.63	289.30	271.95	234.58	128.21	210.96

Movement, Approach, & Intersection Results

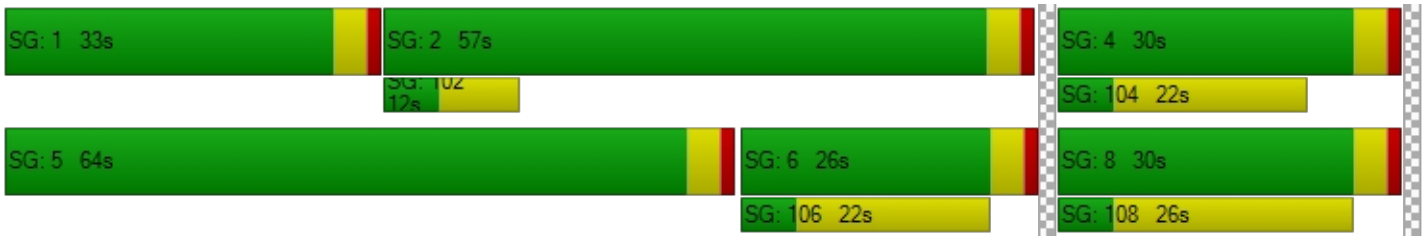
d_M, Delay for Movement [s/veh]	69.43	49.62	59.89	51.35	25.05	25.06	23.53	23.53	23.53	44.89	20.26	22.75
Movement LOS	E	D	E	D	C	C	C	C	C	D	C	C
d_A, Approach Delay [s/veh]	55.19			36.47			23.53			28.93		
Approach LOS	E			D			C			C		
d_I, Intersection Delay [s/veh]	35.90											
Intersection LOS	D											
Intersection V/C	0.595											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.943	2.683	2.001	2.528
Crosswalk LOS	C	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	367	883	433	433
d_b, Bicycle Delay [s]	40.02	18.70	36.82	36.82
l_b,int, Bicycle LOS Score for Intersection	1.884	2.592	2.112	2.545
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Jimmy Durante Blvd at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	47.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.766

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	40	130	290	650	150	70	70	700	80	630	610	540
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	73	0	0	19	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	130	290	650	150	70	70	773	80	630	629	540
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	35	79	177	41	19	19	210	22	171	171	147
Total Analysis Volume [veh/h]	43	141	315	707	163	76	76	840	87	685	684	587
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	30	0	0	30	0	10	27	0	33	50	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	16	26	26	26	6	36	36	26	56	56
g / C, Green / Cycle	0.13	0.13	0.13	0.22	0.22	0.22	0.05	0.30	0.30	0.22	0.47	0.47
(v / s)_i Volume / Saturation Flow Rate	0.02	0.08	0.11	0.20	0.09	0.05	0.04	0.25	0.25	0.20	0.34	0.40
s, saturation flow rate [veh/h]	1781	1870	2813	3459	1870	1589	1781	1870	1809	3459	1870	1608
c, Capacity [veh/h]	240	252	379	749	405	344	89	556	538	753	870	748
d1, Uniform Delay [s]	46.02	48.58	50.58	46.28	40.33	38.67	56.56	39.58	39.58	45.79	26.00	28.38
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.35	1.94	4.73	6.83	0.64	0.32	19.61	14.74	15.17	4.67	5.37	11.61
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.18	0.56	0.83	0.94	0.40	0.22	0.85	0.85	0.85	0.91	0.73	0.85
d, Delay for Lane Group [s/veh]	46.38	50.52	55.31	53.11	40.98	38.98	76.17	54.33	54.75	50.46	31.37	39.98
Lane Group LOS	D	D	E	D	D	D	E	D	D	D	C	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.17	4.10	4.85	11.03	4.22	1.88	2.77	15.20	14.77	10.40	15.67	18.10
50th-Percentile Queue Length [ft/ln]	29.19	102.39	121.37	275.78	105.50	47.11	69.25	380.08	369.28	259.88	391.80	452.55
95th-Percentile Queue Length [veh/ln]	2.10	7.37	8.47	16.48	7.59	3.39	4.99	21.60	21.07	15.68	22.16	25.08
95th-Percentile Queue Length [ft/ln]	52.55	184.31	211.70	411.95	189.73	84.80	124.65	539.94	526.86	392.07	554.11	626.99

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	46.38	50.52	55.31	53.11	40.98	38.98	76.17	54.51	54.75	50.46	31.98	39.98
Movement LOS	D	D	E	D	D	D	E	D	D	D	C	D
d_A, Approach Delay [s/veh]	53.19			49.88			56.17			40.85		
Approach LOS	D			D			E			D		
d_I, Intersection Delay [s/veh]	47.68											
Intersection LOS	D											
Intersection V/C	0.766											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.701	2.656	2.667	3.089
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	433	433	383	767
d_b, Bicycle Delay [s]	36.82	36.82	39.20	22.82
l_b,int, Bicycle LOS Score for Intersection	2.383	3.121	2.387	3.173
Bicycle LOS	B	C	B	C

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: I-5 SB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	13.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.503

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	0	170	0	250	0	640	1150	0	1330	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	4	0	25	48	0	15	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	170	0	254	0	665	1198	0	1345	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9200	1.0000	0.9200	1.0000	0.9200	0.9200	1.0000	0.9200	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	46	0	69	0	181	326	0	365	0
Total Analysis Volume [veh/h]	0	0	0	185	0	276	0	723	1302	0	1462	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	0	0	5	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	39	0	0	0	81	0	0	81	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	21	0	0	0	3	0	0	14	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		14	14	14	98	98
g / C, Green / Cycle		0.12	0.12	0.12	0.82	0.82
(v / s)_i Volume / Saturation Flow Rate		0.09	0.09	0.09	0.20	0.41
s, saturation flow rate [veh/h]		1781	1613	1589	3560	3560
c, Capacity [veh/h]		210	190	187	2904	2904
d1, Uniform Delay [s]		51.46	51.46	51.46	2.56	3.46
k, delay calibration		0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		6.37	7.00	7.10	0.21	0.63
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.79	0.79	0.79	0.25	0.50
d, Delay for Lane Group [s/veh]		57.84	58.47	58.56	2.77	4.09
Lane Group LOS		E	E	E	A	A
Critical Lane Group		No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		5.19	4.74	4.67	1.55	4.27
50th-Percentile Queue Length [ft/ln]		129.76	118.39	116.79	38.77	106.66
95th-Percentile Queue Length [veh/ln]		8.93	8.30	8.22	2.79	7.65
95th-Percentile Queue Length [ft/ln]		223.17	207.61	205.40	69.79	191.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	57.93	0.00	58.52	0.00	2.77	0.00	0.00	4.09	0.00
Movement LOS				E		E		A			A	
d_A, Approach Delay [s/veh]	0.00			58.27			2.77			4.09		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	13.17											
Intersection LOS	B											
Intersection V/C	0.503											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.259	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1283	1283
d_b, Bicycle Delay [s]	60.00	60.00	7.70	7.70
l_b,int, Bicycle LOS Score for Intersection	4.132	4.893	2.156	2.766
Bicycle LOS	D	E	B	C

Sequence

Ring 1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-5 NB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	26.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.731

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	850	0	460	0	0	0	0	710	0	0	1400	380
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	0	5	0	0	0	0	10	0	0	4	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	862	0	465	0	0	0	0	720	0	0	1404	380
Peak Hour Factor	0.9200	1.0000	0.9200	1.0000	1.0000	1.0000	1.0000	0.9200	1.0000	1.0000	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	234	0	126	0	0	0	0	196	0	0	382	103
Total Analysis Volume [veh/h]	937	0	505	0	0	0	0	783	0	0	1526	413
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	5	0	0	5	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	63	0	0	0	0	0	0	57	0	0	57	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	17	0	0	0	0	0	0	14	0	0	3	0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	C
C, Cycle Length [s]	120	120	120		120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00
g_i, Effective Green Time [s]	41	41	41		71	71
g / C, Green / Cycle	0.34	0.34	0.34		0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.27	0.27	0.30		0.22	0.43
s, saturation flow rate [veh/h]	1781	1770	1589		3560	3560
c, Capacity [veh/h]	605	602	540		2113	2113
d1, Uniform Delay [s]	35.82	35.90	37.48		12.71	17.35
k, delay calibration	0.13	0.13	0.18		0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	2.94	3.10	8.40		0.50	2.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.80	0.89		0.37	0.72
d, Delay for Lane Group [s/veh]	38.76	39.00	45.88		13.21	19.53
Lane Group LOS	D	D	D		B	B
Critical Lane Group	No	No	Yes		No	Yes
50th-Percentile Queue Length [veh/ln]	13.10	13.15	14.45		5.49	14.85
50th-Percentile Queue Length [ft/ln]	327.50	328.80	361.32		137.18	371.19
95th-Percentile Queue Length [veh/ln]	19.04	19.10	20.69		9.33	21.17
95th-Percentile Queue Length [ft/ln]	475.89	477.49	517.19		233.22	529.17

Movement, Approach, & Intersection Results

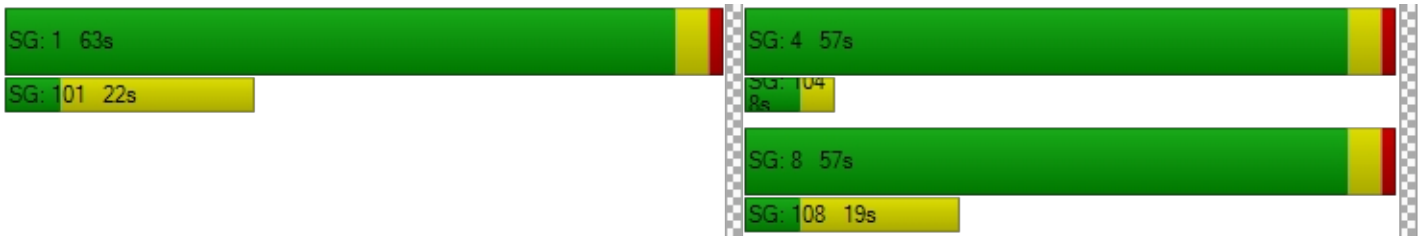
d_M, Delay for Movement [s/veh]	38.88	0.00	45.55	0.00	0.00	0.00	0.00	13.21	0.00	0.00	19.53	0.00
Movement LOS	D		D					B			B	
d_A, Approach Delay [s/veh]	41.21			0.00			13.21			19.53		
Approach LOS	D			A			B			B		
d_I, Intersection Delay [s/veh]	26.55											
Intersection LOS	C											
Intersection V/C	0.731											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.498	1.439	2.938	0.000
Crosswalk LOS	B	A	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	883	883
d_b, Bicycle Delay [s]	60.00	60.00	18.70	18.70
l_b,int, Bicycle LOS Score for Intersection	6.512	4.132	2.206	2.819
Bicycle LOS	F	D	B	C

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Jimmy Durante Blvd at San Dieguito Drive

Control Type:	Roundabout	Delay (sec / veh):	5.4
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			San Dieguito Dr			San Dieguito Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			San Dieguito Dr			San Dieguito Dr		
Base Volume Input [veh/h]	0	288	11	0	447	7	0	2	5	0	2	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	288	11	0	447	7	0	2	5	0	2	39
Peak Hour Factor	1.0000	0.9200	0.9200	1.0000	0.9200	0.9200	1.0000	0.9200	0.9200	1.0000	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	78	3	0	121	2	0	1	1	0	1	11
Total Analysis Volume [veh/h]	0	313	12	0	486	8	0	2	5	0	2	42
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Number of Conflicting Circulating Lanes	1			1			1			1		
Circulating Flow Rate [veh/h]	2			2			496			319		
Exiting Flow Rate [veh/h]	501			362			10			14		
Demand Flow Rate [veh/h]	0	288	11	0	447	7	0	2	5	0	2	39
Adjusted Demand Flow Rate [veh/h]	0	313	12	0	486	8	0	2	5	0	2	42

