PLANNING COMMISSION

Agenda

Regular Meeting

Nov. 15, 5 p.m.

Council Chamber
1200 Carlsbad Village Dr.
Carlsbad, CA 92008
carlsbadca.gov

Welcome to the Planning Commission Meeting

We welcome your interest and involvement in the city's legislative process. This agenda includes information about topics coming before the Planning Commission and the action recommended by city staff. You can read about each topic in the staff reports, which are available on the city website.

How to watch

In Person

City Council Chamber
1200 Carlsbad Village Drive

Online

Watch the livestream at
carlsbadca.gov/watch

How to participate

If you would like to provide comments to the Planning Commission, please:

- Fill out a speaker request form, located in the foyer.
- Submit the form to the Clerk before the item begins.
- When it's your turn, the Clerk will call your name and invite you to the podium.
- Speakers have three minutes, unless the presiding officer (usually the chair) changes that time.
- You may not give your time to another person, but can create a group. A group must select a single speaker as long as three other members of your group are present. All forms must be submitted to the City Clerk before the item begins and will only be accepted for items listed on the agenda (not for general public comment at the beginning of the meeting). Group representatives have 10 minutes unless that time is changed by the presiding officer or the Planning Commission.

- **In writing:** Email comments to planning@carlsbadca.gov. Comments received by 2 p.m. the day prior to the meeting will be shared with the Commission prior to the meeting. When e-mailing comments, please identify in the subject line the agenda item to which your comments relate. All comments received will be included as part of the official record.

Reasonable accommodations

Reasonable Accommodations Persons with a disability may request an agenda packet in appropriate alternative formats as required by the Americans with Disabilities Act of 1990. Reasonable accommodations and auxiliary aids will be provided to effectively allow participation in the meeting. Please contact the City Manager's Office at 442-339-2821 (voice), 711 (free relay service for TTY users), 760-720-9461 (fax) or manager@carlsbadca.gov by noon on the Tuesday before the meeting to make arrangements. City staff will respond to requests by noon on Wednesday, the day of the meeting, and will seek to resolve requests before the start of the meeting in order to maximize accessibility.

CALL TO ORDER:

ROLL CALL:

PLEDGE OF ALLEGIANCE:

APPROVAL OF MINUTES:
Minutes of the Regular Meeting held on Oct. 18, 2023

PRESENTATIONS:

PUBLIC COMMENT: *The Brown Act allows any member of the public to comment on items not on the agenda. Please treat others with courtesy, civility, and respect. Members of the public may participate in the meeting by submitting comments as provided on the front page of this agenda. The Commission will receive comments in the beginning of the meeting. In conformance with the Brown Act, no action can occur on these items.*

CONSENT CALENDAR: *The items listed under Consent Calendar are considered routine and will be enacted by one motion as listed below. There will be no separate discussion on these items prior to the time the Planning Commission votes on the motion unless members of the Planning Commission, staff, or the public request specific items be discussed and/or removed from the Consent Calendar for separate action.*

PUBLIC HEARINGS:

1. **CARLSBAD BOULEVARD RESTRIPING PROJECT** – Adoption of a resolution approving a Coastal Development Permit for Carlsbad Boulevard restriping project on public right-of-way generally located along Carlsbad Boulevard between Solomar Drive and Island way within the Mello II segment of the city's Local Coastal Program and within Local Facilities Management Zone 22.

   ACTION TYPE: Quasi-Judicial
   STAFF RECOMMENDATION: Take public input, close the public hearing, and adopt the resolution.
   PLANNER: Izzak Mireles **ENGINEER:** Linda Ontiveros

2. **LABOUNTY RESIDENCE – 3950 GARFIELD ST. 92008** – Adoption of a resolution approving a Coastal Development Permit to allow for the demolition of an existing residential duplex and construction of a new 4,284 square-foot, three-story single-family residence with a 571-square-foot attached two-car garage, within the Mello II segment of the city's Local Coastal Program located at 3950 Garfield St. within Local Facilities Management Zone 1.

   ACTION TYPE: Quasi-Judicial
   STAFF RECOMMENDATION: Take public input, close the public hearing and adopt the resolution.
   PLANNER: Lauren Yzaguirre **ENGINEER:** David Rick

DEPARTMENTAL REPORTS:

PLANNING COMMISSION MEMBER REPORTS/COMMENTS:

PUBLIC COMMENT: Continuation of the Public Comments. *This portion of the agenda is set aside for continuation of public comments, if necessary, due to exceeding the total time allotted in the first public comments section. In conformance with the Brown Act, no Council action can occur on these items.*

CITY PLANNER REPORTS:

CITY ATTORNEY REPORT:

ANNOUNCEMENTS:

STAFF COMMENTS:

ADJOURNMENT:

PLANNING COMMISSION PROCEDURE:
For those in the audience who are not familiar with the operation of a Planning Commission, the following is a summary of the procedure:

VISUAL MATERIALS: Visual materials should be submitted to the Planning Division at planning@carlsbadca.gov no later than noon on the day of a Regular Planning Commission Meeting. Digital materials will be placed on a computer for display during the meeting. Please label all materials with the agenda item number you are representing. Items submitted for viewing, including presentations/digital materials, will be included in the time limit maximum for commenters/speakers. All materials exhibited to the Planning Commission during the meeting (slides, maps, photos, etc.) are part of the public record and must be kept by the Planning Division for at least 60 days after final action on the matter. Your materials will be returned upon written request. **Video clips cannot be accommodated.**

MEETING DECORUM: Carlsbad Municipal Code sections 1.20.320 and 1.20.330 require members of the public to observe order at this meeting and to conduct themselves in a courteous manner. California Penal code section 403 makes it a misdemeanor for any person to willfully disturb or break up any assembly or meeting with lawful authority.

FILING AN APPEAL: Certain Planning Commission decisions are final but may be appealed to the City Council. An appeal may be filed with the City Clerk at City Hall within 10 calendar days of the decision. The cost of filing an appeal is $900 for all matters. If anyone wishes to question a Planning Commission decision, they may contact the Planning Division at 442-339-2600 or at planning@carlsbadca.gov, **between the hours of 8 a.m. and 5 p.m., Monday through Friday.**

PLANNING COMMISSION

Minutes

Council Chamber
1200 Carlsbad Village Drive
Carlsbad, CA 92008

Oct. 18, 2023, 5 p.m.

CALL TO ORDER: 5 p.m.

ROLL CALL: Hubinger, Kamenjarin, Lafferty, Sabellico, Sabellico, Merz.
Absent: Merz,Stine.

PLEDGE OF ALLEGIANCE: Commissioner Sabellico led the Pledge of Allegiance.

APPROVAL OF MINUTES:
Minutes of the Regular Meeting held on Sept. 20, 2023
Minutes of the Regular Meeting held on Oct. 4, 2023

Motion by Commissioner Sabellico, seconded by Commissioner Kamenjarin, the Regular Meeting held on Sept. 20, 2023. Motion carried, 5/0/2 (Stine, Meenes – Absent)

Motion by Commissioner Kamenjarin, seconded by Commissioner Hubinger, to approve the minutes as amended of the Regular Meeting held on Oct 4, 2023. Motion carried, 5/0/2 (Stine, Meenes – Absent)

PRESENTATIONS: None.

PUBLIC COMMENT: None.

CONSENT CALENDAR: None.

1. **EIR 2022-0007 (PUB 2022-0010) HOUSING ELEMENT IMPLEMENTATION AND PUBLIC SAFETY ELEMENT UPDATE** – 1) Adoption of a resolution recommending certification of the final supplemental environmental impact report (EIR 2022-0007) and recommending adoption of findings of fact, a statement of overriding considerations, and a mitigation monitoring and reporting program for amendments to the general plan land use and community design element (including the land use map), public safety element, and associated amendments to the zoning ordinance, zoning map, local coastal program, and various master and specific plans: and
   2) Adoption of a resolution recommending approval of amendments to the general plan land use and community design element, including the land use map; and the zoning map regarding Site 4; and
   3) Adoption of a resolution recommending approval of amendments to the General Plan Land Use and Community Design Element, including the Land Use Map, Ordinance and Zoning Map, the Local Coastal Program Center Specific Plan, Green Valley Master Plan, North County Plaza Specific Plan, and Westfield Carlsbad Specific Plan.

ACTION TYPE: Quasi-Judicial
STAFF RECOMMENDATION: Take public input, close the public hearing and adopt the resolutions.
PLANNER: Scott Donnell **ENGINEER**: n/a

PUBLIC HEARING:

Chairperson Merz reviewed the modified procedures of the meeting.

Chairperson Merz opened the duly noticed public hearing at 5:11 p.m.

Commissioner Stine arrived at 5:20 p.m.

City Planner, Eric Lardy and Principal Planner, Robert Efird provided a PowerPoint presentation regarding Exhibit 1, the Supplemental Environmental Impact Report (on file in the Office of the City Clerk).

Chairperson Merz opened the public testimony at 5:23 p.m.

The following individuals spoke in support of the staff's recommendation regarding Item 1: Robert Davis, Jennifer Fornal, Bill Hoffman, Saahil Khandwala, Lori Robbins.

The following individuals spoke in opposition of the staff's recommendation regarding Item 1: Laura Brown, Tom Frieder, Howard Krausz, Jamie Augustine, Joanne Talbot.

The following individual spoke and did not support or oppose staff's recommendation regarding Item 1: Chris Barnes.

In response to Chair Merz' request for ex parte, Commissioner Kamenjarin and Hubinger expressed they have been to and are familiar with the sites. Commissioner Lafferty indicated that she is familiar with most of the sites and reviewed the properties on Google Maps. Commissioner Sabellico added that he is familiar with sites or seen them on Google Maps; and he has spoken with resident Lance Schulte regarding site 18. Chair Merz noted he is familiar with the sites.

Commissioners Stine and Sabellico recused themselves due to real estate related conflicts of interest and left the room at 5:52 p.m.

Hearing no one else wishing to speak, Chairperson Merz closed the public testimony at 5:53 p.m.

In response to Commissioner Hubinger's question, City Planner Lardy explained that the impact of railroad noise on the project is not required to be considered under CEQA so it was not reviewed in regard to noise. Mr. Lardy added that the city's consultants, Rincon Consultants would be available for further comment.

In response to Commissioner Kamenjarin' s inquiry regarding air quality, Rincon Consultant Karly Kaufman, explained that as a program level environmental document, specific level of impact cannot be determined until the building plans are in place and then mitigation measures will be applied as necessary.

In response to Commissioner Lafferty's inquiry, City Planner Lardy explained that even if one site builds more inclusionary housing than is required; it will not affect the requirements for other properties or developments.

In response to Commissioner Lafferty's inquiry, Rincon Consultant Karly Kaufman explained that developers will have to review building sites that are over 45 years old to determine if a structure is eligible to be listed on a historical resources data base and appropriate action would be taken once said determination is made. City Planner Lardy added that a majority of the sites for this project are vacant or underutilized and staff is not aware of any structures on any of the sites that are historic.

Motion by Chairperson Merz seconded by Commissioner Lafferty, to adopt Resolution No. 7497. Motion carried, 4/2/1. (Sabellico, Stine - Recused, Meenes - Absent)

Chair Merz called for a recess at 6:25 p.m.

Chair Merz reconvened the meeting at 6:36 p.m.

Commissioner Stine rejoined the Commission at 6:36 p.m.

City Planner Eric Lardy and Principal Planner Robert Efird provided a PowerPoint presentation regarding Exhibit 3, Map 1. (on file in the Office of the City Clerk).

Motion by Chairperson Merz seconded by Commissioner Stein, to adopt Resolution No. 7498. Motion carried, (5/0/1/1). (Sabellico - Recused; Meenes- Absent)

Commissioner Sabellico rejoined the Commission at 7:09 p.m.

In response to Chair Merz' request for ex parte, Commissioner Stine indicated that that he has walked Site Number 4 and is familiar with it.

City Planner Eric Lardy and Principal Planner, Robert Efird reviewed a PowerPoint presentation regarding Exhibit 3, Map 1. (on file in the Office of the City Clerk).

In response to Commissioner Hubinger's inquiry, City Planner Lardy clarified that what is changing for the sites is the land use designation and the zoning ordinance to allow for capacity. City Planner Lardy added that Map 1 gives the city the most flexibility due to the greater number of housing sites on it.

In response to Commissioner Stine's inquiry regarding the public's traffic concerns, Associate Engineer, Nick Gorman, explained that traffic studies will be done at the time of the development application. Principal Planner, Robert Efird, added that the Planning division worked with Public Works to conduct traffic analysis for the project as a whole and they found that arterial levels of service will remain acceptable, where not exempted, if these additional units are added.

Commissioner Kamenjarin explained that he feels that the housing unit quantities on Map 2 provide more of a buffer for the city and will provide more flexibility than Map 1.

Motion by Chairperson Merz seconded by Commissioner Lafferty, to adopt Resolution No. 7499. Motion carried, (5/1/1) (Kamenjarin - No; Meenes - Absent)

Chairperson Merz closed the duly noticed public hearing at 7:46 p.m.

DEPARTMENTAL REPORTS:
None.

PLANNING COMMISSION MEMBER REPORTS/COMMENTS:

Commissioner Lafferty reported that the next Historic Preservation Committee meeting will be on Nov. 13, 2023.

CITY PLANNER REPORTS:

City Planner Lardy reported Nov. 1, 2023 Planning Commission Meeting will likely be canceled because it is being reserved for the Housing Element. City Planner Lardy added that the subsequent Planning Commission meeting on Nov. 15, 2023 will continue as planned with two agenda items on the agenda.

CITY ATTORNEY REPORT:
None.

STAFF COMMENTS:
None.

ADJOURNMENT: Chairperson Merz adjourned the meeting at 7:50 p.m.

Cynthia Vigeland
Administrative Secretary

PLANNING COMMISSION

Staff Report

1

Meeting Date:	Nov. 15, 2023
To:	Planning Commission
Staff Contact:	Izzak Mireles, Associate Planner, 442-339-2693, izzak.mireles@carlsbadca.gov
Subject:	Carlsbad Boulevard Restriping Project: A request to approve a Coastal Development Permit for previous work to relocate existing roadway space with restriping for bicyclist and pedestrian improvements along Carlsbad Boulevard between Solamar Drive and Island Way.
Location:	Multiple Locations: Carlsbad Boulevard, between Solamar Drive and Island Way/District 3
Case Numbers:	CDP 2023-0036 (CIP No. 6096)
Applicant/Representative:	Miriam Jim, Senior Engineer, Public Works, City of Carlsbad, 442-339-5796, miriam.jim.miles@carlsbadca.gov
CEQA Determination:	☐ Not a Project ☒ Exempt ☐ IS/ND or IS/MND ☐ EIR
Permit Type(s):	☐ SDP ☐ CUP ☒ CDP ☐ TM/TPM ☐ GPA ☐ REZ ☐ LCPA
CEQA Status:	☐ The environmental assessment IS on the Agenda for discussion ☒ A CEQA determination was already issued. That decision is final and IS NOT on the Agenda
Commission Action:	☒ Decision ☐ Recommendation to City Council ☐ Informational (No Action)

Recommended Actions

That the Planning Commission Resolution **ADOPT** Planning Commission Resolution (Exhibit 1) **APPROVING** a Coastal Development Permit CDP 2023-0036, based upon the findings and subject to the conditions contained therein.

Existing Conditions & Project Description

The project reconfigured the segment of Carlsbad Boulevard between Solamar Drive and Island Way from two southbound vehicle lanes with unprotected shoulder buffers to a reconfigured roadway space that includes; one southbound vehicle lane, an enlarged buffer for Class II bike lanes, and six new parking spaces along Carlsbad Boulevard. This area, heavily trafficked by pedestrians and bicyclists, lacked protective measures for non-motorized travelers. The reconfigured roadway space was done to improve safety, calm traffic, support safer speeds, provide more space for pedestrians/bicyclists, and provide better beach access.

Site Map

The City of Carlsbad has already prioritized traffic safety through its policies projects, services and special initiatives. The city's Capital Improvement Program (CIP) includes 40 planned traffic and mobility related projects to street improvements, which includes this project. This project is also identified in the Safer Streets Together Plan, developed after the City Council's declaration of a local state of emergency for mobility safety on Aug. 30, 2022. Consequently, the City Council has twice endorsed this initiative through adoption of these plans.

This project was approved by the City Council on Sept. 27, 2022, as part of the mobility safety declaration; construction began in December 2021 and was completed in March 2023. During its construction, a complaint was made to the California Coastal Commission ("Coastal Commission") which began conversations with the City and Coastal Commission staff about the review authority designated to approve of the Carlsbad Boulevard lane reconfiguration. City staff shared that this type of project has been processed consistent with exemptions in the Carlsbad Municipal Code 21.201.060 (B) (11) that exempts "Activities of public utilities as specified in the repair, maintenance and utility hookup exclusion adopted by the coastal commission, Sept.5, 1978, and as modified from time to time." The city's interpretation related to that attachment is that Pavement Delineation Programs that do not change the physical improvements are exempt and a CDP was not required. However, the staff of the Coastal Commission determined that the lane configuration results in a change in capacity, which could have an impact to access and resources in the Coastal Zone; therefore, the project is considered 'development' and would require a Coastal Development Permit. Coastal Commission staff recommended that the city process retroactive Coastal Development Permit (CDP) for the work that was already completed. The Coastal Commission allowed the work to continue under the condition that an after-the-fact CDP be obtained. Approval of this CDP by the Planning Commission would conform with the Coastal Commission's recommendation and help complete and close-out this project. This area is within the appealable area of the Coastal Zone.

The project corridor is also highlighted in the Sustainable Mobility Plan, aiming to establish an efficient, interconnected active transportation network across the city. Specifically, the plan advocates for buffered bike lanes along the Carlsbad Boulevard corridor. This project introduced buffered bike lanes, creating a more convenient travel path for all roadway users.

Table "A" below includes the General Plan designations, zoning, and current land uses of the project site.

TABLE A – SITE AND SURROUNDING LAND USE

Location	General Plan Designation	Zoning Designation	Current Land Use
Site	N/A (Public Right of Way)	N/A (Public Right of Way)	Carlsbad Boulevard
North	Visitor Commercial (VC),	Commercial Tourist (C-T-Q)	Palomar Airport Road, Carlsbad Boulevard, Hilton Garden Inn Carlsbad Beach
South	Open Space (OS), Residential 4-8 du/ac (R-8)	Residential Mobile Home Park (RMHP), Planned Community (P-C)	Lake Shore Gardens Mobile Home Park, Single-Family Residential Homes
East	Visitor Commercial (VC), Residential 8-15 (R-15), Open Space (OS), Transportation Corridor (T-C), Planned Industrial (PI), Public (P), Planned Industrial/Office (PI/O)	Commercial Tourist (C-T-Q), Residential Mobile Home Park (RMHP), Open Space (OS), Transportation Corridor (T-C), Industrial (M), Public Utility (P-U), Planned Industrial/Office (P-M/P)	Hilton Garden Inn Carlsbad Beach, Solamar Community, Carlsbad Seapointe Resort
West	Open Space (OS)	Open Space (OS)	South Carlsbad State Beach, Pacific Ocean

General Plan Designation

Zoning Designation

Proposed Project

Historically, much of the city's transportation system was designed with a primary focus on the driver's level of service (LOS), often overlooking the needs of pedestrians and bicyclists. However, as the city's street transportation system has largely been built out, there's been a shift towards a multi-modal approach. By adopting a multi-modal level of service (MMLOS) methodology in the 2015 General Plan, the city has been striving to implement a balanced multi-modal transportation network. This new direction includes a comprehensive, complete streets policy, ensuring all streets are designed, operated, and maintained for all roadway users' safety. The MMLOS provides a framework that integrates with the city's existing procedures to better assess transportation impacts and mobility needs for every road user.

This project converted the two southbound vehicle travel lanes into one travel lane and repurposed the remaining pavement for other uses. The lane realignment occurs along Carlsbad Boulevard between Solamar Road and Island Way while maintaining the same number of dedicated turn lanes at intersections. Among the changes is an upgrade to the existing Class II bike lane, adding a larger buffer to provide more separation between non-motorized travelers, vehicle lanes, and on-street parking along Carlsbad Boulevard. These safety buffers, extending two to three feet on each side, enhance safety. In addition, intersections are highlighted with vivid green paint, drawing attention to zones where different road users might intersect and potentially conflict. On-street parking was strategically reconfigured to accommodate the larger bike lane buffer, adding six additional parallel parking stalls near the Carlsbad Boulevard and Island Way intersection.

The Mobility Element of the General Plan sets standards for MMLOS, emphasizing an approach that evaluates transportation services from a comprehensive, multi-modal standpoint. This includes a performance measurement that assesses the LOS for motorized vehicles, with vehicular LOS graded from 'A' to 'F' — 'A' representing a high level of service, and 'F' indicating a low level. A traffic memorandum for the project, referenced as Exhibit 3, was prepared to analyze the roadway segment and intersection operations with the proposed changes and to discuss the vehicle LOS findings. The project improvements yield a southbound AM/PM LOS of 'E'/'F' (failing) for the roadway along Carlsbad Boulevard between Solamar Drive and Island Way and an AM/PM LOS of 'A'/'B' (acceptable) at the intersections.

According to General Plan Policy 3-P.15, the City Council has the authority to approve any road narrowing that would reduce vehicle capacity to a LOS of 'D' or below.

General Plan Policy 3-P.15 states:

> Evaluate methods and transportation facility improvements to promote biking, walking, safer street crossings, and attractive streetscapes. The City Council shall have the sole discretion to approve any such road diet or vehicle traffic calming improvements that would reduce vehicle capacity to or below a LOS 'D'.

On Sept. 27, 2022, the City Council approved the road reconfiguration and allowed this project to operate at a LOS of 'E' (Resolution No. 2022-227 and the Staff Report is provided in Exhibit 6) . Further analysis of General Plan Policy 3-P.15 can be found in Exhibit 2.

After receiving approval from the City Council, the project was finalized in March 2023. During its construction, city staff was informed by the Coastal Commission that a change in the number of vehicle lanes is considered 'development' and recommended that a CDP must be processed to retroactively approve the CIP. Specific compliance with CDP requirements is analyzed in Exhibit 2. Although there were initial concerns about processing the CIP without a CDP review, the city has received no complaints about the restriping since the project's completion, and there have been no reported collisions along the project site.

The project is located within Local Facilities Management Zone 22 in the southwest quadrant of the city.

Public Outreach & Comment

Public notice of the project was mailed on Oct. 27, 2023, to property owners within 600 feet of the subject property, and a total of 140 owners were notified. There were no occupants within 100 feet of the subject property.

No other comments were received during this public outreach effort.

Project Analysis

General Plan Consistency

The City of Carlsbad General Plan includes several goals and policies that guide development and land use within the city. A discussion of how the project is consistent with the applicable General Plan policies is summarized in Exhibit 2.

Municipal Code Consistency

The City of Carlsbad Municipal Code, most notably Title 21 Zoning Code, includes requirements and provisions that guide development and land use within the city, consistent with the General Plan. Specific compliance with these relevant requirements is described in Exhibit 2.

Local Coastal Program Consistency

The project site is in the Coastal Zone and requires a Coastal Development Permit. The project complies with the Local Coastal Program, including all goals and policies of the General Plan and all zoning code standards, as referenced above. The project is within the Coastal Commission's appealable area of the Local Coastal Program.

Discretionary Actions & Findings

The proposed project requires approval of a Coastal Development Permit, which is discussed below.

Coastal Development Permit (CDP 2023-0036)

Approval of a Coastal Development Permit (CDP) is required to ensure that the project complies with the Local Coastal Program, including all goals and policies of the General Plan and all zoning code standards, as referenced above. Staff finds that the required findings for this application can be met (Exhibit 2).

Environmental Review

The California Environmental Quality Act ("CEQA") and its implementing regulations ("CEQA Guidelines") adopted by the Secretary of the California Natural Resources Agency list classes of projects that have been determined not to have a significant effect on the environment and as a result are exempt from further environmental review under CEQA. City staff completed a review of the project and potential environmental impacts associated with the project pursuant to CEQA and concluded that the project qualified for an exemption pursuant to CEQA Guidelines section 15301(c) Existing Facilities (Class 1).

The CEQA Guidelines include a list of classes of projects which have been determined not to have a significant effect on the environment and which shall, therefore, be exempt from the provisions of CEQA. CEQA Guidelines Section 15301(c) is a Class 1 exemption for Existing Facilities. Exempted are existing highways and streets, sidewalks, gutters, bicycle and pedestrian trails, and similar facilities (this includes road grading for the purpose of public safety), and other alterations such as the addition of bicycle facilities, including but not limited to bicycle parking, bicycle-share facilities and bicycle lanes, transit improvements such as bus lanes, pedestrian crossings, street trees, and similar alterations that do not create additional automobile lanes. The project and site meet the criteria of the Section 15301(c) Class 1 Existing Facilities exemption.

A notice of intended decision regarding the environmental determination was advertised on Oct.19, 2023 and posted on the city's website. The notice included a general description of the project, the environmental findings, and a general explanation of the matter to be considered. The findings and determination contained in that notice were declared as final on the date of the noticed decision, unless appealed as provided by the procedures commencing in Chapter 21.54 (Procedures, Hearings, Notices, and Fees) of the Zoning Ordinance.

During the 10-day public review period, the city received no comment letters from the public regarding the prospective environmental determination. Since no appeal was filed and no substantial evidence was submitted that would support a finding that the exemption requirements would not be satisfied, the project was determined by the City Planner to not have a significant effect on the environment. The CEQA determination letter is attached to this staff report as (Exhibit 4) and demonstrates that the project is categorically exempt from further environmental review. The City Planner's written decision is final and the CEQA determination is not within the Planning Commission's purview. With the appropriate environmental clearances in place, all of the city's procedural requirements and relevant aspects of CEQA have been satisfied.

Conclusion

Considering the information above and in the referenced Exhibits, staff has found that the project is consistent with all applicable policies of the General Plan and Local Coastal Program, provisions of the Municipal Code and Local Facility Management Zone 22. In addition, there are no environmental issues associated with the project.

The project is conditioned to ensure compatibility with the surrounding properties and that the public health, safety, and welfare of the community are maintained. Staff recommends the Planning Commission adopt the resolution approving the project described in this staff report.

Exhibits

1. Resolution – Coastal Development Approval
2. Project Analysis
3. Traffic Memorandum
4. CEQA Determination Letter
5. Location Map
6. City Council Staff Report & Resolution, Sept. 27, 2022
7. Reduced Exhibits
8. Full-Size Exhibits "A" – "B" dated Nov. 15, 2023, on file in the office of the City Clerk.
9. List of Acronyms and Abbreviations

PLANNING COMMISSION RESOLUTION NO.

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CARLSBAD, CALIFORNIA, APPROVING A COASTAL DEVELOPMENT PERMIT FOR CARLSBAD BOULEVARD RESTRIPING PROJECT ON PUBLIC RIGHT-OF-WAY GENERALLY LOCATED ALONG CARLSBAD BOULEVARD BETWEEN SOLAMAR DRIVE AND ISLAND WAY WITHIN THE MELLO II SEGMENT OF THE CITY'S LOCAL COASTAL PROGRAM AND WITHIN LOCAL FACILITIES MANAGEMENT ZONE 22
CASE NAME: CARLSBAD BOULEVARD RESTRIPING PROJECT
CASE NO: CDP 2023-0036

WHEREAS, **City of Carlsbad**, "Applicant," has filed a verified application with the City of Carlsbad regarding property owned by **City of Carlsbad**, described as **public right-of-way along Carlsbad Boulevard between Solamar Drive and Island Way** ("the Property"); and

WHEREAS, said verified application constitutes a request for a Coastal Development Permit as shown on Exhibits "A" – "B" dated **Nov. 15, 2023**, attached hereto and on file in the Carlsbad Planning Division, **CARLSBAD BOULEVARD RESTRIPING PROJECT, CDP 2023-0036**, as provided in Chapter 21.201.030 of the Carlsbad Municipal Code; and

WHEREAS, the Planning Division studied the Coastal Development Permit application and performed the necessary investigations to determine if the project qualified for an exemption from further environmental review under the California Environmental Quality Act, (CEQA, Public Resources Code section 2100 et. Seq.), and its implementing regulations (the State CEQA Guidelines), Article 14 of the California Code of Regulations section 1500 et. seq. After consideration of all evidence presented, and studies and investigations made by the city planner and on its behalf, the city planner determined that the project was exempt from further environmental review pursuant to State CEQA Guidelines section 15301 – Existing Facilities, in that the project is consistent with the General Plan, Zoning Ordinance, and Local Coastal Program; the project site is within the city limits, is less than five acres in size, and is substantially

surrounded by urban uses; there is no evidence that the site has value as habitat for endangered, rare, or threatened species; approval of the project will not result in significant effects relating to traffic, noise, air quality, or water quality; and the site can be adequately served by all required utilities and public services. The project will not have a significant effect on the environment and all requirements of CEQA have been met;

WHEREAS, on Oct.19, 2023, the city distributed a notice of the intended decision to adopt "Existing Facilities" exemptions. The notice was circulated for a 10-day period, which began on Oct. 19, 2023, and ended on Oct. 30, 2023. The city did not receive any comment letter on the CEQA findings and determination. The effective date and order of the city planner CEQA determination was Oct. 30, 2023.

WHEREAS, the Planning Commission did, on **Nov. 15, 2023**, hold a duly noticed public hearing as prescribed by law to consider said request;

WHEREAS, at said public hearing, upon hearing and considering all testimony and arguments, if any, of all persons desiring to be heard, said Commission considered all factors relating to the Coastal Development Permit.

NOW, THEREFORE, BE IT HEREBY RESOLVED by the Planning Commission of the City of Carlsbad, as follows:

A) That the above recitations are true and correct.

B) That based on the evidence presented at the public hearing, the Commission **APPROVE CARLSBAD BOULEVARD RESTRIPING PROJECT, CDP 2023-0036**, based on the following findings and subject to the following conditions:

Findings:

1. That the proposed development is in conformance with the Certified Local Coastal Program and all applicable policies in that **the proposed project is in the Mello II Segment of the Local Coastal Program (LCP) and is within the appealable jurisdiction of the California Coastal Commission. Carlsbad LCP Mello II segment policies are specific to**

individual properties, the portions of the proposed project that overlap within the Mello II segment only include restriping and pedestrian improvements and not road widening. The proposed restriping is consistent with the Land Use, Drainage, and Environmental Protection Policies. The project is in conformance with the following policies of the LCP.

2. The proposal is in conformity with the public access and recreation policies of Chapter 3 of the Coastal Act in that **the proposed multimodal use of the roadway would improve public access opportunities and recreational resources capacity and keep level of service of this arterial roadway the same for vehicles. The improvements will not obstruct any views as seen from public right of way. The project will not impact agricultural uses. The project is not located in an area of known geologic instability.**

3. The project is consistent with the provisions of the Coastal Resource Protection Overlay Zone (Chapter 21.203 of the Zoning Ordinance) in that the project will adhere to the city's Master Drainage Plan, Grading Ordinance, Storm Water Ordinance, BMP Design Manual and Jurisdictional Runoff Management Program (JRMP) to avoid increased urban runoff, pollutants, and soil erosion. **The project does not include steep slopes or native vegetation on the subject property and the site is not located in an area prone to landslides or susceptible to accelerated erosion, floods, or liquefaction.**

The Planning Commission has reviewed each of the exactions imposed on the Applicant contained in this resolution, and hereby finds, in this case, **that there are no impacts caused by or reasonably related to the project.**

Conditions:

General

NOTE: Unless otherwise specified herein, the project is subject to the following conditions.

1. Staff is authorized and directed to make, or require the applicant to make, all corrections and modifications to the **CDP 2023-0036** documents, as necessary to make them internally consistent and in conformity with the final action on the project. Development shall occur substantially as shown on the approved Exhibits. Any proposed development, different from this approval, shall require an amendment to this approval.

2. Applicant shall comply with all applicable provisions of federal, state, and local laws and regulations.

3. This project shall comply with all conditions and mitigation measures which are required as part of the **Zone 22** Local Facilities Management Plan and any amendments made to that Plan.

4. This approval is granted subject to the approval of **CDP 2023-0036** and is subject to all conditions contained in this Planning Commission Resolution for those other approvals incorporated herein by reference.

NOTICE TO APPLICANT

An appeal of this decision to the City Council must be filed with the City Clerk at 1200 Carlsbad Village Drive, Carlsbad, California, 92008, within ten (10) calendar days of the date of the Planning Commission's decision. Pursuant to Carlsbad Municipal Code Chapter 21.54, section 21.54.150, the appeal must be in writing and state the reason(s) for the appeal. The City Council must make a determination on the appeal prior to any judicial review.

The project site is within the appealable area of the California Coastal Commission. This Coastal Development Permit (CDP) shall not become effective until ten (10) working days have elapsed, without a valid appeal being filed with the Coastal Commission, following the Coastal Commission's receipt of the city's notice of the CDP issuance ("Notice of Final Action"). The filing of a valid appeal with the Coastal Commission within such time limit shall stay the effective date of this CDP until such time as a final decision on the appeal is reached by the Coastal Commission.

NOTICE

Please take **NOTICE** that approval of your project includes the "imposition" of fees, dedications, reservations, or other exactions hereafter collectively referred to for convenience as "fees/exactions."

You have 90 days from date of final approval to protest imposition of these fees/exactions. If you protest them, you must follow the protest procedure set forth in Government Code Section 66020(a), and file the protest and any other required information with the City Manager for processing in accordance with Carlsbad Municipal Code Section 3.32.030. Failure to timely follow that procedure will bar any subsequent legal action to attack, review, set aside, void, or annul their imposition.

You are hereby FURTHER NOTIFIED that your right to protest the specified fees/exactions DOES NOT APPLY to water and sewer connection fees and capacity charges, nor planning, zoning, grading, or other similar application processing or service fees in connection with this project; NOR DOES IT APPLY to any fees/exactions of which you have previously been given a NOTICE similar to this, or as to which the statute of limitations has previously otherwise expired.

PASSED, APPROVED, AND ADOPTED at a regular meeting of the Planning Commission of the City of Carlsbad, California, held on **Nov. 15, 2023**, by the following vote, to wit:

AYES:

NAYES:

ABSENT:

ABSTAIN:

PETER MERZ, Chair
CARLSBAD PLANNING COMMISSION

ATTEST:

ERIC LARDY
City Planner

PROJECT ANALYSIS

The project is subject to the following regulations:

A. General Plan
B. Coastal Development Permit (CMC Chapter 21.201), Local Coastal Program (Mello II)
C. McClellan-Palomar Airport Land Use Compatibility Plan
D. Sustainable Mobility Plan
E. Growth Management and Local Facilities Management Zone 22

The recommendation for approval of this project was developed by analyzing the project's consistency with the applicable regulations and policies. The project's compliance with each of the above regulations is discussed in detail in the sections below.

A. General Plan

The project site is located entirely within the right of way.

The project also complies with the other Elements of the General Plan as outlined in Table "A" below:

TABLE A – GENERAL PLAN COMPLIANCE

ELEMENT	USE, CLASSIFICATION, GOAL, OBJECTIVE, OR PROGRAM	PROPOSED USES & IMPROVEMENTS	COMPLY
Land Use & Community Design	Goal 2-G.2 – Promote a diversity of compatible land uses throughout the city, to enable people to live close to job locations, adequate and convenient commercial services, and public support systems such as transit, parks, schools, and utilities.	This project reconfigured the existing roadway space within the area to improve safety, calm traffic, support safer speeds, and provide better access to the beach. This project provides more space for pedestrians and bicyclists, adds a larger buffer to the existing Class II bike lanes, and adds six new parking stalls along Carlsbad Boulevard. The project enables people to use alternative forms of transportation.	Yes
Land Use & Community Design	Goal 2-G.18 - Ensure that new development fosters a sense of community and is designed with the focus on residents, including children, the disabled and the elderly, by providing: safe, pedestrian-friendly, tree-lined streets; walkways to common destinations such as schools, bikeways, trails, parks and stores; homes that exhibit visual diversity,	The project supports efforts to create a sense of community by allowing all modes of transportation to be better served in providing access along the coastline. By reducing vehicle lanes and installing traffic calming measures, vehicles will experience more appropriate flows through the segment. Also, bicycles will experience improved conditions with wider buffered bike	Yes

ELEMENT	USE, CLASSIFICATION, GOAL, OBJECTIVE, OR PROGRAM	PROPOSED USES & IMPROVEMENTS	COMPLY
	pedestrian-scale and prominence to the street; central gathering places; and recreation amenities for a variety of age groups.	lanes, and pedestrians will have more space away from automobile travel lanes.	
Mobility	Goal 3-G.1 - Keep Carlsbad moving with livable streets that provide a safe, balanced, cost-effective, multi-modal transportation system accommodating the mobility needs of all community members, including children, the elderly, and the disabled.	The city's adopted multi-modal level of service standard aims to provide the necessary tools for assessing the performance of all travel modes, thus allowing the consideration of trade-offs between different road users. The proposed project will provide bicycle and pedestrian improvements and enable people to use alternative forms of transportation along Carlsbad Boulevard.	Yes
Mobility	Policy 3-P-1 - Implement a comprehensive livable streets network. This network identifies the transportation modes that shall be accommodated, based on street typology, to ensure accessibility of the city's street system to persons of all ages and abilities.	The existing lane configuration for the Carlsbad Boulevard corridor provides wide areas for vehicles but not sufficient room for other modes of transportation. Upgrading the current Class II bike lanes with larger buffers provides more separation between non-motorized travelers from vehicle lanes and the on-street parking along Carlsbad Boulevard. Further, intersections are emphasized with vivid green paint, signaling attention to zones where different road users intersect and may come into conflict.	Yes
Mobility	Policy 3-P.15: Evaluate methods and transportation facility improvements to promote biking, walking, safer street crossings, and attractive streetscapes. The City Council shall have the sole discretion to approve any such road diet or vehicle traffic calming improvements that would reduce vehicle capacity to or below a LOS D.	The project reduces vehicle lanes in one segment of the roadway, on Carlsbad Boulevard from Solamar Drive to Island Way, in the southbound direction. The project provides bicycle and pedestrian improvements and enables people to use alternative forms of transportation along Carlsbad Boulevard. Supporting documentation shows the vehicular LOS at an 'E' grade. On Sept. 27, 2022, the City Council approved the road reconfiguration and allowed this project to operate at a LOS of	Yes

ELEMENT	USE, CLASSIFICATION, GOAL, OBJECTIVE, OR PROGRAM	PROPOSED USES & IMPROVEMENTS	COMPLY
		'E'. Although the conservative segment analysis showed a LOS E, The traffic signal operation analysis indicates that both signalized intersections would operate at a level of service B or better in the morning, midday and afternoon peak hours on weekdays and in the peak hour on weekends under existing conditions as well as pre-pandemic conditions. Because the number of lanes at the intersections would remain unchanged with the proposed project, the operation of the signals is expected to remain at a level of service B or better. It is worth noting that the No. 2 lane on Carlsbad Boulevard, the second lane from the center or westernmost lane, was closed in the southbound direction between Solamar Drive and Island Way in 2016 due to severe erosion near the Encinas Creek Bridge. To ensure the safety of drivers, bicyclists and pedestrians and to help facilitate the necessary repairs, the city implemented a long-term lane closure in January 2016 and lasted through early 2017. During this long-term lane closure, traffic impacts were observed to be minimal, and the single southbound lane was found to provide adequate capacity, as documented in the May 22, 2017, council memorandum provided in Exhibit 6. The traffic volumes in 2016 were likely higher than the current traffic volumes on Carlsbad Boulevard and comparable to the 2019 volumes. The existing one lane on southbound Carlsbad Boulevard between Solamar Drive and Island Way has been accommodating the traffic with minimal impacts to vehicle travel time.	

ELEMENT	USE, CLASSIFICATION, GOAL, OBJECTIVE, OR PROGRAM	PROPOSED USES & IMPROVEMENTS	COMPLY
Mobility	Policy 3-P.16 - Design new streets, and explore funding opportunities for existing streets, to minimize traffic volumes and/or speed, as appropriate, within residential neighborhoods without compromising connectivity for emergency responders, bicycles, and pedestrians consistent with the city's Carlsbad Active Transportation Strategies. This should be accomplished through management and implementation of livable streets strategies and such programs like the Carlsbad Residential Traffic Management Plan.	The existing right-of-way is shared by multiple modes of travel, each using their assigned portion of the road allowance. The project includes engineering design changes that will improve safety for non-motorized vehicles. Bicyclists will experience improved conditions through the use of wider buffers for the existing bike lanes and clear delineation of conflict zones with visibility green striping at intersections.	Yes
Noise	Goal 5-G.1 – Protect public health and welfare by eliminating existing noise problems where feasible, maintaining an acceptable indoor and outdoor acoustic environment, and preventing significant degradation of the acoustic environment. Goal 5-G.2 – Ensure that new development is compatible with the noise environment, by continuing to use potential noise exposure as a criterion in land use planning.	The project improves the existing roadway experience for all roadway users without widening or adding lanes that could potentially increase traffic noise in the project area. The project primarily focuses on developing bicycle and pedestrian facilities, which are non-motorized travel modes that not only reduce engine noise but also ensure slower travel speeds, thus decreasing noise levels. Moreover, promoting non-motorized transportation modes would significantly reduce the emission of air pollutants, leading to improved air quality in the project area.	Yes
Public Safety	Goal 6-G.2 – Minimize safety hazards related to aircraft operations in areas around the McClellan-Palomar Airport.	The proposed project falls outside the boundaries of the McClellan-Palomar Airport Land Use Compatibility Plan (ALUCP). The ALUCP was amended on December 1, 2011, and all projects within its boundary are required to be reviewed for consistency with its goals and policies. The ALUCP identifies four types of airport impacts that must be considered for each development: Noise, Safety,	Yes

ELEMENT	USE, CLASSIFICATION, GOAL, OBJECTIVE, OR PROGRAM	PROPOSED USES & IMPROVEMENTS	COMPLY
		Airspace Protection, and Overflight. Based on a review of the ALUCP, the project sites are not located within any noise contour or safety zone. The section of the project is located along Carlsbad Boulevard and is within the overflight notification area and is outside of the Airport Influence Area.	
Sustainability	Policy 9-P.1 – Enforce the Climate Action Plan (CAP) as the city's strategy to reduce greenhouse gas emissions.	The project includes multi-modal improvements to enable comfortable access for pedestrians and cyclists of all skill levels to key destinations in the project area. This would promote non-motorized travel that would contribute to a reduction in vehicle miles traveled and greenhouse gas emissions.	Yes

B. Coastal Development Permit (Chapter 21.201)

The project is within the Coastal Zone and is subject to the Mello II segments of the Local Coastal Program (LCP). The project is also within the appealable jurisdiction of the California Coastal Commission. The project's compliance with each of these programs and ordinances is discussed below:

Mello II Segment of the Certified Local Coastal Program and all applicable policies

The majority of the policies within the Mello II segments relate to land uses outside of the right-of-way. The road improvements will not obstruct views of the coastline as seen from public lands or the public right of way, nor otherwise damage the visual beauty of the coastal zone. Furthermore, no agricultural uses exist on the site, nor are there any sensitive resources located on the previously developed land. The project is not located in any area of known geologic instability and is not located within a 100-year flood area. The site does have frontage along the coastline that provides coastal shoreline access. The proposed lane reductions on Carlsbad Boulevard in the southbound direction will not affect access to the beach. In fact, by improving bike infrastructure and enhancing walkability, the road improvements will make it easier for people to use alternative modes of transportation to access the beach. While this project reduces the vehicle lanes in this corridor from two to one, the reconfiguration calms traffic, supports slower speeds and provides better access to the beach. The project enables people to use alternative forms of transportation to access the beach.