Lanes

Overwrite Calculated Critical Headway	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00
A (intercept)	1380.00	1380.00	1380.00	1380.00
B (coefficient)	0.00102	0.00102	0.00102	0.00102
HV Adjustment Factor	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	332	504	8	45
Capacity of Entry and Bypass Lanes [veh/h]	1378	1378	833	997
Pedestrian Impedance	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	1351	1351	816	977
X, volume / capacity	0.24	0.37	0.01	0.05

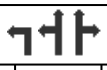
Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A
95th-Percentile Queue Length [veh]	0.94	1.70	0.03	0.14
95th-Percentile Queue Length [ft]	23.60	42.60	0.65	3.53
Approach Delay [s/veh]	4.71	6.03	4.49	4.08
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	5.43			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 6: Camino Del Mar at Del Mar Heights Rd

Control Type:	Signalized	Delay (sec / veh):	40.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.560

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Base Volume Input [veh/h]	20	140	90	390	520	5	10	110	30	500	50	430
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	1	0	0	5	3	13	34	3	0	8	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	141	90	390	525	8	23	144	33	500	58	430
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	38	24	106	143	2	6	39	9	136	16	117
Total Analysis Volume [veh/h]	23	153	98	424	571	9	25	157	36	543	63	467
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Overlap
Signal Group	0	6	0	0	2	0	0	8	0	0	4	4
Auxiliary Signal Groups												2,4
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	5
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	0	26	0	0	19	0	0	30	0	0	45	45
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	17	0	0	10	0	0	21	0	0	17	17
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall		No			No			No			No	No
Maximum Recall		No			No			No			No	No
Pedestrian Recall		No			No			No			No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	33	33	33	33	33	33	14	14	25	25	79
g / C, Green / Cycle	0.27	0.27	0.27	0.27	0.27	0.27	0.12	0.12	0.20	0.20	0.66
(v / s)_i Volume / Saturation Flow Rate	0.01	0.04	0.06	0.19	0.19	0.19	0.10	0.02	0.17	0.17	0.29
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1847	1693	1817	1589	1781	1799	1589
c, Capacity [veh/h]	485	969	433	483	501	459	250	189	364	368	1051
d1, Uniform Delay [s]	32.20	33.21	33.87	39.28	39.28	39.28	51.71	47.68	45.75	45.65	9.75
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.18	0.35	1.21	8.04	7.77	8.44	4.04	0.49	4.95	4.66	1.36
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.05	0.16	0.23	0.70	0.70	0.70	0.73	0.19	0.83	0.82	0.44
d, Delay for Lane Group [s/veh]	32.39	33.56	35.09	47.32	47.05	47.71	55.76	48.17	50.70	50.31	11.12
Lane Group LOS	C	C	D	D	D	D	E	D	D	D	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.52	1.76	2.38	9.94	10.27	9.50	5.64	1.00	9.13	9.09	5.96
50th-Percentile Queue Length [ft/ln]	13.07	43.88	59.46	248.48	256.69	237.49	140.95	25.04	228.33	227.27	149.03
95th-Percentile Queue Length [veh/ln]	0.94	3.16	4.28	15.11	15.52	14.55	9.53	1.80	14.09	14.04	9.97
95th-Percentile Queue Length [ft/ln]	23.53	78.99	107.02	377.74	388.07	363.86	238.30	45.07	352.24	350.89	249.14

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.39	33.56	35.09	47.26	47.41	47.71	55.76	55.76	48.17	50.53	50.31	11.12
Movement LOS	C	C	D	D	D	D	E	E	D	D	D	B
d_A, Approach Delay [s/veh]	34.01			47.35			54.50			33.36		
Approach LOS	C			D			D			C		
d_I, Intersection Delay [s/veh]	40.69											
Intersection LOS	D											
Intersection V/C	0.560											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	0.00	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.700	0.000	2.057	2.657
Crosswalk LOS	B	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	367	250	433	683
d_b, Bicycle Delay [s]	40.02	45.94	36.82	26.00
l_b,int, Bicycle LOS Score for Intersection	1.786	2.388	1.919	3.330
Bicycle LOS	A	B	A	C

Sequence

Ring 1	2	6	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: 9th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	10.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.349

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			9th St			9th St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			9th St			9th St		
Base Volume Input [veh/h]	48	522	10	29	860	41	43	1	37	16	2	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	5	0	7	0	0	0	0	1	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	531	15	29	867	41	43	1	37	17	2	7
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	144	4	8	236	11	12	0	10	5	1	2
Total Analysis Volume [veh/h]	52	577	16	32	942	45	47	1	40	18	2	8
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	16	77	0	13	74	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	7	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	97	97	3	96	96	8	8
g / C, Green / Cycle	0.04	0.81	0.81	0.03	0.80	0.80	0.07	0.07
(v / s)_i Volume / Saturation Flow Rate	0.03	0.16	0.01	0.02	0.27	0.27	0.05	0.02
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1840	1637	1508
c, Capacity [veh/h]	67	2870	1281	49	1488	1464	155	150
d1, Uniform Delay [s]	57.21	2.70	2.28	57.79	3.42	3.42	55.03	53.14
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	16.73	0.16	0.02	13.89	0.61	0.62	3.24	0.60
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.77	0.20	0.01	0.66	0.33	0.33	0.57	0.19
d, Delay for Lane Group [s/veh]	73.95	2.85	2.30	71.69	4.02	4.03	58.27	53.73
Lane Group LOS	E	A	A	E	A	A	E	D
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.88	1.29	0.06	1.15	2.90	2.86	2.76	0.83
50th-Percentile Queue Length [ft/ln]	46.92	32.26	1.60	28.77	72.58	71.52	69.01	20.73
95th-Percentile Queue Length [veh/ln]	3.38	2.32	0.12	2.07	5.23	5.15	4.97	1.49
95th-Percentile Queue Length [ft/ln]	84.46	58.07	2.88	51.79	130.64	128.74	124.22	37.31

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	73.95	2.85	2.30	71.69	4.03	4.03	58.27	58.27	58.27	53.73	53.73	53.73
Movement LOS	E	A	A	E	A	A	E	E	E	D	D	D
d_A, Approach Delay [s/veh]	8.57			6.15			58.27			53.73		
Approach LOS	A			A			E			D		
d_I, Intersection Delay [s/veh]	10.35											
Intersection LOS	B											
Intersection V/C	0.349											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.761	2.704	1.821	1.768
Crosswalk LOS	C	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1217	1167	433	433
d_b, Bicycle Delay [s]	9.20	10.42	36.82	36.82
l_b,int, Bicycle LOS Score for Intersection	2.092	2.400	1.705	1.606
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: 15th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	24.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.390

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Base Volume Input [veh/h]	90	420	50	100	680	70	50	20	80	30	20	80
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	10	7	0	0	0	0	0	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	429	50	110	687	70	50	20	80	30	20	83
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	117	14	30	187	19	14	5	22	8	5	23
Total Analysis Volume [veh/h]	98	466	54	120	747	76	54	22	87	33	22	90
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	22	45	0	23	46	0	0	26	0	0	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	10	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	76	76	10	78	78	9	9	9	9	9
g / C, Green / Cycle	0.07	0.64	0.64	0.08	0.65	0.65	0.07	0.07	0.07	0.07	0.07
(v / s)_i Volume / Saturation Flow Rate	0.06	0.14	0.14	0.07	0.22	0.22	0.04	0.05	0.02	0.02	0.06
s, saturation flow rate [veh/h]	1781	1870	1803	1781	1870	1810	1806	1589	1781	1851	1589
c, Capacity [veh/h]	124	1189	1146	148	1214	1175	133	117	132	138	118
d1, Uniform Delay [s]	54.98	9.27	9.28	54.11	9.51	9.51	53.75	54.47	52.21	52.20	54.50
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.74	0.43	0.45	10.18	0.78	0.80	3.82	8.93	0.76	0.71	9.67
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.22	0.22	0.81	0.34	0.34	0.57	0.74	0.21	0.20	0.76
d, Delay for Lane Group [s/veh]	65.72	9.70	9.73	64.28	10.28	10.31	57.58	63.40	52.97	52.91	64.18
Lane Group LOS	E	A	A	E	B	B	E	E	D	D	E
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.29	2.98	2.90	3.98	4.99	4.84	2.36	2.87	0.80	0.82	2.99
50th-Percentile Queue Length [ft/ln]	82.19	74.54	72.40	99.51	124.79	121.00	59.08	71.69	20.04	20.41	74.67
95th-Percentile Queue Length [veh/ln]	5.92	5.37	5.21	7.16	8.66	8.45	4.25	5.16	1.44	1.47	5.38
95th-Percentile Queue Length [ft/ln]	147.94	134.17	130.31	179.12	216.39	211.20	106.34	129.05	36.07	36.73	134.41

Movement, Approach, & Intersection Results

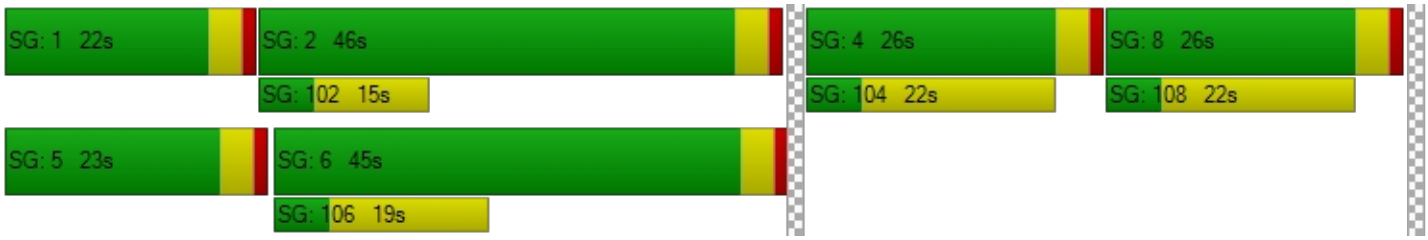
d_M, Delay for Movement [s/veh]	65.72	9.71	9.73	64.28	10.30	10.31	57.58	57.58	63.40	52.97	52.91	64.18
Movement LOS	E	A	A	E	B	B	E	E	E	D	D	E
d_A, Approach Delay [s/veh]	18.59			17.17			60.68			59.92		
Approach LOS	B			B			E			E		
d_I, Intersection Delay [s/veh]	24.75											
Intersection LOS	C											
Intersection V/C	0.390											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.605	2.618	2.072	2.229
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	683	700	367	367
d_b, Bicycle Delay [s]	26.00	25.35	40.02	40.02
l_b,int, Bicycle LOS Score for Intersection	2.069	2.338	1.829	1.799
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Del Mar Housing Element