Mello II Segment: The project is consistent with the following Carlsbad Mello II policies:

a. *Carlsbad LCP Policy 1-1 Allowable land Uses.* The project complies because it is consistent with the General Plan and the Local Coastal Program.

b. *Carlsbad LCP Policy 3-1.1 Habitat Management Plan (HMP).* The project does not include any

grading and will not damage or harm any sensitive environmental resources.

c. *Carlsbad LCP Policy 3-4 Grading and Landscaping Requirements.* The project does not include any grading.

d. *Carlsbad LCP Policy 4-4 Removal of Natural Vegetation.* The project is not located within sensitive resources and entirely within existing right-of-way.

Carlsbad LCP Chapter 3: The proposal is in conformance with the public access and recreation policies of Chapter 3 of the Coastal Act in that the proposed multi-modal use of the roadway would improve public access opportunities and recreational resources capacity and keep level of service through this Arterial the same. The improvements will not obstruct any views as seen from public right of way. The project will not impact agricultural uses. The project is not located in an area of known geologic instability.

Coastal Resource Protection Overlay Zone: The project is consistent with the provisions of the Coastal Resource Protection Overlay Zone. The project is consistent with the provisions of the Coastal Resource Protection Overlay Zone (CMC Chapter 21.203 of the Zoning Ordinance) in that the project will adhere to the city's Master Drainage Plan, Grading Ordinance, Storm Water Ordinance, BMP Design Manual and Jurisdictional Runoff Management Program (JRMP) to avoid increased urban run-off, pollutants and soil erosion. The subject property is within the public right-of-way and public utility and access easements, does not include steep slopes (equal to or greater than 25 percent gradient) nor native vegetation. The site is not located within an area prone to landslides or susceptible to accelerated erosion, liquefaction, or flooding.

Required Findings for a Coastal Development Permit (CMC Chapter 21.201)

1. That the proposed development is in conformance with the Certified Local Coastal Program and all applicable policies in that the proposed project is in the Mello II Segment of the Local Coastal Program (LCP). **Carlsbad LCP Mello II segment policies are specific to individual properties, the portions of the proposed project that overlap within the Mello II segments only include restriping and pedestrian improvements and not road widening. The proposed restriping is consistent with the Land Use, Drainage, and Environmental Protection Policies. The project is in conformance with the policies of the LCP.**
2. The proposal is in conformity with the public access and recreation policies of Chapter 3 of the Coastal Act in that the proposal is in conformance with the public access and recreation policies of Chapter 3 of the Coastal Act in that **the proposed multi-modal use of the roadway would improve public access opportunities and recreational resources capacity and keep the level of service through this arterial at acceptable levels as approved by the City Council on Sept. 27, 2022. The improvements will not obstruct any views as seen from the public right of way. The project will not impact agricultural uses. The project is not located in an area of known geologic instability. While this project reduces the vehicle lanes in this corridor from two to one, the reconfiguration calms traffic, supports slower speeds and provides better access to the beach. The project enables people to use alternative forms of transportation to access the beach. This project is also providing six new parking spaces which would help increase access to the beach.**

C. McClellan-Palomar Airport Land Use Compatibility Plan

The project falls outside the boundaries of the McClellan-Palomar Airport Land Use Compatibility Plan (ALUCP). The ALUCP was amended on Dec. 1, 2011, and all projects within its boundary are required to be reviewed for consistency with its goals and policies. The ALUCP identifies four types of airport compatibility factors that must be considered for each development: Noise, Safety, Airspace Protection, and Overflight. Based on a review of the ALUCP, the project site is not located within any noise contours, safety zones, or Airport Influence Areas. The project site is located within the overflight notification area. However, these development restrictions apply to residential developments, and therefore no further action is required.

D. Sustainable Mobility Plan

The project emerged from the Sustainable Mobility Plan, which aims to create a highly efficient and interconnected active transportation network throughout the city. The Carlsbad Boulevard corridor was selected through a careful and strategic process. Factors included commuter flow, connections to schools, residential areas, popular destinations like the coastline, and integration with public transportation hubs. The proposed project facilitates a more seamless and convenient path of travel for all roadway users.

E. Growth Management (CMC Chapter 21.90)

The project is located within Local Facilities Management Zone 22 in the southwest quadrant of the city. The project is in compliance with the adopted performance standards and would provide the necessary public facilities identified in the facilities plan.

Michael Baker
INTERNATIONAL

We Make a Difference

August 30, 2022

John T. Kim, PE, TE
City Traffic Engineer
Traffic & Mobility Division
City of Carlsbad
1635 Faraday Avenue
Carlsbad, CA 92008

Re: Carlsbad Boulevard Restriping (PSA21-1350TRAN) – Roadway Segment Analysis

Michael Baker International (Michael Baker) conducted a roadway segment level of service (LOS) analysis for southbound Carlsbad Boulevard from Solamar Drive to Island Way. In efforts to address climate adaptation along this segment of Carlsbad Boulevard, the City is planning to restripe the southbound travel lanes from two lanes to one lane while maintaining the bicycle lane and on-street parking that exists today. The *City of Carlsbad Service Volume Tables Report* dated May 2021 was used to evaluate southbound Carlsbad Boulevard from Solamar Drive to Island Way under Existing Conditions and conditions with Proposed Modifications.

Existing Conditions:

Southbound Carlsbad Boulevard between Solamar Drive and Island Way provides two 10-foot travel lanes, a two-foot buffer, and an 8-foot striped bicycle lane. Angled parking is currently provided along the west side of Carlsbad Boulevard for approximately 360 feet which translates to approximately 30 parking spaces.

New AM and PM peak hour turning movement counts were collected on Tuesday, July 19, 2022 and Saturday, July 23, 2022. In addition, 24-hour segment volumes were collected on Carlsbad Boulevard from Solamar Drive to Island Way on Tuesday (July 19, 2022), Wednesday (July 20, 2022), Saturday (July 23, 2022) and Sunday (July 24, 2022). The average of the weekday and weekend daily volumes from July 2022 were then compared to the daily volume collected in 2019 to determine whether the daily volumes prior to COVID were higher or lower than the volumes in 2022. **Table 1** presents the comparison of the weekday daily volume collected in 2019 and 2022 which shows the daily volume in 2019 were 39.9% higher during the weekday and 37.7% higher during the weekend compared to the 2022 daily volume. The daily traffic volume collected in June 2021 in the southbound approach on Carlsbad Boulevard from Solamar Drive to Island Way was 7,340 (approx. 14,680 assuming both directions). This volume is much lower than the 2019 daily segment volume (26,278) and 2022 daily segment volume (18,779) collected. Therefore, the 2021 daily volume was not included in the comparison table.

To provide a conservative analysis, the increase in daily traffic volumes on the weekday (39.9%) and weekend (37.7%) were applied to the AM and PM peak hour traffic counts collected in July 2022 to represent the Existing Post-COVID Adjustment volumes. Daily and peak hour traffic volumes without and with the Post-COVID Adjustments are provided in **Attachment A** of this document.

TABLE 1
ROADWAY SEGMENT DAILY TRAFFIC VOLUME COMARISON

Carlsbad Boulevard (Solamar Drive to Island Way)								
Weekday Daily Volume[1]	Weekday Daily Volumes		Weekend Daily Volumes		Weekday Daily Average (2022)	Weekend Daily Average (2022)	Weekday % Change	Weekend % Change
2019	Tuesday (7/19/22)	Wednesday (7/20/22)	Saturday (7/23/22)	Sunday (7/24/22)				
26,278	**19,006**	**18,551**	**19,142**	**19,037**	**18,779**	**19,090**	**39.9%**	**37.7%**

(1) Traffic volume obtained from City of Carlsbad's MMLOS 2019 Monitoring Results for Coastal, Village, Identity and School Streets, prepared by Fehr & Peers.

Carlsbad Boulevard is not identified as a "Specific Corridor" in Table 1 (Roadway Service Volume Table-Specific Corridor) of the *City of Carlsbad Service Volume Tables Report*; therefore, Table 2 (Roadway Service Volume Table – Generalized Data) of the City report was utilized to obtain segment capacity thresholds. More specifically, the "Hourly Volume In Peak Direction" segment capacities for Arterial Streets as specified in Table 2 of the City's report were used for this analysis.

As shown in **Table 2** below, a peak hour segment capacity of 1,820 vehicles was used since: 1) the existing roadway has 2 travel lanes in the southbound direction, 2) the posted speed limit is 50 miles per hour (MPH), and 3) is divided by a landscaped median. The weekday segment analysis shows southbound Carlsbad Boulevard from Solamar Drive to Island Way is operating at LOS C during both the AM and PM peak hours for the Existing Year 2022 and LOS D for the Existing Year 2022 with Post-COVID adjustment and this is considered favorable operating conditions in the City. **Table 3** shows the weekend segment analysis under Existing Conditions with two travel lanes in the southbound direction along Carlsbad Boulevard operating at LOS D during the mid-day peak hour for the Existing Year 2022 volumes and the Existing Year with Post-COVID adjustment.

TABLE 2
EXISTING CONDITIONS - ROADWAY SEGMENT ANALYSIS (WEEKDAY)

Segment	Location	Count Date	Dir.	Lanes/ Speed/ Median[1]	Segment Capacity[2] (veh/hr)	Existing Conditions			
						AM Peak Hour		PM Peak Hour	
						Volume (veh/hr)	LOS	Volume (veh/hr)	LOS
Carlsbad Boulevard	Solamar Drive to Island Way	Tuesday July 19, 2022	Existing Year 2022						
			SB	2/50/D	1,820	610	C	657	C
			Existing Year 2022 Post-COVID Adjustment						
			SB	2/50/D	1,820	853	D	919	D

(1) 2/50/D = Number of lanes, posted speed limit, Divided (D) Road
(2) Source: City of Carlsbad Segment Volumes Tables Report (May 2021) & Table 2 - Roadway Service Volume Table - Generalized Data (LOS E threshold)

TABLE 3
EXISTING CONDITIONS - ROADWAY SEGMENT ANALYSIS (WEEKEND)

Segment	Location	Count Date	Dir.	Lanes/Speed/ Median[1]	Segment Capacity[2] (veh/hr)	Existing Conditions	
						Mid-Day Peak Hour	
						Volume (veh/hr)	LOS
Carlsbad Boulevard	Solamar Drive to Island Way	Saturday July 23, 2022	Existing Year 2022				
			SB	2/50/D	1820	895	D
			Existing Year 2022 Post-COVID Adjustment				
			SB	2/50/D	1820	1232	D

(1) 2/50/D = Number of lanes, posted speed limit, Divided (D) Road
(2) Source: City of Carlsbad Segment Volumes Tables Report (May 2021) & Table 2 - Roadway Service Volume Table - Generalized Data (LOS E threshold)

Proposed Modifications:

Proposed modifications to southbound Carlsbad Boulevard from Solamar Drive to Island Way involve restriping the existing two travel lanes to one travel lane. Immediately south of the signal at Solamar Drive, two lanes would merge to one travel lane. The existing angled parking along southbound Carlsbad Boulevard south of Solamar Drive would remain unchanged. At the merge, southbound Carlsbad Boulevard would taper down from two 10-foot travel lanes to one 11-foot travel lane along with a two-foot striped buffer, 8-foot striped bicycle lane, and a 4-foot to 10-foot buffer to be used by pedestrians. Parallel parking spaces will be added along the westside of Carlsbad Boulevard near Island Way. Refer to the striping plan for additional details related to the location of parking.

Table 4 presents the weekday roadway segment analysis based on conditions with the proposed modifications. As shown, a peak hour segment capacity of 910 vehicles per hour (1,820 vehicles per hour / 2 lanes) is based on a single travel lane according to the Roadway Service Volume Table – Generalized Data (Table 2) from the City's *Segment Volumes Tables Report*. Due to the proposed reduction in travel lanes, the segment capacity along Carlsbad Boulevard is reduced from 1,820 to 910 vehicles per hour. During the weekday, the study segment of Carlsbad Boulevard would operate at a favorable LOS D during the AM and PM peak hour with the proposed modifications for the Existing Year 2022 condition. Using the Existing Year 2022 volumes with Post-COVID Adjustment, Carlsbad Boulevard would operate at LOS E during the AM peak hour and LOS F during the PM peak hour.

TABLE 4
PROPOSED IMPROVEMENTS - ROADWAY SEGMENT ANALYSIS (WEEKDAY)

Segment	Location	Count Date	Dir.	Lanes/ Speed/ Median[1]	Segment Capacity[2] (veh/hr)	Proposed Modifications			
						AM Peak Hour		PM Peak Hour	
						Volume (veh/hr)	LOS	Volume (veh/hr)	LOS
Carlsbad Boulevard	Solamar Drive to Island Way	Tuesday July 19, 2022	**Existing Year 2022**						
			SB	1/50/D	910	610	D	657	D
			Existing Year 2022 Post-COVID Adjustment						
			SB	1/50/D	910	853	E	919	F

(1) 1/50/D = Number of lanes, posted speed limit, Divided (D) Road
(2) Source: City of Carlsbad Segment Volumes Tables Report (May 2021) & Table 2 - Roadway Service Volume Table - Generalized Data (LOS E threshold); Segment capacity is 910 vehicles per hour (1820 vehicles per hour / 2 lanes) based on the 2/50/D capacity due to the lane reduction from 2 travel lanes to 1 travel lane in the southbound approach.

Table 5 presents the Carlsbad Boulevard study segment analysis during a typical weekend with the proposed modifications. As shown, this study segment was found to operate at LOS E during the mid-day peak hour on a typical Saturday using Existing Year 2022 volumes. Using Existing Year 2022 with Post-COVID Adjustment volumes, this study segment would operate at LOS F.

TABLE 5
PROPOSED IMPROVEMENTS - ROADWAY SEGMENT ANALYSIS (WEEKEND)

Segment	Location	Count Date	Dir.	Lanes/Speed/ Median[1]	Segment Capacity[2] (veh/hr)	Proposed Modifications Mid-Day Peak Hour Volume (veh/hr)	LOS
Carlsbad Boulevard	Solamar Drive to Island Way	Saturday July 23, 2022	**Existing Year 2022**				
			SB	1/50/D	910	895	E
			Existing Year 2022 Post-COVID Adjustment				
			SB	1/50/D	910	1232	F

(1) 1/50/D = Number of lanes, posted speed limit, Divided (D) Road
(2) Source: City of Carlsbad Segment Volumes Tables Report (May 2021) & Table 2 - Roadway Service Volume Table - Generalized Data (LOS E threshold); Segment capacity is 910 vehicles per hour (1820 vehicles per hour / 2 lanes) based on the 2/50/D capacity due to the lane reduction from 2 travel lanes to 1 travel lane in the southbound approach.

Intersection Operations Analysis

Intersection operations were evaluated at Carlsbad Boulevard & Solamar Drive and Carlsbad Boulevard & Island Way under Existing 2022 Conditions and Existing 2022 Post-COVID Adjustment Conditions. Using the intersection analysis software Synchro, Version 11, both study intersections were analyzed under Existing 2022 Conditions and Existing 2022 Post-COVID Adjustment Conditions. It may be noted the lane geometry at both locations were analyzed based on the existing configuration. **Table 6** shows the delay and LOS reported for the study intersections under Existing 2022 Conditions and Existing Year 2022 Post-COVID Adjustment during the weekday.

TABLE 6
EXISTING YEAR 2022 & EXISTING YEAR 2022 POST-COVID ADJUSTMENT
LEVEL OF SERVICE COMARISON (WEEKDAY)

LOS Comparison: Existing Year 2022 & Existing Year 2022 Post-COVID Adjustment (WEEKDAY)														
ID	Study Intersection	Control Type	Existing Year 2022						Existing Year 2022 Post-COVID Adjustment					
			AM		Noon		PM		AM		Noon		PM	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Carlsbad Boulevard & Solamar Drive	Signal	6.0	A	6.8	A	7.4	A	6.5	A	7.4	A	8.0	A
2	Carlsbad Boulevard (SB) & Island Way	Signal	10.2	B	12.6	B	7.9	A	11.0	B	13.1	B	13.7	B
3	Carlsbad Boulevard (NB) & Island Way	Signal	12.6	B	12.5	B	17.4	B	14.2	B	14.7	B	18.1	B

1) Delay = Average delay per vehicle expressed in seconds.
2) LOS = Level of Service

As shown, the study intersections currently operate at LOS B or better which is acceptable operating conditions within the City of Carlsbad.

Table 7 shows the delay and LOS reported for the study intersections under Existing 2022 Conditions and Existing Year 2022 Post-COVID Adjustment during the weekend. As shown, the study intersections operate acceptably (LOS D or better) during the weekend. The LOS worksheets can be found in **Attachment B**.

TABLE 7
EXISTING YEAR 2022 & EXISTING YEAR 2022 POST-COVID ADJUSTMENT
LEVEL OF SERVICE COMARISON (WEEKEND)

LOS Comparison: Existing Year 2022 & Existing Year 2022 Post-COVID Adjustment (WEEKEND)															
ID	Study Intersection	Control Type	Existing Year 2022							Existing Year 2022 Post-COVID Adjustment					
			AM		Noon		PM			AM		Noon		PM	
			Delay	LOS	Delay	LOS	Delay	LOS		Delay	LOS	Delay	LOS	Delay	LOS
1	Carlsbad Boulevard & Solamar Drive	Signal	6.3	A	6.7	A	8.5	A		6.8	A	7.2	A	9.3	A
2	Carlsbad Boulevard (SB) & Island Way	Signal	12.7	B	10.6	B	12.4	B		13.0	B	11.3	B	13.4	B
3	Carlsbad Boulevard (NB) & Island Way	Signal	11.8	B	13.5	B	17.7	B		12.8	B	16.6	B	19.9	B

1) Delay = Average delay per vehicle expressed in seconds.
2) LOS = Level of Service

Conclusions

Southbound Carlsbad Boulevard from Solamar Drive to Island Way will be restriped from two lanes to one lane which will reduce the vehicular capacity of the roadway. Under Existing Conditions, the study segment of Carlsbad Boulevard has a capacity of 1,820 vehicles during a peak hour and the roadway currently operates at a LOS D during the AM and PM peak hour on a weekday and weekend. With the proposed modifications, the study segment of Carlsbad Boulevard would have a capacity of 910 vehicles per hour which results in the segment operating at LOS D during the weekday and LOS E during the weekend.

Using Post-COVID Adjustment volumes, the segment would operate at LOS E in the AM peak hour and LOS F in the PM peak hour during the weekday and LOS F during the weekend. It is important to note the proposed improvement is an interim modification to Carlsbad Boulevard until a

permanent solution is designed. The intersection analysis shows acceptable operating conditions under Year 2022 Condition Without and With Post-COVID Adjustment Conditions during the weekday and weekend.

If you have any questions related to the information in this memorandum, please contact me at 619-456-1410 or Jacob.swim@mbakerintl.com.

Sincerely,

Jacob Swim, TE
Michael Baker International

Table 2: Roadway Service Volume Table - Generalized Data

Segment Capacity Threshold for Arterial Streets

Hourly Volume in Peak Direction

Lanes	Speed Limit	Median	B	C	D	E
1	35	Undivided	**	180	590	740
	35	Divided	**	190	630	780
2	35	Divided	**	520	1390	1540
	45	Divided	**	600	1560	1760
	50	Divided	**	850	1690	1820
	55	Divided	**	1050	1800	1890
3	35	Divided	**	680	2230	2540
	45	Divided	**	2040	2660	2700
	50	Divided	**	2360	2760	2800
	55	Divided	390	2600	2870	2900
4	45	Divided	**	2780	3560	3620

Hourly Volume in Both Direction

Lanes	Speed Limit	Median	B	C	D	E
2	35	Undivided	**	340	1100	1380
	35	Divided	**	360	1170	1450
4	35	Divided	**	970	2580	2860
	45	Divided	**	1120	2890	3260
	50	Divided	**	1580	3130	3380
	55	Divided	**	1950	3340	3500
5	55	Divided	**	3395	4343	4455
6	35	Divided	**	1260	4130	4720
	50	Divided	**	4380	5120	5180
	55	Divided	730	4820	5320	5360
7	45	Divided	**	4483	5785	5878

Annual Average Daily Traffic

Lanes	Speed Limit	Median	B	C	D	E
2	35	Undivided	**	4200	13700	17200
	35	Divided	**	4400	14600	18100
4	35	Divided	**	12100	32200	35800
	45	Divided	**	13900	36200	40800
	50	Divided	**	19700	39200	42200
	55	Divided	**	24400	41700	43800
6	35	Divided	**	15800	51700	59000
	50	Divided	**	54700	63900	64800
	55	Divided	9100	60200	66500	67000

Segment Capacity Threshold for Industrial Streets

Hourly Volume in Peak Direction

Lanes	Speed Limit	Median	B	C	D	E
1	25	Undivided	**	110	450	560
	25	Divided	**	140	610	720
	35	Undivided	**	180	590	740
	35	Divided	**	190	630	780
	40	Undivided	**	216	708	888
	40	Divided	**	228	756	936

Hourly Volume in Both Direction

Lanes	Speed Limit	Median	B	C	D	E
2	25	Undivided	**	200	800	990
	25	Divided	**	250	1080	1270
	35	Undivided	**	340	1100	1380
	35	Divided	**	360	1170	1450
	40	Undivided	**	408	1320	1656
	40	Divided	**	432	1404	1740

Annual Average Daily Traffic

Lanes	Speed Limit	Median	B	C	D	E
2	25	Undivided	**	2200	8900	11000
	25	Divided	**	2800	12000	14100
	35	Undivided	**	4200	13700	17200
	35	Divided	**	4400	14600	18100
	40	Undivided	**	5040	16440	20640
	40	Divided	**	5280	17520	21720

Source: City of Carlsbad Service Volume Tables Report, May 2021

Michael Baker
INTERNATIONAL

Attachment A
Traffic Count Data

Prepared by National Data & Surveying Services

VOLUME

Carlsbad Blvd Bet. Manzano Dr & Island Way

Day: Tuesday
Date: 7/19/2022

City: Carlsbad
Project #: CA22_040121_001

DAILY TOTALS	NB	SB	EB	WB	Total
	9,768	9,238	0	0	19,006

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
0:00	18		9						27		12:00	156		160						316	
0:15	9		9						18		12:15	173		169						342	
0:30	10		5						15		12:30	161		176						337	
0:45	3	40	4	27					7	67	12:45	139	629	150	655					289	1284
1:00	6		3						9		13:00	173		149						322	
1:15	3		2						5		13:15	168		164						332	
1:30	5		4						9		13:30	163		170						333	
1:45	4	18	2	11					6	29	13:45	173	677	168	651					341	1328
2:00	5		4						9		14:00	155		179						334	
2:15	1		1						2		14:15	160		172						332	
2:30	1		3						4		14:30	200		155						355	
2:45	2	9	1	9					3	18	14:45	193	708	159	665					352	1373
3:00	1		0						1		15:00	201		158						359	
3:15	2		3						5		15:15	244		175						419	
3:30	4		2						6		15:30	245		158						403	
3:45	1	8	2	7					3	15	15:45	220	910	165	656					385	1566
4:00	3		2						5		16:00	236		184						420	
4:15	5		2						7		16:15	249		157						406	
4:30	4		2						6		16:30	287		158						445	
4:45	6	18	8	14					14	32	16:45	259	1031	152	651					411	1682
5:00	7		8						15		17:00	280		174						454	
5:15	7		22						29		17:15	274		173						447	
5:30	12		21						33		17:30	250		117						367	
5:45	19	45	33	84					52	129	17:45	268	1072	150	614					418	1686
6:00	34		58						92		18:00	271		172						443	
6:15	27		61						88		18:15	221		139						360	
6:30	42		79						121		18:30	183		148						331	
6:45	72	175	76	274					148	449	18:45	138	813	113	572					251	1385
7:00	51		114						165		19:00	164		126						290	
7:15	67		114						181		19:15	137		152						289	
7:30	67		130						197		19:30	135		142						277	
7:45	67	252	166	524					233	776	19:45	143	579	118	538					261	1117
8:00	91		157						248		20:00	137		152						289	
8:15	88		144						232		20:15	125		139						264	
8:30	89		143						232		20:30	95		125						220	
8:45	116	384	127	571					243	955	20:45	82	439	90	506					172	945
9:00	105		120						225		21:00	72		69						141	
9:15	93		117						210		21:15	55		107						162	
9:30	111		115						226		21:30	46		70						116	
9:45	103	412	132	484					235	896	21:45	36	209	66	312					102	521
10:00	131		138						269		22:00	37		56						93	
10:15	132		128						260		22:15	30		30						60	
10:30	152		168						320		22:30	35		29						64	
10:45	140	555	131	565					271	1120	22:45	24	126	34	149					58	275
11:00	150		161						311		23:00	20		26						46	
11:15	121		160						281		23:15	12		17						29	
11:30	156		166						322		23:30	11		8						19	
11:45	179	606	148	635					327	1241	23:45	10	53	13	64					23	117
TOTALS		2522		3205						5727	TOTALS		7246		6033						13279
SPLIT %		44.0%		56.0%						30.1%	SPLIT %		54.6%		45.4%						69.9%

DAILY TOTALS	NB	SB	EB	WB	Total
	9,768	9,238	0	0	19,006

AM Peak Hour	11:45	11:45			11:45	PM Peak Hour	16:30	13:30			16:30
AM Pk Volume	669	653			1322	PM Pk Volume	1100	689			1757
Pk Hr Factor	0.934	0.928			0.966	Pk Hr Factor	0.958	0.962			0.968
7 - 9 Volume	636	1095	0	0	1731	4 - 6 Volume	2103	1265	0	0	3368
7 - 9 Peak Hour	8:00	7:45			8:00	4 - 6 Peak Hour	16:30	16:30			16:30
7 - 9 Pk Volume	384	610	0	0	955	4 - 6 Pk Volume	1100	657	0	0	1757
Pk Hr Factor	0.828	0.919	0.000	0.000	0.963	Pk Hr Factor	0.958	0.944	0.000	0.000	0.968

Prepared by National Data & Surveying Services

VOLUME

Carlsbad Blvd Bet. Manzano Dr & Island Way

Day: Wednesday
Date: 7/20/2022

City: Carlsbad
Project #: CA22_040121_001

DAILY TOTALS	NB	SB	EB	WB	Total
	9,312	9,239	0	0	18,551

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
0:00	5		9						14		12:00	172		150						322	
0:15	7		7						14		12:15	139		163						302	
0:30	6		11						17		12:30	180		174						354	
0:45	8	26	8	35					16	61	12:45	159	650	189	676					348	1326
1:00	5		5						10		13:00	154		157						311	
1:15	3		2						5		13:15	165		163						328	
1:30	9		3						12		13:30	157		167						324	
1:45	4	21	6	16					10	37	13:45	164	640	175	662					339	1302
2:00	2		3						5		14:00	173		165						338	
2:15	1		0						1		14:15	158		159						317	
2:30	2		6						8		14:30	178		152						330	
2:45	6	11	2	11					8	22	14:45	184	693	176	652					360	1345
3:00	3		1						4		15:00	176		175						351	
3:15	0		0						0		15:15	226		172						398	
3:30	4		3						7		15:30	214		158						372	
3:45	1	8	6	10					7	18	15:45	241	857	154	659					395	1516
4:00	2		5						7		16:00	213		193						406	
4:15	2		2						4		16:15	225		163						388	
4:30	6		2						8		16:30	242		155						397	
4:45	10	20	14	23					24	43	16:45	239	919	179	690					418	1609
5:00	6		5						11		17:00	264		152						416	
5:15	9		21						30		17:15	275		151						426	
5:30	11		21						32		17:30	258		140						398	
5:45	15	41	43	90					58	131	17:45	249	1046	152	595					401	1641
6:00	33		38						71		18:00	217		169						386	
6:15	38		67						105		18:15	215		129						344	
6:30	37		67						104		18:30	172		142						314	
6:45	37	145	80	252					117	397	18:45	121	725	115	555					236	1280
7:00	62		74						136		19:00	133		149						282	
7:15	50		99						149		19:15	145		147						292	
7:30	52		113						165		19:30	132		131						263	
7:45	68	232	128	414					196	646	19:45	155	565	145	572					300	1137
8:00	100		129						229		20:00	122		154						276	
8:15	87		117						204		20:15	128		135						263	
8:30	106		141						247		20:30	96		128						224	
8:45	96	389	177	564					273	953	20:45	68	414	88	505					156	919
9:00	96		115						211		21:00	56		73						129	
9:15	100		145						245		21:15	51		77						128	
9:30	105		137						242		21:30	35		77						112	
9:45	120	421	132	529					252	950	21:45	31	173	72	299					103	472
10:00	116		146						262		22:00	39		45						84	
10:15	114		133						247		22:15	34		36						70	
10:30	121		149						270		22:30	39		33						72	
10:45	131	482	132	560					263	1042	22:45	29	141	41	155					70	296
11:00	134		172						306		23:00	17		25						42	
11:15	154		177						331		23:15	13		15						28	
11:30	157		142						299		23:30	18		16						34	
11:45	180	625	151	642					331	1267	23:45	20	68	17	73					37	141
TOTALS		2421		3146						5567	TOTALS		6891		6093						12984
SPLIT %		43.5%		56.5%						30.0%	SPLIT %		53.1%		46.9%						70.0%

DAILY TOTALS	NB	SB	EB	WB	Total
	9,312	9,239	0	0	18,551

AM Peak Hour	11:45	11:00			11:45	PM Peak Hour	17:00	16:00			16:45
AM Pk Volume	671	642			1309	PM Pk Volume	1046	690			1658
Pk Hr Factor	0.932	0.907			0.924	Pk Hr Factor	0.951	0.894			0.973
7 - 9 Volume	621	978	0	0	1599	4 - 6 Volume	1965	1285	0	0	3250
7 - 9 Peak Hour	8:00	8:00			8:00	4 - 6 Peak Hour	17:00	16:00			16:45
7 - 9 Pk Volume	389	564	0	0	953	4 - 6 Pk Volume	1046	690	0	0	1658
Pk Hr Factor	0.917	0.797	0.000	0.000	0.873	Pk Hr Factor	0.951	0.894	0.000	0.000	0.973

Prepared by National Data & Surveying Services

VOLUME

Carlsbad Blvd Bet. Manzano Dr & Island Way

Day: Saturday
Date: 7/23/2022

City: Carlsbad
Project #: CA22_040121_001

DAILY TOTALS	NB	SB	EB	WB	Total
	9,502	9,640	0	0	19,142

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
0:00	11		16						27		12:00	237		189						426	
0:15	11		10						21		12:15	208		216						424	
0:30	16		23						39		12:30	212		218						430	
0:45	18	56	13	62					31	118	12:45	216	873	217	840					433	1713
1:00	7		9						16		13:00	198		190						388	
1:15	22		9						31		13:15	186		207						393	
1:30	9		13						22		13:30	203		225						428	
1:45	10	48	9	40					19	88	13:45	206	793	193	815					399	1608
2:00	4		4						8		14:00	219		208						427	
2:15	5		6						11		14:15	183		228						411	
2:30	5		5						10		14:30	194		237						431	
2:45	7	21	2	17					9	38	14:45	225	821	222	895					447	1716
3:00	2		6						8		15:00	189		217						406	
3:15	2		4						6		15:15	190		229						419	
3:30	5		4						9		15:30	189		205						394	
3:45	3	12	6	20					9	32	15:45	169	737	211	862					380	1599
4:00	4		5						9		16:00	213		241						454	
4:15	4		6						10		16:15	217		201						418	
4:30	4		4						8		16:30	198		191						389	
4:45	5	17	4	19					9	36	16:45	164	792	164	797					328	1589
5:00	7		4						11		17:00	174		164						338	
5:15	5		6						11		17:15	196		167						363	
5:30	7		11						18		17:30	197		180						377	
5:45	11	30	20	41					31	71	17:45	167	734	171	682					338	1416
6:00	18		28						46		18:00	210		165						375	
6:15	24		36						60		18:15	171		130						301	
6:30	26		34						60		18:30	146		152						298	
6:45	34	102	34	132					68	234	18:45	143	670	135	582					278	1252
7:00	45		39						84		19:00	145		139						284	
7:15	42		56						98		19:15	128		122						250	
7:30	54		47						101		19:30	129		120						249	
7:45	50	191	52	194					102	385	19:45	147	549	132	513					279	1062
8:00	77		67						144		20:00	121		129						250	
8:15	87		79						166		20:15	106		121						227	
8:30	81		92						173		20:30	85		65						150	
8:45	121	366	96	334					217	700	20:45	82	394	86	401					168	795
9:00	108		110						218		21:00	60		79						139	
9:15	115		119						234		21:15	52		50						102	
9:30	117		129						246		21:30	68		73						141	
9:45	115	455	142	500					257	955	21:45	59	239	54	256					113	495
10:00	120		147						267		22:00	54		50						104	
10:15	165		169						334		22:15	37		71						108	
10:30	148		152						300		22:30	28		52						80	
10:45	174	607	154	622					328	1229	22:45	34	153	28	201					62	354
11:00	181		189						370		23:00	28		29						57	
11:15	169		146						315		23:15	38		33						71	
11:30	201		170						371		23:30	21		21						42	
11:45	191	742	205	710					396	1452	23:45	13	100	22	105					35	205
TOTALS		2647		2691						5338	TOTALS		6855		6949						13804
SPLIT %		49.6%		50.4%						27.9%	SPLIT %		49.7%		50.3%						72.1%

DAILY TOTALS	NB	SB	EB	WB	Total
	9,502	9,640	0	0	19,142

AM Peak Hour	11:45	11:45			11:45	PM Peak Hour	12:00	14:30			14:00
AM Pk Volume	848	828			1676	PM Pk Volume	873	905			1716
Pk Hr Factor	0.895	0.950			0.974	Pk Hr Factor	0.921	0.955			0.960
7 - 9 Volume	557	528	0	0	1085	4 - 6 Volume	1526	1479	0	0	3005
7 - 9 Peak Hour	8:00	8:00			8:00	4 - 6 Peak Hour	16:00	16:00			16:00
7 - 9 Pk Volume	366	334	0	0	700	4 - 6 Pk Volume	792	797	0	0	1589
Pk Hr Factor	0.756	0.870	0.000	0.000	0.806	Pk Hr Factor	0.912	0.827	0.000	0.000	0.875

Prepared by National Data & Surveying Services

VOLUME

Carlsbad Blvd Bet. Manzano Dr & Island Way

Day: Sunday
Date: 7/24/2022

City: Carlsbad
Project #: CA22_040121_001

DAILY TOTALS	NB	SB	EB	WB	Total
	9,903	9,134	0	0	19,037

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
0:00	17		26						43		12:00	219		206						425	
0:15	19		15						34		12:15	234		224						458	
0:30	14		15						29		12:30	242		223						465	
0:45	6	56	10	66					16	122	12:45	243	938	195	848					438	1786
1:00	7		8						15		13:00	201		193						394	
1:15	4		7						11		13:15	225		210						435	
1:30	6		12						18		13:30	223		191						414	
1:45	9	26	8	35					17	61	13:45	237	886	214	808					451	1694
2:00	5		10						15		14:00	231		196						427	
2:15	9		8						17		14:15	246		231						477	
2:30	2		8						10		14:30	230		216						446	
2:45	2	18	3	29					5	47	14:45	186	893	232	875					418	1768
3:00	4		5						9		15:00	218		216						434	
3:15	3		2						5		15:15	221		181						402	
3:30	0		0						0		15:30	223		215						438	
3:45	0	7	3	10					3	17	15:45	197	859	205	817					402	1676
4:00	4		5						9		16:00	183		175						358	
4:15	3		5						8		16:15	171		195						366	
4:30	7		7						14		16:30	151		170						321	
4:45	3	17	6	23					9	40	16:45	204	709	151	691					355	1400
5:00	10		6						16		17:00	189		177						366	
5:15	5		7						12		17:15	198		156						354	
5:30	7		12						19		17:30	211		171						382	
5:45	7	29	16	41					23	70	17:45	217	815	138	642					355	1457
6:00	12		17						29		18:00	179		143						322	
6:15	16		17						33		18:15	230		128						358	
6:30	17		20						37		18:30	198		132						330	
6:45	30	75	32	86					62	161	18:45	182	789	129	532					311	1321
7:00	35		34						69		19:00	182		129						311	
7:15	36		51						87		19:15	165		124						289	
7:30	34		50						84		19:30	155		141						296	
7:45	50	155	43	178					93	333	19:45	151	653	119	513					270	1166
8:00	72		67						139		20:00	127		102						229	
8:15	53		75						128		20:15	99		95						194	
8:30	69		90						159		20:30	87		100						187	
8:45	101	295	80	312					181	607	20:45	75	388	71	368					146	756
9:00	89		105						194		21:00	53		60						113	
9:15	98		87						185		21:15	44		80						124	
9:30	129		130						259		21:30	49		58						107	
9:45	108	424	116	438					224	862	21:45	39	185	56	254					95	439
10:00	136		135						271		22:00	34		40						74	
10:15	152		160						312		22:15	25		33						58	
10:30	167		182						349		22:30	24		30						54	
10:45	169	624	159	636					328	1260	22:45	16	99	26	129					42	228
11:00	190		169						359		23:00	18		17						35	
11:15	223		198						421		23:15	16		23						39	
11:30	238		174						412		23:30	12		16						28	
11:45	255	906	196	737					451	1643	23:45	11	57	10	66					21	123
TOTALS		2632		2591						5223	TOTALS		7271		6543						13814
SPLIT %		50.4%		49.6%						27.4%	SPLIT %		52.6%		47.4%						72.6%

DAILY TOTALS	NB	SB	EB	WB	Total
	9,903	9,134	0	0	19,037

AM Peak Hour	11:45	11:45			11:45	PM Peak Hour	13:45	14:15			13:45
AM Pk Volume	950	849			1799	PM Pk Volume	944	895			1801
Pk Hr Factor	0.931	0.948			0.967	Pk Hr Factor	0.959	0.964			0.944
7 - 9 Volume	450	490	0	0	940	4 - 6 Volume	1524	1333	0	0	2857
7 - 9 Peak Hour	8:00	8:00			8:00	4 - 6 Peak Hour	17:00	16:15			16:45
7 - 9 Pk Volume	295	312	0	0	607	4 - 6 Pk Volume	815	693	0	0	1457
Pk Hr Factor	0.730	0.867	0.000	0.000	0.838	Pk Hr Factor	0.939	0.888	0.000	0.000	0.954

Intersection Turning Movement Count

Location: Carlsbad Blvd/Palomar Airport Rd Ramp & Solamar Dr
City: Carlsbad
Control: Signalized

Project ID: 22-040120-001
Date: 7/19/2022

Data - Totals

NS/EW Streets: Carlsbad Blvd/Palomar Airport Rd Ramp | Carlsbad Blvd/Palomar Airport Rd Ramp | Solamar Dr | Solamar Dr

AM

	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND					SOUTHBOUND2		
	1	2	0	0	0	1	2	0	0	0	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
7:00 AM	0	25	1	6	11	6	75	0	0	0	0	0	0	1	0	1	0	6	0	0	132
7:15 AM	0	33	1	5	11	2	61	0	2	0	0	0	0	0	0	0	0	4	0	1	120
7:30 AM	0	30	0	5	22	3	78	0	1	0	0	0	0	0	0	3	0	6	0	0	148
7:45 AM	0	31	2	5	27	3	110	0	2	0	0	0	0	1	0	2	0	3	0	2	188
8:00 AM	0	53	1	10	31	4	108	0	1	0	0	0	0	0	0	1	0	7	0	0	216
8:15 AM	0	43	3	9	20	3	96	0	1	0	0	0	0	0	0	5	0	6	0	0	186
8:30 AM	0	52	3	2	26	5	107	0	1	0	0	0	0	1	0	4	0	14	0	0	215
8:45 AM	0	52	2	3	30	3	83	0	2	0	0	0	0	3	0	4	0	3	0	3	188
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
TOTAL VOLUMES :	0	319	13	45	178	29	718	0	10	0	0	0	0	6	0	20	0	49	0	6	1393
APPROACH %'s :	0.00%	57.48%	2.34%	8.11%	32.07%	3.83%	94.85%	0.00%	1.32%					8.00%	0.00%	26.67%	0.00%	65.33%	0.00%	100.00%	
PEAK HR :	08:00 AM - 09:00 AM																				TOTAL
PEAK HR VOL :	0	200	9	24	107	15	394	0	5	0	0	0	0	4	0	14	0	30	0	3	805
PEAK HR FACTOR :	0.000	0.943	0.750	0.600	0.863	0.750	0.912	0.000	0.625	0.000	0.000	0.000	0.000	0.333	0.000	0.700	0.000	0.536	0.000	0.250	0.932
			0.895				0.916									0.632					

NOON

	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND							
	1	2	0	0	0	1	2	0	0	0	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
11:00 AM	0	79	1	9	30	7	129	0	1	0	0	0	0	6	0	2	1	9	0	1	275
11:15 AM	0	66	3	10	25	7	141	0	1	0	0	0	0	2	0	2	0	4	0	3	264
11:30 AM	0	93	2	2	24	2	136	0	3	0	0	0	0	1	0	3	0	9	0	0	275
11:45 AM	0	107	0	5	33	3	128	0	2	0	0	0	0	2	0	2	0	4	0	2	288
12:00 PM	0	81	3	9	30	8	132	0	1	0	0	0	0	2	0	0	0	2	0	0	268
12:15 PM	0	84	0	8	39	6	116	0	5	0	0	0	0	0	0	1	0	4	0	2	265
12:30 PM	0	93	2	12	34	2	130	0	2	0	0	0	0	2	0	1	0	1	0	0	279
12:45 PM	0	78	3	5	22	7	124	0	3	0	0	0	0	2	0	3	0	5	0	3	255
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
TOTAL VOLUMES :	0	681	14	60	237	42	1036	0	18	0	0	0	0	17	0	14	1	38	0	11	2169
APPROACH %'s :	0.00%	68.65%	1.41%	6.05%	23.89%	3.83%	94.53%	0.00%	1.64%					24.29%	0.00%	20.00%	1.43%	54.29%	0.00%	100.00%	
PEAK HR :	11:00 AM - 12:00 PM																				TOTAL
PEAK HR VOL :	0	345	6	26	112	19	534	0	7	0	0	0	0	11	0	9	1	26	0	6	1102
PEAK HR FACTOR :	0.000	0.806	0.500	0.650	0.848	0.679	0.947	0.000	0.583	0.000	0.000	0.000	0.000	0.458	0.000	0.750	0.250	0.722	0.000	0.500	0.957
			0.843				0.940									0.653					

PM

	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND							
	1	2	0	0	0	1	2	0	0	0	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
4:00 PM	0	146	3	7	37	8	144	0	2	0	0	0	0	2	0	0	0	8	0	1	358
4:15 PM	0	161	2	8	50	8	159	0	0	0	0	0	0	1	0	0	0	5	0	2	396
4:30 PM	0	138	4	11	48	7	128	0	0	0	0	0	0	3	0	1	0	9	0	3	352
4:45 PM	0	141	3	11	38	5	127	0	3	0	0	0	0	0	0	3	0	5	0	0	336
5:00 PM	0	125	5	13	63	6	140	0	3	0	0	0	0	1	0	4	0	5	0	2	367
5:15 PM	0	131	3	10	48	7	145	0	3	0	0	0	0	2	0	2	0	9	0	1	361
5:30 PM	0	156	3	10	59	6	113	0	3	0	0	0	0	0	0	5	0	10	0	0	365
5:45 PM	0	131	6	10	69	9	128	0	1	0	0	0	0	2	0	2	0	5	0	5	368
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
TOTAL VOLUMES :	0	1129	29	80	412	56	1084	0	15	0	0	0	0	11	0	17	0	56	0	14	2903
APPROACH %'s :	0.00%	68.42%	1.76%	4.85%	24.97%	4.85%	93.85%	0.00%	1.30%					13.10%	0.00%	20.24%	0.00%	66.67%	0.00%	100.00%	
PEAK HR :	05:00 PM - 06:00 PM																				TOTAL
PEAK HR VOL :	0	543	17	43	239	28	526	0	10	0	0	0	0	5	0	13	0	29	0	8	1461
PEAK HR FACTOR :	0.000	0.870	0.708	0.827	0.866	0.778	0.907	0.000	0.833	0.000	0.000	0.000	0.000	0.625	0.000	0.650	0.000	0.725	0.000	0.400	0.993
			0.923				0.910									0.783					

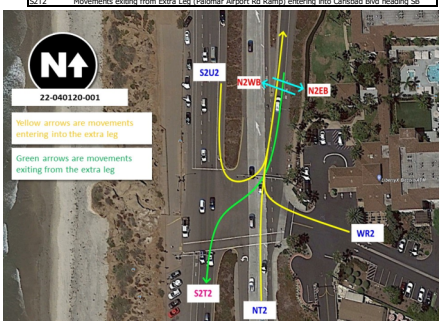
Explanation for extra leg movements

Movements entering the extra leg

S2U2	Movements coming from SB on Carlsbad Blvd entering into the Extra Leg (Palomar Airport Rd Ramp)
NT2	Movements coming from NB on Carlsbad Blvd entering into the Extra Leg (Palomar Airport Rd Ramp)
WR2	Movements coming from WB on Hilton Graden Inn entering into the Extra Leg (Palomar Airport Rd Ramp)

Movements exiting the extra leg

S2T2	Movements exiting from Extra Leg (Palomar Airport Rd Ramp) entering into Carlsbad Blvd heading SB



National Data & Surveying Services Intersection Turning Movement Count

Location: Carlsbad Blvd/Palomar Airport Rd Ramp & Solamar Dr
City: Carlsbad
Control: Signalized

Project ID: 22-040120-001
Date: 7/19/2022

Data - Bikes

NS/EW Streets:	Carlsbad Blvd/Palomar Airport Rd Ramp					Carlsbad Blvd/Palomar Airport Rd Ramp				Solamar Dr				Solamar Dr							
AM	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND					SOUTHBOUND2		
	1	2	0	0	0	1	2	0	0	0	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
7:00 AM	0	8	0	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	13
7:15 AM	0	3	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	7
7:30 AM	0	5	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	12
7:45 AM	0	13	0	0	2	0	12	0	0	0	0	0	0	0	0	1	0	0	0	0	28
8:00 AM	0	3	0	1	0	0	13	0	1	0	0	0	0	0	0	0	0	0	0	0	18
8:15 AM	0	13	0	0	2	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	21
8:30 AM	0	11	0	0	0	1	10	0	0	0	0	0	0	0	0	1	0	0	0	0	23
8:45 AM	0	13	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	23
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
TOTAL VOLUMES :	0	69	0	1	5	1	66	0	1	0	0	0	0	0	0	2	0	0	0	0	145
APPROACH %'s :	0.00%	92.00%	0.00%	1.33%	6.67%	1.47%	97.06%	0.00%	1.47%					0.00%	0.00%	100.00%	0.00%	0.00%			
PEAK HR :	08:00 AM - 09:00 AM																				TOTAL
PEAK HR VOL :	0	40	0	1	2	1	39	0	1	0	0	0	0	0	0	1	0	0	0	0	85
PEAK HR FACTOR :	0.000	0.769	0.000	0.250	0.250	0.250	0.750	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.924
			0.717				0.732									0.250					

NOON	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND							
	1	2	0	0	0	1	2	0	0	0	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
11:00 AM	0	14	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	29
11:15 AM	0	10	0	0	0	0	14	0	0	0	0	0	0	0	0	1	0	0	0	0	25
11:30 AM	0	12	0	0	1	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	29
11:45 AM	0	12	0	2	0	0	15	0	0	0	0	0	0	1	0	0	0	0	0	0	30
12:00 PM	0	11	2	0	0	0	6	0	0	0	0	0	0	0	0	2	0	0	0	0	21
12:15 PM	0	16	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	26
12:30 PM	0	13	0	1	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	25
12:45 PM	0	15	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	28
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
TOTAL VOLUMES :	0	103	2	3	1	0	100	0	0	0	0	0	0	1	0	3	0	0	0	0	213
APPROACH %'s :	0.00%	94.50%	1.83%	2.75%	0.92%	0.00%	100.00%	0.00%	0.00%					25.00%	0.00%	75.00%	0.00%	0.00%			
PEAK HR :	11:00 AM - 12:00 PM																				TOTAL
PEAK HR VOL :	0	48	0	2	1	0	60	0	0	0	0	0	0	1	0	1	0	0	0	0	113
PEAK HR FACTOR :	0.000	0.857	0.000	0.250	0.250	0.000	0.938	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.942
			0.911				0.938									0.500					

PM	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND							
	1	2	0	0	0	1	2	0	0	0	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
4:00 PM	0	6	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	0	0	14
4:15 PM	0	6	0	0	2	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	19
4:30 PM	0	10	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	1	0	21
4:45 PM	0	5	0	0	1	0	7	0	1	0	0	0	0	0	0	0	0	0	0	0	14
5:00 PM	0	4	0	1	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	11
5:15 PM	0	14	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	27
5:30 PM	0	4	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	1	14
5:45 PM	0	8	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	16
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
TOTAL VOLUMES :	0	57	0	1	3	1	71	0	1	0	0	0	0	0	0	0	0	0	1	1	136
APPROACH %'s :	0.00%	93.44%	0.00%	1.64%	4.92%	1.37%	97.26%	0.00%	1.37%										50.00%	50.00%	
PEAK HR :	05:00 PM - 06:00 PM																				TOTAL
PEAK HR VOL :	0	30	0	1	0	0	36	0	0	0	0	0	0	0	0	0	0	0	0	1	68
PEAK HR FACTOR :	0.000	0.536	0.000	0.250	0.000	0.000	0.692	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.630
			0.554				0.692														

National Data & Surveying Services Intersection Turning Movement Count

Location: Carlsbad Blvd/Palomar Airport Rd Ramp & Solamar Dr
City: Carlsbad

Project ID: 22-040120-001
Date: 7/19/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Carlsbad Blvd/Palomar Airport Rd Ramp		Carlsbad Blvd/Palomar Airport Rd Ramp		Solamar Dr		Solamar Dr				
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		NORTH LEG 2		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
7:00 AM	0	0	3	2	1	1	0	0	0	0	7
7:15 AM	0	0	2	2	0	2	0	0	0	0	6
7:30 AM	0	0	3	0	3	0	0	0	0	0	6
7:45 AM	0	0	1	0	0	1	0	0	0	0	2
8:00 AM	0	0	1	0	1	0	0	0	0	0	2
8:15 AM	0	0	1	2	0	1	0	0	0	0	4
8:30 AM	0	0	0	1	1	1	0	0	0	0	3
8:45 AM	0	0	2	1	1	0	0	0	0	0	4
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	0	0	13	8	7	6	0	0	0	0	34
APPROACH %'s :			61.90%	38.10%	53.85%	46.15%					
PEAK HR :	08:00 AM - 09:00 AM										TOTAL
PEAK HR VOL :	0	0	4	4	3	2	0	0	0	0	13
PEAK HR FACTOR :			0.500	0.500	0.750	0.500					0.813
			0.667		0.625						

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		NORTH LEG 2		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
11:00 AM	0	0	2	1	0	2	0	0	0	0	5
11:15 AM	0	0	0	3	0	3	0	0	0	0	6
11:30 AM	0	0	2	2	3	0	0	0	0	0	7
11:45 AM	0	0	0	3	0	4	0	0	0	0	7
12:00 PM	0	0	2	0	2	0	0	0	0	0	4
12:15 PM	0	0	1	0	1	0	0	0	0	0	2
12:30 PM	0	0	4	3	4	2	0	0	0	0	13
12:45 PM	2	0	2	1	2	1	0	0	0	0	8
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	2	0	13	13	12	12	0	0	0	0	52
APPROACH %'s :	100.00%	0.00%	50.00%	50.00%	50.00%	50.00%					
PEAK HR :	11:00 AM - 12:00 PM										TOTAL
PEAK HR VOL :	0	0	4	9	3	9	0	0	0	0	25
PEAK HR FACTOR :			0.500	0.750	0.250	0.563					0.893
			0.813		0.750						

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		NORTH LEG 2		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
4:00 PM	0	0	5	2	5	2	0	0	0	0	14
4:15 PM	0	0	4	1	3	2	0	0	0	0	10
4:30 PM	0	0	1	0	2	0	0	0	0	0	3
4:45 PM	0	0	1	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	3	0	5	0	0	0	0	8
5:15 PM	0	0	0	0	0	2	0	0	0	0	2
5:30 PM	0	1	5	2	5	0	0	0	0	0	13
5:45 PM	0	0	0	4	0	0	0	0	0	0	4
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	0	1	16	12	15	11	0	0	0	0	55
APPROACH %'s :	0.00%	100.00%	57.14%	42.86%	57.69%	42.31%					
PEAK HR :	05:00 PM - 06:00 PM										TOTAL
PEAK HR VOL :	0	1	5	9	5	7	0	0	0	0	27
PEAK HR FACTOR :		0.250	0.250	0.563	0.250	0.350					0.519
	0.250		0.500		0.600						

Prepared by National Data & Surveying Services

Carlsbad Blvd/Palomar Airport Rd Ramp & Solamar Dr

Peak Hour Turning Movement Count

ID: 22-040120-001
City: Carlsbad

Day: Tuesday
Date: 7/19/2022

PEAK HOURS

AM	08:00 AM - 09:00 AM
NOON	11:00 AM - 12:00 PM
PM	05:00 PM - 06:00 PM

COUNT PERIODS

AM	7:00 AM - 09:00 AM
NOON	11:00 AM - 01:00 PM
PM	4:00 PM - 06:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	665	958	1185
PHF	0.93	0.96	0.99

SOUTHBOUND — Carlsbad Blvd/Palomar Airport Rd Ramp

	Left	Thru	Right	U-turn	Total
AM	0	394	15	5	219
NOON	0	534	19	7	361
PM	0	526	28	10	566

NORTHBOUND — Carlsbad Blvd/Palomar Airport Rd Ramp

	Left	Thru	Right	U-turn	Total
PM	574	43	0	543	17
NOON	571	26	0	345	6
AM	422	24	0	200	9

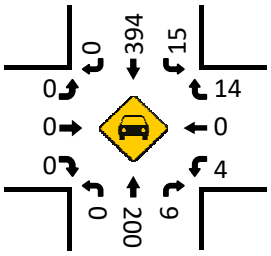
EASTBOUND — Solamar Dr

	AM	NOON	PM
	0	0	0
Left	0	0	0
Thru	0	0	0
Right	0	0	0
U-turn	0	0	0
	AM	NOON	PM

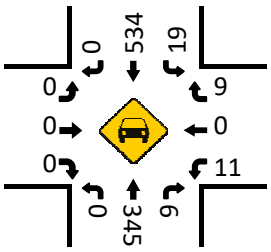
WESTBOUND — Solamar Dr

	PM	NOON	AM
	13	9	14
Left	0	0	0
Thru	5	11	4
Right	0	1	0
U-turn	45	26	24
	PM	NOON	AM

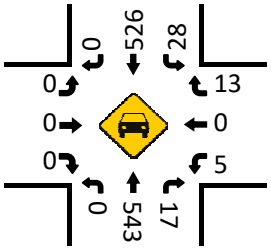
Total (AM)



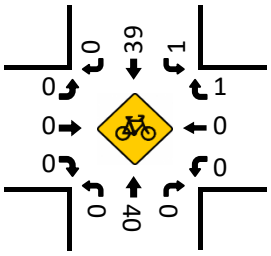
Total (NOON)



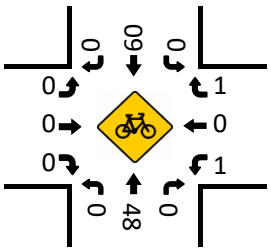
Total (PM)



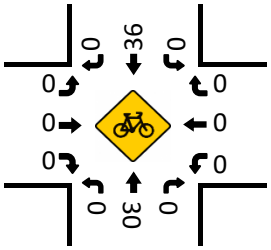
Total Bikes (AM)



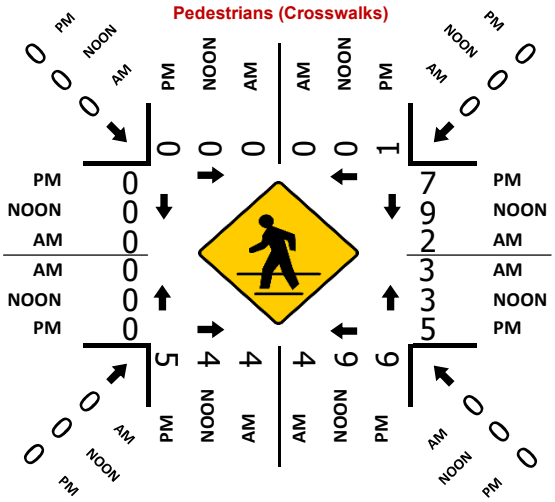
Total Bikes (NOON)



Total Bikes (PM)



Pedestrians (Crosswalks)



Intersection Turning Movement Count

Location: Carlsbad Blvd/Palomar Airport Rd Ramp & Solamar Dr
City: Carlsbad
Control: Signalized

Project ID: 22-040120-001
Date: 7/23/2022

Data - Totals

NS/EW Streets: Carlsbad Blvd/Palomar Airport Rd Ramp | Carlsbad Blvd/Palomar Airport Rd Ramp | Solamar Dr | Solamar Dr

AM

	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND				SOUTHBOUND2		
	1	2	0	0	0	1	2	0	0	0	0	0	0	0	1	0	0	0	0	0
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
7:00 AM	0	22	1	5	3	1	33	0	1	0	0	0	0	0	0	0	0	3	0	1	70
7:15 AM	0	22	0	4	7	2	53	0	0	0	0	0	0	0	0	3	0	3	0	0	94
7:30 AM	0	33	0	14	13	1	32	0	1	0	0	0	0	1	0	0	0	3	0	0	98
7:45 AM	0	26	0	7	14	6	38	0	0	0	0	0	0	3	0	1	0	7	0	1	103
8:00 AM	0	36	2	3	13	3	59	0	1	0	0	0	0	2	0	4	0	4	0	1	128
8:15 AM	0	42	1	8	17	2	74	0	2	0	0	0	0	2	0	4	0	8	0	0	160
8:30 AM	0	39	1	7	12	5	65	0	0	0	0	0	0	1	0	1	0	6	0	1	138
8:45 AM	0	53	6	9	14	2	83	0	1	0	0	0	0	1	0	3	0	6	0	0	178
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
TOTAL VOLUMES :	0	273	11	57	93	22	437	0	6	0	0	0	0	10	0	16	0	40	0	4	969
APPROACH %'s :	0.00%	62.90%	2.53%	13.13%	21.43%	4.73%	93.98%	0.00%	1.29%					15.15%	0.00%	24.24%	0.00%	60.61%	0.00%	100.00%	
PEAK HR :	08:00 AM - 09:00 AM																				TOTAL
PEAK HR VOL :	0	170	10	27	56	12	281	0	4	0	0	0	0	6	0	12	0	24	0	2	604
PEAK HR FACTOR :	0.000	0.802	0.417	0.750	0.824	0.600	0.846	0.000	0.500	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.000	0.750	0.000	0.500	0.848
			0.802				0.863									0.750					

NOON

	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND						
	1	2	0	0	0	1	2	0	0	0	0	0	0	0	1	0	0	0	0	0
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
11:00 AM	0	93	4	5	23	4	156	0	6	0	0	0	0	1	0	5	0	13	0	0	310
11:15 AM	0	99	0	9	28	3	125	0	1	0	0	0	0	0	0	0	0	9	0	0	274
11:30 AM	0	104	3	8	32	4	113	0	1	0	0	0	0	0	0	3	0	3	0	2	273
11:45 AM	0	96	0	11	30	3	147	0	2	0	0	0	0	0	0	1	0	6	0	0	296
12:00 PM	0	149	1	6	27	8	151	0	6	0	0	0	0	4	0	3	0	4	0	4	363
12:15 PM	0	109	1	7	27	3	167	0	3	0	0	0	0	0	0	5	0	4	0	3	329
12:30 PM	0	118	3	8	47	5	149	0	1	0	0	0	0	2	0	1	0	7	0	3	344
12:45 PM	0	119	2	11	22	6	181	0	1	0	0	0	0	1	0	1	0	5	0	0	349
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
TOTAL VOLUMES :	0	887	14	65	236	36	1189	0	21	0	0	0	0	8	0	19	0	51	0	12	2538
APPROACH %'s :	0.00%	73.79%	1.16%	5.41%	19.63%	2.89%	95.43%	0.00%	1.69%					10.26%	0.00%	24.36%	0.00%	65.38%	0.00%	100.00%	
PEAK HR :	12:00 PM - 01:00 PM																				TOTAL
PEAK HR VOL :	0	495	7	32	123	22	648	0	11	0	0	0	0	7	0	10	0	20	0	10	1385
PEAK HR FACTOR :	0.000	0.831	0.583	0.727	0.654	0.688	0.895	0.000	0.458	0.000	0.000	0.000	0.000	0.438	0.000	0.500	0.000	0.714	0.000	0.625	0.954
			0.898				0.906									0.841					

PM

	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND						
	1	2	0	0	0	1	2	0	0	0	0	0	0	0	1	0	0	0	0	0
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
4:00 PM	0	153	3	10	42	14	174	0	1	0	0	0	0	3	0	3	0	7	0	1	411
4:15 PM	0	148	1	9	54	11	163	0	1	0	0	0	0	2	0	1	0	2	0	2	394
4:30 PM	0	134	5	11	38	9	161	0	0	0	0	0	0	0	0	0	0	9	0	1	368
4:45 PM	0	93	5	12	36	8	130	0	5	0	0	0	0	1	0	3	0	4	0	2	299
5:00 PM	0	106	1	9	44	8	131	0	2	0	0	0	0	1	0	4	0	6	0	1	313
5:15 PM	0	117	3	6	26	5	132	0	3	0	0	0	0	1	0	1	0	2	0	1	297
5:30 PM	0	96	0	4	35	8	136	0	4	0	0	0	0	1	0	3	0	7	0	0	294
5:45 PM	0	100	1	4	35	3	136	0	3	0	0	0	0	1	0	2	0	3	0	2	290
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
TOTAL VOLUMES :	0	947	19	65	310	66	1163	0	19	0	0	0	0	10	0	17	0	40	0	10	2666
APPROACH %'s :	0.00%	70.62%	1.42%	4.85%	23.12%	5.29%	93.19%	0.00%	1.52%					14.93%	0.00%	25.37%	0.00%	59.70%	0.00%	100.00%	
PEAK HR :	04:00 PM - 05:00 PM																				TOTAL
PEAK HR VOL :	0	528	14	42	170	42	628	0	7	0	0	0	0	6	0	7	0	22	0	6	1472
PEAK HR FACTOR :	0.000	0.863	0.700	0.875	0.787	0.750	0.902	0.000	0.350	0.000	0.000	0.000	0.000	0.500	0.000	0.583	0.000	0.611	0.000	0.750	0.895
			0.889				0.896									0.673					

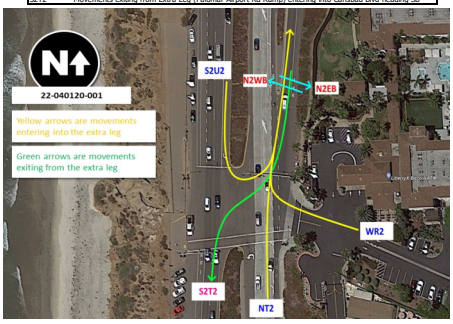
Explanation for extra leg movements

Movements entering the extra leg

S2U2	Movements coming from SB on Carlsbad Blvd entering into the Extra Leg (Palomar Airport Rd Ramp)
NT2	Movements coming from NB on Carlsbad Blvd entering into the Extra Leg (Palomar Airport Rd Ramp)
WR2	Movements coming from WB on Hilton Graden Inn entering into the Extra Leg (Palomar Airport Rd Ramp)

Movements exiting the extra leg

S2T2	Movements exiting from Extra Leg (Palomar Airport Rd Ramp) entering into Carlsbad Blvd heading SB



National Data & Surveying Services Intersection Turning Movement Count

Location: Carlsbad Blvd/Palomar Airport Rd Ramp & Solamar Dr
City: Carlsbad
Control: Signalized

Project ID: 22-040120-001
Date: 7/23/2022

Data - Bikes

NS/EW Streets:	Carlsbad Blvd/Palomar Airport Rd Ramp					Carlsbad Blvd/Palomar Airport Rd Ramp				Solamar Dr				Solamar Dr							
AM	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND					SOUTHBOUND2		
	1	2	0	0	0	1	2	0	0	0	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
7:00 AM	0	5	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	14
7:15 AM	0	16	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	27
7:30 AM	0	7	0	2	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	27
7:45 AM	0	11	0	0	1	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	32
8:00 AM	0	28	0	1	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	51
8:15 AM	0	19	0	1	0	0	23	0	2	0	0	0	0	0	0	0	0	0	0	0	45
8:30 AM	0	23	2	0	0	0	22	0	2	0	0	0	0	0	0	0	0	0	0	0	49
8:45 AM	0	77	0	0	1	0	23	0	7	0	0	0	0	0	0	0	0	0	0	0	108
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
TOTAL VOLUMES :	0	186	2	4	2	0	148	0	11	0	0	0	0	0	0	0	0	0	0	0	353
APPROACH %'s :	0.00%	95.88%	1.03%	2.06%	1.03%	0.00%	93.08%	0.00%	6.92%												
PEAK HR :	08:00 AM - 09:00 AM																				TOTAL
PEAK HR VOL :	0	147	2	2	1	0	90	0	11	0	0	0	0	0	0	0	0	0	0	0	253
PEAK HR FACTOR :	0.000	0.477	0.250	0.500	0.250	0.000	0.978	0.000	0.393	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.586
			0.487				0.842														

NOON	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND							
	1	2	0	0	0	1	2	0	0	0	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
11:00 AM	0	18	0	0	0	0	43	0	0	0	0	0	0	0	0	0	0	0	0	0	61
11:15 AM	0	27	0	0	1	0	54	0	1	0	0	0	0	0	0	0	0	0	0	0	83
11:30 AM	0	19	0	1	3	0	39	0	0	0	0	0	0	0	0	0	0	0	0	0	62
11:45 AM	0	28	1	0	3	0	28	0	2	0	0	0	0	0	0	0	0	0	0	0	62
12:00 PM	0	23	0	1	3	0	26	0	1	0	0	0	0	2	0	0	0	0	0	0	56
12:15 PM	0	30	0	0	0	2	25	0	0	0	0	0	0	0	0	2	0	0	0	0	59
12:30 PM	0	18	0	0	2	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	45
12:45 PM	0	32	0	1	2	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	67
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
TOTAL VOLUMES :	0	195	1	3	14	2	272	0	4	0	0	0	0	2	0	2	0	0	0	0	495
APPROACH %'s :	0.00%	91.55%	0.47%	1.41%	6.57%	0.72%	97.84%	0.00%	1.44%					50.00%	0.00%	50.00%	0.00%	0.00%			
PEAK HR :	12:00 PM - 01:00 PM																				TOTAL
PEAK HR VOL :	0	103	0	2	7	2	108	0	1	0	0	0	0	2	0	2	0	0	0	0	227
PEAK HR FACTOR :	0.000	0.805	0.000	0.500	0.583	0.250	0.844	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.847
			0.800				0.867									0.500					

PM	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND							
	1	2	0	0	0	1	2	0	0	0	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
4:00 PM	0	12	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	20
4:15 PM	0	5	0	0	1	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	15
4:30 PM	0	13	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	27
4:45 PM	0	12	1	0	0	0	8	0	0	0	0	0	0	0	0	1	0	0	0	0	22
5:00 PM	0	12	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	18
5:15 PM	0	6	0	0	2	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	30
5:30 PM	0	16	0	1	1	0	10	0	0	0	0	0	0	0	0	0	0	0	0	1	29
5:45 PM	0	5	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WR2	S2T2	S2U2	TOTAL
TOTAL VOLUMES :	0	81	1	1	4	0	80	0	0	0	0	0	0	0	0	1	0	0	0	1	169
APPROACH %'s :	0.00%	93.10%	1.15%	1.15%	4.60%	0.00%	100.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	
PEAK HR :	04:00 PM - 05:00 PM																				TOTAL
PEAK HR VOL :	0	42	1	0	1	0	39	0	0	0	0	0	0	0	0	1	0	0	0	0	84
PEAK HR FACTOR :	0.000	0.808	0.250	0.000	0.250	0.000	0.696	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.778
			0.846				0.696									0.250					

National Data & Surveying Services Intersection Turning Movement Count

Location: Carlsbad Blvd/Palomar Airport Rd Ramp & Solamar Dr
City: Carlsbad

Project ID: 22-040120-001
Date: 7/23/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Carlsbad Blvd/Palomar Airport Rd Ramp		Carlsbad Blvd/Palomar Airport Rd Ramp		Solamar Dr		Solamar Dr				
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		NORTH LEG 2		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
7:00 AM	0	0	0	4	0	1	0	0	0	0	5
7:15 AM	0	1	1	2	2	2	0	0	0	1	9
7:30 AM	0	1	3	0	1	1	0	0	1	1	8
7:45 AM	0	0	0	1	1	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	2	0	0	4	0	6
8:15 AM	0	0	2	1	0	1	0	0	0	0	4
8:30 AM	0	0	0	5	0	1	0	0	0	0	6
8:45 AM	0	0	3	3	1	0	0	0	0	0	7
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	0	2	9	16	5	8	0	0	5	2	47
APPROACH %'s :	0.00%	100.00%	36.00%	64.00%	38.46%	61.54%			71.43%	28.57%	
PEAK HR :	08:00 AM - 09:00 AM										TOTAL
PEAK HR VOL :	0	0	5	9	1	4	0	0	4	0	23
PEAK HR FACTOR :			0.417	0.450	0.250	0.500			0.250		0.821
			0.583		0.625				0.250		

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		NORTH LEG 2		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
11:00 AM	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	8	0	6	0	0	0	0	0	14
11:30 AM	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	2	1	0	0	0	0	0	3
12:00 PM	0	0	0	1	0	0	0	0	0	0	1
12:15 PM	0	0	0	5	0	0	0	0	1	0	6
12:30 PM	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	0	0	8	8	7	0	0	0	1	0	24
APPROACH %'s :			50.00%	50.00%	100.00%	0.00%			100.00%	0.00%	
PEAK HR :	12:00 PM - 01:00 PM										TOTAL
PEAK HR VOL :	0	0	0	6	0	0	0	0	1	0	7
PEAK HR FACTOR :				0.300					0.250		0.292
			0.300						0.250		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		NORTH LEG 2		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
4:00 PM	0	0	9	6	0	0	0	0	0	0	15
4:15 PM	0	0	2	2	0	0	0	0	0	0	4
4:30 PM	0	0	6	2	0	0	0	0	0	0	8
4:45 PM	0	0	0	1	1	0	0	0	0	0	2
5:00 PM	0	0	1	1	0	0	0	0	0	0	2
5:15 PM	0	0	0	3	1	0	0	0	0	0	4
5:30 PM	0	0	0	1	0	0	0	0	0	0	1
5:45 PM	0	0	6	3	0	0	0	0	0	0	9
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	0	0	24	19	2	0	0	0	0	0	45
APPROACH %'s :			55.81%	44.19%	100.00%	0.00%					
PEAK HR :	04:00 PM - 05:00 PM										TOTAL
PEAK HR VOL :	0	0	17	11	1	0	0	0	0	0	29
PEAK HR FACTOR :			0.472	0.458	0.250						0.483
			0.467		0.250						

Prepared by National Data & Surveying Services

Carlsbad Blvd/Palomar Airport Rd Ramp & Solamar Dr

Peak Hour Turning Movement Count

ID: 22-040120-001
City: Carlsbad

Day: Saturday
Date: 7/23/2022

PEAK HOURS

AM	08:00 AM - 09:00 AM
NOON	12:00 PM - 01:00 PM
PM	04:00 PM - 05:00 PM

COUNT PERIODS

AM	7:00 AM - 09:00 AM
NOON	11:00 AM - 01:00 PM
PM	4:00 PM - 06:00 PM

SOUTHBOUND — Carlsbad Blvd/Palomar Airport Rd Ramp

	Left	Thru	Right	U-turn	Total	
AM	0	281	12	4	186	AM
NOON	0	648	22	11	516	NOON
PM	0	628	42	7	542	PM

EASTBOUND — Solamar Dr

	Left	Thru	Right	U-turn
AM	0	0	0	0
NOON	0	0	0	0
PM	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0

WESTBOUND — Solamar Dr

	Left	Thru	Right	U-turn
PM	7	10	12	0
NOON	0	0	0	1
AM	6	7	6	0
	0	0	0	0
	56	29	22	

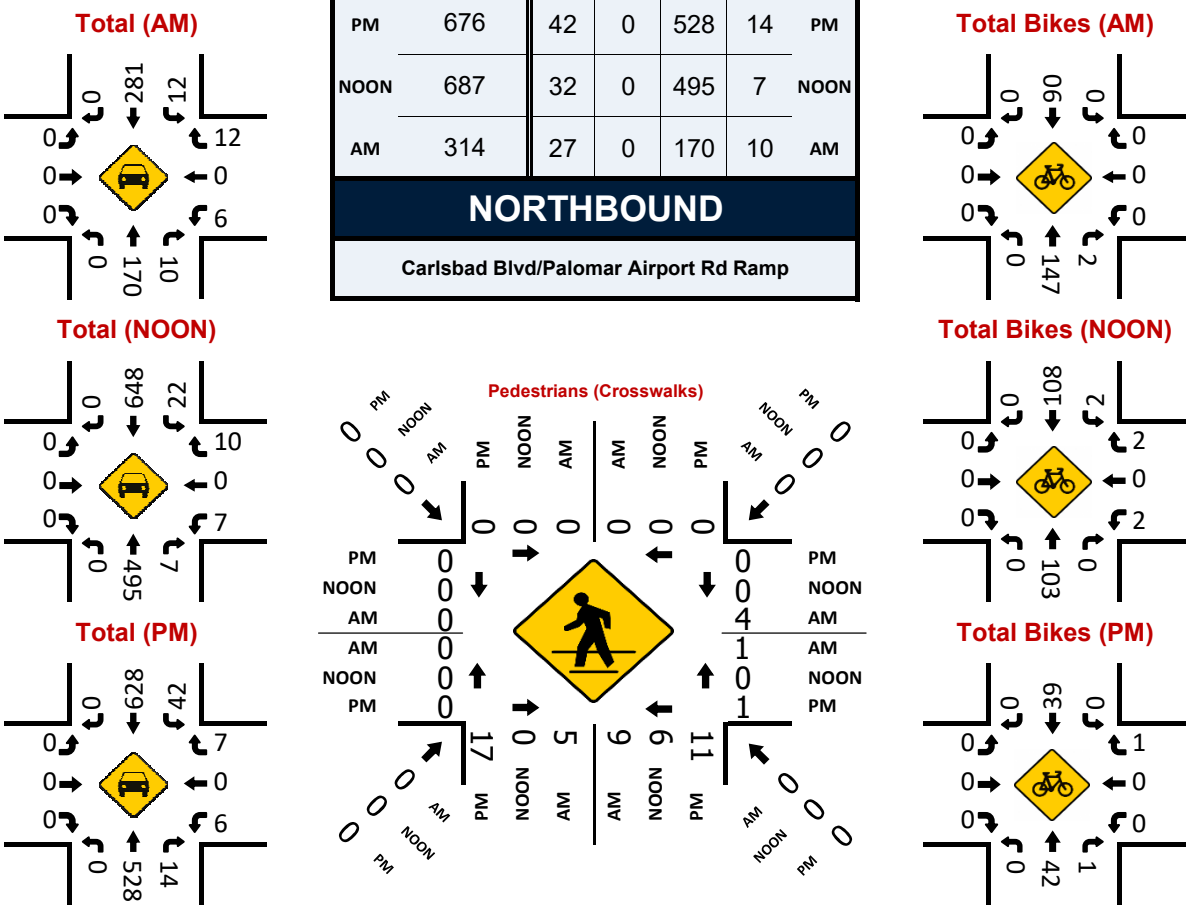
NORTHBOUND — Carlsbad Blvd/Palomar Airport Rd Ramp

	Left	Thru	Right	U-turn	Total	
PM	676	42	0	528	14	PM
NOON	687	32	0	495	7	NOON
AM	314	27	0	170	10	AM

CONTROL

Signalized

TEV	522	1232	1274
	AM	NOON	PM
PHF	0.85	0.95	0.90



National Data & Surveying Services Intersection Turning Movement Count

Location: Carlsbad Blvd & Island Way
City: Carlsbad
Control: Signalized

Project ID: 22-040120-002
Date: 7/19/2022

Data - Totals

NS/EW Streets:	Carlsbad Blvd				Carlsbad Blvd				Island Way				Island Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	38	1	0	2	64	0	3	0	0	0	0	1	0	0	0	109
7:15 AM	0	42	3	0	0	72	0	3	0	0	0	0	1	0	2	0	123
7:30 AM	0	47	0	0	1	71	0	8	0	0	0	0	1	0	3	0	131
7:45 AM	0	53	2	0	3	104	0	9	0	0	0	0	5	0	2	0	178
8:00 AM	0	82	2	0	1	95	0	6	0	0	0	0	4	0	3	0	193
8:15 AM	0	63	2	0	3	87	0	13	0	0	0	0	4	0	2	0	174
8:30 AM	0	70	3	0	4	100	0	7	0	0	0	0	1	0	1	0	186
8:45 AM	0	73	1	0	6	84	0	7	0	0	0	0	2	0	4	0	177
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	468	14	0	20	677	0	56	0	0	0	0	19	0	17	0	1271
APPROACH %'s :	0.00%	97.10%	2.90%	0.00%	2.66%	89.91%	0.00%	7.44%					52.78%	0.00%	47.22%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	268	9	0	11	386	0	35	0	0	0	0	14	0	8	0	731
PEAK HR FACTOR :	0.000	0.817	0.750	0.000	0.688	0.928	0.000	0.673	0.000	0.000	0.000	0.000	0.700	0.000	0.667	0.000	0.947
	0.824				0.931								0.786				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	0	93	3	0	9	124	0	16	0	0	0	0	4	0	4	0	253
11:15 AM	0	99	6	0	5	129	0	8	0	0	0	0	4	0	1	0	252
11:30 AM	0	102	9	0	3	119	0	8	0	0	0	0	4	0	3	0	248
11:45 AM	0	120	2	0	5	127	0	13	0	0	0	0	4	0	3	0	274
12:00 PM	0	109	4	0	7	119	0	15	0	0	0	0	5	0	5	0	264
12:15 PM	0	110	2	0	4	103	0	18	0	0	0	0	5	0	4	0	246
12:30 PM	0	113	4	0	6	124	0	17	0	0	0	0	2	0	6	0	272
12:45 PM	0	100	8	0	4	110	0	12	0	0	0	0	5	0	1	0	240
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	846	38	0	43	955	0	107	0	0	0	0	33	0	27	0	2049
APPROACH %'s :	0.00%	95.70%	4.30%	0.00%	3.89%	86.43%	0.00%	9.68%					55.00%	0.00%	45.00%	0.00%	
PEAK HR :	11:45 AM - 12:45 PM																TOTAL
PEAK HR VOL :	0	452	12	0	22	473	0	63	0	0	0	0	16	0	18	0	1056
PEAK HR FACTOR :	0.000	0.942	0.750	0.000	0.786	0.931	0.000	0.875	0.000	0.000	0.000	0.000	0.800	0.000	0.750	0.000	0.964
	0.951				0.949								0.850				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	187	4	0	3	149	0	13	0	0	0	0	2	0	4	0	362
4:15 PM	0	194	8	0	7	141	0	13	0	0	0	0	7	0	5	0	375
4:30 PM	0	174	8	0	7	117	0	14	0	0	0	0	3	0	3	0	326
4:45 PM	0	187	5	0	7	110	0	20	0	0	0	0	4	0	3	0	336
5:00 PM	0	173	4	0	4	118	0	21	0	0	0	0	5	0	5	0	330
5:15 PM	0	166	4	0	8	137	0	19	0	0	0	0	1	0	4	0	339
5:30 PM	0	199	11	0	5	102	0	19	0	0	0	0	2	0	4	0	342
5:45 PM	0	186	8	0	4	106	0	18	0	0	0	0	5	0	3	0	330
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1466	52	0	45	980	0	137	0	0	0	0	29	0	31	0	2740
APPROACH %'s :	0.00%	96.57%	3.43%	0.00%	3.87%	84.34%	0.00%	11.79%					48.33%	0.00%	51.67%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	742	25	0	24	517	0	60	0	0	0	0	16	0	15	0	1399
PEAK HR FACTOR :	0.000	0.956	0.781	0.000	0.857	0.867	0.000	0.750	0.000	0.000	0.000	0.000	0.571	0.000	0.750	0.000	0.933
	0.949				0.911								0.646				

National Data & Surveying Services Intersection Turning Movement Count

Location: Carlsbad Blvd & Island Way
City: Carlsbad
Control: Signalized

Project ID: 22-040120-002
Date: 7/19/2022

Data - Bikes

NS/EW Streets: Carlsbad Blvd | Carlsbad Blvd | Island Way | Island Way

AM

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	8
7:15 AM	0	4	0	0	0	6	0	0	0	0	0	0	1	0	0	0	11
7:30 AM	0	8	0	0	0	3	0	0	0	0	0	0	0	0	0	0	11
7:45 AM	0	11	0	0	1	14	0	1	0	0	0	0	0	0	0	0	27
8:00 AM	0	4	0	0	0	10	0	2	0	0	0	0	0	0	0	0	16
8:15 AM	0	11	2	1	0	6	0	1	0	0	0	0	0	0	0	0	21
8:30 AM	0	17	0	0	0	7	0	0	0	0	0	0	0	0	0	0	24
8:45 AM	0	7	1	0	0	13	0	0	0	0	0	0	0	0	0	0	21
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	66	3	1	1	63	0	4	0	0	0	0	1	0	0	0	139
APPROACH %'s :	0.00%	94.29%	4.29%	1.43%	1.47%	92.65%	0.00%	5.88%					100.00%	0.00%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	43	2	1	1	37	0	4	0	0	0	0	0	0	0	0	88
PEAK HR FACTOR :	0.000	0.632	0.250	0.250	0.250	0.661	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.815
	0.676				0.656												

NOON

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	0	12	5	1	0	14	0	0	0	0	0	0	1	0	0	0	33
11:15 AM	0	9	0	0	0	14	0	0	0	0	0	0	0	0	2	0	25
11:30 AM	0	12	1	0	2	8	0	2	0	0	0	0	0	0	0	0	25
11:45 AM	0	13	0	0	0	19	0	0	0	0	0	0	0	0	0	0	32
12:00 PM	0	11	0	0	0	4	0	1	0	0	0	0	0	0	4	0	20
12:15 PM	0	12	0	0	1	11	0	2	0	0	0	0	0	0	0	0	26
12:30 PM	0	14	0	0	0	9	0	0	0	0	0	0	0	0	2	0	25
12:45 PM	0	10	0	0	0	13	0	3	0	0	0	0	0	0	1	0	27
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	93	6	1	3	92	0	8	0	0	0	0	1	0	9	0	213
APPROACH %'s :	0.00%	93.00%	6.00%	1.00%	2.91%	89.32%	0.00%	7.77%					10.00%	0.00%	90.00%	0.00%	
PEAK HR :	11:45 AM - 12:45 PM																TOTAL
PEAK HR VOL :	0	50	0	0	1	43	0	3	0	0	0	0	0	0	6	0	103
PEAK HR FACTOR :	0.000	0.893	0.000	0.000	0.250	0.566	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.805
	0.893				0.618								0.375				

PM

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	9	1	1	1	9	0	0	0	0	0	0	1	0	1	0	23
4:15 PM	0	3	0	1	1	9	0	0	0	0	0	0	0	0	2	0	16
4:30 PM	0	11	2	0	0	10	0	2	0	0	0	0	0	0	0	0	25
4:45 PM	0	1	1	1	0	6	0	0	0	0	0	0	0	0	0	0	9
5:00 PM	0	5	0	0	0	8	0	0	0	0	0	0	0	0	1	0	14
5:15 PM	0	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	22
5:30 PM	0	6	0	0	0	11	0	0	0	0	0	0	0	0	2	0	19
5:45 PM	0	6	0	0	1	6	0	0	0	0	0	0	0	0	1	0	14
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	52	4	3	3	70	0	2	0	0	0	0	1	0	7	0	142
APPROACH %'s :	0.00%	88.14%	6.78%	5.08%	4.00%	93.33%	0.00%	2.67%					12.50%	0.00%	87.50%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	24	4	3	2	34	0	2	0	0	0	0	1	0	3	0	73
PEAK HR FACTOR :	0.000	0.545	0.500	0.750	0.500	0.850	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.375	0.000	0.730
	0.596				0.792								0.500				