Vistro File: C:\...\Del Mar PM.vistro
Report File: C:\...\14 FY 2035 WP PM.pdf

Scenario 14 FY 2035 WP PM
5/12/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Camino Del Mar at Via De La Valle	Signalized	HCM 6th Edition	NB Left	0.815	41.0	D
2	Jimmy Durante Blvd at Via De La Valle	Signalized	HCM 6th Edition	EB Left	0.783	48.2	D
3	I-5 SB Ramps at Via De La Valle	Signalized	HCM 6th Edition	SB Right	0.516	15.9	B
4	I-5 NB Ramps at Via De La Valle	Signalized	HCM 6th Edition	NB Right	0.596	23.2	C
5	Jimmy Durante Blvd at San Dieguito Drive	Roundabout	HCM 6th Edition	NB Thru		7.9	A
6	Camino Del Mar at Del Mar Heights Rd	Signalized	HCM 6th Edition	EB Thru	0.763	41.9	D
7	9th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.331	6.6	A
8	15th St at Camino Del Mar	Signalized	HCM 6th Edition	SB Left	0.636	27.7	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Camino Del Mar at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	41.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.815

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	0	0	0	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	50	810	170	350	620	20	10	230	40	250	200	620
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	17	3	0	0	8	17	7	34	7	0	79	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	67	813	170	350	628	37	17	264	47	250	279	620
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	203	43	88	157	9	4	66	12	63	70	155
Total Analysis Volume [veh/h]	67	813	170	350	628	37	17	264	47	250	279	620
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	57	27	0	51	21	0	0	42	0	0	42	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	31	31	26	51	51	51	51	51	51
g / C, Green / Cycle	0.05	0.26	0.26	0.22	0.42	0.42	0.43	0.43	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.04	0.23	0.11	0.20	0.18	0.18	0.18	0.23	0.15	0.39
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1834	1793	1068	1870	1589
c, Capacity [veh/h]	90	916	409	384	790	775	798	316	799	679
d1, Uniform Delay [s]	56.24	42.89	37.06	45.96	24.39	24.39	24.00	39.92	23.13	32.27
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.71	3.15	0.67	8.64	0.36	0.37	1.57	18.02	1.20	18.79
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.75	0.89	0.42	0.91	0.42	0.43	0.41	0.79	0.35	0.91
d, Delay for Lane Group [s/veh]	67.95	46.04	37.74	54.60	24.75	24.76	25.56	57.94	24.34	51.06
Lane Group LOS	E	D	D	D	C	C	C	E	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.30	11.92	4.24	11.06	6.77	6.64	6.83	8.54	5.58	20.02
50th-Percentile Queue Length [ft/ln]	57.40	298.03	105.99	276.41	169.21	165.96	170.74	213.48	139.57	500.53
95th-Percentile Queue Length [veh/ln]	4.13	17.58	7.62	16.51	11.03	10.86	11.12	13.33	9.46	27.36
95th-Percentile Queue Length [ft/ln]	103.31	439.60	190.41	412.74	275.87	271.60	277.89	333.29	236.45	683.99

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	67.95	46.04	37.74	54.60	24.76	24.76	25.56	25.56	25.56	57.94	24.34	51.06
Movement LOS	E	D	D	D	C	C	C	C	C	E	C	D
d_A, Approach Delay [s/veh]	46.10			35.05			25.56			46.07		
Approach LOS	D			D			C			D		
d_I, Intersection Delay [s/veh]	41.02											
Intersection LOS	D											
Intersection V/C	0.815											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	3.145	2.820	2.077	2.617
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	383	283	633	633
d_b, Bicycle Delay [s]	39.20	44.20	28.02	28.02
l_b,int, Bicycle LOS Score for Intersection	2.426	2.397	2.101	3.455
Bicycle LOS	B	B	B	C

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Jimmy Durante Blvd at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	48.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.783

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	250	300	480	520	150	90	80	610	60	580	750	540
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	34	0	0	79	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	250	300	480	520	150	90	80	644	60	580	829	540
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	63	75	120	130	38	23	20	161	15	145	207	135
Total Analysis Volume [veh/h]	250	300	480	520	150	90	80	644	60	580	829	540
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	5	0	5	5	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	30	0	0	30	0	10	26	0	34	50	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	24	24	24	21	21	21	6	36	36	23	53	53
g / C, Green / Cycle	0.20	0.20	0.20	0.17	0.17	0.17	0.05	0.30	0.30	0.19	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.14	0.16	0.17	0.15	0.08	0.06	0.04	0.19	0.19	0.17	0.37	0.42
s, saturation flow rate [veh/h]	1781	1870	2813	3459	1870	1589	1781	1870	1815	3459	1870	1641
c, Capacity [veh/h]	355	372	560	605	327	278	89	564	548	661	828	727
d1, Uniform Delay [s]	44.77	45.84	46.41	48.09	44.42	43.31	56.70	36.15	36.16	47.18	29.39	31.96
k, delay calibration	0.12	0.17	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.78	6.51	3.92	3.73	1.00	0.67	24.98	5.32	5.50	3.96	9.27	21.85
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.71	0.81	0.86	0.86	0.46	0.32	0.90	0.63	0.63	0.88	0.83	0.94
d, Delay for Lane Group [s/veh]	47.56	52.36	50.33	51.82	45.42	43.98	81.67	41.48	41.66	51.14	38.66	53.81
Lane Group LOS	D	D	D	D	D	D	F	D	D	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	7.20	9.18	7.20	7.85	4.11	2.40	3.03	9.82	9.57	8.76	19.06	22.82
50th-Percentile Queue Length [ft/ln]	179.97	229.54	179.88	196.28	102.71	60.04	75.72	245.61	239.30	218.97	476.60	570.59
95th-Percentile Queue Length [veh/ln]	11.60	14.15	11.59	12.45	7.40	4.32	5.45	14.96	14.65	13.61	26.22	30.66
95th-Percentile Queue Length [ft/ln]	289.98	353.78	289.86	311.17	184.88	108.08	136.29	374.12	366.15	340.31	655.61	766.46

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.56	52.36	50.33	51.82	45.42	43.98	81.67	41.56	41.66	51.14	41.30	53.81
Movement LOS	D	D	D	D	D	D	F	D	D	D	D	D
d_A, Approach Delay [s/veh]	50.25			49.63			45.66			47.69		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	48.25											
Intersection LOS	D											
Intersection V/C	0.783											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.764	2.643	2.696	3.052
Crosswalk LOS	C	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	433	433	367	767
d_b, Bicycle Delay [s]	36.82	36.82	40.02	22.82
l_b,int, Bicycle LOS Score for Intersection	3.259	2.814	2.206	3.168
Bicycle LOS	C	C	B	C

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: I-5 SB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	15.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.516

Intersection Setup

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]		30.00			30.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present					No			No			No	
Crosswalk		No			Yes			No			No	

Volumes

Name	I-5 SB Ramps			I-5 SB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	0	0	0	330	0	310	0	1050	1090	0	1310	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	17	0	12	22	0	62	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	330	0	327	0	1062	1112	0	1372	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	83	0	82	0	266	278	0	343	0
Total Analysis Volume [veh/h]	0	0	0	330	0	327	0	1062	1112	0	1372	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing m		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	0	0	5	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	5	0	0	0	5	0	0	5	0
Maximum Green [s]	0	0	0	30	0	0	0	30	0	0	30	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	34	0	0	0	86	0	0	86	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	21	0	0	0	3	0	0	14	0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	C	R	C	C
C, Cycle Length [s]		120	120	120	120	120
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		19	19	19	93	93
g / C, Green / Cycle		0.16	0.16	0.16	0.78	0.78
(v / s)_i Volume / Saturation Flow Rate		0.13	0.13	0.13	0.30	0.39
s, saturation flow rate [veh/h]		1781	1671	1589	3560	3560
c, Capacity [veh/h]		281	264	251	2762	2762
d1, Uniform Delay [s]		48.90	48.95	48.99	4.30	4.91
k, delay calibration		0.11	0.11	0.11	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		5.91	6.51	7.01	0.41	0.64
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.82	0.83	0.83	0.38	0.50
d, Delay for Lane Group [s/veh]		54.81	55.46	56.00	4.71	5.56
Lane Group LOS		D	E	E	A	A
Critical Lane Group		No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]		7.14	6.80	6.54	3.61	5.35
50th-Percentile Queue Length [ft/ln]		178.53	169.95	163.43	90.35	133.66
95th-Percentile Queue Length [veh/ln]		11.52	11.07	10.73	6.50	9.14
95th-Percentile Queue Length [ft/ln]		288.09	276.84	268.26	162.62	228.46

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	55.02	0.00	55.81	0.00	4.71	0.00	0.00	5.56	0.00
Movement LOS				E		E		A			A	
d_A, Approach Delay [s/veh]	0.00			55.40			4.71			5.56		
Approach LOS	A			E			A			A		
d_I, Intersection Delay [s/veh]	15.86											
Intersection LOS	B											
Intersection V/C	0.516											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	51.34	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.306	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	1367	1367
d_b, Bicycle Delay [s]	60.00	60.00	6.02	6.02
l_b,int, Bicycle LOS Score for Intersection	4.132	5.216	2.436	2.692
Bicycle LOS	D	F	B	B

Sequence

Ring 1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-5 NB Ramps at Via De La Valle

Control Type:	Signalized	Delay (sec / veh):	23.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.596

Intersection Setup

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	0	0	0	0	0	0	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	I-5 NB Ramps			I-5 NB Ramps			Via De La Valle			Via De La Valle		
Base Volume Input [veh/h]	740	0	460	0	0	0	0	1170	0	0	1170	390
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	51	0	2	0	0	0	0	5	0	0	17	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	791	0	462	0	0	0	0	1175	0	0	1187	390
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	198	0	116	0	0	0	0	294	0	0	297	98
Total Analysis Volume [veh/h]	791	0	462	0	0	0	0	1175	0	0	1187	390
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna
Signal Group	1	0	0	0	0	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	5	0	0	0	0	0	0	5	0	0	5	0
Maximum Green [s]	30	0	0	0	0	0	0	30	0	0	30	0
Amber [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	75	0	0	0	0	0	0	45	0	0	45	0
Vehicle Extension [s]	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	5	0	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	17	0	0	0	0	0	0	14	0	0	3	0
Rest In Walk	No							No			No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No							No			No	
Maximum Recall	No							No			No	
Pedestrian Recall	No							No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	C
C, Cycle Length [s]	120	120	120		120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00
g_i, Effective Green Time [s]	36	36	36		76	76
g / C, Green / Cycle	0.30	0.30	0.30		0.64	0.64
(v / s)_i Volume / Saturation Flow Rate	0.23	0.24	0.26		0.33	0.33
s, saturation flow rate [veh/h]	1781	1758	1589		3560	3560
c, Capacity [veh/h]	532	525	475		2260	2260
d1, Uniform Delay [s]	38.56	38.71	40.04		11.95	12.01
k, delay calibration	0.11	0.11	0.11		0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	2.61	2.79	5.46		0.86	0.88
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.80	0.88		0.52	0.53
d, Delay for Lane Group [s/veh]	41.17	41.51	45.49		12.81	12.89
Lane Group LOS	D	D	D		B	B
Critical Lane Group	No	No	Yes		No	Yes
50th-Percentile Queue Length [veh/ln]	11.58	11.65	12.34		8.40	8.53
50th-Percentile Queue Length [ft/ln]	289.51	291.18	308.59		209.93	213.19
95th-Percentile Queue Length [veh/ln]	17.16	17.24	18.11		13.15	13.32
95th-Percentile Queue Length [ft/ln]	429.03	431.10	452.64		328.74	332.92

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.33	0.00	45.11	0.00	0.00	0.00	0.00	12.81	0.00	0.00	12.89	0.00
Movement LOS	D		D					B			B	
d_A, Approach Delay [s/veh]	42.72			0.00			12.81			12.89		
Approach LOS	D			A			B			B		
d_I, Intersection Delay [s/veh]	23.20											
Intersection LOS	C											
Intersection V/C	0.596											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.452	1.439	2.915	0.000
Crosswalk LOS	B	A	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	683	683
d_b, Bicycle Delay [s]	60.00	60.00	26.00	26.00
l_b,int, Bicycle LOS Score for Intersection	6.200	4.132	2.529	2.539
Bicycle LOS	F	D	B	B