National Data & Surveying Services Intersection Turning Movement Count

Location: Carlsbad Blvd & Island Way
City: Carlsbad
Project ID: 22-040120-002
Date: 7/19/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Carlsbad Blvd		Carlsbad Blvd		Island Way		Island Way		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	4	0	0	0	0	0	0	0	4
7:15 AM	1	2	0	0	0	0	0	0	3
7:30 AM	2	0	0	0	0	0	0	0	2
7:45 AM	5	5	0	0	0	0	0	0	10
8:00 AM	5	11	0	0	0	0	0	0	16
8:15 AM	2	5	0	0	0	0	0	0	7
8:30 AM	0	1	1	0	1	0	0	0	3
8:45 AM	9	6	0	0	0	0	0	0	15
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	28	30	1	0	1	0	0	0	60
APPROACH %'s :	48.28%	51.72%	100.00%	0.00%	100.00%	0.00%			
PEAK HR :	**07:45 AM - 08:45 AM**								TOTAL
PEAK HR VOL :	12	22	1	0	1	0	0	0	36
PEAK HR FACTOR :	0.600	0.500	0.250		0.250				0.563
	0.531		0.250		0.250				

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
11:00 AM	0	3	0	0	0	0	0	0	3
11:15 AM	0	5	0	0	0	0	0	0	5
11:30 AM	6	7	0	0	1	0	0	0	14
11:45 AM	8	2	0	0	0	0	0	0	10
12:00 PM	7	0	0	0	0	1	0	0	8
12:15 PM	9	1	1	0	0	0	0	0	11
12:30 PM	0	1	0	0	0	0	0	0	1
12:45 PM	7	6	0	0	0	0	0	0	13
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	37	25	1	0	1	1	0	0	65
APPROACH %'s :	59.68%	40.32%	100.00%	0.00%	50.00%	50.00%			
PEAK HR :	**11:45 AM - 12:45 PM**								TOTAL
PEAK HR VOL :	24	4	1	0	0	1	0	0	30
PEAK HR FACTOR :	0.667	0.500	0.250			0.250			0.682
	0.700		0.250		0.250				

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	8	1	0	0	0	0	0	0	9
4:15 PM	2	0	0	0	0	0	0	0	2
4:30 PM	3	11	0	0	0	0	0	0	14
4:45 PM	3	4	0	0	0	1	0	0	8
5:00 PM	4	7	0	0	0	0	0	0	11
5:15 PM	5	8	0	0	0	0	0	0	13
5:30 PM	13	8	0	0	0	0	0	0	21
5:45 PM	4	2	0	0	0	0	0	0	6
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	42	41	0	0	0	1	0	0	84
APPROACH %'s :	50.60%	49.40%			0.00%	100.00%			
PEAK HR :	**04:00 PM - 05:00 PM**								TOTAL
PEAK HR VOL :	16	16	0	0	0	1	0	0	33
PEAK HR FACTOR :	0.500	0.364				0.250			0.589
	0.571				0.250				

Prepared by National Data & Surveying Services

Carlsbad Blvd & Island Way

Peak Hour Turning Movement Count

ID: 22-040120-002
City: Carlsbad

Day: Tuesday
Date: 7/19/2022

PEAK HOURS

AM	07:45 AM - 08:45 AM
NOON	11:45 AM - 12:45 PM
PM	04:00 PM - 05:00 PM

COUNT PERIODS

AM	7:00 AM - 09:00 AM
NOON	11:00 AM - 01:00 PM
PM	4:00 PM - 06:00 PM

SOUTHBOUND (Carlsbad Blvd)

AM	0	386	11	35	311	AM
NOON	0	473	22	63	533	NOON
PM	0	517	24	60	817	PM

EASTBOUND (Island Way)

AM	NOON	PM
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

WESTBOUND (Island Way)

PM	NOON	AM
15	18	8
0	0	0
16	16	14
0	0	0
49	34	20

NORTHBOUND (Carlsbad Blvd)

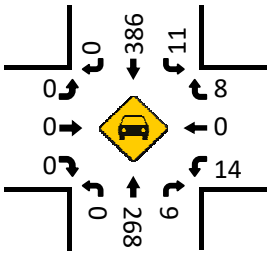
PM	533	0	0	742	25	PM
NOON	489	0	0	452	12	NOON
AM	400	0	0	268	9	AM

Turning movements (red): 0 2 1 0 | 0 1 0 0 | 0 0 2 0

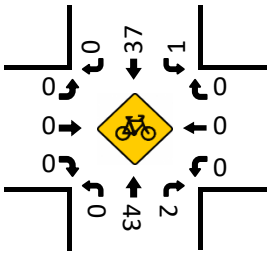
CONTROL: Signalized

	AM	NOON	PM
TEV	731	1056	1399
PHF	0.95	0.96	0.93

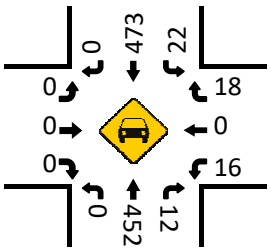
Total (AM)



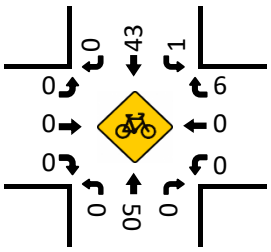
Total Bikes (AM)



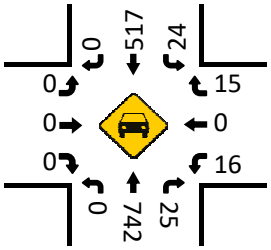
Total (NOON)



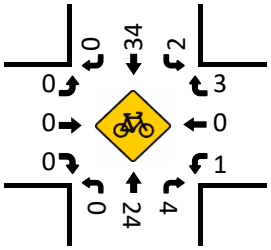
Total Bikes (NOON)



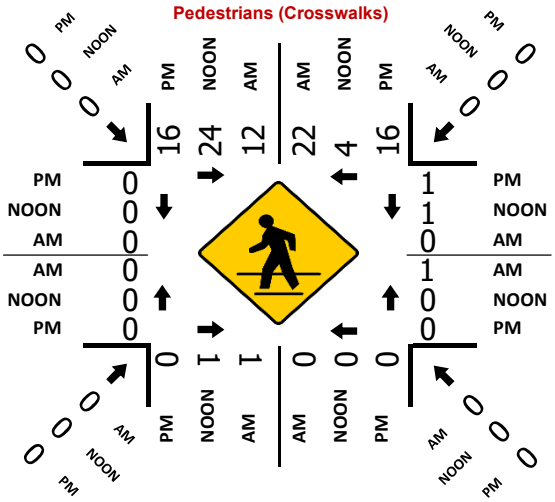
Total (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Carlsbad Blvd & Island Way
City: Carlsbad
Control: Signalized

Project ID: 22-040120-002
Date: 7/23/2022

Data - Totals

NS/EW Streets:	Carlsbad Blvd				Carlsbad Blvd				Island Way				Island Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	27	1	0	3	28	0	1	0	0	0	0	0	0	1	0	61
7:15 AM	0	24	4	0	3	39	0	7	0	0	0	0	5	0	2	0	84
7:30 AM	0	47	0	0	3	27	0	7	0	0	0	0	1	0	2	0	87
7:45 AM	0	37	4	0	2	43	0	6	0	0	0	0	1	0	3	0	96
8:00 AM	0	48	1	0	3	45	0	11	0	0	0	0	2	0	0	0	110
8:15 AM	0	55	2	0	5	67	0	5	0	0	0	0	1	0	3	0	138
8:30 AM	0	54	5	0	3	63	0	9	0	0	0	0	4	0	2	0	140
8:45 AM	0	62	4	0	5	79	0	10	0	0	0	0	3	0	3	0	166
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	354	21	0	27	391	0	56	0	0	0	0	17	0	16	0	882
APPROACH %'s :	0.00%	94.40%	5.60%	0.00%	5.70%	82.49%	0.00%	11.81%					51.52%	0.00%	48.48%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	219	12	0	16	254	0	35	0	0	0	0	10	0	8	0	554
PEAK HR FACTOR :	0.000	0.883	0.600	0.000	0.800	0.804	0.000	0.795	0.000	0.000	0.000	0.000	0.625	0.000	0.667	0.000	0.834
	0.875				0.811								0.750				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	0	108	3	0	4	145	0	9	0	0	0	0	1	0	7	0	277
11:15 AM	0	125	3	0	7	118	0	14	0	0	0	0	3	0	1	0	271
11:30 AM	0	130	3	0	5	107	0	15	0	0	0	0	5	0	6	0	271
11:45 AM	0	124	7	0	4	138	0	7	0	0	0	0	3	0	4	0	287
12:00 PM	0	173	4	0	5	143	0	4	0	0	0	0	2	0	4	0	335
12:15 PM	0	137	4	0	9	159	0	12	0	0	0	0	4	0	3	0	328
12:30 PM	0	146	6	0	5	133	0	19	0	0	0	0	1	0	6	0	316
12:45 PM	0	137	2	0	4	179	0	9	0	0	0	0	4	0	2	0	337
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1080	32	0	43	1122	0	89	0	0	0	0	23	0	33	0	2422
APPROACH %'s :	0.00%	97.12%	2.88%	0.00%	3.43%	89.47%	0.00%	7.10%					41.07%	0.00%	58.93%	0.00%	
PEAK HR :	12:00 PM - 01:00 PM																TOTAL
PEAK HR VOL :	0	593	16	0	23	614	0	44	0	0	0	0	11	0	15	0	1316
PEAK HR FACTOR :	0.000	0.857	0.667	0.000	0.639	0.858	0.000	0.579	0.000	0.000	0.000	0.000	0.688	0.000	0.625	0.000	0.976
	0.860				0.887								0.929				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	176	1	0	12	149	0	19	0	0	0	0	7	0	5	0	369
4:15 PM	0	205	7	0	6	150	0	21	0	0	0	0	9	0	3	0	401
4:30 PM	0	153	4	0	9	154	0	11	0	0	0	0	3	0	3	0	337
4:45 PM	0	145	2	0	3	139	0	12	0	0	0	0	3	0	5	0	309
5:00 PM	0	131	3	0	10	127	0	13	0	0	0	0	6	0	6	0	296
5:15 PM	0	127	7	0	4	120	0	16	0	0	0	0	5	0	4	0	283
5:30 PM	0	127	4	0	4	113	0	14	0	0	0	0	4	0	6	0	272
5:45 PM	0	104	8	0	7	131	0	25	0	0	0	0	5	0	3	0	283
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1168	36	0	55	1083	0	131	0	0	0	0	42	0	35	0	2550
APPROACH %'s :	0.00%	97.01%	2.99%	0.00%	4.33%	85.34%	0.00%	10.32%					54.55%	0.00%	45.45%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	679	14	0	30	592	0	63	0	0	0	0	22	0	16	0	1416
PEAK HR FACTOR :	0.000	0.828	0.500	0.000	0.625	0.961	0.000	0.750	0.000	0.000	0.000	0.000	0.611	0.000	0.800	0.000	0.883
	0.817				0.951								0.792				

National Data & Surveying Services Intersection Turning Movement Count

Location: Carlsbad Blvd & Island Way
City: Carlsbad
Control: Signalized

Project ID: 22-040120-002
Date: 7/23/2022

Data - Bikes

NS/EW Streets:	Carlsbad Blvd				Carlsbad Blvd				Island Way				Island Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0	18
7:15 AM	0	12	0	0	0	10	0	0	0	0	0	0	0	0	0	0	22
7:30 AM	0	8	0	1	0	15	0	0	0	0	0	0	0	0	0	0	24
7:45 AM	0	13	1	0	0	24	0	1	0	0	0	0	0	0	0	0	39
8:00 AM	0	22	1	0	1	19	0	0	0	0	0	0	8	0	5	0	56
8:15 AM	0	22	0	0	0	27	0	0	0	0	0	0	0	0	0	0	49
8:30 AM	0	24	0	2	0	20	0	1	0	0	0	0	0	0	1	0	48
8:45 AM	0	84	0	0	2	19	0	0	0	0	0	0	0	0	0	0	105
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	194	2	3	3	143	0	2	0	0	0	0	8	0	6	0	361
APPROACH %'s :	0.00%	97.49%	1.01%	1.51%	2.03%	96.62%	0.00%	1.35%					57.14%	0.00%	42.86%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	152	1	2	3	85	0	1	0	0	0	0	8	0	6	0	258
PEAK HR FACTOR :	0.000	0.452	0.250	0.250	0.375	0.787	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.300	0.000	0.614
	0.461				0.824								0.269				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	0	20	5	0	1	46	0	0	0	0	0	0	0	0	1	0	73
11:15 AM	0	25	1	0	0	53	0	0	0	0	0	0	1	0	1	0	81
11:30 AM	0	23	2	0	0	37	0	0	0	0	0	0	1	0	2	0	65
11:45 AM	0	29	1	0	0	30	0	1	0	0	0	0	1	0	0	0	62
12:00 PM	0	31	1	0	0	29	0	0	0	0	0	0	0	0	0	0	61
12:15 PM	0	26	2	0	1	21	0	0	0	0	0	0	0	0	0	0	50
12:30 PM	0	15	0	0	0	24	0	4	0	0	0	0	0	0	1	0	44
12:45 PM	0	31	2	0	0	30	0	2	0	0	0	0	1	0	0	0	66
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	200	14	0	2	270	0	7	0	0	0	0	4	0	5	0	502
APPROACH %'s :	0.00%	93.46%	6.54%	0.00%	0.72%	96.77%	0.00%	2.51%					44.44%	0.00%	55.56%	0.00%	
PEAK HR :	12:00 PM - 01:00 PM																TOTAL
PEAK HR VOL :	0	103	5	0	1	104	0	6	0	0	0	0	1	0	1	0	221
PEAK HR FACTOR :	0.000	0.831	0.625	0.000	0.250	0.867	0.000	0.375	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.837
	0.818				0.867								0.500				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	10	7	0	0	5	0	0	0	0	0	0	2	0	0	0	24
4:15 PM	0	10	0	0	0	11	0	0	0	0	0	0	0	0	0	0	21
4:30 PM	0	9	0	0	2	10	0	0	0	0	0	0	0	0	0	0	21
4:45 PM	0	10	4	0	5	3	0	2	0	0	0	0	0	0	1	0	25
5:00 PM	0	8	1	0	0	2	0	2	0	0	0	0	2	0	3	0	18
5:15 PM	0	5	2	0	4	16	0	5	0	0	0	0	0	0	2	0	34
5:30 PM	0	11	1	0	0	11	0	0	0	0	0	0	1	0	2	0	26
5:45 PM	0	4	1	0	0	1	0	0	0	0	0	0	0	0	1	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	67	16	0	11	59	0	9	0	0	0	0	5	0	9	0	176
APPROACH %'s :	0.00%	80.72%	19.28%	0.00%	13.92%	74.68%	0.00%	11.39%					35.71%	0.00%	64.29%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	39	11	0	7	29	0	2	0	0	0	0	2	0	1	0	91
PEAK HR FACTOR :	0.000	0.975	0.393	0.000	0.350	0.659	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.910
	0.735				0.792								0.375				

National Data & Surveying Services Intersection Turning Movement Count

Location: Carlsbad Blvd & Island Way
City: Carlsbad
Project ID: 22-040120-002
Date: 7/23/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Carlsbad Blvd		Carlsbad Blvd		Island Way		Island Way		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	2	2	0	0	1	0	0	0	5
7:15 AM	4	2	1	0	2	0	0	0	9
7:30 AM	5	0	0	0	0	1	0	0	6
7:45 AM	1	33	0	0	0	0	0	0	34
8:00 AM	0	11	0	0	0	1	0	0	12
8:15 AM	4	8	0	0	0	0	0	0	12
8:30 AM	30	4	0	0	1	1	0	0	36
8:45 AM	17	8	0	0	0	0	0	0	25
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	63	68	1	0	4	3	0	0	139
APPROACH %'s :	48.09%	51.91%	100.00%	0.00%	57.14%	42.86%			
PEAK HR :	**08:00 AM - 09:00 AM**								TOTAL
PEAK HR VOL :	51	31	0	0	1	2	0	0	85
PEAK HR FACTOR :	0.425	0.705			0.250	0.500			0.590
	0.603				0.375				

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
11:00 AM	4	13	0	0	1	2	0	0	20
11:15 AM	8	5	0	0	0	0	0	0	13
11:30 AM	3	14	0	0	2	2	0	0	21
11:45 AM	2	9	0	0	0	1	0	0	12
12:00 PM	4	5	0	0	0	0	0	0	9
12:15 PM	5	10	0	0	0	0	0	0	15
12:30 PM	2	12	0	0	0	0	0	0	14
12:45 PM	5	14	0	0	0	0	0	0	19
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	33	82	0	0	3	5	0	0	123
APPROACH %'s :	28.70%	71.30%			37.50%	62.50%			
PEAK HR :	**12:00 PM - 01:00 PM**								TOTAL
PEAK HR VOL :	16	41	0	0	0	0	0	0	57
PEAK HR FACTOR :	0.800	0.732							0.750
	0.750								

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	8	1	0	0	1	0	0	0	10
4:15 PM	24	10	0	0	0	0	0	0	34
4:30 PM	9	2	0	0	0	1	0	0	12
4:45 PM	8	18	0	0	0	0	0	0	26
5:00 PM	13	9	0	0	0	1	0	0	23
5:15 PM	14	15	0	0	0	0	0	0	29
5:30 PM	14	0	0	0	0	0	0	0	14
5:45 PM	3	0	0	0	0	1	0	0	4
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	93	55	0	0	1	3	0	0	152
APPROACH %'s :	62.84%	37.16%			25.00%	75.00%			
PEAK HR :	**04:00 PM - 05:00 PM**								TOTAL
PEAK HR VOL :	49	31	0	0	1	1	0	0	82
PEAK HR FACTOR :	0.510	0.431			0.250	0.250			0.603
	0.588				0.500				

Prepared by National Data & Surveying Services

Carlsbad Blvd & Island Way

Peak Hour Turning Movement Count

ID: 22-040120-002
City: Carlsbad

Day: Saturday
Date: 7/23/2022

PEAK HOURS

AM	08:00 AM - 09:00 AM
NOON	12:00 PM - 01:00 PM
PM	04:00 PM - 05:00 PM

COUNT PERIODS

AM	7:00 AM - 09:00 AM
NOON	11:00 AM - 01:00 PM
PM	4:00 PM - 06:00 PM

SOUTHBOUND (Carlsbad Blvd)

AM	0	254	16	35	262	AM
NOON	0	614	23	44	652	NOON
PM	0	592	30	63	758	PM

EASTBOUND (Island Way)

AM	NOON	PM
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

AM NOON PM

WESTBOUND (Island Way)

PM	NOON	AM
16	15	8
0	0	0
22	11	10
0	0	0
44	39	28

PM NOON AM

NORTHBOUND (Carlsbad Blvd)

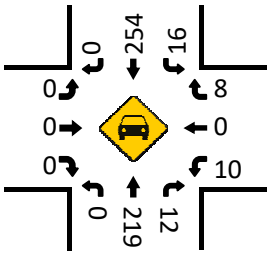
PM	614	0	0	679	14	PM
NOON	625	0	0	593	16	NOON
AM	264	0	0	219	12	AM

CONTROL

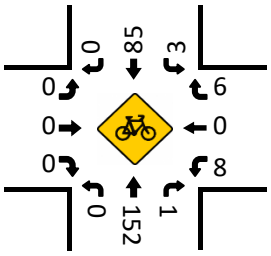
Signalized

TEV	554 AM	1316 NOON	1416 PM
PHF	0.83	0.98	0.88

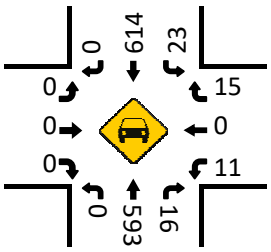
Total (AM)



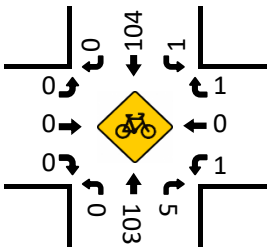
Total Bikes (AM)



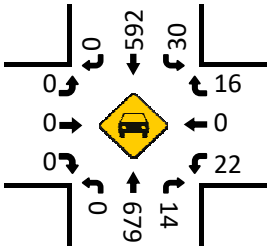
Total (NOON)



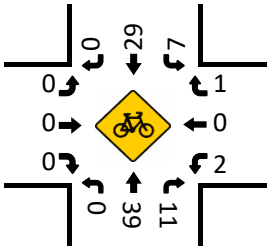
Total Bikes (NOON)



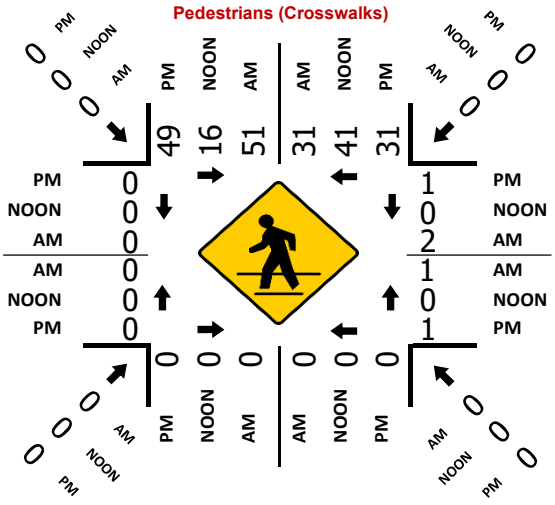
Total (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



2018-2019

Traffic Monitoring Program

City of Carlsbad Growth Management Plan

Final Report: February 28, 2020

City of Carlsbad

Kimley»Horn

Table 1: Bicycle and Pedestrian LOS Segment Deficiencies (Continued)

Roadway	Extent	Extent	Typology	Direction	Length (miles)	ADT (vpd)	Score	LOS	Primary Reason for Deficiency
Pedestrian LOS Deficiency (Continued)									
Carlsbad Blvd	Island Way	Palomar Airport Rd	Coastal	NB	0.88	26,278	0	F	No sidewalk or gaps in sidewalk
	Palomar Airport Rd	Island Way		SB			0	F	
Carlsbad Blvd	Island Way	Poinsettia Ln	Coastal	NB	0.73	14,463	0	F	No sidewalk or gaps in sidewalk
	Poinsettia Ln	Island Way		SB			0	F	
Carlsbad Blvd	Ponto Rd	Poinsettia Ln	Coastal	SB	0.40	14,463	0	F	No sidewalk
Carlsbad Blvd	Ponto Rd	Avenida Encinas	Coastal	NB	0.33	14,463	0	F	No sidewalk or gaps in sidewalk
	Avenida Encinas	Ponto Rd		SB			0	F	

Source: Fehr & Peers, 2019.

Note: * Estimated as less than 3,000 vpd under direction from City of Carlsbad staff.

Study Intersection: Carlsbad Blvd / Solamar Dr
North/South: Carlsbad Blvd
East/West: Solamar Dr
Count Date: **Tuesday, July 19, 2022**

	Existing 2022			Existing 2022 (Post-COVID Factor)		
	AM	Noon	PM	AM	Noon	PM
NBL	24	26	43	34	36	60
NBT	200	345	543	280	483	760
NBR	9	6	17	13	8	24
SBUturn	5	7	10	7	10	14
SBL	15	19	28	21	27	39
SBT	394	534	526	551	747	736
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	0	0	0	0	0	0
EBR	0	0	0	0	0	0
WBL	4	11	5	6	15	7
WBT	0	0	0	0	0	0
WBR	14	9	13	20	13	18

Study Intersection: Carlsbad Blvd / Island Way
North/South: Carlsbad Blvd
East/West: Island Way
Count Date: **Tuesday, July 19, 2022**

	Existing 2022			Existing 2022 (Post-COVID Factor)		
	AM	Noon	PM	AM	Noon	PM
NBL	0	0	0	0	0	0
NBT	268	452	742	375	632	1,038
NBR	9	12	25	13	17	35
SBUturn	35	63	60	49	88	84
SBL	11	22	24	15	31	34
SBT	386	473	517	540	662	723
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	0	0	0	0	0	0
EBR	0	0	0	0	0	0
WBL	14	0	8	20	0	11
WBT	0	0	0	0	0	0
WBR	8	18	15	11	25	21

Study Intersection: Carlsbad Blvd / Solamar Dr
North/South: Carlsbad Blvd
East/West: Solamar Dr
Count Date: **Saturday, July 23, 2022**

	Existing 2022			Existing 2022 (Post-COVID Factor)		
	AM	Noon	PM	AM	Noon	PM
NBL	27	32	42	37	44	58
NBT	170	495	528	234	682	727
NBR	10	7	14	14	10	19
SBUturn	4	11	7	6	15	10
SBL	12	22	42	17	30	58
SBT	281	648	628	387	892	865
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	0	0	0	0	0	0
EBR	0	0	0	0	0	0
WBL	6	7	6	8	10	8
WBT	0	0	0	0	0	0
WBR	12	10	7	17	14	10

Study Intersection: Carlsbad Blvd / Island Way
North/South: Carlsbad Blvd
East/West: Island Way
Count Date: **Saturday, July 23, 2022**

	Existing 2022			Existing 2022 (Post-COVID Factor)		
	AM	Noon	PM	AM	Noon	PM
NBL	0	0	0	0	0	0
NBT	219	593	679	302	817	935
NBR	12	16	14	17	22	19
SBUturn	35	44	63	48	61	87
SBL	16	23	30	22	32	41
SBT	254	614	592	350	845	815
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	0	0	0	0	0	0
EBR	0	0	0	0	0	0
WBL	10	11	22	14	15	30
WBT	0	0	0	0	0	0
WBR	8	15	16	11	21	22

Michael Baker
INTERNATIONAL

Attachment B
Existing 2022 & Existing 2022 Post-COVID Synchro Worksheets

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	4	14	24	200	9	20	394
Future Volume (veh/h)	4	14	24	200	9	20	394
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.99			0.92	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	6	22		222	10	22	428
Peak Hour Factor	0.63	0.63		0.90	0.90	0.92	0.92
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	24	89		1042	47	50	1752
Arrive On Green	0.07	0.07		0.30	0.30	0.03	0.49
Sat Flow, veh/h	334	1224		3543	154	1781	3647
Grp Volume(v), veh/h	29	0		114	118	22	428
Grp Sat Flow(s),veh/h/ln	1614	0		1777	1827	1781	1777
Q Serve(g_s), s	0.5	0.0		1.3	1.3	0.3	1.9
Cycle Q Clear(g_c), s	0.5	0.0		1.3	1.3	0.3	1.9
Prop In Lane	0.21	0.76			0.08	1.00	
Lane Grp Cap(c), veh/h	118	0		537	552	50	1752
V/C Ratio(X)	0.25	0.00		0.21	0.21	0.44	0.24
Avail Cap(c_a), veh/h	1985	0		1221	1256	354	2443
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.1	0.0		7.2	7.2	13.2	4.0
Incr Delay (d2), s/veh	1.1	0.0		0.2	0.2	5.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0		0.3	0.3	0.2	0.3
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	13.2	0.0		7.4	7.4	19.2	4.1
LnGrp LOS	B	A		A	A	B	A
Approach Vol, veh/h	29			232			450
Approach Delay, s/veh	13.2			7.4			4.8
Approach LOS	B			A			A

Timer - Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	5.3	14.3				19.6		8.0
Change Period (Y+Rc), s	4.5	6.0				6.0		6.0
Max Green Setting (Gmax), s	5.5	19.0				19.0		34.0
Max Q Clear Time (g_c+I1), s	2.3	3.3				3.9		2.5
Green Ext Time (p_c), s	0.0	1.1				2.4		0.1

Intersection Summary	
HCM 6th Ctrl Delay	6.0
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	11	9	26	345	6	26	534
Future Volume (veh/h)	11	9	26	345	6	26	534
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.98			0.90	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	17	14		411	7	28	568
Peak Hour Factor	0.65	0.65		0.84	0.84	0.94	0.94
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	87	72		1080	18	62	1747
Arrive On Green	0.10	0.10		0.30	0.30	0.03	0.49
Sat Flow, veh/h	889	732		3661	61	1781	3647
Grp Volume(v), veh/h	32	0		204	214	28	568
Grp Sat Flow(s),veh/h/ln	1674	0		1777	1852	1781	1777
Q Serve(g_s), s	0.5	0.0		2.6	2.7	0.5	2.8
Cycle Q Clear(g_c), s	0.5	0.0		2.6	2.7	0.5	2.8
Prop In Lane	0.53	0.44			0.03	1.00	
Lane Grp Cap(c), veh/h	164	0		538	561	62	1747
V/C Ratio(X)	0.19	0.00		0.38	0.38	0.45	0.33
Avail Cap(c_a), veh/h	1947	0		1155	1203	335	2310
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.1	0.0		8.0	8.0	13.8	4.5
Incr Delay (d2), s/veh	0.6	0.0		0.4	0.4	5.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0		0.7	0.7	0.2	0.4
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	12.7	0.0		8.5	8.5	18.9	4.6
LnGrp LOS	B	A		A	A	B	A
Approach Vol, veh/h	32			418			596
Approach Delay, s/veh	12.7			8.5			5.3
Approach LOS	B			A			A

Timer - Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	5.5	14.9				20.4		8.9
Change Period (Y+Rc), s	4.5	6.0				6.0		6.0
Max Green Setting (Gmax), s	5.5	19.0				19.0		34.0
Max Q Clear Time (g_c+I1), s	2.5	4.7				4.8		2.5
Green Ext Time (p_c), s	0.0	2.1				3.3		0.1

Intersection Summary	
HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	5	13	43	543	17	38	526
Future Volume (veh/h)	5	13	43	543	17	38	526
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.97			0.93	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	6	17		590	18	42	578
Peak Hour Factor	0.78	0.78		0.92	0.92	0.91	0.91
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	38	107		1139	35	87	1843
Arrive On Green	0.09	0.09		0.32	0.32	0.05	0.52
Sat Flow, veh/h	402	1140		3605	107	1781	3647
Grp Volume(v), veh/h	24	0		298	310	42	578
Grp Sat Flow(s),veh/h/ln	1609	0		1777	1841	1781	1777
Q Serve(g_s), s	0.4	0.0		4.2	4.2	0.7	2.9
Cycle Q Clear(g_c), s	0.4	0.0		4.2	4.2	0.7	2.9
Prop In Lane	0.25	0.71			0.06	1.00	
Lane Grp Cap(c), veh/h	151	0		576	597	87	1843
V/C Ratio(X)	0.16	0.00		0.52	0.52	0.48	0.31
Avail Cap(c_a), veh/h	1767	0		1091	1130	316	2181
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.9	0.0		8.5	8.5	14.3	4.3
Incr Delay (d2), s/veh	0.5	0.0		0.7	0.7	4.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0		1.2	1.2	0.3	0.5
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	13.4	0.0		9.2	9.2	18.4	4.4
LnGrp LOS	B	A		A	A	B	A
Approach Vol, veh/h	24			608			620
Approach Delay, s/veh	13.4			9.2			5.3
Approach LOS	B			A			A

Timer - Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.0	16.0				22.1		8.9
Change Period (Y+Rc), s	4.5	6.0				6.0		6.0
Max Green Setting (Gmax), s	5.5	19.0				19.0		34.0
Max Q Clear Time (g_c+I1), s	2.7	6.2				4.9		2.4
Green Ext Time (p_c), s	0.0	3.0				3.3		0.0

Intersection Summary	
HCM 6th Ctrl Delay	7.4
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	6	12	27	170	10	12	281
Future Volume (veh/h)	6	12	27	170	10	12	281
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.98			0.79	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	8	16		212	12	14	327
Peak Hour Factor	0.75	0.75		0.80	0.80	0.86	0.86
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	50	99		1003	56	33	1694
Arrive On Green	0.10	0.10		0.30	0.30	0.02	0.48
Sat Flow, veh/h	521	1041		3461	188	1781	3647
Grp Volume(v), veh/h	25	0		110	114	14	327
Grp Sat Flow(s),veh/h/ln	1627	0		1777	1778	1781	1777
Q Serve(g_s), s	0.4	0.0		1.3	1.3	0.2	1.5
Cycle Q Clear(g_c), s	0.4	0.0		1.3	1.3	0.2	1.5
Prop In Lane	0.32	0.64			0.11	1.00	
Lane Grp Cap(c), veh/h	155	0		529	529	33	1694
V/C Ratio(X)	0.16	0.00		0.21	0.21	0.43	0.19
Avail Cap(c_a), veh/h	1973	0		1204	1205	349	2408
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.7	0.0		7.4	7.4	13.6	4.2
Incr Delay (d2), s/veh	0.5	0.0		0.2	0.2	8.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0		0.3	0.3	0.1	0.2
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	12.1	0.0		7.6	7.6	22.2	4.3
LnGrp LOS	B	A		A	A	C	A
Approach Vol, veh/h	25			224			341
Approach Delay, s/veh	12.1			7.6			5.0
Approach LOS	B			A			A

Timer - Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	5.0	14.4				19.4		8.7
Change Period (Y+Rc), s	4.5	6.0				6.0		6.0
Max Green Setting (Gmax), s	5.5	19.0				19.0		34.0
Max Q Clear Time (g_c+I1), s	2.2	3.3				3.5		2.4
Green Ext Time (p_c), s	0.0	1.0				1.8		0.0

Intersection Summary	
HCM 6th Ctrl Delay	6.3
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	7	10	32	495	7	22	648
Future Volume (veh/h)	7	10	32	495	7	22	648
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.99			0.85	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	8	12		550	8	24	720
Peak Hour Factor	0.84	0.84		0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	43	65		1082	16	54	1763
Arrive On Green	0.07	0.07		0.30	0.30	0.03	0.50
Sat Flow, veh/h	629	944		3669	52	1781	3647
Grp Volume(v), veh/h	21	0		273	285	24	720
Grp Sat Flow(s),veh/h/ln	1652	0		1777	1851	1781	1777
Q Serve(g_s), s	0.3	0.0		3.5	3.5	0.4	3.5
Cycle Q Clear(g_c), s	0.3	0.0		3.5	3.5	0.4	3.5
Prop In Lane	0.38	0.57			0.03	1.00	
Lane Grp Cap(c), veh/h	113	0		538	560	54	1763
V/C Ratio(X)	0.19	0.00		0.51	0.51	0.44	0.41
Avail Cap(c_a), veh/h	2037	0		1237	1289	342	2449
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.1	0.0		7.9	7.9	13.1	4.4
Incr Delay (d2), s/veh	0.8	0.0		0.7	0.7	5.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0		0.9	0.9	0.2	0.5
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	12.9	0.0		8.7	8.6	18.7	4.5
LnGrp LOS	B	A		A	A	B	A
Approach Vol, veh/h	21			558			744
Approach Delay, s/veh	12.9			8.7			5.0
Approach LOS	B			A			A

Timer - Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	5.3	14.3				19.7		7.9
Change Period (Y+Rc), s	4.5	6.0				6.0		6.0
Max Green Setting (Gmax), s	5.3	19.2				19.0		34.0
Max Q Clear Time (g_c+I1), s	2.4	5.5				5.5		2.3
Green Ext Time (p_c), s	0.0	2.8				4.2		0.0

Intersection Summary	
HCM 6th Ctrl Delay	6.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	6	7	42	528	14	49	628
Future Volume (veh/h)	6	7	42	528	14	49	628
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.94			0.93	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	9	10		593	16	54	698
Peak Hour Factor	0.67	0.67		0.89	0.89	0.90	0.90
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	109	121		1044	28	105	1743
Arrive On Green	0.15	0.15		0.30	0.30	0.06	0.49
Sat Flow, veh/h	734	815		3620	95	1781	3647
Grp Volume(v), veh/h	20	0		299	310	54	698
Grp Sat Flow(s),veh/h/ln	1630	0		1777	1844	1781	1777
Q Serve(g_s), s	0.4	0.0		4.7	4.7	1.0	4.1
Cycle Q Clear(g_c), s	0.4	0.0		4.7	4.7	1.0	4.1
Prop In Lane	0.45	0.50			0.05	1.00	
Lane Grp Cap(c), veh/h	242	0		526	546	105	1743
V/C Ratio(X)	0.08	0.00		0.57	0.57	0.51	0.40
Avail Cap(c_a), veh/h	1667	0		1042	1082	268	2031
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.2	0.0		9.9	9.9	15.2	5.4
Incr Delay (d2), s/veh	0.1	0.0		1.0	0.9	3.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0		1.4	1.5	0.4	0.8
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	12.3	0.0		10.9	10.8	19.0	5.5
LnGrp LOS	B	A		B	B	B	A
Approach Vol, veh/h	20			609			752
Approach Delay, s/veh	12.3			10.9			6.5
Approach LOS	B			B			A

Timer - Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.5	15.8				22.3		10.9
Change Period (Y+Rc), s	4.5	6.0				6.0		6.0
Max Green Setting (Gmax), s	5.0	19.5				19.0		34.0
Max Q Clear Time (g_c+I1), s	3.0	6.7				6.1		2.4
Green Ext Time (p_c), s	0.0	3.0				3.9		0.0

Intersection Summary	
HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	6	20	34	280	13	28	551
Future Volume (veh/h)	6	20	34	280	13	28	551
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.99			0.92	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	10	32		311	14	30	599
Peak Hour Factor	0.63	0.63		0.90	0.90	0.92	0.92
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	33	105		1016	45	66	1742
Arrive On Green	0.09	0.09		0.29	0.29	0.04	0.49
Sat Flow, veh/h	376	1202		3543	154	1781	3647
Grp Volume(v), veh/h	43	0		159	166	30	599
Grp Sat Flow(s),veh/h/ln	1616	0		1777	1827	1781	1777
Q Serve(g_s), s	0.7	0.0		2.0	2.0	0.5	2.9
Cycle Q Clear(g_c), s	0.7	0.0		2.0	2.0	0.5	2.9
Prop In Lane	0.23	0.74			0.08	1.00	
Lane Grp Cap(c), veh/h	141	0		523	538	66	1742
V/C Ratio(X)	0.31	0.00		0.30	0.31	0.45	0.34
Avail Cap(c_a), veh/h	1936	0		1190	1223	345	2380
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.2	0.0		7.8	7.8	13.4	4.4
Incr Delay (d2), s/veh	1.2	0.0		0.3	0.3	4.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0		0.5	0.5	0.2	0.4
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	13.4	0.0		8.1	8.1	18.2	4.6
LnGrp LOS	B	A		A	A	B	A
Approach Vol, veh/h	43			325			629
Approach Delay, s/veh	13.4			8.1			5.2
Approach LOS	B			A			A

Timer - Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	5.6	14.4				19.9		8.5
Change Period (Y+Rc), s	4.5	6.0				6.0		6.0
Max Green Setting (Gmax), s	5.5	19.0				19.0		34.0
Max Q Clear Time (g_c+I1), s	2.5	4.0				4.9		2.7
Green Ext Time (p_c), s	0.0	1.6				3.5		0.1

Intersection Summary	
HCM 6th Ctrl Delay	6.5
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	15	13	36	483	8	37	747
Future Volume (veh/h)	15	13	36	483	8	37	747
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.98			0.91	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	23	20		575	10	39	795
Peak Hour Factor	0.65	0.65		0.84	0.84	0.94	0.94
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	95	83		1123	20	82	1796
Arrive On Green	0.11	0.11		0.31	0.31	0.05	0.51
Sat Flow, veh/h	872	758		3660	62	1781	3647
Grp Volume(v), veh/h	44	0		286	299	39	795
Grp Sat Flow(s),veh/h/ln	1668	0		1777	1852	1781	1777
Q Serve(g_s), s	0.8	0.0		4.1	4.1	0.7	4.4
Cycle Q Clear(g_c), s	0.8	0.0		4.1	4.1	0.7	4.4
Prop In Lane	0.52	0.45			0.03	1.00	
Lane Grp Cap(c), veh/h	182	0		559	583	82	1796
V/C Ratio(X)	0.24	0.00		0.51	0.51	0.48	0.44
Avail Cap(c_a), veh/h	1823	0		1074	1119	326	2170
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	0.0		8.7	8.7	14.5	4.9
Incr Delay (d2), s/veh	0.7	0.0		0.7	0.7	4.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0		1.2	1.2	0.3	0.7
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	13.4	0.0		9.4	9.4	18.7	5.1
LnGrp LOS	B	A		A	A	B	A
Approach Vol, veh/h	44			585			834
Approach Delay, s/veh	13.4			9.4			5.7
Approach LOS	B			A			A

Timer - Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	5.9	15.8				21.7		9.4
Change Period (Y+Rc), s	4.5	6.0				6.0		6.0
Max Green Setting (Gmax), s	5.7	18.8				19.0		34.0
Max Q Clear Time (g_c+I1), s	2.7	6.1				6.4		2.8
Green Ext Time (p_c), s	0.0	2.9				4.5		0.1

Intersection Summary	
HCM 6th Ctrl Delay	7.4
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	7	18	60	760	24	53	736
Future Volume (veh/h)	7	18	60	760	24	53	736
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.97			0.94	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	9	23		826	26	58	809
Peak Hour Factor	0.78	0.78		0.92	0.92	0.91	0.91
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	44	114		1312	41	109	1996
Arrive On Green	0.10	0.10		0.37	0.37	0.06	0.56
Sat Flow, veh/h	438	1119		3601	110	1781	3647
Grp Volume(v), veh/h	33	0		418	434	58	809
Grp Sat Flow(s),veh/h/ln	1606	0		1777	1841	1781	1777
Q Serve(g_s), s	0.7	0.0		6.9	6.9	1.1	4.6
Cycle Q Clear(g_c), s	0.7	0.0		6.9	6.9	1.1	4.6
Prop In Lane	0.27	0.70			0.06	1.00	
Lane Grp Cap(c), veh/h	163	0		664	689	109	1996
V/C Ratio(X)	0.20	0.00		0.63	0.63	0.53	0.41
Avail Cap(c_a), veh/h	1533	0		968	1003	255	1996
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.7	0.0		9.1	9.1	16.2	4.4
Incr Delay (d2), s/veh	0.6	0.0		1.0	1.0	4.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0		2.0	2.1	0.5	0.8
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	15.3	0.0		10.1	10.1	20.2	4.6
LnGrp LOS	B	A		B	B	C	A
Approach Vol, veh/h	33			852			867
Approach Delay, s/veh	15.3			10.1			5.6
Approach LOS	B			B			A

Timer - Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.7	19.3				26.0		9.6
Change Period (Y+Rc), s	4.5	6.0				6.0		6.0
Max Green Setting (Gmax), s	5.1	19.4				19.0		34.0
Max Q Clear Time (g_c+I1), s	3.1	8.9				6.6		2.7
Green Ext Time (p_c), s	0.0	4.0				4.5		0.1