Sequence

Ring 1	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: Jimmy Durante Blvd at San Dieguito Drive

Control Type:	Roundabout	Delay (sec / veh):	7.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			San Dieguito Dr			San Dieguito Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Jimmy Durante Blvd			Jimmy Durante Blvd			San Dieguito Dr			San Dieguito Dr		
Base Volume Input [veh/h]	0	771	23	0	300	4	0	0	1	0	1	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	771	23	0	300	4	0	0	1	0	1	51
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	193	6	0	75	1	0	0	0	0	0	13
Total Analysis Volume [veh/h]	0	771	23	0	300	4	0	0	1	0	1	51
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Number of Conflicting Circulating Lanes	1			1			1			1		
Circulating Flow Rate [veh/h]	0			1			306			786		
Exiting Flow Rate [veh/h]	307			838			5			23		
Demand Flow Rate [veh/h]	0	771	23	0	300	4	0	0	1	0	1	51
Adjusted Demand Flow Rate [veh/h]	0	771	23	0	300	4	0	0	1	0	1	51

Lanes

Overwrite Calculated Critical Headway	No	No	No	No
User-Defined Critical Headway [s]	4.00	4.00	4.00	4.00
Overwrite Calculated Follow-Up Time	No	No	No	No
User-Defined Follow-Up Time [s]	3.00	3.00	3.00	3.00
A (intercept)	1380.00	1380.00	1380.00	1380.00
B (coefficient)	0.00102	0.00102	0.00102	0.00102
HV Adjustment Factor	0.98	0.98	0.98	0.98
Entry Flow Rate [veh/h]	810	311	2	54
Capacity of Entry and Bypass Lanes [veh/h]	1380	1379	1011	619
Pedestrian Impedance	1.00	1.00	1.00	1.00
Capacity per Entry Lane [veh/h]	1353	1352	991	607
X, volume / capacity	0.59	0.22	0.00	0.09

Movement, Approach, & Intersection Results

Lane LOS	A	A	A	A
95th-Percentile Queue Length [veh]	4.03	0.86	0.00	0.28
95th-Percentile Queue Length [ft]	100.73	21.62	0.08	7.00
Approach Delay [s/veh]	9.30	4.56	3.64	6.92
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	7.94			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 6: Camino Del Mar at Del Mar Heights Rd

Control Type:	Signalized	Delay (sec / veh):	41.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.763

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			Del Mar Heights Rd			Del Mar Heights Rd		
Base Volume Input [veh/h]	40	1020	360	460	630	15	10	30	20	280	130	540
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	6	0	0	2	13	5	17	1	0	38	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	43	1026	360	460	632	28	15	47	21	280	168	540
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	257	90	115	158	7	4	12	5	70	42	135
Total Analysis Volume [veh/h]	43	1026	360	460	632	28	15	47	21	280	168	540
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Split	Overlap
Signal Group	0	6	0	0	2	0	0	8	0	0	4	4
Auxiliary Signal Groups												2,4
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	5
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	30
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
Split [s]	0	45	0	0	19	0	0	30	0	0	26	26
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	5
Pedestrian Clearance [s]	0	17	0	0	10	0	0	21	0	0	17	17
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	2.0
Minimum Recall		No			No			No			No	No
Maximum Recall		No			No			No			No	No
Pedestrian Recall		No			No			No			No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	38	38	38	38	38	38	6	6	22	22	74
g / C, Green / Cycle	0.32	0.32	0.32	0.32	0.32	0.32	0.05	0.05	0.18	0.18	0.62
(v / s)_i Volume / Saturation Flow Rate	0.02	0.29	0.23	0.21	0.21	0.21	0.04	0.01	0.13	0.12	0.34
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1850	1678	1681	1589	1781	1847	1589
c, Capacity [veh/h]	566	1131	505	563	584	530	121	79	327	339	979
d1, Uniform Delay [s]	28.63	39.25	36.12	35.59	35.58	35.58	56.28	54.90	45.77	45.54	13.42
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.26	12.08	8.33	6.18	5.95	6.53	3.33	1.76	2.56	2.21	2.24
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.91	0.71	0.67	0.67	0.67	0.51	0.27	0.69	0.66	0.55
d, Delay for Lane Group [s/veh]	28.89	51.33	44.45	41.77	41.53	42.12	59.60	56.66	48.33	47.75	15.66
Lane Group LOS	C	D	D	D	D	D	E	E	D	D	B
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.92	16.23	10.42	10.46	10.81	9.90	1.96	0.65	6.47	6.41	8.71
50th-Percentile Queue Length [ft/ln]	22.94	405.74	260.58	261.39	270.31	247.38	49.12	16.27	161.70	160.31	217.64
95th-Percentile Queue Length [veh/ln]	1.65	22.84	15.72	15.76	16.20	15.05	3.54	1.17	10.64	10.57	13.54
95th-Percentile Queue Length [ft/ln]	41.28	570.91	392.95	393.96	405.12	376.35	88.42	29.29	265.97	264.13	338.61

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.89	51.33	44.45	41.73	41.83	42.12	59.60	59.60	56.66	48.33	47.75	15.66
Movement LOS	C	D	D	D	D	D	E	E	E	D	D	B
d_A, Approach Delay [s/veh]	48.92			41.80			58.86			30.34		
Approach LOS	D			D			E			C		
d_I, Intersection Delay [s/veh]	41.87											
Intersection LOS	D											
Intersection V/C	0.763											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	0.00	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.852	0.000	2.060	2.677
Crosswalk LOS	C	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	683	250	433	367
d_b, Bicycle Delay [s]	26.00	45.94	36.82	40.02
l_b,int, Bicycle LOS Score for Intersection	2.739	2.484	1.697	3.190
Bicycle LOS	B	B	A	C

Sequence

Ring 1	2	6	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 7: 9th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	6.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.331

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			9th Street			9th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			9th Street			9th Street		
Base Volume Input [veh/h]	25	1033	20	26	713	16	17	0	26	22	5	11
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	2	0	10	0	0	0	0	5	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	1042	22	26	723	16	17	0	26	27	5	11
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	261	6	7	181	4	4	0	7	7	1	3
Total Analysis Volume [veh/h]	25	1042	22	26	723	16	17	0	26	27	5	11
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	34	56	0	34	56	0	0	30	0	0	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	7	0	0	7	0	0	21	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	101	101	3	101	101	4	4
g / C, Green / Cycle	0.02	0.84	0.84	0.02	0.84	0.84	0.03	0.03
(v / s)_i Volume / Saturation Flow Rate	0.01	0.29	0.01	0.01	0.20	0.20	0.02	0.02
s, saturation flow rate [veh/h]	1781	3560	1589	1781	1870	1856	1814	1798
c, Capacity [veh/h]	44	3000	1339	45	1576	1564	101	107
d1, Uniform Delay [s]	57.92	2.11	1.51	57.88	1.84	1.84	57.52	57.53
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.38	0.32	0.02	11.50	0.35	0.35	2.84	2.40
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.57	0.35	0.02	0.58	0.24	0.24	0.43	0.40
d, Delay for Lane Group [s/veh]	69.29	2.42	1.53	69.38	2.19	2.20	60.36	59.93
Lane Group LOS	E	A	A	E	A	A	E	E
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.89	1.86	0.06	0.92	1.23	1.22	1.37	1.37
50th-Percentile Queue Length [ft/ln]	22.23	46.40	1.51	23.10	30.67	30.48	34.33	34.14
95th-Percentile Queue Length [veh/ln]	1.60	3.34	0.11	1.66	2.21	2.19	2.47	2.46
95th-Percentile Queue Length [ft/ln]	40.02	83.52	2.72	41.59	55.20	54.86	61.79	61.45

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	69.29	2.42	1.53	69.38	2.20	2.20	60.36	60.36	60.36	59.93	59.93	59.93
Movement LOS	E	A	A	E	A	A	E	E	E	E	E	E
d_A, Approach Delay [s/veh]	3.94			4.48			60.36			59.93		
Approach LOS	A			A			E			E		
d_I, Intersection Delay [s/veh]	6.64											
Intersection LOS	A											
Intersection V/C	0.331											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.810	2.697	1.773	1.774
Crosswalk LOS	C	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	867	867	433	433
d_b, Bicycle Delay [s]	19.27	19.27	36.82	36.82
l_b,int, Bicycle LOS Score for Intersection	2.458	2.191	1.631	1.631
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: 15th St at Camino Del Mar

Control Type:	Signalized	Delay (sec / veh):	27.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.636

Intersection Setup

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Camino Del Mar			Camino Del Mar			15th Street			15th Street		
Base Volume Input [veh/h]	150	1450	70	110	770	120	50	20	100	40	30	140
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	5	10	0	0	0	0	0	0	11
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	150	1459	70	115	780	120	50	20	100	40	30	151
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	365	18	29	195	30	13	5	25	10	8	38
Total Analysis Volume [veh/h]	150	1459	70	115	780	120	50	20	100	40	30	151
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal Group	1	6	0	5	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	5	5	0	5	5	0	0	5	0	0	5	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	33	55	0	13	35	0	0	26	0	0	26	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	10	0	0	17	0	0	17	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	72	72	9	69	69	10	10	14	14	14
g / C, Green / Cycle	0.10	0.60	0.60	0.08	0.57	0.57	0.08	0.08	0.11	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.08	0.41	0.41	0.06	0.25	0.25	0.04	0.06	0.02	0.02	0.09
s, saturation flow rate [veh/h]	1781	1870	1840	1781	1870	1784	1805	1589	1781	1856	1589
c, Capacity [veh/h]	181	1117	1099	134	1067	1018	147	130	201	210	179
d1, Uniform Delay [s]	52.89	16.51	16.61	54.88	14.68	14.68	52.65	54.00	48.15	48.14	52.17
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.35	3.46	3.60	14.62	1.27	1.34	2.36	9.26	0.40	0.38	10.08
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.69	0.69	0.86	0.43	0.43	0.48	0.77	0.17	0.17	0.84
d, Delay for Lane Group [s/veh]	62.24	19.97	20.22	69.50	15.95	16.01	55.01	63.26	48.55	48.52	62.25
Lane Group LOS	E	B	C	E	B	B	E	E	D	D	E
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.90	14.78	14.78	3.98	7.35	7.03	2.12	3.29	0.96	0.99	4.96
50th-Percentile Queue Length [ft/ln]	122.61	369.48	369.58	99.46	183.66	175.67	52.92	82.34	24.03	24.71	123.89
95th-Percentile Queue Length [veh/ln]	8.54	21.08	21.09	7.16	11.79	11.37	3.81	5.93	1.73	1.78	8.61
95th-Percentile Queue Length [ft/ln]	213.40	527.10	527.23	179.03	294.79	284.36	95.25	148.21	43.25	44.47	215.16