Intersection Summary	
HCM 6th Ctrl Delay	8.0
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	8	17	37	234	14	23	387
Future Volume (veh/h)	8	17	37	234	14	23	387
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.98			0.79	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	11	23		292	18	27	450
Peak Hour Factor	0.75	0.75		0.80	0.80	0.86	0.86
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	54	112		967	59	60	1702
Arrive On Green	0.11	0.11		0.29	0.29	0.03	0.48
Sat Flow, veh/h	510	1066		3435	203	1781	3647
Grp Volume(v), veh/h	35	0		153	157	27	450
Grp Sat Flow(s),veh/h/ln	1622	0		1777	1768	1781	1777
Q Serve(g_s), s	0.6	0.0		1.9	2.0	0.4	2.2
Cycle Q Clear(g_c), s	0.6	0.0		1.9	2.0	0.4	2.2
Prop In Lane	0.31	0.66			0.11	1.00	
Lane Grp Cap(c), veh/h	171	0		514	512	60	1702
V/C Ratio(X)	0.20	0.00		0.30	0.31	0.45	0.26
Avail Cap(c_a), veh/h	1909	0		1169	1163	339	2215
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.8	0.0		8.0	8.0	13.7	4.5
Incr Delay (d2), s/veh	0.6	0.0		0.3	0.3	5.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0		0.5	0.5	0.2	0.4
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	12.4	0.0		8.3	8.3	18.9	4.6
LnGrp LOS	B	A		A	A	B	A
Approach Vol, veh/h	35			310			477
Approach Delay, s/veh	12.4			8.3			5.4
Approach LOS	B			A			A

Timer - Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	5.5	14.4				19.8		9.0
Change Period (Y+Rc), s	4.5	6.0				6.0		6.0
Max Green Setting (Gmax), s	5.5	19.0				18.0		34.0
Max Q Clear Time (g_c+I1), s	2.4	4.0				4.2		2.6
Green Ext Time (p_c), s	0.0	1.5				2.5		0.1

Intersection Summary	
HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	10	14	44	682	10	45	892
Future Volume (veh/h)	10	14	44	682	10	45	892
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.98			0.87	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	12	17		758	11	50	991
Peak Hour Factor	0.84	0.84		0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	51	72		1265	18	100	1953
Arrive On Green	0.08	0.08		0.35	0.35	0.06	0.55
Sat Flow, veh/h	660	935		3671	52	1781	3647
Grp Volume(v), veh/h	30	0		376	393	50	991
Grp Sat Flow(s),veh/h/ln	1650	0		1777	1852	1781	1777
Q Serve(g_s), s	0.5	0.0		5.6	5.6	0.9	5.6
Cycle Q Clear(g_c), s	0.5	0.0		5.6	5.6	0.9	5.6
Prop In Lane	0.40	0.57			0.03	1.00	
Lane Grp Cap(c), veh/h	128	0		629	655	100	1953
V/C Ratio(X)	0.23	0.00		0.60	0.60	0.50	0.51
Avail Cap(c_a), veh/h	1743	0		1071	1116	282	2098
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.9	0.0		8.5	8.5	14.8	4.5
Incr Delay (d2), s/veh	0.9	0.0		0.9	0.9	3.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0		1.5	1.6	0.4	0.8
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	14.9	0.0		9.4	9.4	18.6	4.7
LnGrp LOS	B	A		A	A	B	A
Approach Vol, veh/h	30			769			1041
Approach Delay, s/veh	14.9			9.4			5.4
Approach LOS	B			A			A

Timer - Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.3	17.4				23.7		8.5
Change Period (Y+Rc), s	4.5	6.0				6.0		6.0
Max Green Setting (Gmax), s	5.1	19.4				19.0		34.0
Max Q Clear Time (g_c+I1), s	2.9	7.6				7.6		2.5
Green Ext Time (p_c), s	0.0	3.8				5.3		0.1

Intersection Summary	
HCM 6th Ctrl Delay	7.2
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	8	10	58	727	19	68	865
Future Volume (veh/h)	8	10	58	727	19	68	865
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.95			0.93	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	12	15		817	21	76	961
Peak Hour Factor	0.67	0.67		0.89	0.89	0.90	0.90
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	107	134		1221	31	129	1900
Arrive On Green	0.15	0.15		0.35	0.35	0.07	0.53
Sat Flow, veh/h	694	868		3626	91	1781	3647
Grp Volume(v), veh/h	28	0		411	427	76	961
Grp Sat Flow(s),veh/h/ln	1620	0		1777	1846	1781	1777
Q Serve(g_s), s	0.6	0.0		7.6	7.6	1.6	6.6
Cycle Q Clear(g_c), s	0.6	0.0		7.6	7.6	1.6	6.6
Prop In Lane	0.43	0.54			0.05	1.00	
Lane Grp Cap(c), veh/h	249	0		614	638	129	1900
V/C Ratio(X)	0.11	0.00		0.67	0.67	0.59	0.51
Avail Cap(c_a), veh/h	1430	0		886	920	245	1900
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.0	0.0		10.7	10.7	17.3	5.7
Incr Delay (d2), s/veh	0.2	0.0		1.3	1.2	4.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0		2.4	2.5	0.7	1.4
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	14.2	0.0		12.0	12.0	21.6	5.9
LnGrp LOS	B	A		B	B	C	A
Approach Vol, veh/h	28			838			1037
Approach Delay, s/veh	14.2			12.0			7.1
Approach LOS	B			B			A

Timer - Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.3	19.3				26.6		11.9
Change Period (Y+Rc), s	4.5	6.0				6.0		6.0
Max Green Setting (Gmax), s	5.3	19.2				19.0		34.0
Max Q Clear Time (g_c+I1), s	3.6	9.6				8.6		2.6
Green Ext Time (p_c), s	0.0	3.7				4.8		0.1

Intersection Summary	
HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Notes

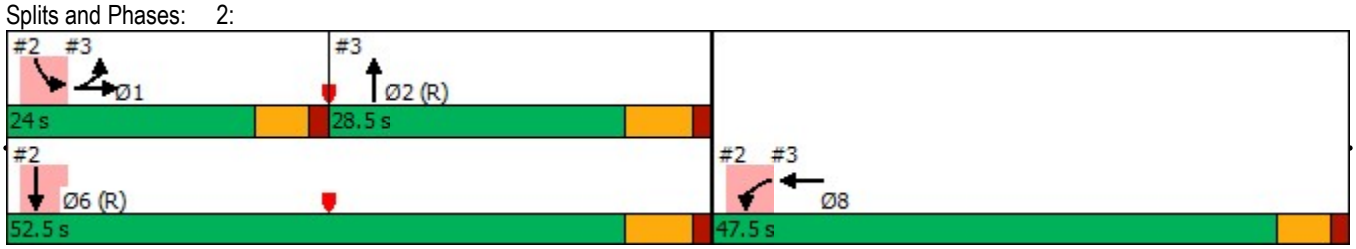
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	14	0	0	0	46	386	
Future Volume (vph)	14	0	0	0	46	386	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0		0	255		
Storage Lanes	1	0		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	
Ped Bike Factor	1.00				1.00		
Frt							
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	0	0	0	1770	3539	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1768	0	0	0	1765	3539	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	89		322			222	
Travel Time (s)	2.0		7.3			5.0	
Confl. Peds. (#/hr)	1			1	1		
Peak Hour Factor	0.79	0.79	0.92	0.92	0.93	0.93	
Adj. Flow (vph)	18	0	0	0	49	415	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	18	0	0	0	49	415	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		12			12	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1				1	2	
Detector Template	Left				Left	Thru	
Leading Detector (ft)	20				20	100	
Trailing Detector (ft)	0				0	0	
Detector 1 Position(ft)	0				0	0	
Detector 1 Size(ft)	20				20	6	
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0				0.0	0.0	
Detector 1 Queue (s)	0.0				0.0	0.0	
Detector 1 Delay (s)	0.0				0.0	0.0	
Detector 2 Position(ft)						94	
Detector 2 Size(ft)						6	
Detector 2 Type						Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)						0.0	
Turn Type	Prot				Prot	NA	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Protected Phases	8				1	6	2
Permitted Phases							
Detector Phase	8				1	6	
Switch Phase							
Minimum Initial (s)	10.0				10.0	10.0	10.0
Minimum Split (s)	47.5				23.5	24.5	24.5
Total Split (s)	47.5				24.0	52.5	28.5
Total Split (%)	47.5%				24.0%	52.5%	29%
Maximum Green (s)	42.0				18.5	46.0	22.0
Yellow Time (s)	4.0				4.0	5.0	5.0
All-Red Time (s)	1.5				1.5	1.5	1.5
Lost Time Adjust (s)	0.0				0.0	0.0	
Total Lost Time (s)	5.5				5.5	6.5	
Lead/Lag					Lead		Lag
Lead-Lag Optimize?					Yes		Yes
Vehicle Extension (s)	3.0				3.0	2.0	2.0
Minimum Gap (s)	0.2				0.2	0.2	0.2
Time Before Reduce (s)	20.0				0.0	20.0	20.0
Time To Reduce (s)	0.0				0.0	0.0	0.0
Recall Mode	None				None	C-Min	C-Min
Walk Time (s)	7.0						
Flash Dont Walk (s)	35.0						
Pedestrian Calls (#/hr)	10						
Act Effct Green (s)	16.4				10.3	80.4	
Actuated g/C Ratio	0.16				0.10	0.80	
v/c Ratio	0.06				0.27	0.15	
Control Delay	10.2				45.2	6.1	
Queue Delay	0.0				0.0	0.0	
Total Delay	10.2				45.2	6.1	
LOS	B				D	A	
Approach Delay	10.2					10.2	
Approach LOS	B					B	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.30	
Intersection Signal Delay: 10.2	Intersection LOS: B
Intersection Capacity Utilization 29.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2:

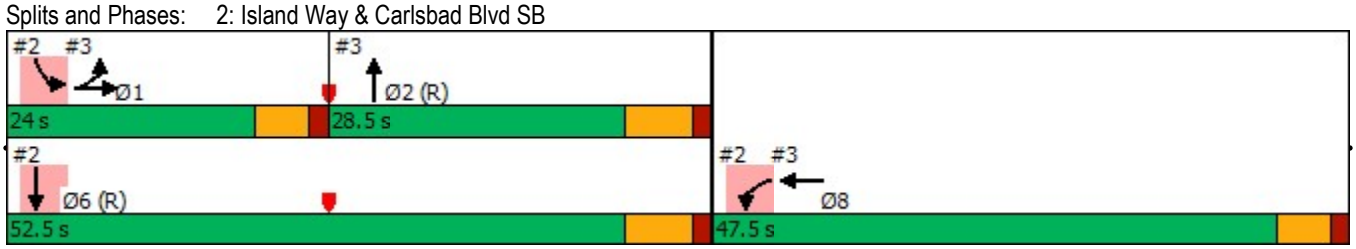


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	0	0	0	0	85	473	
Future Volume (vph)	0	0	0	0	85	473	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0		0	255		
Storage Lanes	1	0		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	
Ped Bike Factor					1.00		
Frt							
Flt Protected					0.950		
Satd. Flow (prot)	1863	0	0	0	1770	3539	
Flt Permitted					0.950		
Satd. Flow (perm)	1863	0	0	0	1765	3539	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	89		322			222	
Travel Time (s)	2.0		7.3			5.0	
Confl. Peds. (#/hr)	1				1		
Peak Hour Factor	0.85	0.85	0.92	0.92	0.95	0.95	
Adj. Flow (vph)	0	0	0	0	89	498	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	0	0	89	498	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		12			12	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1				1	2	
Detector Template	Left				Left	Thru	
Leading Detector (ft)	20				20	100	
Trailing Detector (ft)	0				0	0	
Detector 1 Position(ft)	0				0	0	
Detector 1 Size(ft)	20				20	6	
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0				0.0	0.0	
Detector 1 Queue (s)	0.0				0.0	0.0	
Detector 1 Delay (s)	0.0				0.0	0.0	
Detector 2 Position(ft)						94	
Detector 2 Size(ft)						6	
Detector 2 Type						Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)						0.0	
Turn Type	Prot				Prot	NA	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Protected Phases	8				1	6	2
Permitted Phases							
Detector Phase	8				1	6	
Switch Phase							
Minimum Initial (s)	10.0				10.0	10.0	10.0
Minimum Split (s)	47.5				23.5	24.5	24.5
Total Split (s)	47.5				24.0	52.5	28.5
Total Split (%)	47.5%				24.0%	52.5%	29%
Maximum Green (s)	42.0				18.5	46.0	22.0
Yellow Time (s)	4.0				4.0	5.0	5.0
All-Red Time (s)	1.5				1.5	1.5	1.5
Lost Time Adjust (s)	0.0				0.0	0.0	
Total Lost Time (s)	5.5				5.5	6.5	
Lead/Lag					Lead		Lag
Lead-Lag Optimize?					Yes		Yes
Vehicle Extension (s)	3.0				3.0	2.0	2.0
Minimum Gap (s)	0.2				0.2	0.2	0.2
Time Before Reduce (s)	20.0				0.0	20.0	20.0
Time To Reduce (s)	0.0				0.0	0.0	0.0
Recall Mode	None				None	C-Min	C-Min
Walk Time (s)	7.0						
Flash Dont Walk (s)	35.0						
Pedestrian Calls (#/hr)	10						
Act Effct Green (s)					11.3	80.4	
Actuated g/C Ratio					0.11	0.80	
v/c Ratio					0.45	0.18	
Control Delay					48.2	6.2	
Queue Delay					0.0	0.0	
Total Delay					48.2	6.2	
LOS					D	A	
Approach Delay						12.6	
Approach LOS						B	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 12.6	Intersection LOS: B
Intersection Capacity Utilization 18.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Island Way & Carlsbad Blvd SB

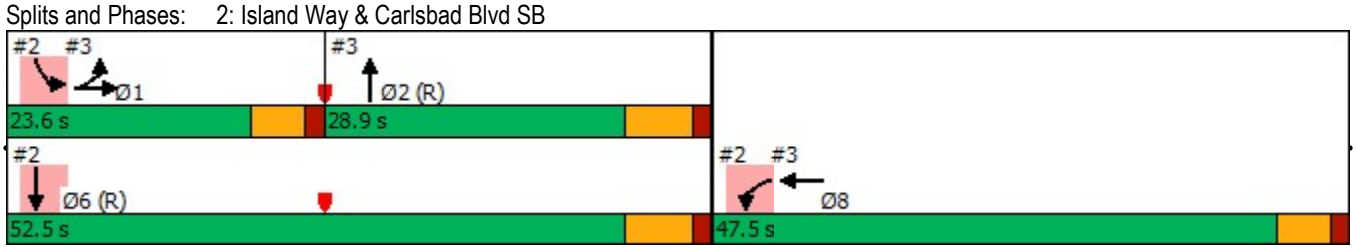


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	8	0	0	0	24	517	
Future Volume (vph)	8	0	0	0	24	517	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0		0	255		
Storage Lanes	1	0		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	
Ped Bike Factor					1.00		
Frt							
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	0	0	0	1770	3539	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1770	0	0	0	1765	3539	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	89		322			222	
Travel Time (s)	2.0		7.3			5.0	
Confl. Peds. (#/hr)					1		
Peak Hour Factor	0.65	0.65	0.92	0.92	0.91	0.91	
Adj. Flow (vph)	12	0	0	0	26	568	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	12	0	0	0	26	568	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		12			12	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1				1	2	
Detector Template	Left				Left	Thru	
Leading Detector (ft)	20				20	100	
Trailing Detector (ft)	0				0	0	
Detector 1 Position(ft)	0				0	0	
Detector 1 Size(ft)	20				20	6	
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0				0.0	0.0	
Detector 1 Queue (s)	0.0				0.0	0.0	
Detector 1 Delay (s)	0.0				0.0	0.0	
Detector 2 Position(ft)						94	
Detector 2 Size(ft)						6	
Detector 2 Type						Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)						0.0	
Turn Type	Prot				Prot	NA	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Protected Phases	8				1	6	2
Permitted Phases							
Detector Phase	8				1	6	
Switch Phase							
Minimum Initial (s)	10.0				10.0	10.0	10.0
Minimum Split (s)	47.5				23.5	24.5	24.5
Total Split (s)	47.5				23.6	52.5	28.9
Total Split (%)	47.5%				23.6%	52.5%	29%
Maximum Green (s)	42.0				18.1	46.0	22.4
Yellow Time (s)	4.0				4.0	5.0	5.0
All-Red Time (s)	1.5				1.5	1.5	1.5
Lost Time Adjust (s)	0.0				0.0	0.0	
Total Lost Time (s)	5.5				5.5	6.5	
Lead/Lag					Lead		Lag
Lead-Lag Optimize?					Yes		Yes
Vehicle Extension (s)	3.0				3.0	2.0	2.0
Minimum Gap (s)	0.2				0.2	0.2	0.2
Time Before Reduce (s)	20.0				0.0	20.0	20.0
Time To Reduce (s)	0.0				0.0	0.0	0.0
Recall Mode	None				None	C-Min	C-Min
Walk Time (s)	7.0						
Flash Dont Walk (s)	35.0						
Pedestrian Calls (#/hr)	10						
Act Effct Green (s)	16.4				11.4	80.4	
Actuated g/C Ratio	0.16				0.11	0.80	
v/c Ratio	0.04				0.13	0.20	
Control Delay	14.1				40.4	6.3	
Queue Delay	0.0				0.0	0.0	
Total Delay	14.1				40.4	6.3	
LOS	B				D	A	
Approach Delay	14.1					7.8	
Approach LOS	B					A	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 7.9	Intersection LOS: A
Intersection Capacity Utilization 32.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Island Way & Carlsbad Blvd SB

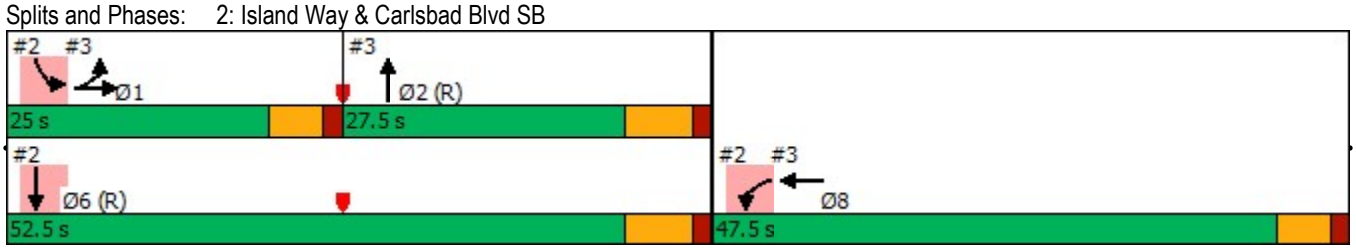


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	10	0	0	0	51	254	
Future Volume (vph)	10	0	0	0	51	254	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0		0	255		
Storage Lanes	1	0		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	
Ped Bike Factor					0.99		
Frt							
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	0	0	0	1770	3539	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1770	0	0	0	1756	3539	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	89		322			222	
Travel Time (s)	2.0		7.3			5.0	
Confl. Peds. (#/hr)					3		
Peak Hour Factor	0.75	0.75	0.88	0.88	0.81	0.81	
Adj. Flow (vph)	13	0	0	0	63	314	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	13	0	0	0	63	314	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		12			12	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1				1	2	
Detector Template	Left				Left	Thru	
Leading Detector (ft)	20				20	100	
Trailing Detector (ft)	0				0	0	
Detector 1 Position(ft)	0				0	0	
Detector 1 Size(ft)	20				20	6	
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0				0.0	0.0	
Detector 1 Queue (s)	0.0				0.0	0.0	
Detector 1 Delay (s)	0.0				0.0	0.0	
Detector 2 Position(ft)						94	
Detector 2 Size(ft)						6	
Detector 2 Type						Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)						0.0	
Turn Type	Prot				Prot	NA	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Protected Phases	8				1	6	2
Permitted Phases							
Detector Phase	8				1	6	
Switch Phase							
Minimum Initial (s)	10.0				10.0	10.0	10.0
Minimum Split (s)	47.5				23.5	24.5	24.5
Total Split (s)	47.5				25.0	52.5	27.5
Total Split (%)	47.5%				25.0%	52.5%	28%
Maximum Green (s)	42.0				19.5	46.0	21.0
Yellow Time (s)	4.0				4.0	5.0	5.0
All-Red Time (s)	1.5				1.5	1.5	1.5
Lost Time Adjust (s)	0.0				0.0	0.0	
Total Lost Time (s)	5.5				5.5	6.5	
Lead/Lag					Lead		Lag
Lead-Lag Optimize?					Yes		Yes
Vehicle Extension (s)	3.0				3.0	2.0	2.0
Minimum Gap (s)	0.2				0.2	0.2	0.2
Time Before Reduce (s)	20.0				0.0	20.0	20.0
Time To Reduce (s)	0.0				0.0	0.0	0.0
Recall Mode	None				None	C-Min	C-Min
Walk Time (s)	7.0						
Flash Dont Walk (s)	35.0						
Pedestrian Calls (#/hr)	10						
Act Effct Green (s)	16.4				10.5	80.4	
Actuated g/C Ratio	0.16				0.10	0.80	
v/c Ratio	0.04				0.34	0.11	
Control Delay	10.5				46.6	6.0	
Queue Delay	0.0				0.0	0.0	
Total Delay	10.5				46.6	6.0	
LOS	B				D	A	
Approach Delay	10.5					12.8	
Approach LOS	B					B	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.34	
Intersection Signal Delay: 12.7	Intersection LOS: B
Intersection Capacity Utilization 26.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Island Way & Carlsbad Blvd SB

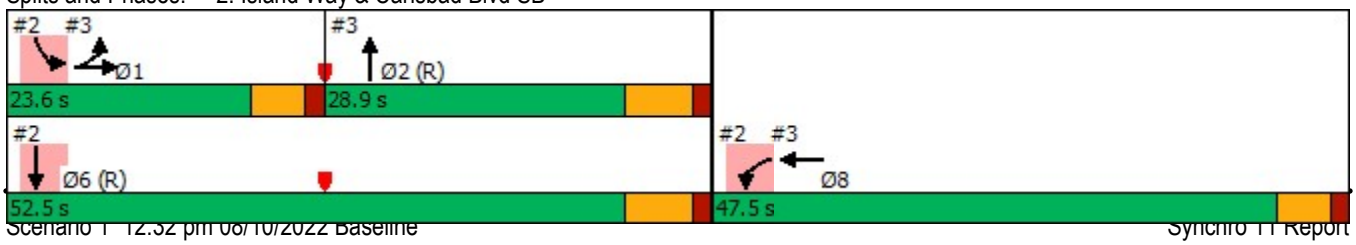


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	11	0	0	0	67	614	
Future Volume (vph)	11	0	0	0	67	614	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0		0	255		
Storage Lanes	1	0		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	
Frt							
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	0	0	0	1770	3539	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1770	0	0	0	1770	3539	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	89		322			222	
Travel Time (s)	2.0		7.3			5.0	
Peak Hour Factor	0.93	0.93	0.92	0.92	0.88	0.88	
Adj. Flow (vph)	12	0	0	0	76	698	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	12	0	0	0	76	698	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		12			12	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1				1	2	
Detector Template	Left				Left	Thru	
Leading Detector (ft)	20				20	100	
Trailing Detector (ft)	0				0	0	
Detector 1 Position(ft)	0				0	0	
Detector 1 Size(ft)	20				20	6	
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0				0.0	0.0	
Detector 1 Queue (s)	0.0				0.0	0.0	
Detector 1 Delay (s)	0.0				0.0	0.0	
Detector 2 Position(ft)						94	
Detector 2 Size(ft)						6	
Detector 2 Type						Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)						0.0	
Turn Type	Prot				Prot	NA	
Protected Phases	8				1	6	2
Permitted Phases							

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Detector Phase	8				1	6	
Switch Phase							
Minimum Initial (s)	10.0				10.0	10.0	10.0
Minimum Split (s)	47.5				23.5	24.5	24.5
Total Split (s)	47.5				23.6	52.5	28.9
Total Split (%)	47.5%				23.6%	52.5%	29%
Maximum Green (s)	42.0				18.1	46.0	22.4
Yellow Time (s)	4.0				4.0	5.0	5.0
All-Red Time (s)	1.5				1.5	1.5	1.5
Lost Time Adjust (s)	0.0				0.0	0.0	
Total Lost Time (s)	5.5				5.5	6.5	
Lead/Lag					Lead		Lag
Lead-Lag Optimize?					Yes		Yes
Vehicle Extension (s)	3.0				3.0	2.0	2.0
Minimum Gap (s)	0.2				0.2	0.2	0.2
Time Before Reduce (s)	20.0				0.0	20.0	20.0
Time To Reduce (s)	0.0				0.0	0.0	0.0
Recall Mode	None				None	C-Min	C-Min
Walk Time (s)	7.0						
Flash Dont Walk (s)	35.0						
Pedestrian Calls (#/hr)	10						
Act Effct Green (s)	16.4				10.9	80.4	
Actuated g/C Ratio	0.16				0.11	0.80	
v/c Ratio	0.04				0.40	0.25	
Control Delay	12.1				47.5	6.5	
Queue Delay	0.0				0.0	0.0	
Total Delay	12.1				47.5	6.5	
LOS	B				D	A	
Approach Delay	12.1					10.6	
Approach LOS	B					B	

Intersection Summary	
Area Type: Other	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay: 10.6	Intersection LOS: B
Intersection Capacity Utilization 35.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Island Way & Carlsbad Blvd SB

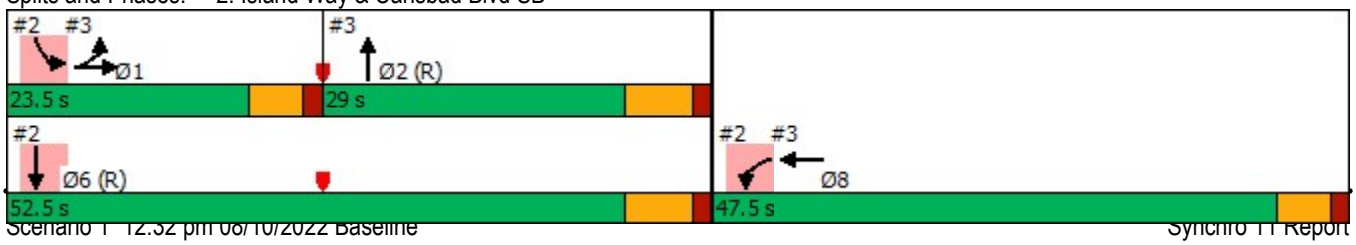


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	22	0	0	0	93	592	
Future Volume (vph)	22	0	0	0	93	592	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0		0	255		
Storage Lanes	1	0		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	
Frt							
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	0	0	0	1770	3539	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1770	0	0	0	1770	3539	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	89		322			222	
Travel Time (s)	2.0		7.3			5.0	
Peak Hour Factor	0.79	0.79	0.92	0.92	0.95	0.95	
Adj. Flow (vph)	28	0	0	0	98	623	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	28	0	0	0	98	623	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		12			12	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1				1	2	
Detector Template	Left				Left	Thru	
Leading Detector (ft)	20				20	100	
Trailing Detector (ft)	0				0	0	
Detector 1 Position(ft)	0				0	0	
Detector 1 Size(ft)	20				20	6	
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0				0.0	0.0	
Detector 1 Queue (s)	0.0				0.0	0.0	
Detector 1 Delay (s)	0.0				0.0	0.0	
Detector 2 Position(ft)						94	
Detector 2 Size(ft)						6	
Detector 2 Type						Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)						0.0	
Turn Type	Prot				Prot	NA	
Protected Phases	8				1	6	2
Permitted Phases							

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Detector Phase	8				1	6	
Switch Phase							
Minimum Initial (s)	10.0				10.0	10.0	10.0
Minimum Split (s)	47.5				23.5	24.5	24.5
Total Split (s)	47.5				23.5	52.5	29.0
Total Split (%)	47.5%				23.5%	52.5%	29%
Maximum Green (s)	42.0				18.0	46.0	22.5
Yellow Time (s)	4.0				4.0	5.0	5.0
All-Red Time (s)	1.5				1.5	1.5	1.5
Lost Time Adjust (s)	0.0				0.0	0.0	
Total Lost Time (s)	5.5				5.5	6.5	
Lead/Lag					Lead		Lag
Lead-Lag Optimize?					Yes		Yes
Vehicle Extension (s)	3.0				3.0	2.0	2.0
Minimum Gap (s)	0.2				0.2	0.2	0.2
Time Before Reduce (s)	20.0				0.0	20.0	20.0
Time To Reduce (s)	0.0				0.0	0.0	0.0
Recall Mode	None				None	C-Min	C-Min
Walk Time (s)	7.0						
Flash Dont Walk (s)	35.0						
Pedestrian Calls (#/hr)	10						
Act Effct Green (s)	16.4				12.2	76.0	
Actuated g/C Ratio	0.16				0.12	0.76	
v/c Ratio	0.10				0.45	0.23	
Control Delay	12.3				47.1	6.9	
Queue Delay	0.0				0.0	0.0	
Total Delay	12.3				47.1	6.9	
LOS	B				D	A	
Approach Delay	12.3					12.4	
Approach LOS	B					B	

Intersection Summary	
Area Type: Other	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 12.4	Intersection LOS: B
Intersection Capacity Utilization 34.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Island Way & Carlsbad Blvd SB

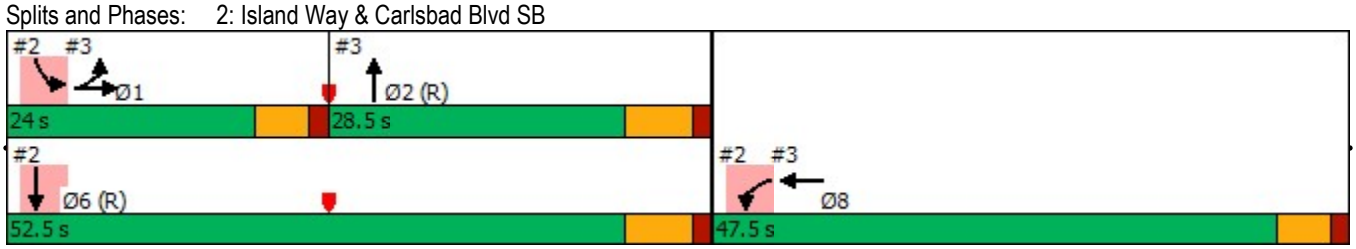


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	20	0	0	0	64	540	
Future Volume (vph)	20	0	0	0	64	540	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0		0	255		
Storage Lanes	1	0		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	
Ped Bike Factor	1.00				1.00		
Frt							
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	0	0	0	1770	3539	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1768	0	0	0	1765	3539	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	89		322			222	
Travel Time (s)	2.0		7.3			5.0	
Confl. Peds. (#/hr)	1			1	1		
Peak Hour Factor	0.79	0.79	0.92	0.92	0.93	0.93	
Adj. Flow (vph)	25	0	0	0	69	581	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	25	0	0	0	69	581	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		12			12	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1				1	2	
Detector Template	Left				Left	Thru	
Leading Detector (ft)	20				20	100	
Trailing Detector (ft)	0				0	0	
Detector 1 Position(ft)	0				0	0	
Detector 1 Size(ft)	20				20	6	
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0				0.0	0.0	
Detector 1 Queue (s)	0.0				0.0	0.0	
Detector 1 Delay (s)	0.0				0.0	0.0	
Detector 2 Position(ft)						94	
Detector 2 Size(ft)						6	
Detector 2 Type						Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)						0.0	
Turn Type	Prot				Prot	NA	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Protected Phases	8				1	6	2
Permitted Phases							
Detector Phase	8				1	6	
Switch Phase							
Minimum Initial (s)	10.0				10.0	10.0	10.0
Minimum Split (s)	47.5				23.5	24.5	24.5
Total Split (s)	47.5				24.0	52.5	28.5
Total Split (%)	47.5%				24.0%	52.5%	29%
Maximum Green (s)	42.0				18.5	46.0	22.0
Yellow Time (s)	4.0				4.0	5.0	5.0
All-Red Time (s)	1.5				1.5	1.5	1.5
Lost Time Adjust (s)	0.0				0.0	0.0	
Total Lost Time (s)	5.5				5.5	6.5	
Lead/Lag					Lead		Lag
Lead-Lag Optimize?					Yes		Yes
Vehicle Extension (s)	3.0				3.0	2.0	2.0
Minimum Gap (s)	0.2				0.2	0.2	0.2
Time Before Reduce (s)	20.0				0.0	20.0	20.0
Time To Reduce (s)	0.0				0.0	0.0	0.0
Recall Mode	None				None	C-Min	C-Min
Walk Time (s)	7.0						
Flash Dont Walk (s)	35.0						
Pedestrian Calls (#/hr)	10						
Act Effct Green (s)	16.4				10.9	76.0	
Actuated g/C Ratio	0.16				0.11	0.76	
v/c Ratio	0.09				0.36	0.22	
Control Delay	10.6				46.4	6.8	
Queue Delay	0.0				0.0	0.0	
Total Delay	10.6				46.4	6.8	
LOS	B				D	A	
Approach Delay	10.6					11.0	
Approach LOS	B					B	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay: 11.0	Intersection LOS: B
Intersection Capacity Utilization 33.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Island Way & Carlsbad Blvd SB

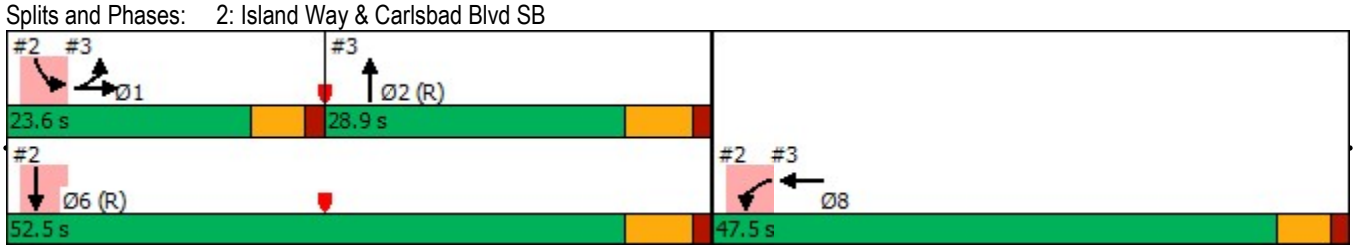


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	0	0	0	0	119	662	
Future Volume (vph)	0	0	0	0	119	662	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0		0	255		
Storage Lanes	1	0		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	
Ped Bike Factor					1.00		
Frt							
Flt Protected					0.950		
Satd. Flow (prot)	1863	0	0	0	1770	3539	
Flt Permitted					0.950		
Satd. Flow (perm)	1863	0	0	0	1765	3539	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	89		322			222	
Travel Time (s)	2.0		7.3			5.0	
Confl. Peds. (#/hr)	1				1		
Peak Hour Factor	0.85	0.85	0.92	0.92	0.95	0.95	
Adj. Flow (vph)	0	0	0	0	125	697	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	0	0	125	697	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		12			12	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1				1	2	
Detector Template	Left				Left	Thru	
Leading Detector (ft)	20				20	100	
Trailing Detector (ft)	0				0	0	
Detector 1 Position(ft)	0				0	0	
Detector 1 Size(ft)	20				20	6	
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0				0.0	0.0	
Detector 1 Queue (s)	0.0				0.0	0.0	
Detector 1 Delay (s)	0.0				0.0	0.0	
Detector 2 Position(ft)						94	
Detector 2 Size(ft)						6	
Detector 2 Type						Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)						0.0	
Turn Type	Prot				Prot	NA	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Protected Phases	8				1	6	2
Permitted Phases							
Detector Phase	8				1	6	
Switch Phase							
Minimum Initial (s)	10.0				10.0	10.0	10.0
Minimum Split (s)	47.5				23.5	24.5	24.5
Total Split (s)	47.5				23.6	52.5	28.9
Total Split (%)	47.5%				23.6%	52.5%	29%
Maximum Green (s)	42.0				18.1	46.0	22.4
Yellow Time (s)	4.0				4.0	5.0	5.0
All-Red Time (s)	1.5				1.5	1.5	1.5
Lost Time Adjust (s)	0.0				0.0	0.0	
Total Lost Time (s)	5.5				5.5	6.5	
Lead/Lag					Lead		Lag
Lead-Lag Optimize?					Yes		Yes
Vehicle Extension (s)	3.0				3.0	2.0	2.0
Minimum Gap (s)	0.2				0.2	0.2	0.2
Time Before Reduce (s)	20.0				0.0	20.0	20.0
Time To Reduce (s)	0.0				0.0	0.0	0.0
Recall Mode	None				None	C-Min	C-Min
Walk Time (s)	7.0						
Flash Dont Walk (s)	35.0						
Pedestrian Calls (#/hr)	10						
Act Effct Green (s)					12.8	80.4	
Actuated g/C Ratio					0.13	0.80	
v/c Ratio					0.55	0.24	
Control Delay					49.9	6.5	
Queue Delay					0.0	0.0	
Total Delay					49.9	6.5	
LOS					D	A	
Approach Delay						13.1	
Approach LOS						B	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 13.1	Intersection LOS: B
Intersection Capacity Utilization 23.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Island Way & Carlsbad Blvd SB

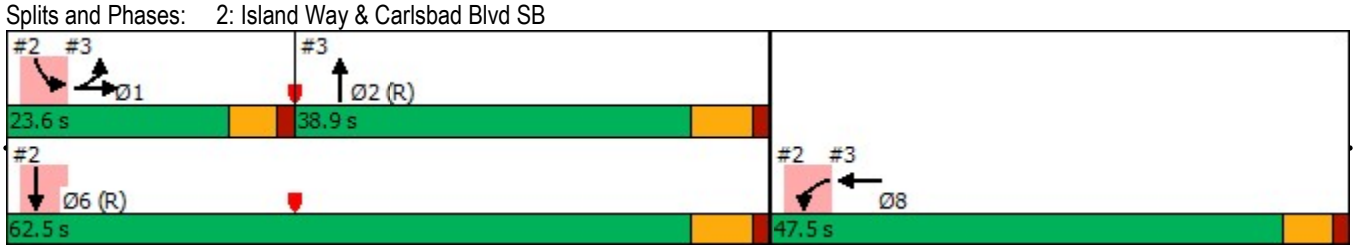


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	11	0	0	0	118	723	
Future Volume (vph)	11	0	0	0	118	723	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0		0	255		
Storage Lanes	1	0		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	
Ped Bike Factor					1.00		
Frt							
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	0	0	0	1770	3539	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1770	0	0	0	1764	3539	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	89		322			222	
Travel Time (s)	2.0		7.3			5.0	
Confl. Peds. (#/hr)					1		
Peak Hour Factor	0.65	0.65	0.92	0.92	0.91	0.91	
Adj. Flow (vph)	17	0	0	0	130	795	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	17	0	0	0	130	795	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		12			12	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1				1	2	
Detector Template	Left				Left	Thru	
Leading Detector (ft)	20				20	100	
Trailing Detector (ft)	0				0	0	
Detector 1 Position(ft)	0				0	0	
Detector 1 Size(ft)	20				20	6	
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0				0.0	0.0	
Detector 1 Queue (s)	0.0				0.0	0.0	
Detector 1 Delay (s)	0.0				0.0	0.0	
Detector 2 Position(ft)						94	
Detector 2 Size(ft)						6	
Detector 2 Type						Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)						0.0	
Turn Type	Prot				Prot	NA	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Protected Phases	8				1	6	2
Permitted Phases							
Detector Phase	8				1	6	
Switch Phase							
Minimum Initial (s)	10.0				10.0	10.0	10.0
Minimum Split (s)	47.5				23.5	24.5	24.5
Total Split (s)	47.5				23.6	62.5	38.9
Total Split (%)	43.2%				21.5%	56.8%	35%
Maximum Green (s)	42.0				18.1	56.0	32.4
Yellow Time (s)	4.0				4.0	5.0	5.0
All-Red Time (s)	1.5				1.5	1.5	1.5
Lost Time Adjust (s)	0.0				0.0	0.0	
Total Lost Time (s)	5.5				5.5	6.5	
Lead/Lag					Lead		Lag
Lead-Lag Optimize?					Yes		Yes
Vehicle Extension (s)	3.0				3.0	2.0	2.0
Minimum Gap (s)	0.2				0.2	0.2	0.2
Time Before Reduce (s)	20.0				0.0	20.0	20.0
Time To Reduce (s)	0.0				0.0	0.0	0.0
Recall Mode	None				None	C-Min	C-Min
Walk Time (s)	7.0						
Flash Dont Walk (s)	35.0						
Pedestrian Calls (#/hr)	10						
Act Effct Green (s)	16.4				13.6	86.0	
Actuated g/C Ratio	0.15				0.12	0.78	
v/c Ratio	0.06				0.59	0.29	
Control Delay	18.9				56.4	6.6	
Queue Delay	0.0				0.0	0.0	
Total Delay	18.9				56.4	6.6	
LOS	B				E	A	
Approach Delay	18.9					13.6	
Approach LOS	B					B	

Intersection Summary	
Area Type:	Other
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 13.7	Intersection LOS: B
Intersection Capacity Utilization 38.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Island Way & Carlsbad Blvd SB

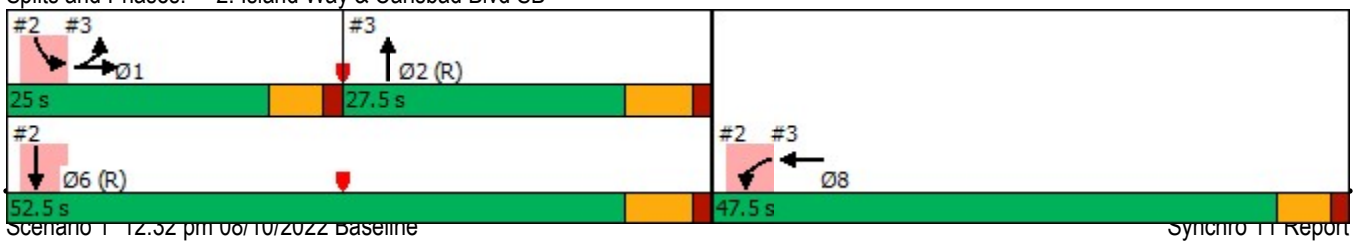


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	14	0	0	0	70	350	
Future Volume (vph)	14	0	0	0	70	350	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0		0	255		
Storage Lanes	1	0		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	
Frt							
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	0	0	0	1770	3539	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1770	0	0	0	1770	3539	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	89		322			222	
Travel Time (s)	2.0		7.3			5.0	
Peak Hour Factor	0.75	0.75	0.88	0.88	0.81	0.81	
Adj. Flow (vph)	19	0	0	0	86	432	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	19	0	0	0	86	432	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		12			12	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1				1	2	
Detector Template	Left				Left	Thru	
Leading Detector (ft)	20				20	100	
Trailing Detector (ft)	0				0	0	
Detector 1 Position(ft)	0				0	0	
Detector 1 Size(ft)	20				20	6	
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0				0.0	0.0	
Detector 1 Queue (s)	0.0				0.0	0.0	
Detector 1 Delay (s)	0.0				0.0	0.0	
Detector 2 Position(ft)						94	
Detector 2 Size(ft)						6	
Detector 2 Type						Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)						0.0	
Turn Type	Prot				Prot	NA	
Protected Phases	8				1	6	2
Permitted Phases							

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Detector Phase	8				1	6	
Switch Phase							
Minimum Initial (s)	10.0				10.0	10.0	10.0
Minimum Split (s)	47.5				23.5	24.5	24.5
Total Split (s)	47.5				25.0	52.5	27.5
Total Split (%)	47.5%				25.0%	52.5%	28%
Maximum Green (s)	42.0				19.5	46.0	21.0
Yellow Time (s)	4.0				4.0	5.0	5.0
All-Red Time (s)	1.5				1.5	1.5	1.5
Lost Time Adjust (s)	0.0				0.0	0.0	
Total Lost Time (s)	5.5				5.5	6.5	
Lead/Lag					Lead		Lag
Lead-Lag Optimize?					Yes		Yes
Vehicle Extension (s)	3.0				3.0	2.0	2.0
Minimum Gap (s)	0.2				0.2	0.2	0.2
Time Before Reduce (s)	20.0				0.0	20.0	20.0
Time To Reduce (s)	0.0				0.0	0.0	0.0
Recall Mode	None				None	C-Min	C-Min
Walk Time (s)	7.0						
Flash Dont Walk (s)	35.0						
Pedestrian Calls (#/hr)	10						
Act Effct Green (s)	16.4				11.2	80.4	
Actuated g/C Ratio	0.16				0.11	0.80	
v/c Ratio	0.07				0.43	0.15	
Control Delay	12.0				48.1	6.1	
Queue Delay	0.0				0.0	0.0	
Total Delay	12.0				48.1	6.1	
LOS	B				D	A	
Approach Delay	12.0					13.1	
Approach LOS	B					B	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 13.0	Intersection LOS: B
Intersection Capacity Utilization 28.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Island Way & Carlsbad Blvd SB

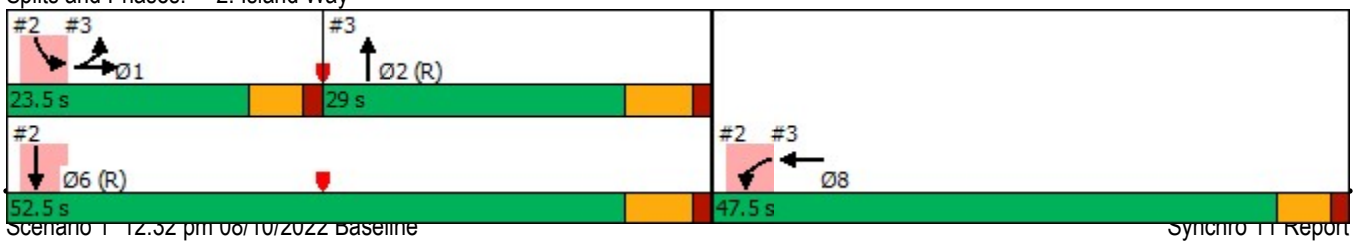


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	15	0	0	0	93	845	
Future Volume (vph)	15	0	0	0	93	845	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0		0	255		
Storage Lanes	1	0		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	
Frt							
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	0	0	0	1770	3539	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1770	0	0	0	1770	3539	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	89		322			222	
Travel Time (s)	2.0		7.3			5.0	
Peak Hour Factor	0.84	0.84	0.92	0.92	0.91	0.91	
Adj. Flow (vph)	18	0	0	0	102	929	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	18	0	0	0	102	929	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		12			12	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1				1	2	
Detector Template	Left				Left	Thru	
Leading Detector (ft)	20				20	100	
Trailing Detector (ft)	0				0	0	
Detector 1 Position(ft)	0				0	0	
Detector 1 Size(ft)	20				20	6	
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0				0.0	0.0	
Detector 1 Queue (s)	0.0				0.0	0.0	
Detector 1 Delay (s)	0.0				0.0	0.0	
Detector 2 Position(ft)						94	
Detector 2 Size(ft)						6	
Detector 2 Type						Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)						0.0	
Turn Type	Prot				Prot	NA	
Protected Phases	8				1	6	2
Permitted Phases							

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Detector Phase	8				1	6	
Switch Phase							
Minimum Initial (s)	10.0				10.0	10.0	10.0
Minimum Split (s)	47.5				23.5	24.5	24.5
Total Split (s)	47.5				23.5	52.5	29.0
Total Split (%)	47.5%				23.5%	52.5%	29%
Maximum Green (s)	42.0				18.0	46.0	22.5
Yellow Time (s)	4.0				4.0	5.0	5.0
All-Red Time (s)	1.5				1.5	1.5	1.5
Lost Time Adjust (s)	0.0				0.0	0.0	
Total Lost Time (s)	5.5				5.5	6.5	
Lead/Lag					Lead		Lag
Lead-Lag Optimize?					Yes		Yes
Vehicle Extension (s)	3.0				3.0	2.0	2.0
Minimum Gap (s)	0.2				0.2	0.2	0.2
Time Before Reduce (s)	20.0				0.0	20.0	20.0
Time To Reduce (s)	0.0				0.0	0.0	0.0
Recall Mode	None				None	C-Min	C-Min
Walk Time (s)	7.0						
Flash Dont Walk (s)	35.0						
Pedestrian Calls (#/hr)	10						
Act Effct Green (s)	16.4				11.9	80.4	
Actuated g/C Ratio	0.16				0.12	0.80	
v/c Ratio	0.06				0.49	0.33	
Control Delay	16.3				48.8	7.1	
Queue Delay	0.0				0.0	0.0	
Total Delay	16.3				48.8	7.1	
LOS	B				D	A	
Approach Delay	16.3					11.3	
Approach LOS	B					B	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.49	
Intersection Signal Delay: 11.3	Intersection LOS: B
Intersection Capacity Utilization 41.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Island Way

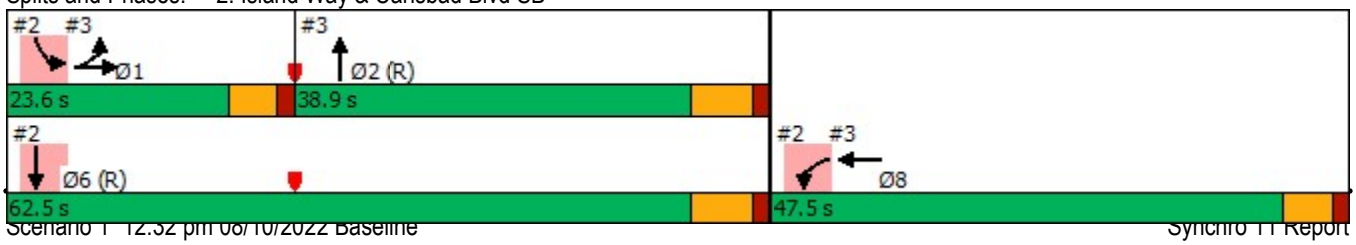


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	30	0	0	0	128	815	
Future Volume (vph)	30	0	0	0	128	815	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0		0	255		
Storage Lanes	1	0		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	
Frt							
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	0	0	0	1770	3539	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1770	0	0	0	1770	3539	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	89		322			222	
Travel Time (s)	2.0		7.3			5.0	
Peak Hour Factor	0.79	0.79	0.92	0.92	0.95	0.95	
Adj. Flow (vph)	38	0	0	0	135	858	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	38	0	0	0	135	858	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		12			12	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Number of Detectors	1				1	2	
Detector Template	Left				Left	Thru	
Leading Detector (ft)	20				20	100	
Trailing Detector (ft)	0				0	0	
Detector 1 Position(ft)	0				0	0	
Detector 1 Size(ft)	20				20	6	
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)	0.0				0.0	0.0	
Detector 1 Queue (s)	0.0				0.0	0.0	
Detector 1 Delay (s)	0.0				0.0	0.0	
Detector 2 Position(ft)						94	
Detector 2 Size(ft)						6	
Detector 2 Type						Cl+Ex	
Detector 2 Channel							
Detector 2 Extend (s)						0.0	
Turn Type	Prot				Prot	NA	
Protected Phases	8				1	6	2
Permitted Phases							

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Detector Phase	8				1	6	
Switch Phase							
Minimum Initial (s)	10.0				10.0	10.0	10.0
Minimum Split (s)	47.5				23.5	24.5	24.5
Total Split (s)	47.5				23.6	62.5	38.9
Total Split (%)	43.2%				21.5%	56.8%	35%
Maximum Green (s)	42.0				18.1	56.0	32.4
Yellow Time (s)	4.0				4.0	5.0	5.0
All-Red Time (s)	1.5				1.5	1.5	1.5
Lost Time Adjust (s)	0.0				0.0	0.0	
Total Lost Time (s)	5.5				5.5	6.5	
Lead/Lag					Lead		Lag
Lead-Lag Optimize?					Yes		Yes
Vehicle Extension (s)	3.0				3.0	2.0	2.0
Minimum Gap (s)	0.2				0.2	0.2	0.2
Time Before Reduce (s)	20.0				0.0	20.0	20.0
Time To Reduce (s)	0.0				0.0	0.0	0.0
Recall Mode	None				None	C-Min	C-Min
Walk Time (s)	7.0						
Flash Dont Walk (s)	35.0						
Pedestrian Calls (#/hr)	10						
Act Effct Green (s)	16.4				14.5	86.0	
Actuated g/C Ratio	0.15				0.13	0.78	
v/c Ratio	0.14				0.58	0.31	
Control Delay	15.2				54.5	6.8	
Queue Delay	0.0				0.0	0.0	
Total Delay	15.2				54.5	6.8	
LOS	B				D	A	
Approach Delay	15.2					13.3	
Approach LOS	B					B	

Intersection Summary	
Area Type: Other	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 13.4	Intersection LOS: B
Intersection Capacity Utilization 40.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Island Way & Carlsbad Blvd SB



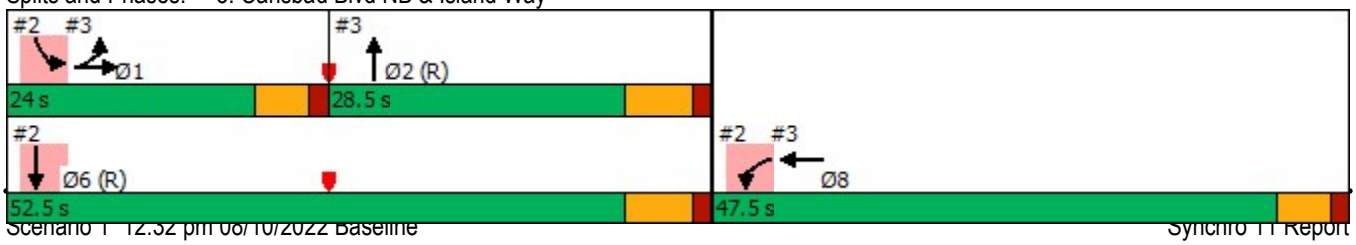
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	11	0	0	14	8	0	268	9	0	0	0
Future Volume (vph)	35	11	0	0	14	8	0	268	9	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		0.98			0.99			1.00				
Frt					0.952			0.995				
Flt Protected		0.963										
Satd. Flow (prot)	0	1794	0	0	1751	0	0	3511	0	0	0	0
Flt Permitted		0.963										
Satd. Flow (perm)	0	1762	0	0	1751	0	0	3511	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			3				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		89			352			328			558	
Travel Time (s)		2.0			8.0			7.5			12.7	
Confl. Peds. (#/hr)	34					34			1	1		
Confl. Bikes (#/hr)									43			37
Peak Hour Factor	0.82	0.82	0.82	0.79	0.79	0.79	0.82	0.82	0.82	0.92	0.92	0.92
Adj. Flow (vph)	43	13	0	0	18	10	0	327	11	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	56	0	0	28	0	0	338	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2			2				
Detector Template	Left	Thru			Thru			Thru				
Leading Detector (ft)	20	100			100			100				
Trailing Detector (ft)	0	0			0			0				
Detector 1 Position(ft)	0	0			0			0				
Detector 1 Size(ft)	20	6			6			6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0			0.0				
Detector 1 Queue (s)	0.0	0.0			0.0			0.0				
Detector 1 Delay (s)	0.0	0.0			0.0			0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA			NA				
Protected Phases	1	1			8			2				
Permitted Phases												

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	6
Permitted Phases	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	1			8			2				
Switch Phase												
Minimum Initial (s)	10.0	10.0			10.0			10.0				
Minimum Split (s)	23.5	23.5			47.5			24.5				
Total Split (s)	24.0	24.0			47.5			28.5				
Total Split (%)	24.0%	24.0%			47.5%			28.5%				
Maximum Green (s)	18.5	18.5			42.0			22.0				
Yellow Time (s)	4.0	4.0			4.0			5.0				
All-Red Time (s)	1.5	1.5			1.5			1.5				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.5			5.5			6.5				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	3.0	3.0			3.0			2.0				
Minimum Gap (s)	0.2	0.2			0.2			0.2				
Time Before Reduce (s)	0.0	0.0			20.0			20.0				
Time To Reduce (s)	0.0	0.0			0.0			0.0				
Recall Mode	None	None			None			C-Min				
Walk Time (s)					7.0							
Flash Dont Walk (s)					35.0							
Pedestrian Calls (#/hr)					10							
Act Effct Green (s)		10.3			16.4			66.4				
Actuated g/C Ratio		0.10			0.16			0.66				
v/c Ratio		0.30			0.09			0.15				
Control Delay		10.8			21.9			12.2				
Queue Delay		0.0			0.0			0.0				
Total Delay		10.8			21.9			12.2				
LOS		B			C			B				
Approach Delay		10.8			21.9			12.2				
Approach LOS		B			C			B				

Intersection Summary	
Area Type: Other	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.30	
Intersection Signal Delay: 12.6	Intersection LOS: B
Intersection Capacity Utilization 44.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Carlsbad Blvd NB & Island Way



Lane Group	Ø6
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	24.5
Total Split (s)	52.5
Total Split (%)	53%
Maximum Green (s)	46.0
Yellow Time (s)	5.0
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Minimum Gap (s)	0.2
Time Before Reduce (s)	20.0
Time To Reduce (s)	0.0
Recall Mode	C-Min
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

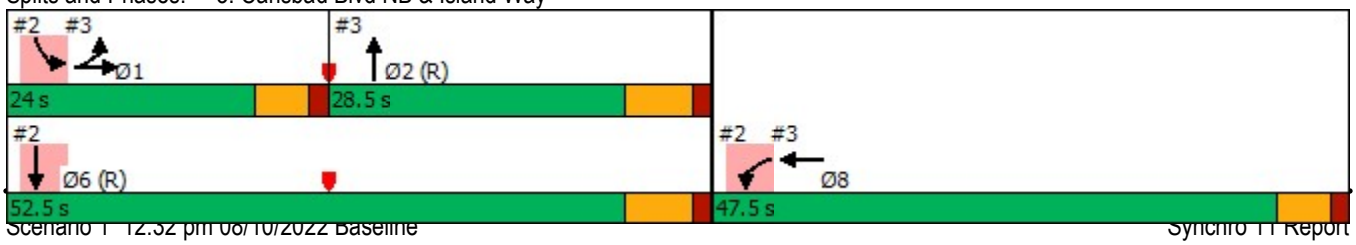
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	22	0	0	0	18	0	452	12	0	0	0
Future Volume (vph)	63	22	0	0	0	18	0	452	12	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		0.99			0.97			1.00				
Frt					0.865			0.996				
Flt Protected		0.964										
Satd. Flow (prot)	0	1796	0	0	1560	0	0	3515	0	0	0	0
Flt Permitted		0.964										
Satd. Flow (perm)	0	1770	0	0	1560	0	0	3515	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					348			2				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		89			352			328			558	
Travel Time (s)		2.0			8.0			7.5			12.7	
Confl. Peds. (#/hr)	28		1	1		28			1	1		
Confl. Bikes (#/hr)									50			
Peak Hour Factor	0.95	0.95	0.95	0.85	0.85	0.85	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	66	23	0	0	0	21	0	476	13	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	89	0	0	21	0	0	489	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2			2				
Detector Template	Left	Thru			Thru			Thru				
Leading Detector (ft)	20	100			100			100				
Trailing Detector (ft)	0	0			0			0				
Detector 1 Position(ft)	0	0			0			0				
Detector 1 Size(ft)	20	6			6			6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0			0.0				
Detector 1 Queue (s)	0.0	0.0			0.0			0.0				
Detector 1 Delay (s)	0.0	0.0			0.0			0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA			NA				
Protected Phases	1	1			8			2				
Permitted Phases												

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	6
Permitted Phases	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	1			8			2				
Switch Phase												
Minimum Initial (s)	10.0	10.0			10.0			10.0				
Minimum Split (s)	23.5	23.5			47.5			24.5				
Total Split (s)	24.0	24.0			47.5			28.5				
Total Split (%)	24.0%	24.0%			47.5%			28.5%				
Maximum Green (s)	18.5	18.5			42.0			22.0				
Yellow Time (s)	4.0	4.0			4.0			5.0				
All-Red Time (s)	1.5	1.5			1.5			1.5				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.5			5.5			6.5				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	3.0	3.0			3.0			2.0				
Minimum Gap (s)	0.2	0.2			0.2			0.2				
Time Before Reduce (s)	0.0	0.0			20.0			20.0				
Time To Reduce (s)	0.0	0.0			0.0			0.0				
Recall Mode	None	None			None			C-Min				
Walk Time (s)					7.0							
Flash Dont Walk (s)					35.0							
Pedestrian Calls (#/hr)					10							
Act Effct Green (s)		11.3			16.4			61.0				
Actuated g/C Ratio		0.11			0.16			0.61				
v/c Ratio		0.44			0.04			0.23				
Control Delay		8.3			0.1			13.8				
Queue Delay		0.0			0.0			0.0				
Total Delay		8.3			0.1			13.8				
LOS		A			A			B				
Approach Delay		8.3			0.1			13.8				
Approach LOS		A			A			B				

Intersection Summary	
Area Type: Other	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 12.5	Intersection LOS: B
Intersection Capacity Utilization 47.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Carlsbad Blvd NB & Island Way



Lane Group	Ø6
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	24.5
Total Split (s)	52.5
Total Split (%)	53%
Maximum Green (s)	46.0
Yellow Time (s)	5.0
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Minimum Gap (s)	0.2
Time Before Reduce (s)	20.0
Time To Reduce (s)	0.0
Recall Mode	C-Min
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

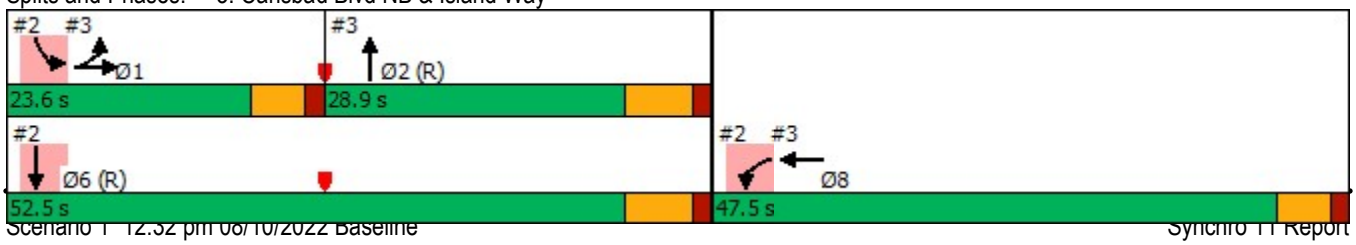
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	24	0	0	8	15	0	742	25	0	0	0
Future Volume (vph)	60	24	0	0	8	15	0	742	25	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		0.98			0.98			1.00				
Frt					0.911			0.995				
Flt Protected		0.965										
Satd. Flow (prot)	0	1798	0	0	1659	0	0	3515	0	0	0	0
Flt Permitted		0.965										
Satd. Flow (perm)	0	1769	0	0	1659	0	0	3515	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23			3				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		89			352			328			558	
Travel Time (s)		2.0			8.0			7.5			12.7	
Confl. Peds. (#/hr)	32					32			1			
Confl. Bikes (#/hr)									24			
Peak Hour Factor	0.91	0.91	0.91	0.65	0.65	0.65	0.95	0.95	0.95	0.92	0.92	0.92
Adj. Flow (vph)	66	26	0	0	12	23	0	781	26	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	92	0	0	35	0	0	807	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2			2				
Detector Template	Left	Thru			Thru			Thru				
Leading Detector (ft)	20	100			100			100				
Trailing Detector (ft)	0	0			0			0				
Detector 1 Position(ft)	0	0			0			0				
Detector 1 Size(ft)	20	6			6			6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0			0.0				
Detector 1 Queue (s)	0.0	0.0			0.0			0.0				
Detector 1 Delay (s)	0.0	0.0			0.0			0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA			NA				
Protected Phases	1	1			8			2				
Permitted Phases												

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	6
Permitted Phases	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	1			8			2				
Switch Phase												
Minimum Initial (s)	10.0	10.0			10.0			10.0				
Minimum Split (s)	23.5	23.5			47.5			24.5				
Total Split (s)	23.6	23.6			47.5			28.9				
Total Split (%)	23.6%	23.6%			47.5%			28.9%				
Maximum Green (s)	18.1	18.1			42.0			22.4				
Yellow Time (s)	4.0	4.0			4.0			5.0				
All-Red Time (s)	1.5	1.5			1.5			1.5				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.5			5.5			6.5				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	3.0	3.0			3.0			2.0				
Minimum Gap (s)	0.2	0.2			0.2			0.2				
Time Before Reduce (s)	0.0	0.0			20.0			20.0				
Time To Reduce (s)	0.0	0.0			0.0			0.0				
Recall Mode	None	None			None			C-Min				
Walk Time (s)					7.0							
Flash Dont Walk (s)					35.0							
Pedestrian Calls (#/hr)					10							
Act Effct Green (s)		11.4			16.4			65.3				
Actuated g/C Ratio		0.11			0.16			0.65				
v/c Ratio		0.45			0.12			0.35				
Control Delay		37.5			15.8			15.1				
Queue Delay		0.0			0.0			0.0				
Total Delay		37.5			15.8			15.1				
LOS		D			B			B				
Approach Delay		37.5			15.8			15.1				
Approach LOS		D			B			B				

Intersection Summary	
Area Type: Other	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 17.4	Intersection LOS: B
Intersection Capacity Utilization 57.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Carlsbad Blvd NB & Island Way



Lane Group	Ø6
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	24.5
Total Split (s)	52.5
Total Split (%)	53%
Maximum Green (s)	46.0
Yellow Time (s)	5.0
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Minimum Gap (s)	0.2
Time Before Reduce (s)	20.0
Time To Reduce (s)	0.0
Recall Mode	C-Min
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

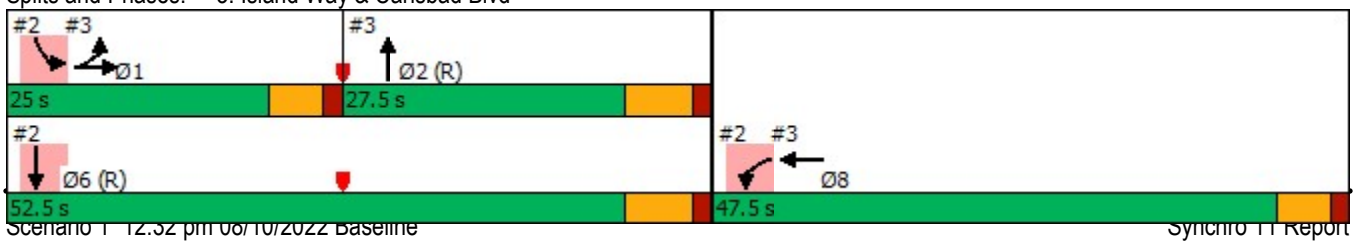
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	16	0	0	11	8	0	219	12	0	0	0
Future Volume (vph)	35	16	0	0	11	8	0	219	12	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		0.96			0.97			0.98				
Frt					0.943			0.992				
Flt Protected		0.967										
Satd. Flow (prot)	0	1801	0	0	1705	0	0	3456	0	0	0	0
Flt Permitted		0.967										
Satd. Flow (perm)	0	1732	0	0	1705	0	0	3456	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					11			5				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		89			352			328			558	
Travel Time (s)		2.0			8.0			7.5			12.7	
Confl. Peds. (#/hr)	82					82			3	3		
Confl. Bikes (#/hr)									152			
Peak Hour Factor	0.81	0.81	0.81	0.75	0.75	0.75	0.88	0.88	0.88	0.92	0.92	0.92
Adj. Flow (vph)	43	20	0	0	15	11	0	249	14	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	63	0	0	26	0	0	263	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2			2				
Detector Template	Left	Thru			Thru			Thru				
Leading Detector (ft)	20	100			100			100				
Trailing Detector (ft)	0	0			0			0				
Detector 1 Position(ft)	0	0			0			0				
Detector 1 Size(ft)	20	6			6			6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0			0.0				
Detector 1 Queue (s)	0.0	0.0			0.0			0.0				
Detector 1 Delay (s)	0.0	0.0			0.0			0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA			NA				
Protected Phases	1	1			8			2				
Permitted Phases												

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	6
Permitted Phases	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	1			8			2				
Switch Phase												
Minimum Initial (s)	10.0	10.0			10.0			10.0				
Minimum Split (s)	23.5	23.5			47.5			24.5				
Total Split (s)	25.0	25.0			47.5			27.5				
Total Split (%)	25.0%	25.0%			47.5%			27.5%				
Maximum Green (s)	19.5	19.5			42.0			21.0				
Yellow Time (s)	4.0	4.0			4.0			5.0				
All-Red Time (s)	1.5	1.5			1.5			1.5				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.5			5.5			6.5				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	3.0	3.0			3.0			2.0				
Minimum Gap (s)	0.2	0.2			0.2			0.2				
Time Before Reduce (s)	0.0	0.0			20.0			20.0				
Time To Reduce (s)	0.0	0.0			0.0			0.0				
Recall Mode	None	None			None			C-Min				
Walk Time (s)					7.0							
Flash Dont Walk (s)					35.0							
Pedestrian Calls (#/hr)					10							
Act Effct Green (s)		10.5			16.4			66.2				
Actuated g/C Ratio		0.10			0.16			0.66				
v/c Ratio		0.33			0.09			0.11				
Control Delay		6.5			20.4			12.3				
Queue Delay		0.0			0.0			0.0				
Total Delay		6.5			20.4			12.3				
LOS		A			C			B				
Approach Delay		6.5			20.4			12.3				
Approach LOS		A			C			B				

Intersection Summary	
Area Type: Other	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.34	
Intersection Signal Delay: 11.8	Intersection LOS: B
Intersection Capacity Utilization 51.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Island Way & Carlsbad Blvd



Lane Group	Ø6
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	24.5
Total Split (s)	52.5
Total Split (%)	53%
Maximum Green (s)	46.0
Yellow Time (s)	5.0
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Minimum Gap (s)	0.2
Time Before Reduce (s)	20.0
Time To Reduce (s)	0.0
Recall Mode	C-Min
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

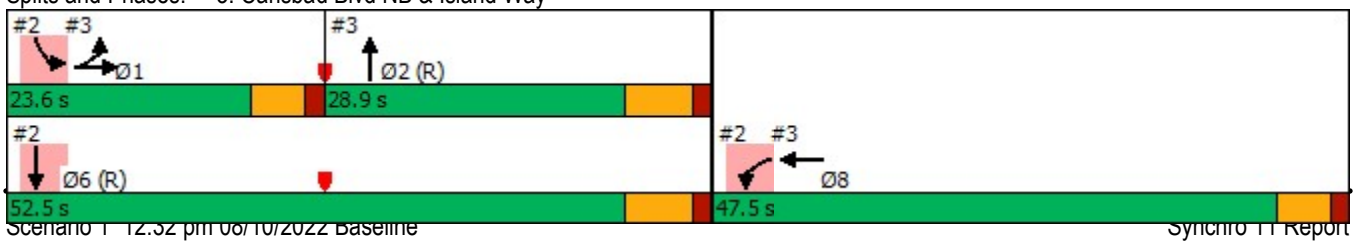
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	23	0	0	11	15	0	593	16	0	0	0
Future Volume (vph)	44	23	0	0	11	15	0	593	16	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		0.97			0.97			0.99				
Frt					0.923			0.996				
Flt Protected		0.968										
Satd. Flow (prot)	0	1803	0	0	1668	0	0	3507	0	0	0	0
Flt Permitted		0.968										
Satd. Flow (perm)	0	1757	0	0	1668	0	0	3507	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					16			2				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		89			352			328			558	
Travel Time (s)		2.0			8.0			7.5			12.7	
Confl. Peds. (#/hr)	57					57						
Confl. Bikes (#/hr)									103			
Peak Hour Factor	0.89	0.89	0.89	0.93	0.93	0.93	0.86	0.86	0.86	0.89	0.89	0.89
Adj. Flow (vph)	49	26	0	0	12	16	0	690	19	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	75	0	0	28	0	0	709	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2			2				
Detector Template	Left	Thru			Thru			Thru				
Leading Detector (ft)	20	100			100			100				
Trailing Detector (ft)	0	0			0			0				
Detector 1 Position(ft)	0	0			0			0				
Detector 1 Size(ft)	20	6			6			6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0			0.0				
Detector 1 Queue (s)	0.0	0.0			0.0			0.0				
Detector 1 Delay (s)	0.0	0.0			0.0			0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA			NA				
Protected Phases	1	1			8			2				
Permitted Phases												

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	6
Permitted Phases	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	1			8			2				
Switch Phase												
Minimum Initial (s)	10.0	10.0			10.0			10.0				
Minimum Split (s)	23.5	23.5			47.5			24.5				
Total Split (s)	23.6	23.6			47.5			28.9				
Total Split (%)	23.6%	23.6%			47.5%			28.9%				
Maximum Green (s)	18.1	18.1			42.0			22.4				
Yellow Time (s)	4.0	4.0			4.0			5.0				
All-Red Time (s)	1.5	1.5			1.5			1.5				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.5			5.5			6.5				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	3.0	3.0			3.0			2.0				
Minimum Gap (s)	0.2	0.2			0.2			0.2				
Time Before Reduce (s)	0.0	0.0			20.0			20.0				
Time To Reduce (s)	0.0	0.0			0.0			0.0				
Recall Mode	None	None			None			C-Min				
Walk Time (s)					7.0							
Flash Dont Walk (s)					35.0							
Pedestrian Calls (#/hr)					10							
Act Effct Green (s)		10.9			16.4			65.8				
Actuated g/C Ratio		0.11			0.16			0.66				
v/c Ratio		0.38			0.10			0.31				
Control Delay		7.3			17.7			14.0				
Queue Delay		0.0			0.0			0.0				
Total Delay		7.3			17.7			14.0				
LOS		A			B			B				
Approach Delay		7.3			17.7			14.0				
Approach LOS		A			B			B				

Intersection Summary	
Area Type: Other	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay: 13.5	Intersection LOS: B
Intersection Capacity Utilization 57.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Carlsbad Blvd NB & Island Way



Lane Group	Ø6
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	24.5
Total Split (s)	52.5
Total Split (%)	53%
Maximum Green (s)	46.0
Yellow Time (s)	5.0
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Minimum Gap (s)	0.2
Time Before Reduce (s)	20.0
Time To Reduce (s)	0.0
Recall Mode	C-Min
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

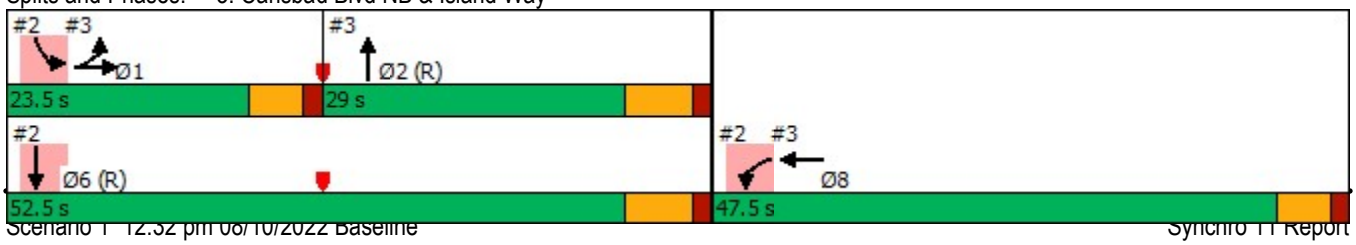
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	30	0	0	22	16	0	679	14	0	0	0
Future Volume (vph)	63	30	0	0	22	16	0	679	14	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		0.96			0.97			1.00				
Frt					0.944			0.997				
Flt Protected		0.967										
Satd. Flow (prot)	0	1801	0	0	1709	0	0	3522	0	0	0	0
Flt Permitted		0.967										
Satd. Flow (perm)	0	1736	0	0	1709	0	0	3522	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					20			2				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		89			352			328			558	
Travel Time (s)		2.0			8.0			7.5			12.7	
Confl. Peds. (#/hr)	80					80			2			
Confl. Bikes (#/hr)									39			
Peak Hour Factor	0.82	0.82	0.82	0.79	0.79	0.79	0.82	0.82	0.82	0.92	0.92	0.92
Adj. Flow (vph)	77	37	0	0	28	20	0	828	17	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	114	0	0	48	0	0	845	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2			2				
Detector Template	Left	Thru			Thru			Thru				
Leading Detector (ft)	20	100			100			100				
Trailing Detector (ft)	0	0			0			0				
Detector 1 Position(ft)	0	0			0			0				
Detector 1 Size(ft)	20	6			6			6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0			0.0				
Detector 1 Queue (s)	0.0	0.0			0.0			0.0				
Detector 1 Delay (s)	0.0	0.0			0.0			0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA			NA				
Protected Phases	1	1			8			2				
Permitted Phases												

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	6
Permitted Phases	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	1			8			2				
Switch Phase												
Minimum Initial (s)	10.0	10.0			10.0			10.0				
Minimum Split (s)	23.5	23.5			47.5			24.5				
Total Split (s)	23.5	23.5			47.5			29.0				
Total Split (%)	23.5%	23.5%			47.5%			29.0%				
Maximum Green (s)	18.0	18.0			42.0			22.5				
Yellow Time (s)	4.0	4.0			4.0			5.0				
All-Red Time (s)	1.5	1.5			1.5			1.5				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.5			5.5			6.5				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	3.0	3.0			3.0			2.0				
Minimum Gap (s)	0.2	0.2			0.2			0.2				
Time Before Reduce (s)	0.0	0.0			20.0			20.0				
Time To Reduce (s)	0.0	0.0			0.0			0.0				
Recall Mode	None	None			None			C-Min				
Walk Time (s)					7.0							
Flash Dont Walk (s)					35.0							
Pedestrian Calls (#/hr)					10							
Act Effct Green (s)		12.2			16.4			57.0				
Actuated g/C Ratio		0.12			0.16			0.57				
v/c Ratio		0.52			0.16			0.42				
Control Delay		15.2			21.2			17.8				
Queue Delay		0.0			0.0			0.0				
Total Delay		15.2			21.2			17.8				
LOS		B			C			B				
Approach Delay		15.2			21.2			17.8				
Approach LOS		B			C			B				

Intersection Summary	
Area Type: Other	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 17.7	Intersection LOS: B
Intersection Capacity Utilization 62.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Carlsbad Blvd NB & Island Way



Lane Group	Ø6
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	24.5
Total Split (s)	52.5
Total Split (%)	53%
Maximum Green (s)	46.0
Yellow Time (s)	5.0
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Minimum Gap (s)	0.2
Time Before Reduce (s)	20.0
Time To Reduce (s)	0.0
Recall Mode	C-Min
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

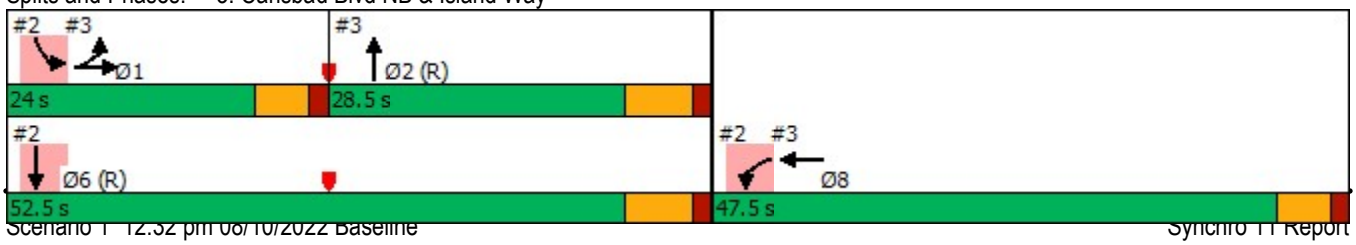
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	15	0	0	20	11	0	375	13	0	0	0
Future Volume (vph)	49	15	0	0	20	11	0	375	13	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		0.98			0.99			1.00				
Frt					0.952			0.995				
Flt Protected		0.963										
Satd. Flow (prot)	0	1794	0	0	1751	0	0	3510	0	0	0	0
Flt Permitted		0.963										
Satd. Flow (perm)	0	1762	0	0	1751	0	0	3510	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					14			3				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		89			352			328			558	
Travel Time (s)		2.0			8.0			7.5			12.7	
Confl. Peds. (#/hr)	34					34			1	1		
Confl. Bikes (#/hr)									43			37
Peak Hour Factor	0.82	0.82	0.82	0.79	0.79	0.79	0.82	0.82	0.82	0.92	0.92	0.92
Adj. Flow (vph)	60	18	0	0	25	14	0	457	16	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	78	0	0	39	0	0	473	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2			2				
Detector Template	Left	Thru			Thru			Thru				
Leading Detector (ft)	20	100			100			100				
Trailing Detector (ft)	0	0			0			0				
Detector 1 Position(ft)	0	0			0			0				
Detector 1 Size(ft)	20	6			6			6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0			0.0				
Detector 1 Queue (s)	0.0	0.0			0.0			0.0				
Detector 1 Delay (s)	0.0	0.0			0.0			0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA			NA				
Protected Phases	1	1			8			2				
Permitted Phases												

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	6
Permitted Phases	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	1			8			2				
Switch Phase												
Minimum Initial (s)	10.0	10.0			10.0			10.0				
Minimum Split (s)	23.5	23.5			47.5			24.5				
Total Split (s)	24.0	24.0			47.5			28.5				
Total Split (%)	24.0%	24.0%			47.5%			28.5%				
Maximum Green (s)	18.5	18.5			42.0			22.0				
Yellow Time (s)	4.0	4.0			4.0			5.0				
All-Red Time (s)	1.5	1.5			1.5			1.5				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.5			5.5			6.5				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	3.0	3.0			3.0			2.0				
Minimum Gap (s)	0.2	0.2			0.2			0.2				
Time Before Reduce (s)	0.0	0.0			20.0			20.0				
Time To Reduce (s)	0.0	0.0			0.0			0.0				
Recall Mode	None	None			None			C-Min				
Walk Time (s)					7.0							
Flash Dont Walk (s)					35.0							
Pedestrian Calls (#/hr)					10							
Act Effct Green (s)		10.9			16.4			62.7				
Actuated g/C Ratio		0.11			0.16			0.63				
v/c Ratio		0.40			0.13			0.21				
Control Delay		12.1			22.4			13.9				
Queue Delay		0.0			0.0			0.0				
Total Delay		12.1			22.4			13.9				
LOS		B			C			B				
Approach Delay		12.1			22.4			13.9				
Approach LOS		B			C			B				

Intersection Summary	
Area Type: Other	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay: 14.2	Intersection LOS: B
Intersection Capacity Utilization 47.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Carlsbad Blvd NB & Island Way



Lane Group	Ø6
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	24.5
Total Split (s)	52.5
Total Split (%)	53%
Maximum Green (s)	46.0
Yellow Time (s)	5.0
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Minimum Gap (s)	0.2
Time Before Reduce (s)	20.0
Time To Reduce (s)	0.0
Recall Mode	C-Min
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

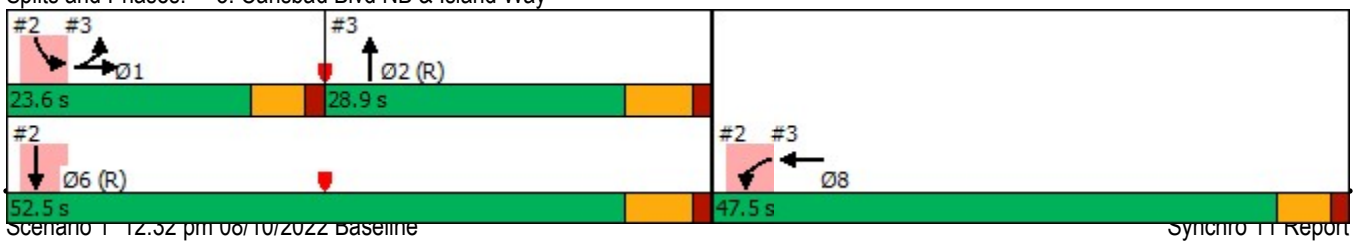
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	88	31	0	0	0	25	0	632	17	0	0	0
Future Volume (vph)	88	31	0	0	0	25	0	632	17	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		0.99			0.97			1.00				
Frt					0.865			0.996				
Flt Protected		0.964										
Satd. Flow (prot)	0	1796	0	0	1560	0	0	3515	0	0	0	0
Flt Permitted		0.964										
Satd. Flow (perm)	0	1770	0	0	1560	0	0	3515	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					263			2				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		89			352			328			558	
Travel Time (s)		2.0			8.0			7.5			12.7	
Confl. Peds. (#/hr)	28		1	1		28			1	1		
Confl. Bikes (#/hr)									50			
Peak Hour Factor	0.95	0.95	0.95	0.85	0.85	0.85	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	93	33	0	0	0	29	0	665	18	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	126	0	0	29	0	0	683	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2			2				
Detector Template	Left	Thru			Thru			Thru				
Leading Detector (ft)	20	100			100			100				
Trailing Detector (ft)	0	0			0			0				
Detector 1 Position(ft)	0	0			0			0				
Detector 1 Size(ft)	20	6			6			6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0			0.0				
Detector 1 Queue (s)	0.0	0.0			0.0			0.0				
Detector 1 Delay (s)	0.0	0.0			0.0			0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA			NA				
Protected Phases	1	1			8			2				
Permitted Phases												