Movement, Approach, & Intersection Results

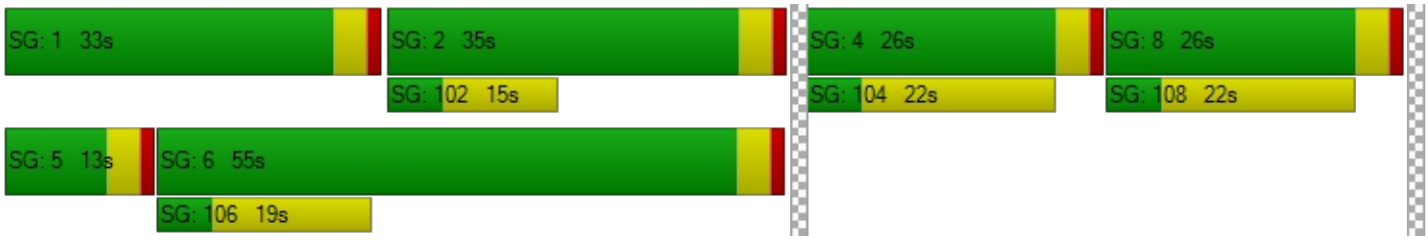
d_M, Delay for Movement [s/veh]	62.24	20.09	20.22	69.50	15.98	16.01	55.01	55.01	63.26	48.55	48.52	62.25
Movement LOS	E	C	C	E	B	B	E	E	E	D	D	E
d_A, Approach Delay [s/veh]	23.86			22.04			59.86			57.90		
Approach LOS	C			C			E			E		
d_I, Intersection Delay [s/veh]	27.68											
Intersection LOS	C											
Intersection V/C	0.636											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.34	51.34	51.34	51.34
l_p,int, Pedestrian LOS Score for Intersection	2.822	2.837	2.108	2.250
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	850	517	367	367
d_b, Bicycle Delay [s]	19.84	33.00	40.02	40.02
l_b,int, Bicycle LOS Score for Intersection	2.945	2.397	1.840	1.924
Bicycle LOS	C	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



APPENDIX 4

CITY OF DEL MAR
HOUSING ELEMENT UPDATE

February 21, 2020

Jamul Indian Village (Erica Pinto, Chairwoman)
P.O. Box 612
Jamul, CA 91935

Reference: Notification and Offer for Tribal Consultation Pursuant to the CEQA and AB52/SB18

Ms. Chairwoman Pinto,

Pursuant to City of Del Mar records, your tribe is among those requesting notification in accordance with requirements of California Assembly Bill AB52 / Senate Bill SB18. The City of Del Mar has initiated a process to update its Housing Element which part of the City's Community (General) Plan. This process is being carried out pursuant to State law for the 6th Housing Cycle which covers the period 2021-2029. The Housing Element is a State-mandated policy document within the City's Community (General) Plan that provides direction for the implementation of various programs to meet existing and projected future housing needs for all income levels within the Del Mar community. The Housing Element provides policies, programs, and actions that accommodate growth, produce opportunity for the development of new housing units, preserve existing housing stock, and assist the existing population.

Pursuant to the California Environmental Quality Act (CEQA), the City has initiated the process of preparing an Environmental Impact Report (EIR) to analyze potential impacts to the environment related to the Housing Element update. This is the "Project" pursuant to CEQA. **Please note that the Project is being developed at the "program level" and will not include any specific development or redevelopment projects.** As such, the EIR will be developed as a Program EIR for the purposes of addressing the short-term and long-term effects of the Project on the environment. It will also evaluate the potential for the Project to cause direct and indirect growth-inducing impacts, as well as cumulative impacts. Alternatives to the proposed Project will be evaluated that may reduce impacts that are determined to be significant in the Program EIR. Mitigation may be proposed for those impacts that are determined to be significant. **A summary of the proposed Project is on page 2 of this correspondence.**

To ensure that this process and document adequately incorporate any concerns from your tribe, the City of Del Mar is hereby providing formal notification, and an offer for consultation.

Should your tribe desire consultation in accordance with AB52/SB18, please provide a formal request and information for a lead contact person within 30 days of this writing. For any questions about the subject project, please contact me at the information below:

Joseph Smith, AICP, Director
City of Del Mar, Planning and Community Development Department
1050 Camino del Mar
Del Mar, CA 92014

(858) 755-9313 / jsmith@delmar.ca.us

Sincerely,

Joseph D. Smith, AICP
Planning and Community Development Director

Background

The City's current Housing Element (5th Cycle) was adopted by the City Council in 2013 and certified by the State Department of Housing and Community Development (HCD). The adopted Housing Element covers the planning period from April 2013, through April 2021. The City is currently implementing the respective actions and programs for the current planning cycle. The next housing cycle (6th Cycle) will cover the planning period from April 2021 to 2029. To comply with State law, the City's Housing Element must be updated to ensure the City's policies and programs can accommodate estimated housing growth need identified in the San Diego County Association of Government's (SANDAG) Regional Housing Needs Assessment (RHNA) allocation for the 2021-2029 planning period. Any future changes to Housing Element policy will require environmental review pursuant to the California Environmental Quality Act (CEQA). To meet these statutory deadlines, the local Del Mar approval process will need to be completed by October 30, 2020. Regularly-scheduled meetings by the City Council/Housing Committee, Planning Commission, and 6th Cycle Housing Element Ad-Hoc Citizens' Task Force (Citizens' Task Force) may be used as a public forum to further discuss associated housing issues, receive public input, discuss options, and provide direction regarding the content of the Housing Element.

6th Cycle Housing Element Update Components

The 6th Cycle Housing Element update will consist of five main components:

1. Assessment of City-wide Housing Needs and Opportunities;
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Regional Housing Needs Assessment (RHNA)

RHNA is mandated by state law to quantify future housing growth need throughout the State and each city in the San Diego Region. This informs the local planning process by addressing existing and future housing need resulting from estimated growth in population, employment, and households. SANDAG is responsible for oversight of the RHNA process for the San Diego region. SANDAG is currently overseeing the 6th cycle RHNA, which covers the planning period from 2021-2029. Per the RHNA for the 2021-2029 planning period, the City is allocated 163 units to accommodate the estimated growth need at various income levels. As required by state law, the Housing Element must identify the City's ability to accommodate this estimated growth through available sites and appropriate zoning. The 6th Cycle RHNA for Del Mar is as follows:

City of Del Mar
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Income Category	Income Range*		RHNA Allocation
	Minimum	*Maximum*	
Very Low (31% to 50%)	*$26,753*	*$43,150*	**37 units**
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Above Moderate (121% or more)	*$103,560*	*> $103,560*	**31 units**
TOTAL			**163 UNITS**

Available Sites and Capacity Analysis

The Housing Element must demonstrate the City's ability to accommodate the RHNA either through production or the availability of properly zoned land that can accommodate additional growth. If adequate sites cannot be identified within the existing zoning, the City is required to rezone sites that can accommodate the remaining need at a minimum density of 20 dwelling units per acre, which is the default density set by HCD. **The City is not required to build dwelling units in order to meet its RHNA allocation, only to identify potential sites and create the framework to allow the market the opportunity to develop these units.** The Housing Element will explore opportunities to accommodate the RHNA through current production, entitled units, or the availability of properly zoned land that can accommodate additional growth. The Housing Element will further identify and address potential and actual governmental and non-governmental constraints on the development of housing for all income levels.

CITY OF DEL MAR
HOUSING ELEMENT UPDATE

February 21, 2020

Kwaaymii Laguna Band of Mission Indians (Carmen Lucas)
P.O. Box 775
Pine Valley, CA 91962

Reference: Notification and Offer for Tribal Consultation Pursuant to the CEQA and AB52/SB18

Ms. Lucas,

Pursuant to City of Del Mar records, your tribe is among those requesting notification in accordance with requirements of California Assembly Bill AB52 / Senate Bill SB18. The City of Del Mar has initiated a process to update its Housing Element which part of the City's Community (General) Plan. This process is being carried out pursuant to State law for the 6th Housing Cycle which covers the period 2021-2029. The Housing Element is a State-mandated policy document within the City's Community (General) Plan that provides direction for the implementation of various programs to meet existing and projected future housing needs for all income levels within the Del Mar community. The Housing Element provides policies, programs, and actions that accommodate growth, produce opportunity for the development of new housing units, preserve existing housing stock, and assist the existing population.

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Joseph Smith, AICP, Director
City of Del Mar, Planning and Community Development Department
1050 Camino del Mar
Del Mar, CA 92014

(858) 755-9313 / jsmith@delmar.ca.us

Sincerely,

Joseph D. Smith, AICP
Planning and Community Development Director

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CITY OF DEL MAR
HOUSING ELEMENT UPDATE

February 21, 2020

La Posta Band of Mission Indians (Gwendolyn Parada, Chairwoman)
8 1/2 Crestwood Rd.
Boulevard, CA 91905

Reference: Notification and Offer for Tribal Consultation Pursuant to the CEQA and AB52/SB18

Ms. Chairwoman Parada,

Pursuant to City of Del Mar records, your tribe is among those requesting notification in accordance with requirements of California Assembly Bill AB52 / Senate Bill SB18. The City of Del Mar has initiated a process to update its Housing Element which part of the City's Community (General) Plan. This process is being carried out pursuant to State law for the 6th Housing Cycle which covers the period 2021-2029. The Housing Element is a State-mandated policy document within the City's Community (General) Plan that provides direction for the implementation of various programs to meet existing and projected future housing needs for all income levels within the Del Mar community. The Housing Element provides policies, programs, and actions that accommodate growth, produce opportunity for the development of new housing units, preserve existing housing stock, and assist the existing population.

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Planning and Community Development Director

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TOTAL			**163 UNITS**

Available Sites and Capacity Analysis

The Housing Element must demonstrate the City's ability to accommodate the RHNA either through production or the availability of properly zoned land that can accommodate additional growth. If adequate sites cannot be identified within the existing zoning, the City is required to rezone sites that can accommodate the remaining need at a minimum density of 20 dwelling units per acre, which is the default density set by HCD. **The City is not required to build dwelling units in order to meet its RHNA allocation, only to identify potential sites and create the framework to allow the market the opportunity to develop these units.** The Housing Element will explore opportunities to accommodate the RHNA through current production, entitled units, or the availability of properly zoned land that can accommodate additional growth. The Housing Element will further identify and address potential and actual governmental and non-governmental constraints on the development of housing for all income levels.

CITY OF DEL MAR
HOUSING ELEMENT UPDATE

February 21, 2020

Lipay Nation of Santa Ysabel (Virgil Perez, Chairman)
P.O. Box 130
Santa Ysabel, CA 92070

Reference: Notification and Offer for Tribal Consultation Pursuant to the CEQA and AB52/SB18

Mr. Chairman Perez,

Pursuant to City of Del Mar records, your tribe is among those requesting notification in accordance with requirements of California Assembly Bill AB52 / Senate Bill SB18. The City of Del Mar has initiated a process to update its Housing Element which part of the City's Community (General) Plan. This process is being carried out pursuant to State law for the 6th Housing Cycle which covers the period 2021-2029. The Housing Element is a State-mandated policy document within the City's Community (General) Plan that provides direction for the implementation of various programs to meet existing and projected future housing needs for all income levels within the Del Mar community. The Housing Element provides policies, programs, and actions that accommodate growth, produce opportunity for the development of new housing units, preserve existing housing stock, and assist the existing population.

Pursuant to the California Environmental Quality Act (CEQA), the City has initiated the process of preparing an Environmental Impact Report (EIR) to analyze potential impacts to the environment related to the Housing Element update. This is the "Project" pursuant to CEQA. **Please note that the Project is being developed at the "program level" and will not include any specific development or redevelopment projects.** As such, the EIR will be developed as a Program EIR for the purposes of addressing the short-term and long-term effects of the Project on the environment. It will also evaluate the potential for the Project to cause direct and indirect growth-inducing impacts, as well as cumulative impacts. Alternatives to the proposed Project will be evaluated that may reduce impacts that are determined to be significant in the Program EIR. Mitigation may be proposed for those impacts that are determined to be significant. **A summary of the proposed Project is on page 2 of this correspondence.**

To ensure that this process and document adequately incorporate any concerns from your tribe, the City of Del Mar is hereby providing formal notification, and an offer for consultation.

Should your tribe desire consultation in accordance with AB52/SB18, please provide a formal request and information for a lead contact person within 30 days of this writing. For any questions about the subject project, please contact me at the information below:

Joseph Smith, AICP, Director
City of Del Mar, Planning and Community Development Department
1050 Camino del Mar
Del Mar, CA 92014

(858) 755-9313 / jsmith@delmar.ca.us

Sincerely,

Joseph D. Smith, AICP
Planning and Community Development Director

Background

The City's current Housing Element (5th Cycle) was adopted by the City Council in 2013 and certified by the State Department of Housing and Community Development (HCD). The adopted Housing Element covers the planning period from April 2013, through April 2021. The City is currently implementing the respective actions and programs for the current planning cycle. The next housing cycle (6th Cycle) will cover the planning period from April 2021 to 2029. To comply with State law, the City's Housing Element must be updated to ensure the City's policies and programs can accommodate estimated housing growth need identified in the San Diego County Association of Government's (SANDAG) Regional Housing Needs Assessment (RHNA) allocation for the 2021-2029 planning period. Any future changes to Housing Element policy will require environmental review pursuant to the California Environmental Quality Act (CEQA). To meet these statutory deadlines, the local Del Mar approval process will need to be completed by October 30, 2020. Regularly-scheduled meetings by the City Council/Housing Committee, Planning Commission, and 6th Cycle Housing Element Ad-Hoc Citizens' Task Force (Citizens' Task Force) may be used as a public forum to further discuss associated housing issues, receive public input, discuss options, and provide direction regarding the content of the Housing Element.

6th Cycle Housing Element Update Components

The 6th Cycle Housing Element update will consist of five main components:

1. Assessment of City-wide Housing Needs and Opportunities;
2. Drafting of Goals, Policies, Programs, and Objectives (GPPOs);
3. Preparation of CEQA - Environmental Review Documents as applicable;
4. Preparation of the Sixth Cycle Housing Element; and
5. Coordination with HCD to Obtain State Certification

Regional Housing Needs Assessment (RHNA)

RHNA is mandated by state law to quantify future housing growth need throughout the State and each city in the San Diego Region. This informs the local planning process by addressing existing and future housing need resulting from estimated growth in population, employment, and households. SANDAG is responsible for oversight of the RHNA process for the San Diego region. SANDAG is currently overseeing the 6th cycle RHNA, which covers the planning period from 2021-2029. Per the RHNA for the 2021-2029 planning period, the City is allocated 163 units to accommodate the estimated growth need at various income levels. As required by state law, the Housing Element must identify the City's ability to accommodate this estimated growth through available sites and appropriate zoning. The 6th Cycle RHNA for Del Mar is as follows:

City of Del Mar
6th Cycle RHNA Allocations by Income Category

Income Category	Income Range*		RHNA Allocation
	Minimum	*Maximum*	
Very Low (31% to 50%)	*$26,753*	*$43,150*	**37 units**
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Moderate (81% to 120%)	*$69,041*	*$103,560*	**31 units**
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TOTAL			**163 UNITS**

Available Sites and Capacity Analysis

The Housing Element must demonstrate the City's ability to accommodate the RHNA either through production or the availability of properly zoned land that can accommodate additional growth. If adequate sites cannot be identified within the existing zoning, the City is required to rezone sites that can accommodate the remaining need at a minimum density of 20 dwelling units per acre, which is the default density set by HCD. **The City is not required to build dwelling units in order to meet its RHNA allocation, only to identify potential sites and create the framework to allow the market the opportunity to develop these units.** The Housing Element will explore opportunities to accommodate the RHNA through current production, entitled units, or the availability of properly zoned land that can accommodate additional growth. The Housing Element will further identify and address potential and actual governmental and non-governmental constraints on the development of housing for all income levels.

CITY OF DEL MAR
HOUSING ELEMENT UPDATE

February 21, 2020

Manzanita Band of Kumeyaay Nation (Angela Elliott Santos, Acting Chairwoman)
PO Box 1302
Bouelvard, CA 91905

Reference: Notification and Offer for Tribal Consultation Pursuant to the CEQA and AB52/SB18

Ms. Chairwoman Elliot Santos,

Pursuant to City of Del Mar records, your tribe is among those requesting notification in accordance with requirements of California Assembly Bill AB52 / Senate Bill SB18. The City of Del Mar has initiated a process to update its Housing Element which part of the City's Community (General) Plan. This process is being carried out pursuant to State law for the 6th Housing Cycle which covers the period 2021-2029. The Housing Element is a State-mandated policy document within the City's Community (General) Plan that provides direction for the implementation of various programs to meet existing and projected future housing needs for all income levels within the Del Mar community. The Housing Element provides policies, programs, and actions that accommodate growth, produce opportunity for the development of new housing units, preserve existing housing stock, and assist the existing population.

Pursuant to the California Environmental Quality Act (CEQA), the City has initiated the process of preparing an Environmental Impact Report (EIR) to analyze potential impacts to the environment related to the Housing Element update. This is the "Project" pursuant to CEQA. **Please note that the Project is being developed at the "program level" and will not include any specific development or redevelopment projects.** As such, the EIR will be developed as a Program EIR for the purposes of addressing the short-term and long-term effects of the Project on the environment. It will also evaluate the potential for the Project to cause direct and indirect growth-inducing impacts, as well as cumulative impacts. Alternatives to the proposed Project will be evaluated that may reduce impacts that are determined to be significant in the Program EIR. Mitigation may be proposed for those impacts that are determined to be significant. **A summary of the proposed Project is on page 2 of this correspondence.**

To ensure that this process and document adequately incorporate any concerns from your tribe, the City of Del Mar is hereby providing formal notification, and an offer for consultation.

Should your tribe desire consultation in accordance with AB52/SB18, please provide a formal request and information for a lead contact person within 30 days of this writing. For any questions about the subject project, please contact me at the information below:

Joseph Smith, AICP, Director
City of Del Mar, Planning and Community Development Department
1050 Camino del Mar
Del Mar, CA 92014

(858) 755-9313 / jsmith@delmar.ca.us

Sincerely,

Joseph D. Smith, AICP
Planning and Community Development Director

Background

The City's current Housing Element (5th Cycle) was adopted by the City Council in 2013 and certified by the State Department of Housing and Community Development (HCD). The adopted Housing Element covers the planning period from April 2013, through April 2021. The City is currently implementing the respective actions and programs for the current planning cycle. The next housing cycle (6th Cycle) will cover the planning period from April 2021 to 2029. To comply with State law, the City's Housing Element must be updated to ensure the City's policies and programs can accommodate estimated housing growth need identified in the San Diego County Association of Government's (SANDAG) Regional Housing Needs Assessment (RHNA) allocation for the 2021-2029 planning period. Any future changes to Housing Element policy will require environmental review pursuant to the California Environmental Quality Act (CEQA). To meet these statutory deadlines, the local Del Mar approval process will need to be completed by October 30, 2020. Regularly-scheduled meetings by the City Council/Housing Committee, Planning Commission, and 6th Cycle Housing Element Ad-Hoc Citizens' Task Force (Citizens' Task Force) may be used as a public forum to further discuss associated housing issues, receive public input, discuss options, and provide direction regarding the content of the Housing Element.

6th Cycle Housing Element Update Components

The 6th Cycle Housing Element update will consist of five main components:

1. Assessment of City-wide Housing Needs and Opportunities;
2. Drafting of Goals, Policies, Programs, and Objectives (GPPOs);
3. Preparation of CEQA - Environmental Review Documents as applicable;
4. Preparation of the Sixth Cycle Housing Element; and
5. Coordination with HCD to Obtain State Certification

Regional Housing Needs Assessment (RHNA)

RHNA is mandated by state law to quantify future housing growth need throughout the State and each city in the San Diego Region. This informs the local planning process by addressing existing and future housing need resulting from estimated growth in population, employment, and households. SANDAG is responsible for oversight of the RHNA process for the San Diego region. SANDAG is currently overseeing the 6th cycle RHNA, which covers the planning period from 2021-2029. Per the RHNA for the 2021-2029 planning period, the City is allocated 163 units to accommodate the estimated growth need at various income levels. As required by state law, the Housing Element must identify the City's ability to accommodate this estimated growth through available sites and appropriate zoning. The 6th Cycle RHNA for Del Mar is as follows:

City of Del Mar
6th Cycle RHNA Allocations by Income Category

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Available Sites and Capacity Analysis

The Housing Element must demonstrate the City's ability to accommodate the RHNA either through production or the availability of properly zoned land that can accommodate additional growth. If adequate sites cannot be identified within the existing zoning, the City is required to rezone sites that can accommodate the remaining need at a minimum density of 20 dwelling units per acre, which is the default density set by HCD. **The City is not required to build dwelling units in order to meet its RHNA allocation, only to identify potential sites and create the framework to allow the market the opportunity to develop these units.** The Housing Element will explore opportunities to accommodate the RHNA through current production, entitled units, or the availability of properly zoned land that can accommodate additional growth. The Housing Element will further identify and address potential and actual governmental and non-governmental constraints on the development of housing for all income levels.

CITY OF DEL MAR
HOUSING ELEMENT UPDATE

February 21, 2020

Viejas Band of Kumeyaay Indians (John Christman, Chairman)
1 Viejas Grade Road
Alpine, CA 91901

Reference: Notification and Offer for Tribal Consultation Pursuant to the CEQA and AB52/SB18

Mr. Chairman Christman,

Pursuant to City of Del Mar records, your tribe is among those requesting notification in accordance with requirements of California Assembly Bill AB52 / Senate Bill SB18. The City of Del Mar has initiated a process to update its Housing Element which part of the City's Community (General) Plan. This process is being carried out pursuant to State law for the 6th Housing Cycle which covers the period 2021-2029. The Housing Element is a State-mandated policy document within the City's Community (General) Plan that provides direction for the implementation of various programs to meet existing and projected future housing needs for all income levels within the Del Mar community. The Housing Element provides policies, programs, and actions that accommodate growth, produce opportunity for the development of new housing units, preserve existing housing stock, and assist the existing population.

Pursuant to the California Environmental Quality Act (CEQA), the City has initiated the process of preparing an Environmental Impact Report (EIR) to analyze potential impacts to the environment related to the Housing Element update. This is the "Project" pursuant to CEQA. **Please note that the Project is being developed at the "program level" and will not include any specific development or redevelopment projects.** As such, the EIR will be developed as a Program EIR for the purposes of addressing the short-term and long-term effects of the Project on the environment. It will also evaluate the potential for the Project to cause direct and indirect growth-inducing impacts, as well as cumulative impacts. Alternatives to the proposed Project will be evaluated that may reduce impacts that are determined to be significant in the Program EIR. Mitigation may be proposed for those impacts that are determined to be significant. **A summary of the proposed Project is on page 2 of this correspondence.**

To ensure that this process and document adequately incorporate any concerns from your tribe, the City of Del Mar is hereby providing formal notification, and an offer for consultation.