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	6
Permitted Phases	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	1			8			2				
Switch Phase												
Minimum Initial (s)	10.0	10.0			10.0			10.0				
Minimum Split (s)	23.5	23.5			47.5			24.5				
Total Split (s)	23.6	23.6			47.5			28.9				
Total Split (%)	23.6%	23.6%			47.5%			28.9%				
Maximum Green (s)	18.1	18.1			42.0			22.4				
Yellow Time (s)	4.0	4.0			4.0			5.0				
All-Red Time (s)	1.5	1.5			1.5			1.5				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.5			5.5			6.5				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	3.0	3.0			3.0			2.0				
Minimum Gap (s)	0.2	0.2			0.2			0.2				
Time Before Reduce (s)	0.0	0.0			20.0			20.0				
Time To Reduce (s)	0.0	0.0			0.0			0.0				
Recall Mode	None	None			None			C-Min				
Walk Time (s)					7.0							
Flash Dont Walk (s)					35.0							
Pedestrian Calls (#/hr)					10							
Act Effct Green (s)		12.8			16.4			59.5				
Actuated g/C Ratio		0.13			0.16			0.60				
v/c Ratio		0.55			0.06			0.33				
Control Delay		10.6			0.2			16.0				
Queue Delay		0.0			0.0			0.0				
Total Delay		10.6			0.2			16.0				
LOS		B			A			B				
Approach Delay		10.6			0.2			16.0				
Approach LOS		B			A			B				

Intersection Summary	
Area Type: Other	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 14.7	Intersection LOS: B
Intersection Capacity Utilization 52.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Carlsbad Blvd NB & Island Way



Lane Group	Ø6
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	24.5
Total Split (s)	52.5
Total Split (%)	53%
Maximum Green (s)	46.0
Yellow Time (s)	5.0
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Minimum Gap (s)	0.2
Time Before Reduce (s)	20.0
Time To Reduce (s)	0.0
Recall Mode	C-Min
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

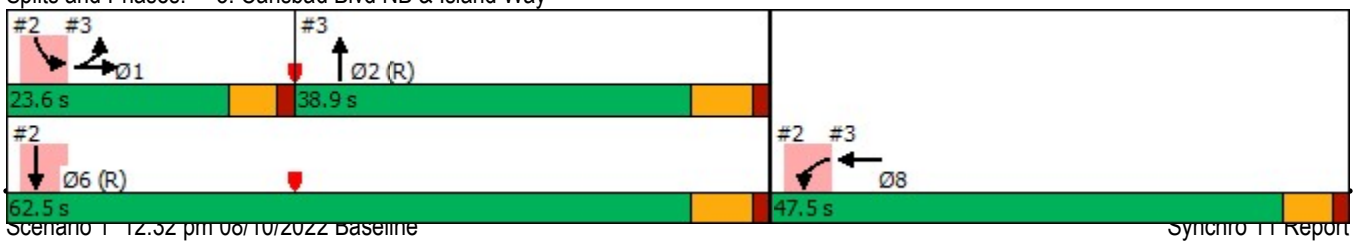
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	84	34	0	0	11	21	0	1038	35	0	0	0
Future Volume (vph)	84	34	0	0	11	21	0	1038	35	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		0.98			0.98			1.00				
Frt					0.912			0.995				
Flt Protected		0.966										
Satd. Flow (prot)	0	1799	0	0	1658	0	0	3516	0	0	0	0
Flt Permitted		0.966										
Satd. Flow (perm)	0	1769	0	0	1658	0	0	3516	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					32			3				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		89			352			328			558	
Travel Time (s)		2.0			8.0			7.5			12.7	
Confl. Peds. (#/hr)	32					32			1			
Confl. Bikes (#/hr)									24			
Peak Hour Factor	0.91	0.91	0.91	0.65	0.65	0.65	0.95	0.95	0.95	0.92	0.92	0.92
Adj. Flow (vph)	92	37	0	0	17	32	0	1093	37	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	129	0	0	49	0	0	1130	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2			2				
Detector Template	Left	Thru			Thru			Thru				
Leading Detector (ft)	20	100			100			100				
Trailing Detector (ft)	0	0			0			0				
Detector 1 Position(ft)	0	0			0			0				
Detector 1 Size(ft)	20	6			6			6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0			0.0				
Detector 1 Queue (s)	0.0	0.0			0.0			0.0				
Detector 1 Delay (s)	0.0	0.0			0.0			0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA			NA				
Protected Phases	1	1			8			2				
Permitted Phases												

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	6
Permitted Phases	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	1			8			2				
Switch Phase												
Minimum Initial (s)	10.0	10.0			10.0			10.0				
Minimum Split (s)	23.5	23.5			47.5			24.5				
Total Split (s)	23.6	23.6			47.5			38.9				
Total Split (%)	21.5%	21.5%			43.2%			35.4%				
Maximum Green (s)	18.1	18.1			42.0			32.4				
Yellow Time (s)	4.0	4.0			4.0			5.0				
All-Red Time (s)	1.5	1.5			1.5			1.5				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.5			5.5			6.5				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	3.0	3.0			3.0			2.0				
Minimum Gap (s)	0.2	0.2			0.2			0.2				
Time Before Reduce (s)	0.0	0.0			20.0			20.0				
Time To Reduce (s)	0.0	0.0			0.0			0.0				
Recall Mode	None	None			None			C-Min				
Walk Time (s)					7.0							
Flash Dont Walk (s)					35.0							
Pedestrian Calls (#/hr)					10							
Act Effct Green (s)		13.6			16.4			65.6				
Actuated g/C Ratio		0.12			0.15			0.60				
v/c Ratio		0.58			0.18			0.54				
Control Delay		11.4			17.8			18.9				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.4			17.8			18.9				
LOS		B			B			B				
Approach Delay		11.4			17.8			18.9				
Approach LOS		B			B			B				

Intersection Summary	
Area Type: Other	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 18.1	Intersection LOS: B
Intersection Capacity Utilization 65.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Carlsbad Blvd NB & Island Way



Lane Group	Ø6
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	24.5
Total Split (s)	62.5
Total Split (%)	57%
Maximum Green (s)	56.0
Yellow Time (s)	5.0
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Minimum Gap (s)	0.2
Time Before Reduce (s)	20.0
Time To Reduce (s)	0.0
Recall Mode	C-Min
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

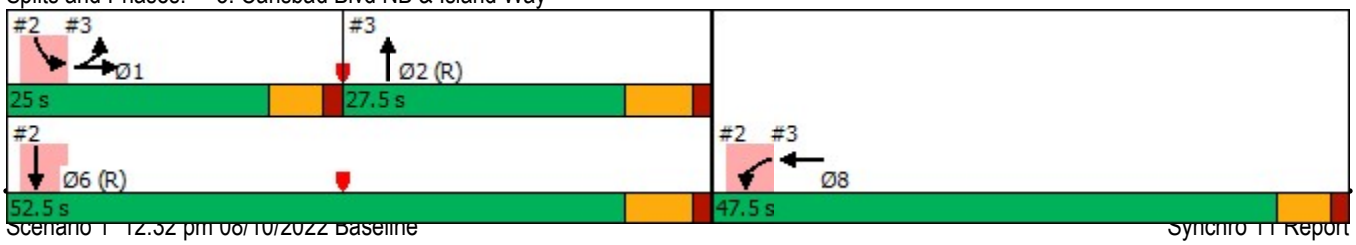
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	48	22	0	0	14	11	0	302	17	0	0	0
Future Volume (vph)	48	22	0	0	14	11	0	302	17	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		0.96			0.97			0.98				
Frt					0.940			0.992				
Flt Protected		0.967										
Satd. Flow (prot)	0	1801	0	0	1697	0	0	3457	0	0	0	0
Flt Permitted		0.967										
Satd. Flow (perm)	0	1732	0	0	1697	0	0	3457	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					15			5				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		89			352			328			558	
Travel Time (s)		2.0			8.0			7.5			12.7	
Confl. Peds. (#/hr)	82					82			3	3		
Confl. Bikes (#/hr)									152			
Peak Hour Factor	0.81	0.81	0.81	0.75	0.75	0.75	0.88	0.88	0.88	0.92	0.92	0.92
Adj. Flow (vph)	59	27	0	0	19	15	0	343	19	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	86	0	0	34	0	0	362	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2			2				
Detector Template	Left	Thru			Thru			Thru				
Leading Detector (ft)	20	100			100			100				
Trailing Detector (ft)	0	0			0			0				
Detector 1 Position(ft)	0	0			0			0				
Detector 1 Size(ft)	20	6			6			6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0			0.0				
Detector 1 Queue (s)	0.0	0.0			0.0			0.0				
Detector 1 Delay (s)	0.0	0.0			0.0			0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA			NA				
Protected Phases	1	1			8			2				
Permitted Phases												

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	6
Permitted Phases	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	1			8			2				
Switch Phase												
Minimum Initial (s)	10.0	10.0			10.0			10.0				
Minimum Split (s)	23.5	23.5			47.5			24.5				
Total Split (s)	25.0	25.0			47.5			27.5				
Total Split (%)	25.0%	25.0%			47.5%			27.5%				
Maximum Green (s)	19.5	19.5			42.0			21.0				
Yellow Time (s)	4.0	4.0			4.0			5.0				
All-Red Time (s)	1.5	1.5			1.5			1.5				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.5			5.5			6.5				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	3.0	3.0			3.0			2.0				
Minimum Gap (s)	0.2	0.2			0.2			0.2				
Time Before Reduce (s)	0.0	0.0			20.0			20.0				
Time To Reduce (s)	0.0	0.0			0.0			0.0				
Recall Mode	None	None			None			C-Min				
Walk Time (s)					7.0							
Flash Dont Walk (s)					35.0							
Pedestrian Calls (#/hr)					10							
Act Effct Green (s)		11.2			16.4			61.1				
Actuated g/C Ratio		0.11			0.16			0.61				
v/c Ratio		0.43			0.12			0.17				
Control Delay		8.1			20.0			13.3				
Queue Delay		0.0			0.0			0.0				
Total Delay		8.1			20.0			13.3				
LOS		A			B			B				
Approach Delay		8.1			20.0			13.3				
Approach LOS		A			B			B				

Intersection Summary	
Area Type: Other	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 12.8	Intersection LOS: B
Intersection Capacity Utilization 52.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Carlsbad Blvd NB & Island Way



Lane Group	Ø6
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	24.5
Total Split (s)	52.5
Total Split (%)	53%
Maximum Green (s)	46.0
Yellow Time (s)	5.0
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Minimum Gap (s)	0.2
Time Before Reduce (s)	20.0
Time To Reduce (s)	0.0
Recall Mode	C-Min
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

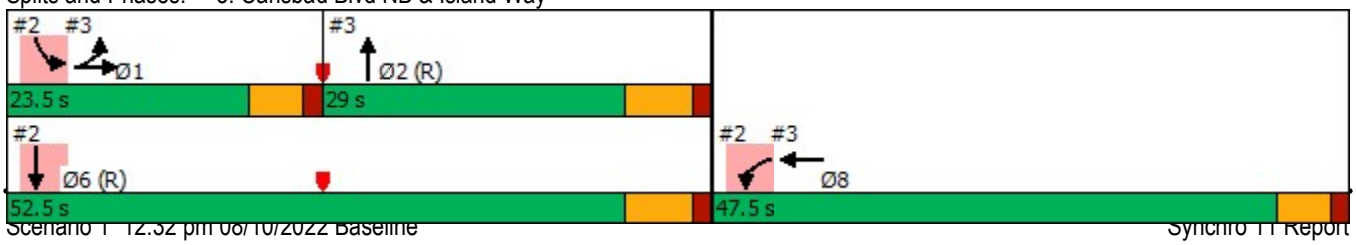
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	32	0	0	15	21	0	817	22	0	0	0
Future Volume (vph)	61	32	0	0	15	21	0	817	22	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		0.97			0.97			0.99				
Frt					0.920			0.996				
Flt Protected		0.968										
Satd. Flow (prot)	0	1803	0	0	1661	0	0	3507	0	0	0	0
Flt Permitted		0.968										
Satd. Flow (perm)	0	1757	0	0	1661	0	0	3507	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23			2				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		89			352			328			558	
Travel Time (s)		2.0			8.0			7.5			12.7	
Confl. Peds. (#/hr)	57					57						
Confl. Bikes (#/hr)									103			
Peak Hour Factor	0.89	0.89	0.89	0.93	0.93	0.93	0.86	0.86	0.86	0.89	0.89	0.89
Adj. Flow (vph)	69	36	0	0	16	23	0	950	26	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	105	0	0	39	0	0	976	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2			2				
Detector Template	Left	Thru			Thru			Thru				
Leading Detector (ft)	20	100			100			100				
Trailing Detector (ft)	0	0			0			0				
Detector 1 Position(ft)	0	0			0			0				
Detector 1 Size(ft)	20	6			6			6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0			0.0				
Detector 1 Queue (s)	0.0	0.0			0.0			0.0				
Detector 1 Delay (s)	0.0	0.0			0.0			0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA			NA				
Protected Phases	1	1			8			2				
Permitted Phases												

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	6
Permitted Phases	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	1			8			2				
Switch Phase												
Minimum Initial (s)	10.0	10.0			10.0			10.0				
Minimum Split (s)	23.5	23.5			47.5			24.5				
Total Split (s)	23.5	23.5			47.5			29.0				
Total Split (%)	23.5%	23.5%			47.5%			29.0%				
Maximum Green (s)	18.0	18.0			42.0			22.5				
Yellow Time (s)	4.0	4.0			4.0			5.0				
All-Red Time (s)	1.5	1.5			1.5			1.5				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.5			5.5			6.5				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	3.0	3.0			3.0			2.0				
Minimum Gap (s)	0.2	0.2			0.2			0.2				
Time Before Reduce (s)	0.0	0.0			20.0			20.0				
Time To Reduce (s)	0.0	0.0			0.0			0.0				
Recall Mode	None	None			None			C-Min				
Walk Time (s)					7.0							
Flash Dont Walk (s)					35.0							
Pedestrian Calls (#/hr)					10							
Act Effct Green (s)		11.9			16.4			60.4				
Actuated g/C Ratio		0.12			0.16			0.60				
v/c Ratio		0.49			0.13			0.46				
Control Delay		10.4			16.9			17.3				
Queue Delay		0.0			0.0			0.0				
Total Delay		10.4			16.9			17.3				
LOS		B			B			B				
Approach Delay		10.4			16.9			17.3				
Approach LOS		B			B			B				

Intersection Summary	
Area Type: Other	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.49	
Intersection Signal Delay: 16.6	Intersection LOS: B
Intersection Capacity Utilization 64.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Carlsbad Blvd NB & Island Way



Lane Group	Ø6
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	24.5
Total Split (s)	52.5
Total Split (%)	53%
Maximum Green (s)	46.0
Yellow Time (s)	5.0
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Minimum Gap (s)	0.2
Time Before Reduce (s)	20.0
Time To Reduce (s)	0.0
Recall Mode	C-Min
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	41	0	0	30	22	0	935	19	0	0	0
Future Volume (vph)	87	41	0	0	30	22	0	935	19	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		0.96			0.97			1.00				
Frt					0.943			0.997				
Flt Protected		0.967										
Satd. Flow (prot)	0	1801	0	0	1702	0	0	3527	0	0	0	0
Flt Permitted		0.967										
Satd. Flow (perm)	0	1731	0	0	1702	0	0	3527	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					28			2				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		89			352			328			558	
Travel Time (s)		2.0			8.0			7.5			12.7	
Confl. Peds. (#/hr)	80					80			2			
Peak Hour Factor	0.82	0.82	0.82	0.79	0.79	0.79	0.82	0.82	0.82	0.92	0.92	0.92
Adj. Flow (vph)	106	50	0	0	38	28	0	1140	23	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	156	0	0	66	0	0	1163	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2			2				
Detector Template	Left	Thru			Thru			Thru				
Leading Detector (ft)	20	100			100			100				
Trailing Detector (ft)	0	0			0			0				
Detector 1 Position(ft)	0	0			0			0				
Detector 1 Size(ft)	20	6			6			6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0			0.0				
Detector 1 Queue (s)	0.0	0.0			0.0			0.0				
Detector 1 Delay (s)	0.0	0.0			0.0			0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA			NA				
Protected Phases	1	1			8			2				
Permitted Phases												
Detector Phase	1	1			8			2				

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	10.0	10.0			10.0			10.0				
Minimum Split (s)	23.5	23.5			47.5			24.5				
Total Split (s)	23.6	23.6			47.5			38.9				
Total Split (%)	21.5%	21.5%			43.2%			35.4%				
Maximum Green (s)	18.1	18.1			42.0			32.4				
Yellow Time (s)	4.0	4.0			4.0			5.0				
All-Red Time (s)	1.5	1.5			1.5			1.5				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.5			5.5			6.5				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	3.0	3.0			3.0			2.0				
Minimum Gap (s)	0.2	0.2			0.2			0.2				
Time Before Reduce (s)	0.0	0.0			20.0			20.0				
Time To Reduce (s)	0.0	0.0			0.0			0.0				
Recall Mode	None	None			None			C-Min				
Walk Time (s)					7.0							
Flash Dont Walk (s)					35.0							
Pedestrian Calls (#/hr)					10							
Act Effct Green (s)		14.5			16.4			64.7				
Actuated g/C Ratio		0.13			0.15			0.59				
v/c Ratio		0.66			0.24			0.56				
Control Delay		19.7			24.8			19.7				
Queue Delay		0.0			0.0			0.0				
Total Delay		19.7			24.8			19.7				
LOS		B			C			B				
Approach Delay		19.7			24.8			19.7				
Approach LOS		B			C			B				

Intersection Summary	
Area Type:	Other
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 19.9	Intersection LOS: B
Intersection Capacity Utilization 69.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Carlsbad Blvd NB & Island Way

Lane Group	Ø6
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	24.5
Total Split (s)	62.5
Total Split (%)	57%
Maximum Green (s)	56.0
Yellow Time (s)	5.0
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Minimum Gap (s)	0.2
Time Before Reduce (s)	20.0
Time To Reduce (s)	0.0
Recall Mode	C-Min
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

CEQA DETERMINATION OF EXEMPTION

Exhibit 4

Subject: This California Environmental Quality Act (CEQA) Determination of Exemption is in compliance with Carlsbad Municipal Code Section 19.04.060. An appeal to this determination must be filed in writing with the required fee within ten (10) calendar days of the City Planner's decision consistent with Carlsbad Municipal Code Section 21.54.140.

City Planner Decision Date: Oct. 19, 2023

Project Number and Title: Carlsbad Boulevard Restriping Project (CDP2023-0036)

Project Location: Public right of way along Carlsbad Boulevard, starting at Solamar Drive to Island Way/District 3

Project Location - City: Carlsbad **Project Location - County:** San Diego

Description of Project: A request to approve an after-the-fact Coastal Development Permit to relocate existing roadway space with restriping for bicyclist and pedestrian improvements along Carlsbad Boulevard between Solamar Drive and Island Way.

Name of Public Agency Approving Project: City of Carlsbad

Name of Person or Agency Carrying Out Project: City of Carlsbad, Public Works

Name of Applicant: Miriam Jim, Senior Engineer

Applicant's Address: 1635 Faraday Avenue, Carlsbad, CA 92008

Applicant's Telephone Number: 7442-339-5796

Name of Applicant/Identity of person undertaking the Project (if different from the applicant above): N/A

Exempt Status: (*Check One*)

- ☐ Ministerial (Section 21080(b)(1); 15268);
- ☐ Declared Emergency (Section 21080(b)(3); 15269(a));
- ☐ Emergency Project (Section 21080(b)(4); 15269 (b)(c));
- ☒ Categorical Exemption - State type and section number: Section 15301(c) Existing Facilities (Class 1)
- ☐ Statutory Exemptions - State code number:
- ☐ Common Sense Exemption (Section 15061(b)(3))

Reasons why Project is exempt: The California Environmental Quality Act ("CEQA"), and its implementing regulations ("CEQA Guidelines") adopted by the Secretary of the California Natural Resources Agency list classes of projects that have been determined not to have a significant effect on the environment and as a result are exempt from further environmental review under CEQA. City staff completed a review of the project and potential environmental impacts associated with the project pursuant to CEQA and concluded that the project qualified for an exemption pursuant to CEQA Guidelines section 15301(c) (Existing Facilities). The CEQA Guidelines include a list of classes of projects which have been determined not to have a significant effect on the environment and which shall, therefore, be exempt from the provisions of CEQA. CEQA Guidelines Section 15301 is a Class 1 exemption for existing facilities and includes (c) Existing highways and streets, sidewalks, gutters, bicycle and pedestrian trails, and similar facilities (this includes road grading for the purpose of public safety), and other alterations such as the addition of bicycle facilities, including but not limited to bicycle parking, bicycle-share facilities, and bicycle lanes, transit improvements such as bus lanes, pedestrian crossings, street trees, and other similar alterations that do

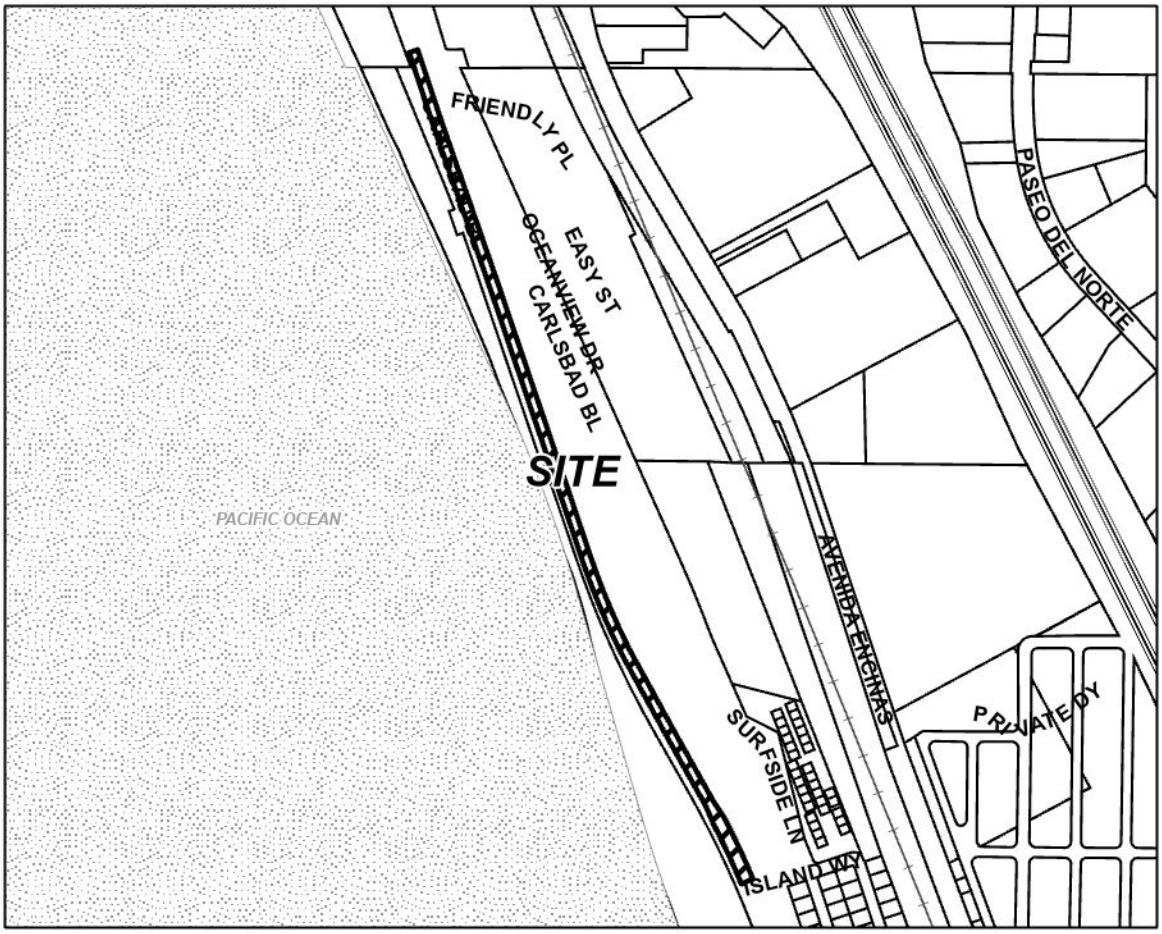
not create additional automobile lanes). The improvements to these streets involve negligible expansion of the current uses beyond the existing and do not result in additional automobile lanes.

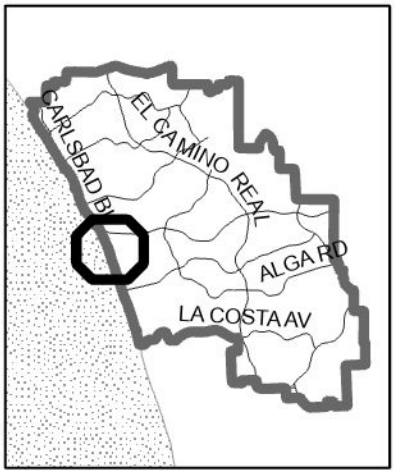
The improvements to the city's existing mobility network under this action will improve public safety. Actions are anticipated to involve negligible expansion of the current facilities and infrastructure beyond the existing and will not result in additional automobile lanes. The actions are not expected to increase vehicular use of the roadway and will not change the overall facility use of the mobility network. No exception to the exemption as set forth in CEQA Guidelines Section 15300.2 applies. Additionally, none of the limitations on using an exemption in Carlsbad Municipal Code 19.04.070 (B) applies.

For the reasons stated above, the action is categorically exempt from CEQA under CEQA Guidelines Section 15304(c).

Lead Agency Contact Person: Izzak Mireles, Associate Planner **Telephone:** 442-339-2693

Eric Lardy, City Planner Date





SITE MAP

NOT TO SCALE

Carlsbad Restriping Project
CDP 2023-0036 (CIP No. 6096)

Map generated on: 10/18/2023

CA Review _RMC_

Exhibit 6

CITY COUNCIL

Staff Report

Meeting Date:	Sept. 27, 2022
To:	Mayor and City Council
From:	Scott Chadwick, City Manager
Staff Contact:	John Kim, City Traffic Engineer john.kim@carlsbadca.gov, 442-339-2757
Subject:	Approval of Lane Reduction on Southbound Carlsbad Boulevard between Solamar Drive and Island Way, Approval of Plans and Specifications and Award of Contract for Construction of the Carlsbad Boulevard Restriping between Manzano Drive and Island Way, Bike Lane Improvements at Five Locations on Carlsbad Boulevard and Three Sustainable Mobility Plan Bike Enhancement Projects
Districts:	All

Recommended Action

Adopt one resolution:

- Approving the proposed lane reduction on southbound Carlsbad Boulevard between Solamar Drive and Island Way; and
- Approving the plans and specifications and awarding a contract to VSS International, Inc., a California corporation, in the amount of $381,120 for:
    - Construction of the Carlsbad Boulevard Restriping Project between Manzano Drive and Island Way
    - Bike lane improvements at five locations on Carlsbad Boulevard
    - Three Sustainable Mobility Plan Bike Enhancement Projects, at:
        - La Costa Avenue at the intersections of Piraeus Street, Saxony Road and El Camino Real
        - Jefferson Street between Las Flores Drive and the Interstate 5 overpass
        - Paseo Del Norte at Cannon Road

Executive Summary

Three projects have been combined into a single set of plans and specifications to maximize cost efficiency:

1. The Carlsbad Boulevard Restriping Project, Capital Improvement Program Project No. 6096, combined two projects:
    a. Restriping southbound Carlsbad Boulevard from Manzano Drive to Island Way
    b. Bike lane improvements at five locations on Carlsbad Boulevard south of Island Way

2. Sustainable Mobility Plan projects at three locations, CIP Project No. 6104

Carlsbad Boulevard Restriping Project, Capital Improvement Program Project No. 6096
The Carlsbad Boulevard Restriping Project will restripe southbound Carlsbad Boulevard from Manzano Drive to Island Way and will reduce the number of travel lanes on southbound Carlsbad Boulevard between Solamar Drive and Island Way from two lanes to one lane while enhancing the existing bike lane and on-street parking.

Reducing the number of travel lanes on this segment of southbound Carlsbad Boulevard would provide width on the roadway to shift traffic to the east, away from the coast, and provide enhancements to the existing bike lane and additional on-street parking on the west side of the street. Green bike lane enhancements will be added to areas where bicycle and vehicle traffic conflicts, where appropriate. Like most road reconfiguration projects, this project will reduce the long-term maintenance costs for this road segment by reducing the area subjected to daily vehicle loads.

This project also includes additional bike lane improvements on both sides of Carlsbad Boulevard south of Island Way, adding green bike lane enhancements in bike-car conflict areas at Lanikai Lane, Breakwater Road, Poinsettia Lane, Ponto Road and Avenida Encinas.

Sustainable Mobility Plan projects, IP Project No. 6104
The final component to these projects are three Sustainable Mobility Plan projects on La Costa Avenue, Jefferson Street and at the Paseo Del Norte and Cannon Road intersection, which will enhance existing bike facilities through modifications to signage and striping.

State of local emergency
On Aug. 23, 2022, the City Manager/Director of Emergency Services proclaimed a state of local emergency for bike, e-bike and traffic safety. On Aug. 30, 2022, the City Council adopted Resolution No. 2022-214, ratifying the proclamation. The Carlsbad Boulevard Restriping Project, bike lane improvements at five locations and three Sustainable Mobility Plan Projects have been identified as priority projects that will be expedited in response to the proclamation.

In light of this emergency, the usual construction-related procurement requirements do not apply under Carlsbad Municipal Code, or CMC, Section 3.28.120 – Emergencies. As the awarding authority for construction contracts over $200,000, the City Council may also determine these usual requirements do not apply under CMC Section 3.28.110 – Exemptions, subsections (A) and (N).

Proposed lane reduction
Additionally, the General Plan's Mobility Element, the city's primary transportation planning document, has a policy (Implementing Policy 3-P.15) that states that the City Council shall have the sole discretion to approve any road diet or vehicle traffic calming improvements that would reduce vehicle capacity to or below what is found to be a level of service rated at a D, with F being a failing rating.

Staff recommend the City Council approve the proposed lane reduction on southbound Carlsbad Boulevard between Solamar Drive and Island Way.

Discussion

Carlsbad Boulevard Restriping Project, CIP Project No. 6096

This project will feature the following improvements on Carlsbad Boulevard between Manzano Drive and Avenida Encinas:

- Stripe one 10-foot travel lane, a 2-foot buffer and an 8-foot bike lane on southbound Carlsbad Boulevard between Manzano Drive and Island Way
- Provide a 1- to 8-foot wide shoulder along the west side of Carlsbad Boulevard
- Add approximately 300 feet of parallel on-street parking, which is approximately 15 parking spots, adjacent to the existing parking lot just north of Island Way. A 3-foot buffer will be provided between the bike lane and this proposed parking lane. These parking areas can also be designated as bike parking areas with bicycle racks to promote active transportation. The determination of the final design for which areas will be designated as bicycle parking will be determined by the City Engineer within three months after the completion of the improvements to observe performance of the interface between the parking areas and the modes of travel. The existing angled on-street parking just south of Solamar Drive will be maintained.
- Add dashed green paint bike lane to highlight bike-car conflict areas at five intersections on Carlsbad Boulevard. These intersections are located at Lanikai Lane, Breakwater Road, Poinsettia Lane, Ponto Road and Avenida Encinas.

Carlsbad Boulevard is classified as a Coastal Street in the General Plan's Mobility Element and is therefore not subject to the city's level of service standards for vehicular travel. However, because Implementing Policy 3-P.15 of the General Plan Mobility Element gives the City Council sole discretion to approve any road narrowing that would reduce vehicle capacity to or below a level of service of D, staff are including the appropriate analysis of the level of service. A traffic memorandum for the project, provided as Exhibit 3, was prepared to analyze the roadway segment and intersection operations with the proposed lane reduction on southbound Carlsbad Boulevard between Solamar Drive and Island Way and to discuss level of service findings.

The level of service is represented as a letter grade ranging from A to F. A level of service of A represents a high level of service, that is, the free flow of vehicles, while an F would reflect a low or inadequate level of service, heavy congestion. According to Implementing Policy 3-P.4 of the General Plan Mobility Element, the performance standard for roadways is to maintain a level of service of D or better.

Staff collected traffic counts in July 2022 and compared them to those collected in 2019, under pre-pandemic pandemic conditions. The comparison shows that the average daily traffic volume is lower than that from pre-pandemic conditions. To provide a conservative analysis, staff studied traffic operation under existing conditions, during 2022, and pre-pandemic conditions with traffic volumes adjusted to pre-pandemic conditions.

The tables below provide a summary of the roadway segment analysis results for weekdays and weekends, respectively. With the existing two travel lanes, the study segment of Carlsbad Boulevard has a roadway capacity of 1,820 vehicles during peak hour travel and the roadway operates at a Level of Service, or LOS, C during the morning and afternoon peak hours on both weekdays and weekends.

With the proposed single lane on southbound Carlsbad Boulevard between Solamar Drive and Island Way, the roadway will have a capacity of 910 vehicles during peak hour travel. This segment of Carlsbad Boulevard would operate at a level of service D during the morning and afternoon peak hours, on weekdays and a level of service E during peak hours on weekends under existing conditions. Under pre-pandemic conditions, however, the roadway segment would operate at a level of service D during the morning peak hour on weekdays and a level of service F during the afternoon peak hour on weekdays and peak hour on weekends.

Summary of results of analysis of Carlsbad Boulevard segment (Weekdays)

Lanes/ speed/ median[1]	Segment capacity [2] (veh/hr)	AM peak hour		PM peak hour	
		Volume (veh/hr)	Level of service	Volume (veh/hr)	Level of service
2-lane southbound (existing conditions)					
2/50/D	1,820	610	C	657	C
1-lane southbound (existing conditions)					
1/50/D	910	610	D	657	D
1-lane southbound (pre-pandemic conditions)					
1/50/D	910	853	D	919	F

(1) 1/50/D = Number of lanes, posted speed limit, divided road
(2) Source: City of Carlsbad Segment Volume Table Report

Summary of Roadway Segment Analysis Results (Weekends)

Lanes/ speed/ median[1]	Segment capacity [2] (veh/hr)	Mid-day peak hour	
		Hour volume (veh/hr)	Level of service
2-lane southbound (existing conditions)			
2/50/D	1,820	895	D
1-lane southbound (existing conditions)			
1/50/D	910	895	E
1-lane southbound (pre-pandemic conditions)			
1/50/D	910	1232	F

(1) 1/50/D = Number of lanes, posted speed limit, divided road
(2) Source: City of Carlsbad Segment Volume Table Report

The traffic signal operation analysis indicates that both signalized intersections would operate at a level of service B or better in the morning, midday and afternoon peak hours on weekdays and in the peak hour on weekends under existing conditions as well as pre-pandemic conditions. Because the number of lanes at the intersections would remain unchanged with the proposed project, the operation of the signals is expected to remain at a level of service B or better.

It is worth noting that the No. 2 lane on Carlsbad Boulevard, the second lane from the center or westernmost lane, was closed in the southbound direction between Solamar Drive and Island Way in 2016 due to severe erosion near the Encinas Creek Bridge. To ensure the safety of drivers, bicyclists and pedestrians and to help facilitate the necessary repairs, the city implemented a long-term lane closure in January 2016 and lasted through early 2017.

During this long-term lane closure, traffic impacts were observed to be minimal, and the single southbound lane was found to provide adequate capacity, as documented in the May 22, 2017, council memorandum provided as in Exhibit 4. As presented earlier in this report, traffic volumes in 2016 were likely higher than the current traffic volumes on Carlsbad Boulevard and comparable to the 2019 volumes. Staff believe that one lane on southbound Carlsbad Boulevard between Solamar Drive and Island Way could accommodate the amount of traffic with minimal impacts.

The City Council's approval of the proposed lane reduction on southbound Carlsbad Boulevard is required under General Plan Mobility Element Policy 3-P.15, which states, in relevant part:

> Evaluate methods and transportation facility improvements to promote biking, walking, safer street crossings, and attractive streetscapes. The City Council shall have the sole discretion to approve any such road diet or vehicle traffic calming improvements that would reduce vehicle capacity to or below a LOS D.

Bike Enhancement Projects, or CIP Project No. 6104

The city's Sustainable Mobility Plan was created to help improve transportation-related safety, reduce greenhouse emissions, increase travel choices and implement the Mobility Element of the city's General Plan. The plan contains three bike enhancement projects that will enhance existing bike facilities with modifications to signage and striping. These projects are:

- On La Costa Avenue at the intersections of Piraeus Street, Saxony Road and El Camino Real
- Jefferson Street between Las Flores Drive and the Interstate 5 overpass
- At the Paseo Del Norte and Cannon Road intersection

<u>La Costa Avenue at the intersections of Piraeus Street, Saxony Road and El Camino Real</u>

The project will add dashed green paint to the bike lane to highlight bike-car conflict areas and green paint to the bike lane to the left of the dedicated right-turn pocket on La Costa Avenue at the intersections of Piraeus Street, Saxony Road and El Camino Real.

<u>Jefferson Street between Las Flores Drive and I-5 overpass</u>

The project will add a bike lane on Jefferson Street in the northbound direction from Las Flores Drive to the I-5 overpass, which will serve as a climbing lane uphill for bikes. The southbound bike lane on Jefferson Street will be extended to the crest of the roadway at the overpass. With the proposed bike lane enhancements, on-street parking on the east side of the street will be prohibited between Las Flores Drive and the overpass. Residents will be notified the on-street parking is being removed before the project begins.

Paseo Del Norte and Cannon Road Intersection

This project will include the following bike improvements at the intersection to enhance bike safety:

- Narrow the eastbound travel lanes from 12 to 11 feet and provide a 7-foot bike lane with a 2-foot buffer in the eastbound direction of Cannon Road between the I-5 northbound ramps and Paseo Del Norte
- Add shared lane markings on the middle of the three northbound lanes on Paseo Del Norte and on the middle lane of the three westbound lanes on Cannon Road approaching the I-5 northbound ramp intersection
- Modify the existing bike lane on westbound Cannon Road at the intersection of Paseo Del Norte to better position bikers to ride in the middle of the three lanes approaching the I-5 northbound ramp intersection

Traffic and Mobility Commission recommendation

At its meeting on Sept. 6, 2022, the Traffic and Mobility Commission voted 5-0-0-2, with Chair Perez and Commissioner Proulx absent, to support staff's recommendation to implement the:

- Carlsbad Boulevard Restriping Project (CIP Project No. 6096)
- Two of the three Sustainable Mobility plan bike enhancement projects (CIP Project No. 6104:
    - La Costa Avenue at the intersections of Piraeus Street, Saxony Road and El Camino Real
    - Paseo Del Norte and Cannon Road intersection.

The Traffic and Mobility Commission voted 4-1-0-2, with Chair Perez and Commissioner Proulx absent, to support staff's recommendation to implement the Sustainable Mobility plan bike enhancement projects on Jefferson Street between Las Flores Drive and the I-5 overpass (also CIP Project No. 6104).

The summary memorandum of the Sept. 6, 2022, Traffic and Mobility Commission meeting is attached as Exhibit 5.

The projects were advertised on Sept. 13, 2022. Staff received three quotes to construct the projects on Sept. 20, 2022, including one from VSS International, Inc., in the amount of $381,120. In light of the local emergency described above, the usual CMC construction-related procurement requirements do not apply to the award of this agreement.

Having reviewed all three quotes, staff recommend the City Council award the construction contract to VSS International, Inc. in an amount not to exceed $381,120, in accordance with CMC section 3.28.110 – Exemptions, subsections (A) and (N) and section 3.28.120 – Emergencies.

Options

Staff provide the following options for the City Council's consideration:

1. Adopt a resolution approving the proposed lane reduction on southbound Carlsbad Boulevard between Solamar Drive and Island Way, and approving the plans and specifications, and awarding the contract to VSS International, Inc. in the amount of $381,120 for construction of the projects

   Pros
   - The projects are being expedited as part of the emergency declaration to enhance bike safety
   - The Carlsbad Boulevard Restriping Project will provide an interim solution to address climate adaptation along South Carlsbad Boulevard, in support of the ongoing grant-funded South Carlsbad Boulevard Climate Adaptation Project[1]
   - Sufficient funding is available for the contract

   Cons
   - None identified

2. Do not adopt the resolution

   Pros
   - None identified

   Cons
   - Delays implementation of bike enhancements at intersections on Carlsbad Boulevard, Jefferson Street, La Costa Avenue and at Paseo Del Norte and Cannon Road intersection
   - Does not advance city's emergency goals to address traffic safety in Carlsbad

Staff recommend Option 1 for the City Council's approval.

Fiscal Analysis

Funding for the projects has been appropriated from the gas tax, the TransNet transportation sales tax, and funds from the non-jurisdictional fee the city receives from the waste transfer station for the wear and tear on the roads from trucks coming in and out of the city to the station.

A portion of the construction cost for the Carlsbad Boulevard Restriping Project, CIP Project 6096, is for slurry seal. This cost will be funded from the Pavement Management Program, CIP Project No. 6001.

[1] The California Coastal Conservancy awarded the city a $500,000 climate ready grant in2020 to study coastal erosion along an approximately 3-mile stretch from Terramar to Batiquitos Lagoon, and to plan south Carlsbad Boulevard's eventual relocation away from the coast.

The available funds and construction costs are shown in the table below:

Carlsbad Boulevard Restriping Project (CIP Project No. 6096)	
Total appropriation to date	$300,000
Total expenditures/encumbrances to date	$0
Total available	$300,000
Pavement Management Program (CIP Project No. 6001)	
Total appropriation to date	$53,799,889
Total expenditures/encumbrances to date	$43,871,456
Total available	$9,928,433
Sustainable Mobility Plan projects (CIP Project No. 6104)	
Total appropriation to date	$510,566
Total expenditures/encumbrances to date	$0
Total available	$510,566
Estimated project costs	
Pavement Management Program (CIP Project No. 6001)	
Slurry seal	$117,150
Construction management, inspection, testing and communications (estimated)	$46,400
Construction contingency (estimated)	$30,800
Total estimated costs	$194,350
Remaining balance	**$9,734,083**
Carlsbad Boulevard Restriping Project (CIP Project No. 6096)	
Signing and striping, traffic control	$184,234
Construction management, inspection, testing and communications (estimated)	$46,400
Construction contingency (estimated)	$30,800
Total estimated costs	$261,434
Remaining balance	**$38,566**
Sustainable Mobility Plan projects (CIP Project No. 6104)	
Signing striping, traffic control	$78,736
Construction management, inspection, testing and communications (estimated)	$23,200
Construction contingency (estimated)	$15,400
Total estimated costs	$117,336
Remaining balance	**$393,230**
Total project costs for CIP projects 6001, 6096, 6104	**$573,120**
Additional appropriation requested	**$0**

Carlsbad Municipal Code Sections 3.28 – Purchasing, subsections 040(C)(5) and 3.28.090(B) authorize the City Manager or designee to approve change orders in an amount equal to the contingency set at the time of contract award, which is $77,000 for these projects.

Next Steps

Once the City Council awards the construction contract to VSS International, Inc., staff will issue a purchase order, schedule a preconstruction meeting with the contractor and issue a notice to proceed for construction of the project, which is expected to commence in October 2022.

The duration of the construction contract is 30 working days, not including rainy days and delays from change orders that may extend the contract duration. The estimated completion date is January 2023. Upon successful completion of the project, a notice of completion will be recorded to release the bonds the city issued for the project.