Should your tribe desire consultation in accordance with AB52/SB18, please provide a formal request and information for a lead contact person within 30 days of this writing. For any questions about the subject project, please contact me at the information below:

Joseph Smith, AICP, Director
City of Del Mar, Planning and Community Development Department
1050 Camino del Mar
Del Mar, CA 92014

(858) 755-9313 / jsmith@delmar.ca.us

Sincerely,

Joseph D. Smith, AICP
Planning and Community Development Director

Background

The City's current Housing Element (5th Cycle) was adopted by the City Council in 2013 and certified by the State Department of Housing and Community Development (HCD). The adopted Housing Element covers the planning period from April 2013, through April 2021. The City is currently implementing the respective actions and programs for the current planning cycle. The next housing cycle (6th Cycle) will cover the planning period from April 2021 to 2029. To comply with State law, the City's Housing Element must be updated to ensure the City's policies and programs can accommodate estimated housing growth need identified in the San Diego County Association of Government's (SANDAG) Regional Housing Needs Assessment (RHNA) allocation for the 2021-2029 planning period. Any future changes to Housing Element policy will require environmental review pursuant to the California Environmental Quality Act (CEQA). To meet these statutory deadlines, the local Del Mar approval process will need to be completed by October 30, 2020. Regularly-scheduled meetings by the City Council/Housing Committee, Planning Commission, and 6th Cycle Housing Element Ad-Hoc Citizens' Task Force (Citizens' Task Force) may be used as a public forum to further discuss associated housing issues, receive public input, discuss options, and provide direction regarding the content of the Housing Element.

6th Cycle Housing Element Update Components

The 6th Cycle Housing Element update will consist of five main components:

1. Assessment of City-wide Housing Needs and Opportunities;
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3. Preparation of CEQA - Environmental Review Documents as applicable;
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5. Coordination with HCD to Obtain State Certification

Regional Housing Needs Assessment (RHNA)

RHNA is mandated by state law to quantify future housing growth need throughout the State and each city in the San Diego Region. This informs the local planning process by addressing existing and future housing need resulting from estimated growth in population, employment, and households. SANDAG is responsible for oversight of the RHNA process for the San Diego region. SANDAG is currently overseeing the 6th cycle RHNA, which covers the planning period from 2021-2029. Per the RHNA for the 2021-2029 planning period, the City is allocated 163 units to accommodate the estimated growth need at various income levels. As required by state law, the Housing Element must identify the City's ability to accommodate this estimated growth through available sites and appropriate zoning. The 6th Cycle RHNA for Del Mar is as follows:

City of Del Mar
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TOTAL			**163 UNITS**

Available Sites and Capacity Analysis

The Housing Element must demonstrate the City's ability to accommodate the RHNA either through production or the availability of properly zoned land that can accommodate additional growth. If adequate sites cannot be identified within the existing zoning, the City is required to rezone sites that can accommodate the remaining need at a minimum density of 20 dwelling units per acre, which is the default density set by HCD. **The City is not required to build dwelling units in order to meet its RHNA allocation, only to identify potential sites and create the framework to allow the market the opportunity to develop these units.** The Housing Element will explore opportunities to accommodate the RHNA through current production, entitled units, or the availability of properly zoned land that can accommodate additional growth. The Housing Element will further identify and address potential and actual governmental and non-governmental constraints on the development of housing for all income levels.

CITY OF DEL MAR
HOUSING ELEMENT UPDATE

February 21, 2020

Campo Kumeyaay Nation (Ralph Goff, Chairman)
36190 Church Road
Campo, CA 91906

Reference: Notification and Offer for Tribal Consultation Pursuant to the CEQA and AB52/SB18

Mr. Chairman Goff,

Pursuant to City of Del Mar records, your tribe is among those requesting notification in accordance with requirements of California Assembly Bill AB52 / Senate Bill SB18. The City of Del Mar has initiated a process to update its Housing Element which part of the City's Community (General) Plan. This process is being carried out pursuant to State law for the 6th Housing Cycle which covers the period 2021-2029. The Housing Element is a State-mandated policy document within the City's Community (General) Plan that provides direction for the implementation of various programs to meet existing and projected future housing needs for all income levels within the Del Mar community. The Housing Element provides policies, programs, and actions that accommodate growth, produce opportunity for the development of new housing units, preserve existing housing stock, and assist the existing population.

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Should your tribe desire consultation in accordance with AB52/SB18, please provide a formal request and information for a lead contact person within 30 days of this writing. For any questions about the subject project, please contact me at the information below:

Joseph Smith, AICP, Director
City of Del Mar, Planning and Community Development Department
1050 Camino del Mar
Del Mar, CA 92014

(858) 755-9313 / jsmith@delmar.ca.us

Sincerely,

Joseph D. Smith, AICP
Planning and Community Development Director

Background

The City's current Housing Element (5th Cycle) was adopted by the City Council in 2013 and certified by the State Department of Housing and Community Development (HCD). The adopted Housing Element covers the planning period from April 2013, through April 2021. The City is currently implementing the respective actions and programs for the current planning cycle. The next housing cycle (6th Cycle) will cover the planning period from April 2021 to 2029. To comply with State law, the City's Housing Element must be updated to ensure the City's policies and programs can accommodate estimated housing growth need identified in the San Diego County Association of Government's (SANDAG) Regional Housing Needs Assessment (RHNA) allocation for the 2021-2029 planning period. Any future changes to Housing Element policy will require environmental review pursuant to the California Environmental Quality Act (CEQA). To meet these statutory deadlines, the local Del Mar approval process will need to be completed by October 30, 2020. Regularly-scheduled meetings by the City Council/Housing Committee, Planning Commission, and 6th Cycle Housing Element Ad-Hoc Citizens' Task Force (Citizens' Task Force) may be used as a public forum to further discuss associated housing issues, receive public input, discuss options, and provide direction regarding the content of the Housing Element.

6th Cycle Housing Element Update Components

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1. Assessment of City-wide Housing Needs and Opportunities;
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Regional Housing Needs Assessment (RHNA)

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City of Del Mar
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TOTAL			**163 UNITS**

Available Sites and Capacity Analysis

The Housing Element must demonstrate the City's ability to accommodate the RHNA either through production or the availability of properly zoned land that can accommodate additional growth. If adequate sites cannot be identified within the existing zoning, the City is required to rezone sites that can accommodate the remaining need at a minimum density of 20 dwelling units per acre, which is the default density set by HCD. **The City is not required to build dwelling units in order to meet its RHNA allocation, only to identify potential sites and create the framework to allow the market the opportunity to develop these units.** The Housing Element will explore opportunities to accommodate the RHNA through current production, entitled units, or the availability of properly zoned land that can accommodate additional growth. The Housing Element will further identify and address potential and actual governmental and non-governmental constraints on the development of housing for all income levels.

CITY OF DEL MAR
HOUSING ELEMENT UPDATE

February 21, 2020

Ewiiaapaayp Band of Kumeyaay Indians (Robert Pinto Sr., Chairman)
4054 Willows Road
Alpine, CA 91901

Reference: Notification and Offer for Tribal Consultation Pursuant to the CEQA and AB52/SB18

Mr. Chairman Pinto,

Pursuant to City of Del Mar records, your tribe is among those requesting notification in accordance with requirements of California Assembly Bill AB52 / Senate Bill SB18. The City of Del Mar has initiated a process to update its Housing Element which part of the City's Community (General) Plan. This process is being carried out pursuant to State law for the 6th Housing Cycle which covers the period 2021-2029. The Housing Element is a State-mandated policy document within the City's Community (General) Plan that provides direction for the implementation of various programs to meet existing and projected future housing needs for all income levels within the Del Mar community. The Housing Element provides policies, programs, and actions that accommodate growth, produce opportunity for the development of new housing units, preserve existing housing stock, and assist the existing population.

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To ensure that this process and document adequately incorporate any concerns from your tribe, the City of Del Mar is hereby providing formal notification, and an offer for consultation.

Should your tribe desire consultation in accordance with AB52/SB18, please provide a formal request and information for a lead contact person within 30 days of this writing. For any questions about the subject project, please contact me at the information below:

Joseph Smith, AICP, Director
City of Del Mar, Planning and Community Development Department
1050 Camino del Mar
Del Mar, CA 92014

(858) 755-9313 / jsmith@delmar.ca.us

Sincerely,

Joseph D. Smith, AICP
Planning and Community Development Director

Background

The City's current Housing Element (5th Cycle) was adopted by the City Council in 2013 and certified by the State Department of Housing and Community Development (HCD). The adopted Housing Element covers the planning period from April 2013, through April 2021. The City is currently implementing the respective actions and programs for the current planning cycle. The next housing cycle (6th Cycle) will cover the planning period from April 2021 to 2029. To comply with State law, the City's Housing Element must be updated to ensure the City's policies and programs can accommodate estimated housing growth need identified in the San Diego County Association of Government's (SANDAG) Regional Housing Needs Assessment (RHNA) allocation for the 2021-2029 planning period. Any future changes to Housing Element policy will require environmental review pursuant to the California Environmental Quality Act (CEQA). To meet these statutory deadlines, the local Del Mar approval process will need to be completed by October 30, 2020. Regularly-scheduled meetings by the City Council/Housing Committee, Planning Commission, and 6th Cycle Housing Element Ad-Hoc Citizens' Task Force (Citizens' Task Force) may be used as a public forum to further discuss associated housing issues, receive public input, discuss options, and provide direction regarding the content of the Housing Element.

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City of Del Mar
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CITY OF DEL MAR
HOUSING ELEMENT UPDATE

February 21, 2020

Sycuan Band of the Kumeyaay Nation (Cody Martinez, Chairman)
1 Kwaaypaay Court
El Cajon, CA 92019

Reference: Notification and Offer for Tribal Consultation Pursuant to the CEQA and AB52/SB18

Mr. Chairman Martinez,

Pursuant to City of Del Mar records, your tribe is among those requesting notification in accordance with requirements of California Assembly Bill AB52 / Senate Bill SB18. The City of Del Mar has initiated a process to update its Housing Element which part of the City's Community (General) Plan. This process is being carried out pursuant to State law for the 6th Housing Cycle which covers the period 2021-2029. The Housing Element is a State-mandated policy document within the City's Community (General) Plan that provides direction for the implementation of various programs to meet existing and projected future housing needs for all income levels within the Del Mar community. The Housing Element provides policies, programs, and actions that accommodate growth, produce opportunity for the development of new housing units, preserve existing housing stock, and assist the existing population.

Pursuant to the California Environmental Quality Act (CEQA), the City has initiated the process of preparing an Environmental Impact Report (EIR) to analyze potential impacts to the environment related to the Housing Element update. This is the "Project" pursuant to CEQA. **Please note that the Project is being developed at the "program level" and will not include any specific development or redevelopment projects.** As such, the EIR will be developed as a Program EIR for the purposes of addressing the short-term and long-term effects of the Project on the environment. It will also evaluate the potential for the Project to cause direct and indirect growth-inducing impacts, as well as cumulative impacts. Alternatives to the proposed Project will be evaluated that may reduce impacts that are determined to be significant in the Program EIR. Mitigation may be proposed for those impacts that are determined to be significant. **A summary of the proposed Project is on page 2 of this correspondence.**

To ensure that this process and document adequately incorporate any concerns from your tribe, the City of Del Mar is hereby providing formal notification, and an offer for consultation.

Should your tribe desire consultation in accordance with AB52/SB18, please provide a formal request and information for a lead contact person within 30 days of this writing. For any questions about the subject project, please contact me at the information below:

Joseph Smith, AICP, Director
City of Del Mar, Planning and Community Development Department
1050 Camino del Mar
Del Mar, CA 92014

(858) 755-9313 / jsmith@delmar.ca.us

Sincerely,

Joseph D. Smith, AICP
Planning and Community Development Director

Background

The City's current Housing Element (5th Cycle) was adopted by the City Council in 2013 and certified by the State Department of Housing and Community Development (HCD). The adopted Housing Element covers the planning period from April 2013, through April 2021. The City is currently implementing the respective actions and programs for the current planning cycle. The next housing cycle (6th Cycle) will cover the planning period from April 2021 to 2029. To comply with State law, the City's Housing Element must be updated to ensure the City's policies and programs can accommodate estimated housing growth need identified in the San Diego County Association of Government's (SANDAG) Regional Housing Needs Assessment (RHNA) allocation for the 2021-2029 planning period. Any future changes to Housing Element policy will require environmental review pursuant to the California Environmental Quality Act (CEQA). To meet these statutory deadlines, the local Del Mar approval process will need to be completed by October 30, 2020. Regularly-scheduled meetings by the City Council/Housing Committee, Planning Commission, and 6th Cycle Housing Element Ad-Hoc Citizens' Task Force (Citizens' Task Force) may be used as a public forum to further discuss associated housing issues, receive public input, discuss options, and provide direction regarding the content of the Housing Element.

6th Cycle Housing Element Update Components

The 6th Cycle Housing Element update will consist of five main components:

1. Assessment of City-wide Housing Needs and Opportunities;
2. Drafting of Goals, Policies, Programs, and Objectives (GPPOs);
3. Preparation of CEQA - Environmental Review Documents as applicable;
4. Preparation of the Sixth Cycle Housing Element; and
5. Coordination with HCD to Obtain State Certification

Regional Housing Needs Assessment (RHNA)

RHNA is mandated by state law to quantify future housing growth need throughout the State and each city in the San Diego Region. This informs the local planning process by addressing existing and future housing need resulting from estimated growth in population, employment, and households. SANDAG is responsible for oversight of the RHNA process for the San Diego region. SANDAG is currently overseeing the 6th cycle RHNA, which covers the planning period from 2021-2029. Per the RHNA for the 2021-2029 planning period, the City is allocated 163 units to accommodate the estimated growth need at various income levels. As required by state law, the Housing Element must identify the City's ability to accommodate this estimated growth through available sites and appropriate zoning. The 6th Cycle RHNA for Del Mar is as follows:

City of Del Mar
6th Cycle RHNA Allocations by Income Category

Income Category	Income Range*		RHNA Allocation
	Minimum	*Maximum*	
Very Low (31% to 50%)	*$26,753*	*$43,150*	**37 units**
Low (51% to 80%)	*$43,151*	*$69,040*	**64 units**
Moderate (81% to 120%)	*$69,041*	*$103,560*	**31 units**
Above Moderate (121% or more)	*$103,560*	*> $103,560*	**31 units**
TOTAL			**163 UNITS**

Available Sites and Capacity Analysis

The Housing Element must demonstrate the City's ability to accommodate the RHNA either through production or the availability of properly zoned land that can accommodate additional growth. If adequate sites cannot be identified within the existing zoning, the City is required to rezone sites that can accommodate the remaining need at a minimum density of 20 dwelling units per acre, which is the default density set by HCD. **The City is not required to build dwelling units in order to meet its RHNA allocation, only to identify potential sites and create the framework to allow the market the opportunity to develop these units.** The Housing Element will explore opportunities to accommodate the RHNA through current production, entitled units, or the availability of properly zoned land that can accommodate additional growth. The Housing Element will further identify and address potential and actual governmental and non-governmental constraints on the development of housing for all income levels.

CITY OF DEL MAR
HOUSING ELEMENT UPDATE

February 21, 2020

Lipay Nation of Santa Ysabel (Clint Linton, Director of Cultural Resources)
P.O. Box 130
Santa Ysabel, CA 92070

Reference: Notification and Offer for Tribal Consultation Pursuant to the CEQA and AB52/SB18

Mr. Linton,

Pursuant to City of Del Mar records, your tribe is among those requesting notification in accordance with requirements of California Assembly Bill AB52 / Senate Bill SB18. The City of Del Mar has initiated a process to update its Housing Element which part of the City's Community (General) Plan. This process is being carried out pursuant to State law for the 6th Housing Cycle which covers the period 2021-2029. The Housing Element is a State-mandated policy document within the City's Community (General) Plan that provides direction for the implementation of various programs to meet existing and projected future housing needs for all income levels within the Del Mar community. The Housing Element provides policies, programs, and actions that accommodate growth, produce opportunity for the development of new housing units, preserve existing housing stock, and assist the existing population.

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Joseph Smith, AICP, Director
City of Del Mar, Planning and Community Development Department
1050 Camino del Mar
Del Mar, CA 92014

(858) 755-9313 / jsmith@delmar.ca.us

Sincerely,

Joseph D. Smith, AICP
Planning and Community Development Director

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PO Box 130

City, State, ZIP+4®
SANTA YSABEL, CA 92070

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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P Joseph

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1. Article Addressed to:

LIPAY NATION OF SANTA YSABEL
PO Box 130
SANTA YSABEL, CA 92070
ATTN: CLINT LINTON

9590 9402 4822 9032 2461 58

2. Article Number *(Transfer from service label)*
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A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* Kaylish C. Date of Delivery

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PO Box 130

City, State, ZIP+4®
SANTA YSABEL, CA 92070

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P Joseph

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1. Article Addressed to:

LIPAY NATION OF SANTA YSABEL
PO Box 130
SANTA YSABEL, CA 92070
ATTN: CHAIRMAN PEREZ

9590 9402 4822 9032 2461 03

2. Article Number *(Transfer from service label)*
7017 2620 0000 4651 0700

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* Kaylish C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

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3. Service Type
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- ☐ Collect on Delivery Restricted Delivery
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- ☐ Insured Mail Restricted Delivery (over $500)
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$ (Machine postage)

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Sent To
JAMUL INDIAN VILLAGE

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PO Box 612

City, State, ZIP+4®
JAMUL, CA 91935

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1. Article Addressed to:

JAMUL INDIAN VILLAGE
PO BOX 612
JAMUL, CA 91935

9590 9402 4822 9032 2461 41

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A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* [signature] C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

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3. Service Type
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Sent To
LA POSTA BAND OF MISSION INDIANS

Street and Apt. No., or PO Box No.
8 1/2 CRESTWOOD ROAD

City, State, ZIP+4®
BOULEVARD, CA 91905

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To Joseph

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1. Article Addressed to:

LA POSTA BAND OF MISSION INDIANS
8 1/2 CRESTWOOD RD.
BOULEVARD, CA 91905

9590 9402 4822 9032 2460 80

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A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* Cynthia Paredes C. Date of Delivery 2/26/2020

D. Is delivery address different from item 1? ☒ Yes
If YES, enter delivery address below: ☐ No

8 Crestwood Rd
Boulevard, CA 91905

3. Service Type
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- ☑ Certified Mail®
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Street and Apt. No., or PO Box No.: 36190 Church Rd.
City, State, ZIP+4®: Campo, CA 91906

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1. Article Addressed to:

Campo Kumeyaay Nation
36190 Church Rd.
Campo, CA 91906

9590 9402 4822 9032 2461 34

2. Article Number (Transfer from service label)
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A. Signature
X Mayche ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

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MAR 02 2020
City of Del Mar
Administrative Services Dept

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- ☐ Collect on Delivery Restricted Delivery
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Sent To: Kwaaymii Laguna Band of Mission Indians
Street and Apt. No., or PO Box No.: PO Box 775
City, State, ZIP+4®: Pine Valley, CA 91962

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1. Article Addressed to:

Kwaaymii Laguna Band of Mission Indians
Po Box 775
Pine Valley, CA 91962

9590 9402 4822 9032 2460 97

2. Article Number (Transfer from service label)
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A. Signature
X ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
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EWIIAPAAYP BAND OF KUMEYAAY INDIANS

Street and Apt. No., or PO Box No.
4054 WILLOWS ROAD

City, State, ZIP+4®
ALPINE, CA 91901

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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To Joseph

SENDER: COMPLETE THIS SECTION

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1. Article Addressed to:

EWIIAPAAYP BAND OF KUMEYAAY INDIANS
4054 WILLOWS RD.
ALPINE, CA 91901

9590 9402 4822 9032 2460 66

2. Article Number (Transfer from service label)
7017 2620 0000 4651 0755

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) W. MICKLIN
C. Date of Delivery 2-26-20

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

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MAR 02 2020
City of Del Mar
Administrative Services Dept.

3. Service Type
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- ☑ Certified Mail®
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- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☑ Return Receipt for Merchandise
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- ☐ Return Receipt (electronic) $ ____
- ☐ Certified Mail Restricted Delivery $ ____
- ☐ Adult Signature Required $ ____
- ☐ Adult Signature Restricted Delivery $ ____

Postage
$ (machine postage)

Total Postage and Fees
$

Postmark Here
2/24/20

Sent To
VIEJAS BAND OF KUMEYAAY INDIANS

Street and Apt. No., or PO Box No.
1 VIEJAS GRADE ROAD

City, State, ZIP+4®
ALPINE, CA 91901

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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To Joseph

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

VIEJAS BAND OF KUMEYAAY INDIANS
1 VIEJAS GRADE RD
ALPINE, CA 91901

9590 9402 4822 9032 2461 27

2. Article Number (Transfer from service label)
7017 2620 0000 4651 0731

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) GERALD AMADOR
C. Date of Delivery 2-26-20

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☑ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☑ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

7017 2620 0000 4651 0762

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.

OFFICIAL USE

Certified Mail Fee
$

Extra Services & Fees *(check box, add fee as appropriate)*
- ☐ Return Receipt (hardcopy) $
- ☐ Return Receipt (electronic) $
- ☐ Certified Mail Restricted Delivery $
- ☐ Adult Signature Required $
- ☐ Adult Signature Restricted Delivery $

Postage
$ (machine postage)

Total Postage and Fees
$

Postmark Here
2/24/20

Sent To: Sycuan Band of the Kumeyaay Nation
Street and Apt. No., or PO Box No.: 1 Kwaaypaay Court
City, State, ZIP+4®: El Cajon, CA 92019

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

To Joseph

SENDER: *COMPLETE THIS SECTION*
- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
Sycuan Band of the Kumeyaay Nation
1 Kwaaypaay Court
El Cajon, CA 92019

9590 9402 4822 9032 2460 73

2. Article Number *(Transfer from service label)*
7017 2620 0000 4651 0762

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

RECEIVED
MAR 02 2020
City of Del Mar
Administrative Services Dept.

3. Service Type
- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☑ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☑ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☑ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

7017 2620 0000 4651 0724

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.

OFFICIAL USE

Certified Mail Fee
$

Extra Services & Fees *(check box, add fee as appropriate)*
- ☐ Return Receipt (hardcopy) $
- ☐ Return Receipt (electronic) $
- ☐ Certified Mail Restricted Delivery $
- ☐ Adult Signature Required $
- ☐ Adult Signature Restricted Delivery $

Postage
$ (machine postage)

Total Postage and Fees
$

Postmark Here
2/24/20

Sent To: Manzanita Band of Kumeyaay Nation
Street and Apt. No., or PO Box No.: PO Box 1302
City, State, ZIP+4®: Boulevard, CA 91905

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

CERTIFIED MAIL®

7017 2620 0000 4651 0724

U.S. POSTAGE PITNEY BOWES
ZIP 92014 $ 006.90⁰
02 4W
0000359778 FEB 24 2020

RTS/UNC
2/26
313
2/13

Manzanita Band of Kumeyaay Nation
Acting Chairwoman Angela Elliott Santos
PO Box 1302
Bouelvard, CA

NIXIE 910 DE 1 0003/13/20
RETURN TO SENDER
UNCLAIMED
UNABLE TO FORWARD
BC: 92014269899 *2004-02551-24-44

UNC
91905-040202
92014>2698