Environmental Evaluation

On Aug. 23, 2022, the city proclaimed a local emergency for traffic safety, which the City Council ratified on Aug. 30, 2022. The adoption of the resolution ratified the proclamation of bicycle, e-bicycle, and motorized mobility device safety local emergency and authorized funds to support the city's coordinated efforts to increase attention and resources on a range of solutions, including infrastructure, safety, enforcement, and safe driving and riding education. These solutions are a Class 1 categorical exemption under California Environmental Quality Act Guidelines Section 15301 – Existing Facilities. Specifically, Section 15301(c) exempts existing highways and streets, sidewalks, gutters, bicycle and pedestrian trails, and similar facilities (this includes road grading for the purpose of public safety), and other alterations such as the addition of bicycle facilities, including but not limited to bicycle parking, bicycle-share facilities, and bicycle lanes, transit improvements such as bus lanes, pedestrian crossings, street trees and other similar alterations that do not create additional automobile lanes.

The improvements to the city's existing mobility network under this action are intended to improve public safety and address the critical issues raised in the emergency proclamation. Actions are anticipated to involve negligible expansion of the current facilities and infrastructure beyond the existing facilities/infrastructure and will not result in additional automobile lanes. The actions are not expected to increase vehicular use of the roadway, will not occur within the existing public right-of-way, and will not change the overall facility use of the mobility network. No exception to the exemption as set forth in CEQA Guidelines Section 15300.2 applies.

For the reasons stated above, the action is categorically exempt from CEQA under CEQA Guidelines Section 15304(e), which applies to the minor temporary use of land having negligible or no permanent effects on the environment, and CEQA Guidelines Section 15304(h), which covers the creation of bicycle lanes on existing rights-of-way. No exception to these exemptions as set forth in CEQA Guidelines Section 15300.2 applies.

Public Notification

This item was noticed in accordance with the Ralph M. Brown Act and it was available for public viewing at least 72 hours prior to the scheduled meeting date.

Exhibits

1. City Council resolution
2. Location map
3. Traffic memorandum for Southbound Carlsbad Boulevard Lane Reduction
4. Council memorandum dated May 22, 2017
5. Summary memorandum from the Sept. 6, 2022, Traffic and Mobility Commission meeting
6. Plans, specifications and contract documents (on file at the Office of the City Clerk)

RESOLUTION NO. 2022-227

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CARLSBAD, CALIFORNIA, APPROVING THE PROPOSED LANE REDUCTION ON SOUTHBOUND CARLSBAD BOULEVARD BETWEEN SOLAMAR DRIVE AND ISLAND WAY; APPROVING THE PLANS AND SPECIFICATIONS, AND AWARDING A CONTRACT TO VSS INTERNATIONAL, INC., A CALIFORNIA CORPORATION, FOR THE CONSTRUCTION OF THE CARLSBAD BOULEVARD RESTRIPING PROJECT, BIKE LANE IMPROVEMENTS AT FIVE LOCATIONS ON CARLSBAD BOULEVARD AND THREE SUSTAINABLE MOBILITY PLAN BIKE ENHANCEMENT PROJECTS

WHEREAS, the City Council of the City of Carlsbad, California, has determined it necessary and in the public interest to approve the plans and specifications for the Carlsbad Boulevard Restriping Project, Capital Improvement Program, or CIP, Project No. 6096, and three Sustainable Mobility Plan Bike Enhancement Projects, CIP Project No. 6104 - La Costa Avenue at the intersections of Piraeus Street; Saxony Road and El Camino Real; Jefferson Street between Las Flores Drive and the Interstate 5, or I-5, Overpass; and Paseo Del Norte and Cannon Road intersection; and

WHEREAS, the plans and specifications for the Projects have been prepared and are on file at the City Clerk's office; and

WHEREAS, the Carlsbad Boulevard Restriping Project, CIP Project No. 6096, will restripe southbound Carlsbad Boulevard from Manzano Drive to Island Way as an interim effort to address climate adaptation along South Carlsbad Boulevard, in support of the on-going grant-funded South Carlsbad Boulevard Climate Adaptation Project; and

WHEREAS, the Carlsbad Boulevard Restriping Project, CIP Project No. 6096, will reduce the number of travel lanes on southbound Carlsbad Boulevard from two lanes to one lane while enhancing the bike lane with green paint at conflict areas and providing additional on-street parking; and

WHEREAS, the Carlsbad Boulevard Restriping Project, CIP Project No. 6096, also includes additional bike lane improvements on Carlsbad Boulevard south of Island Way, adding green bike lane enhancements in conflict areas at Lanikai Lane, Breakwater Road, Poinsettia Lane, Ponto Road, and Avenida Encinas; and

WHEREAS, City Council approval is required for the proposed lane reduction on southbound Carlsbad Boulevard between Solamar Drive and Island Way per General Plan Mobility Element Policy 3-P.15; and

WHEREAS, the SMP Bike Enhancement Project on La Costa Avenue at the intersections of Piraeus Street, Saxony Road and El Camino Real, CIP Project No. 6104, will add dashed green paint to the bike lane to highlight conflict areas and green paint to the bike lane to the right of the dedicated right-turn pocket on La Costa Avenue at the intersections of Piraeus Street, Saxony Road and El Camino Real; and

WHEREAS, the SMP Bike Enhancement Project on Jefferson Street between Las Flores Drive and I-5 Overpass, CIP Project No. 6104, will add a bike lane on Jefferson Street in the northbound direction from Las Flores Drive to the I-5 Overpass and extend the southbound bike lane on Jefferson Street to the crest of the roadway at the I-5 Overpass; and

WHEREAS, the SMP Bike Enhancement Project at the Paseo Del Norte and Cannon Road Intersection, CIP No. Project 6104, will narrow the eastbound travel lanes from 12 to 11 feet and provide a 7-foot bike lane with a 2-foot buffer in the eastbound direction of Cannon Road between the I-5 northbound ramp and Paseo Del Norte; and

WHEREAS, the SMP Bike Enhancement Project at the Paseo Del Norte and Cannon Road Intersection, CIP Project No. 6095, will add sharrows on the middle of the three northbound lanes on Paseo Del Norte and on the middle lane of the three westbound lanes on Cannon Road approaching the I-5 northbound ramp intersection; and

WHEREAS, the SMP Bike Enhancement Project at the Paseo Del Norte and Cannon Road Intersection, CIP Project No. 6104, will modify the existing bike lane on westbound Cannon Road at the intersection of Paseo Del Norte to position bikers to ride in the middle of the three lanes approaching the I-5 northbound ramp intersection; and

WHEREAS, on Aug. 23, 2022, the City Manager/Director of Emergency Services issued a Proclamation of Bicycle, E-Bicycle and Motorized Mobility Device Safety Local Emergency; and

WHEREAS, on Aug. 30, 2022, the City Council adopted Resolution No. 2022-214, ratifying this emergency proclamation; and

WHEREAS, under this current state of emergency, the usual construction-related procurement requirements do not apply pursuant to Carlsbad Municipal Code, or CMC, section 3.28.120 – Emergencies; and

WHEREAS, the City Council hereby finds that the above-referenced projects will directly address the threat to public safety described in the Aug. 23, 2022 emergency proclamation, and, once constructed, will improve public safety and avoid danger to life or property; and

WHEREAS, the City Council hereby finds that construction of the above-referenced projects will improve roadway safety and help reduce the number of collisions involving bicycles or e-bikes; and

WHEREAS, the City Council is the awarding authority for construction contracts over $200,000 under CMC section 3.28.080(E); and

WHEREAS, the City Council hereby finds that, in light of Resolution No. 2022-214 and the findings described above, the usual construction-related procurement requirements do not apply under CMC section 3.28.110(A) and (N) – Exemptions; and

WHEREAS, the Projects were advertised on Sept. 15, 2022; and

WHEREAS, staff received three quotes on Sept. 20, 2022, which included a quote from VSS International, Inc., in the amount of $381,120; and

WHEREAS, having reviewed all three quotes, staff recommend the City Council award the construction contract to VSS International, Inc., in an amount not to exceed $381,120 based on CMC section 3.28.110 – Exemptions, subsections (A) and (N), and section 3.28.120 – Emergencies; and

WHEREAS, the City Planner has determined that the Projects are exempt from the California Environmental Quality Act, or CEQA, per State CEQA Guidelines Section 15301(c) which exempts existing highways and streets, sidewalks, gutters, bicycle and pedestrian trails, and similar facilities (this includes road grading for the purpose of public safety), and other alterations such as the addition of bicycle facilities, including but not limited to bicycle parking, bicycle-share facilities, and bicycle lanes, transit improvements such as bus lanes, pedestrian crossings, street trees and other similar alterations that do not create additional automobile lanes because: (i) the project's proposed improvements are anticipated to involve negligible expansion of the current facilities and infrastructure beyond the existing facilities/infrastructure and will not result in additional automobile lanes; and (ii) the project's actions are not expected to increase vehicular use of the roadway, will not occur within the existing public right-of-way, and will not change the overall facility use of the mobility network; 15304(e) which applies to minor temporary use of land having negligible or no permanent effects on the environment; and CEQA Guidelines Section 15304(h), which covers the creation of bicycle lanes on existing rights-of-way, and that no exception to these exemptions, as set forth in CEQA Guidelines section 15300.2, applies.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Carlsbad, California, as follows:

1. That the above recitations are true and correct.

2. That the City Council approve the proposed lane reduction, from two to one lane, on southbound Carlsbad Boulevard between Solamar Drive and Island Way.
3. That the plans and specifications for the Carlsbad Boulevard Restriping Project, CIP Project No. 6096, and three Sustainable Mobility Plan Bike Enhancement Projects, CIP Project No. 6104 - La Costa Avenue at the intersections of Piraeus Street; Saxony Road and El Camino Real; Jefferson Street between Las Flores Drive and I-5 Overpass; and Paseo Del Norte and Cannon Road intersection; are hereby approved.
4. That the quote of $381,120 submitted by VSS International, Inc. for construction of the Carlsbad Boulevard Restriping Project, CIP Project No. 6096, and three Sustainable Mobility Plan Bike Enhancement Projects, CIP Project No. 6104 - La Costa Avenue at the intersections of Piraeus Street; Saxony Road and El Camino Real; Jefferson Street between Las Flores Drive and I-5 Overpass; and Paseo Del Norte and Cannon Road intersection, is accepted and the Mayor is hereby authorized to execute a contract for these Projects.
5. That the City Manager or designee is hereby authorized to approve construction change orders up to $77,000.
6. That the award of this contract is contingent upon VSS International, Inc. executing the required contract and submitting the required bonds and insurance policies, as described in the contract, within 20 days of adoption of this Resolution. The City Manager may grant reasonable extensions of time to execute the contract and assemble the required bonds and insurance policies.

PASSED, APPROVED AND ADOPTED at a Regular Meeting of the City Council of the City of Carlsbad on the 27th day of September, 2022, by the following vote, to wit:

AYES: Bhat-Patel, Acosta, Norby.

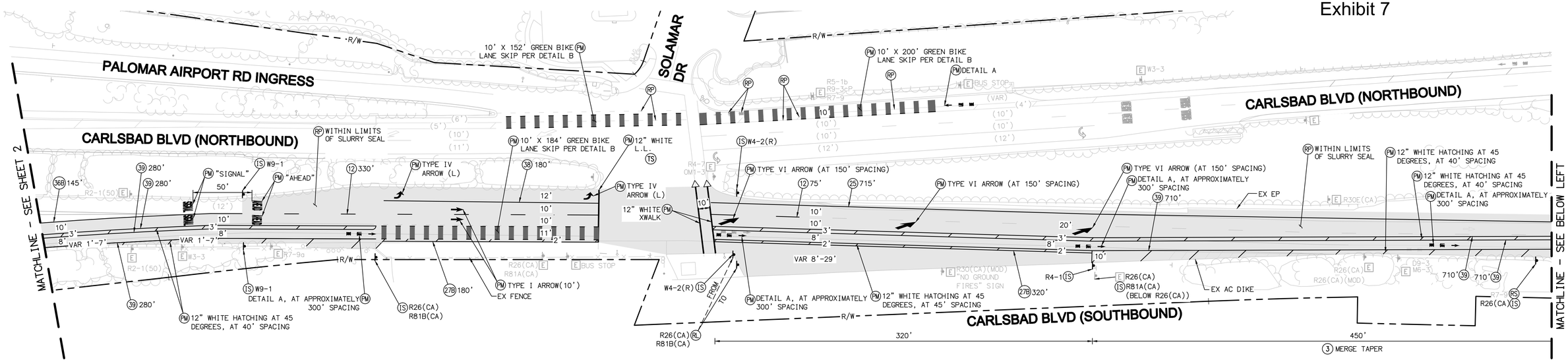
NAYS: Hall, Blackburn.

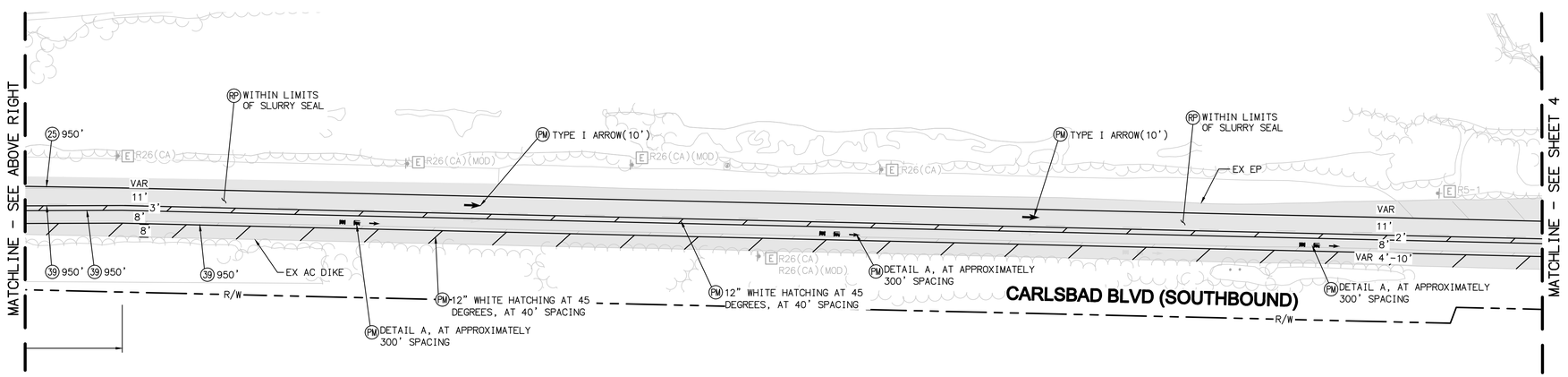
ABSENT: None.

MATT HALL, Mayor

for FAVIOLA MEDINA, City Clerk Services Manager
(SEAL)

Exhibit 7





SIGNING AND STRIPING LEGEND:

- E — EXISTING TO REMAIN.
- # — INSTALL CALTRANS STRIPING DETAIL PER NUMBER NOTED, INCLUDING INSTALLATION OF RAISED PAVEMENT MARKERS.
- IS — INSTALL SIGN(S) AND POST IF REQUIRED AS NOTED.
- PM — INSTALL PAVEMENT MARKING OR ARROW AS NOTED.
- RP — REFRESH EXISTING PAVEMENT MARKING.
- RL — RELOCATE EXISTING SIGN(S) TO NEW POST (IF APPLICABLE) AS NOTED. (TO / FROM)
- RP — REMOVE BY GRINDING ALL EXISTING CONFLICTING TRAFFIC STRIPING, MARKING, OR ARROW AS NOTED, INCLUDING RAISED PAVEMENT MARKERS.
- RS — REMOVE AND SALVAGE SIGN AND POST AS NOTED.
- TS — SIGNALIZED INTERSECTION
- EXISTING SIGN (ONE POST)
- NEW SIGN (ONE POST)
- NEW SIGN (TWO POSTS)
- NEW SIGN (ON EXISTING LIGHT POLE/UTILITY POLE)
- (12') — EXISTING WIDTH
- 12' — PROPOSED WIDTH
- MATCH EXISTING STRIPING/END PROPOSED STRIPING
- LIMITS OF SLURRY SEAL. GRIND ALL EXISTING TRAFFIC STRIPING, MARKING, OR ARROW WITHIN LIMITS, INCLUDING RAISED PAVEMENT MARKERS.

TAPER LENGTH CALCULATION

(3) MERGE TAPER
L = (W x S) = (9 x 50) = 450'
L = LENGTH OF TRANSITION
W = OFFSET
S = DESIGN SPEED

SCALE 1"=40'

40 20 0 40 80 120

SCALE: 1"=40'

"AS BUILT"

P.E. _____ EXP. _____ DATE

REVIEWED BY:

INSPECTOR DATE

DATE	INITIAL	REVISION DESCRIPTION	DATE	INITIAL	DATE	INITIAL
ENGINEER OF WORK			OTHER APPROVAL		CITY APPROVAL	

SHEET 3 — CITY OF CARLSBAD, ENGINEERING DEPARTMENT — SHEETS 10

IMPROVEMENT PLANS FOR:

CARLSBAD STRIPING IMPROVEMENTS

ROW SIGNING & STRIPING PLANS

APPROVED: THOMAS FRANK

CITY ENGINEER RCE 49070 EXP.9/30/24 DATE

RVWD BY: _____ CHKD BY: _____

PROJECT NO. 6096

DRAWING NO. 538-6

Michael Baker INTERNATIONAL
5050 Avenida Encinas
Suite 260
Carlsbad, CA 92008
Phone: (760) 476-9193
MBAKERINTL.COM

REGISTERED PROFESSIONAL ENGINEER — MARK R. BELLER — NO. 69470 — EXP. 06-30-24 — CIVIL — STATE OF CALIFORNIA

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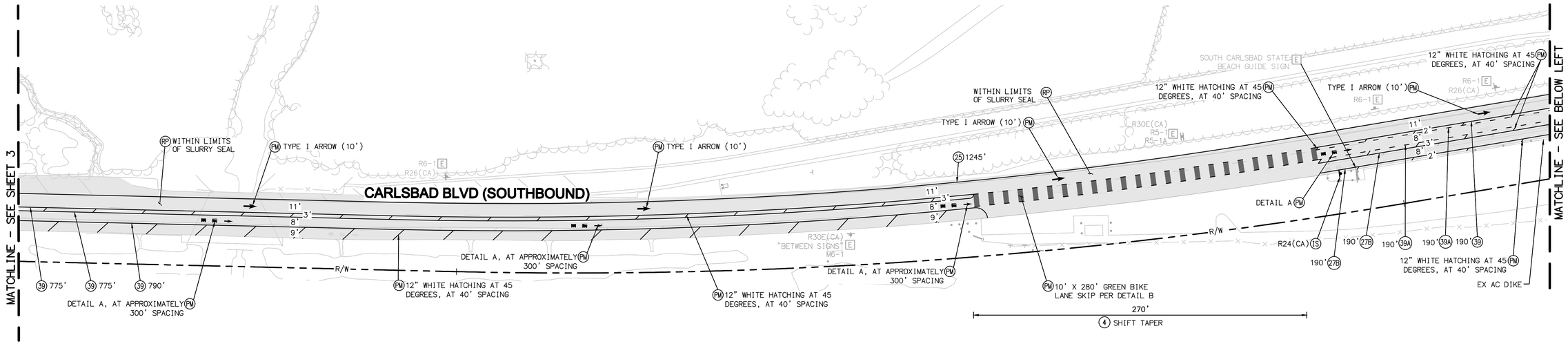

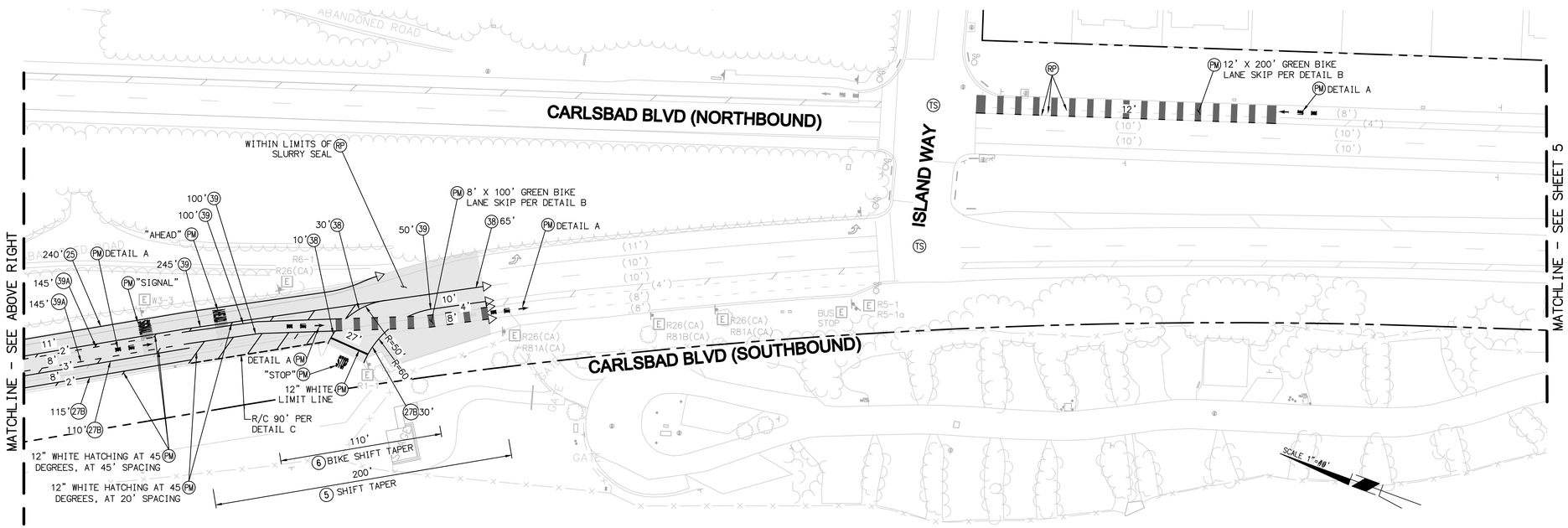

SIGNING AND STRIPING LEGEND:

- E — EXISTING TO REMAIN.
- # — INSTALL CALTRANS STRIPING DETAIL PER NUMBER NOTED, INCLUDING INSTALLATION OF RAISED PAVEMENT MARKERS.
- 1S — INSTALL SIGN(S) AND POST IF REQUIRED AS NOTED.
- PM — INSTALL PAVEMENT MARKING OR ARROW AS NOTED.
- RF — REFRESH EXISTING PAVEMENT MARKING.
- RL — RELOCATE EXISTING SIGN(S) TO NEW POST (IF APPLICABLE) AS NOTED. (TO / FROM)
- RP — REMOVE BY GRINDING ALL EXISTING CONFLICTING TRAFFIC STRIPING, MARKING, OR ARROW AS NOTED, INCLUDING RAISED PAVEMENT MARKERS.
- RS — REMOVE AND SALVAGE SIGN AND POST AS NOTED.
- TS — SIGNALIZED INTERSECTION
- EXISTING SIGN (ONE POST)
- NEW SIGN (ONE POST)
- NEW SIGN (TWO POSTS)
- NEW SIGN (ON EXISTING LIGHT POLE/UTILITY POLE)
- (12') — EXISTING WIDTH
- 12' — PROPOSED WIDTH
- MATCH EXISTING STRIPING/END PROPOSED STRIPING
- r/c — PROPOSED RED CURB
- LIMITS OF SLURRY SEAL. GRIND ALL EXISTING TRAFFIC STRIPING, MARKING, OR ARROW WITHIN LIMITS, INCLUDING RAISED PAVEMENT MARKERS.

TAPER LENGTH CALCULATION

4 SHIFT TAPER
L = (W x S) = (3 x 50) = 150' USE → 270'
L = LENGTH OF TRANSITION
W = OFFSET
S = DESIGN SPEED

5 SHIFT TAPER
L = (W x S) = (4 x 50) = 200'
L = LENGTH OF TRANSITION
W = OFFSET
S = DESIGN SPEED

6 BIKE SHIFT TAPER
L = (W x S^2)/60 = (12 x 15^2)/60 = 45' → 110'
L = LENGTH OF TRANSITION
W = OFFSET
S = DESIGN SPEED

40 20 0 40 80 120
SCALE: 1"=40'

"AS BUILT"
P.E. _____ EXP. _____ DATE
REVIEWED BY:
INSPECTOR DATE

DATE	INITIAL	REVISION DESCRIPTION	DATE	INITIAL	DATE	INITIAL
ENGINEER OF WORK			OTHER APPROVAL		CITY APPROVAL	

SHEET 4 — CITY OF CARLSBAD ENGINEERING DEPARTMENT — SHEETS 10

IMPROVEMENT PLANS FOR:
CARLSBAD STRIPING IMPROVEMENTS
ROW SIGNING & STRIPING PLANS
APPROVED: THOMAS FRANK
CITY ENGINEER RCE 49070 EXP.9/30/24 DATE

RVWD BY: _____
CHKD BY: _____
PROJECT NO. 6096
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REGISTERED PROFESSIONAL ENGINEER
MARK K. ZELLER
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EXP. 06-30-24
CIVIL
STATE OF CALIFORNIA

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Exhibit 8 - Full-Size Exhibits “A” – “B” dated Nov.15, 2023, on file in the office of the City Clerk.

LIST OF ACRONYMS AND ABBREVIATIONS

Exhibit 9

This is a list of acronyms and abbreviations (in alphabetical order) that are commonly used in staff reports.

Acronym	Description	Acronym	Description
APA	American Planning Association	LCPA	Local Coastal Program Amendment
APN	Assessor Parcel Number	LOS	Level of Service
AQMD	Air Quality Management District	MND	Mitigated Negative Declaration
BMP	Best Management Practice	NCTD	North County Transit District
CALTRANS	California Department of Transportation	ND	Negative Declaration
CC	City Council	PC	Planning Commission
CCR	Conditions, Covenants and Restrictions	PDP	Planned Development Permit
CEQA	California Environmental Quality Act	PEIR	Program Environmental Impact Report
CFD	Community Facilities District	PUD	Planned Unit Development
CIP	Capital Improvement Program	ROW	Right of Way
COA	Conditions of Approval	RWQCB	Regional Water Quality Control Board
CofO	Certificate of Occupancy	SANDAG	San Diego Association of Governments
CT	Tentative Parcel Map	SDP	Site Development Permit
CUP	Conditional Use Permit	SP	Specific Plan
DIF	Development Impact Fee	SWPPP	Storm Water Pollution Prevention Program
DISTRICT	City Council Member District Number	TM	Tentative Map
EIR	Environmental Impact Report	ZC	Zone Change
EIS	Environmental Impact Statement (federal)		
EPA	Environmental Protection Agency		
FEMA	Federal Emergency Management Agency		
GP	General Plan		
GPA	General Plan Amendment		
GIS	Geographic Information Systems		
HCA	Housing Crisis Act 2019		
IS	Initial Study		

PLANNING COMMISSION

Staff Report

Meeting Date:	Nov. 15, 2023	Item 2
To:	Planning Commission	
Staff Contact:	Lauren Yzaguirre, Associate Planner, 442-339-2634, lauren.yzaguirre@carlsbadca.gov	
Subject:	Labounty Residence – 3950 Garfield St. 92008	
Location:	APN: 206-012-06-00 / District 1	
Case Numbers:	CDP2022-0067 (DEV2022-0220)	
Applicant/Representative:	Allan Teta, 760-268-9090, allan@trearch.com	
CEQA Determination:	☐ Not a Project ☒ Exempt ☐ IS/ND or IS/MND ☐ EIR ☐ Other:	
Permit Type(s):	☐ SDP ☐ CUP ☒ CDP ☐ TM/TPM ☐ GPA ☐ REZ ☐ LCPA ☐ Other:	
CEQA Status:	☐ The environmental assessment IS on the Agenda for discussion ☒ A CEQA determination was already issued. That decision is final and IS NOT on the Agenda	
Commission Action:	☒ Decision ☐ Recommendation to City Council ☐ Informational (No Action)	

Recommended Actions

That the Planning Commission **ADOPT** Planning Commission Resolution (Exhibit 1), **APPROVING** Coastal Development Permit, CDP2022-0067 based upon the findings and subject to the conditions contained therein

Existing Conditions & Project Description

Existing Setting

The 0.14-acre (6,098.4 square feet) project site is located on the east side of Garfield Street between Tamarack Avenue and Chinquapin Avenue at 3950 Garfield St. as shown on the attached location map (see Exhibit 2). The site is developed with a 2,197-square-foot duplex and a 704-square-foot detached garage. The surrounding neighborhood is developed with a mixture of one- and two-story single- and multi- family residences. No public beach access or coastal resources are identified onsite. The site's frontage along Garfield Avenue is unimproved, devoid of both a sidewalk and curb. The existing parkway contains pavement and gravel.

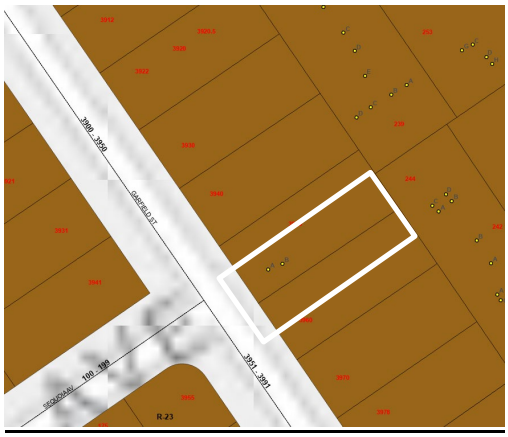
Site Map

Table "A" below includes the General Plan designations, zoning and current land uses of the subject site and surrounding properties. Also refer to Exhibit 2 for a larger site map.

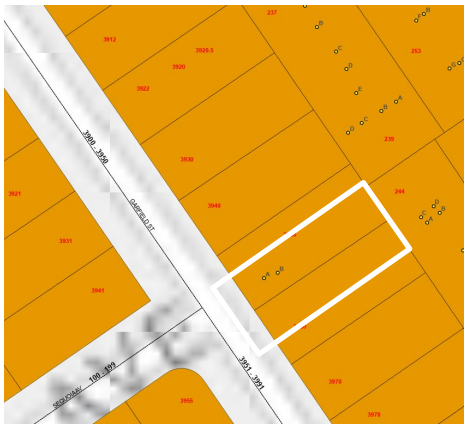
TABLE A – SITE AND SURROUNDING LAND USE

Location	General Plan Designation	Zoning Designation	Current Land Use
Site	R-23, Residential (15-23 units per acre)	Residential Density-Multiple Zone (RD-M) with Beach Area Overlay	Single-family residence
North	R-23, Residential	RD-M with Beach Area Overlay	Single-family residence
South	R-23, Residential	RD-M with Beach Area Overlay	Multi-family residence
East	R-23, Residential	RD-M with Beach Area Overlay	Multi-family residence
West	R-23, Residential	RD-M with Beach Area Overlay	Single-family residence

General Plan Designation



Zoning Designation



Proposed Project

Proposed Residential Construction: The project is the demolition of the existing residence and detached garage and construction of a new 4,284-square-foot three-story single-family residence with a 571-square-foot two-car garage, 2,240-square feet of covered patios and decks, including a roof deck, on the third story; and a detached accessory dwelling unit (ADU). While the ADU is shown on the attached Planning Commission exhibits (see Exhibit 8), the ADU is subject to administrative review and will be acted upon by the City Planner under a separate Minor Coastal Development Permit subsequent to the Planning Commission's action on CDP 2022-0067.

The new single-family residence is oriented towards Garfield Street and will include three bedrooms, three bathrooms, and two half-bathrooms. The habitable living space of the primary residence includes approximately 1,580 square feet within the ground floor level, 2,040 square feet within the second level, and 663 square feet within the third level for a rounded total of 4,284 square feet. The maximum height of the residence is 30 feet. Architecturally, the new residence reflects a beach cottage design. Primary building materials consist of hardie panel vertical wood siding painted off-white and mission limestone stone veneer. The garage door will be a dark wood, while the doors and window will be black aluminum. All roofs and patio covers will be charcoal standing seam metal. Glass guardrails will enclose the second the third story covered decks. The project also includes installation of improvements along the subject property's frontage on Garfield Street, including a six-foot-wide sidewalk contiguous with the curb, and a new curb and gutter measuring 17.5 feet between curb and street centerline.

Proposed Grading: Estimated grading quantities include 270 cubic yards (cy) cy of import and fill. A grading permit will be required for this project.

Public Outreach & Comment

Public notice of the proposed Project was mailed on June 22, 2023, to property owners within 600 feet of the subject property and all residents within 100 feet. A notice of project application sign was posted at the site on June 21, 2023. A CEQA Determination of Exemption was posted on the city's website on Oct. 4, 2023, for a period of 10-days, and on Oct. 14, 2023, no comments were received. Additionally, the Project is not subject to the enhanced stakeholder outreach in City Council Policy No. 84 (Development Project Public Involvement Policy).

Response to Public Comment & Project Issues

No comments were received.

Project Analysis

General Plan Consistency

The project site has a General Plan Land Use designation of R-23 Residential which allows for the development of a single- and multi-family residences at a density of 15-23 dwelling units per acre (du/ac). The City of Carlsbad General Plan includes several goals and policies that guide development and land use within the city. A discussion of how the project is consistent with the applicable General Plan policies is summarized in Exhibit 3.

Municipal Code Consistency

The City of Carlsbad Municipal Code, most notably Title 21 Zoning Code, includes requirements and provisions that guide development and land use within the city, consistent with the General Plan. The project is required to comply with all applicable regulations and development standards of the Carlsbad Municipal Code (CMC) including the Residential Density-Multiple (RD-M) Zone (CMC Chapter 21.24) and the Beach Area Overlay (BAO) zone (CMC Chapter 21.82). Specific compliance with these relevant requirements is described in Exhibit 3

Local Coastal Program Consistency

The project site is in the Coastal Zone and requires a Coastal Development Permit. The project complies with the Local Coastal Program (Mello II Segment), including all goals and policies of the General Plan and all zoning code standards, as referenced above. The city's decision on the Coastal Development Permit is appealable to the California Coastal Commission.

Inclusionary Housing Ordinance

Pursuant to CMC Chapter 21.85.030.D.3, a project may be exempt from the inclusionary housing requirement if the construction of a new residential structure replaces a residential structure that was demolished within two years prior to the application for a building permit for the new residential structure. The exemption is contingent upon the number of residential units not being increased from the number of residential units in the previously demolished residential structure. Since there will not be an increase in the number of units on the property, the project will be exempt from the inclusionary housing requirement if building permits are issued within two years of the demolition of the existing residential structure.

Discretionary Actions & Findings

The proposed Project requires approval of a Coastal Development Permit which is discussed below.

Coastal Development Permit (CDP 2022-0066)

Approval of a Coastal Development Permit (CDP) is required to ensure that the project complies with Mello II Segment of the Local Coastal Program (CMC Chapter 21.201) and the Coastal Resource Protection Overlay Zone (CMC Chapter 21.203). Staff finds that the required findings for this application can be met (Exhibit 3).

Environmental Review

In accordance with the California Environmental Quality Act (CEQA) and CEQA Guidelines, the City Planner has determined that the project qualified for an exemption pursuant to CEQA Guidelines section 15303(a) and (e) – New Construction or Conversion of Small Structures. A notice of intended decision regarding the environmental determination was advertised on Oct. 4, 2023 and posted on the city's website. No comment letters or appeal was received and consistent with Chapter 21.54

(Procedures, Hearings, Notices, and Fees) of the Zoning Ordinance the City Planner's written decision is final. Refer to Exhibit 3 for additional support and justification.

Conclusion

Considering the information above and in the referenced Exhibits, staff has found that the proposed Project is consistent with all applicable policies of the General Plan and Local Coastal Program, provisions of the Municipal Code and Local Facility Management Zone. The Project would be required to comply with all applicable California Building Standards Codes and engineering standards through the standard building permit and civil improvement plan checking process. Staff recommends the Planning Commission adopt the resolution recommending approval of the proposed Project described in this staff report.

Exhibits

1. Planning Commission Resolution
2. Location Map
3. Project Analysis
4. Disclosure Form
5. CEQA Determination of Exemption
6. List of Acronyms and Abbreviations
7. Reduced Exhibits
8. Full Size Exhibit(s) "A" – "O" dated Nov. 15, 2023 (On file in the Office of the City Clerk)

PLANNING COMMISSION RESOLUTION NO.

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CARLSBAD, CALIFORNIA, APPROVING A COASTAL DEVELOPMENT PERMIT TO ALLOW FOR THE DEMOLITION OF AN EXISTING RESIDENTIAL DUPLEX AND CONSTRUCTION OF A NEW 4,284 SQUARE-FOOT, THREE-STORY SINGLE-FAMILY RESIDENCE WITH A 571-SQUARE-FOOT ATTACHED TWO-CAR GARAGE, WITHIN THE MELLO II SEGMENT OF THE CITY'S LOCAL COASTAL PROGRAM LOCATED AT 3950 GARFIELD STREET WITHIN LOCAL FACILITIES MANAGEMENT ZONE 1.
CASE NAME: LABOUNTY RESIDENCE - 3950
CASE NO: CDP 2022-0067 (DEV2022-0220)

WHEREAS, **Allan Teta**, "Developer," has filed a verified application with the City of Carlsbad regarding property owned by **Paul and Judith Labounty**, "Owners," described as

> **Lot 6, Block "L", as shown on that certain map entitled Palisades, which map was filed in the office of the recorder of the County of San Diego, State of California, according to map No. 1747, filed on Feb. 5, 1923.**

("the Property"); and

WHEREAS, said verified application constitutes a request for a Coastal Development Permit as shown on Exhibit(s) **"A" – "O"** dated Nov. 15, 2023, attached hereto and on file in the Carlsbad Planning Division, **"CDP 2022-0067 (DEV2022-0220) – LABOUNTY RESIDENCE - 3950"** as provided in Chapter 21.201.030 of the Carlsbad Municipal Code; and

WHEREAS, the Planning Division studied the **Coastal Development Permit** application and performed the necessary investigations to determine if the project qualified for an exemption from further environmental review under the California Environmental Quality Act, (CEQA, Public Resources Code section 21000 et. seq.), and its implementing regulations (the State CEQA Guidelines), Article 14 of the California Code of Regulations section 15000 et. seq. After consideration of all evidence presented, and studies and investigations made by the city planner and on its behalf, the city planner determined that the project was exempt from further

environmental review pursuant to State CEQA Guidelines sections 15303(a) and (e) - New Construction or Conversion of Small Structures. This exception is for the construction of a single-family residence and accessory structures. The project will not have a significant effect on the environment and all of the requirements of CEQA have been met; and

WHEREAS, on Oct. 4, 2023, the city distributed a notice of intended decision to adopt the "New Construction or Conversion of Small Structures" exemption. The notice was circulated for a 10-day period, which began on Oct. 4, 2023 and ended on Oct. 14, 2023. The city did not receive any comment letters on the CEQA findings and determination. The effective date and order of the city planner CEQA determination was Oct. 14, 2023; and

WHEREAS, the Planning Commission did, on **Nov. 15, 2023** hold a duly noticed public hearing as prescribed by law to consider said request; and

WHEREAS, at said public hearing, upon hearing and considering all testimony and arguments, if any, of all persons desiring to be heard, said Commission considered all factors relating to the Coastal Development Permit.

NOW, THEREFORE, BE IT HEREBY RESOLVED by the Planning Commission of the City of Carlsbad, as follows:

A) That the above recitations are true and correct.

B) That based on the evidence presented at the public hearing, the Commission **APPROVES CDP 2022-0067 (DEV2022-0220) – LABOUNTY RESIDENCE - 3950,** based on the following findings and subject to the following conditions:

Findings:

Coastal Development Permit

1. That the proposed development is in conformance with the Certified Local Coastal Program and all applicable policies in that **the site is designated for residential development, and the project proposes the demolition of an existing two-story residential duplex to construct a new three-story single-family residence with an attached garage and a detached accessory dwelling unit (under a separate coastal**

development permit). The development is consistent with the LCP Mello II R-23 land use designation. No agricultural activities, sensitive resources, geological instability, flood hazard or coastal access opportunities exist onsite. Given that the project is located in a residential neighborhood where the majority of dwellings are one- and two-stories with an occasional three-story structure, the construction of a new three-story single-family residence will not obstruct views of the coastline as seen from public lands or public right-of-way, nor otherwise damage the visual beauty of the Coastal Zone.

2. The proposal is in conformity with the public access and recreation policies of Chapter 3 of the Coastal Act in that **the property is not located adjacent to the coastal shore; therefore, it will not interfere with the public's right to physical access or water-oriented recreational activities.**

3. The project is consistent with the provisions of the Coastal Resource Protection Overlay Zone (Chapter 21.203 of the Zoning Ordinance) in that **the project will adhere to the city's Master Drainage Plan, Grading Ordinance, Storm Water Ordinance, BMP Design Manual and Jurisdictional Runoff Management Program (JRMP) to avoid increased urban runoff, pollutants, and soil erosion. No steep slopes or native vegetation is located on the subject property and the site is not located in an area prone to landslides, or susceptible to accelerated erosion, floods, or liquefaction.**

General

4. The Planning Commission finds that the project, as conditioned herein, is in conformance with the Elements of the city's General Plan, in that **the General Plan Land Use designation for the property is R-23 Residential, and under Land Use Element Policy 2-P.7 one single-family dwelling is permitted to be constructed on a legal lot that existed as of Oct. 28, 2004. The subject lot was legally created on Feb. 5, 1923. Therefore, the existing single-family residence is consistent with the Elements of the city's General Plan.**

5. The project is consistent with the City-Wide Facilities and Improvements Plan, the Local Facilities Management Plan for Zone **1** and all city public policies and ordinances. The project includes elements or has been conditioned to construct or provide funding to ensure that all facilities and improvements regarding sewer collection and treatment; water; drainage; circulation; fire; schools; parks and other recreational facilities; libraries; government administrative facilities; and open space, related to the project will be installed to serve new development prior to or concurrent with need. Specifically,

   a. The project has been conditioned to provide proof from the **Carlsbad Unified** School District that the project has satisfied its obligation for school facilities.

   b. The Public Facility Fee is required to be paid by Council Policy No. 17 and will be collected prior to the issuance of building permit.

6. That the project is consistent with the city's Landscape Manual and Water Efficient Landscape Ordinance (Carlsbad Municipal Code Chapter 18.50).

7. The Planning Commission expressly declares that it would not have approved this **Coastal Development Permit** application to use the Property for completing and implementing the project, except upon and subject to each and all of the conditions hereinafter set, each and all of which shall run with the land and be binding upon the Developer and all persons who use the Property for the use permitted hereby. For the purposes of the conditions, the term "Developer" shall also include the project proponent, owner, permittee, applicant, and any successor thereof in interest, as may be applicable. If the Developer fails to file a timely and valid appeal of this **Coastal Development Permit** within the applicable appeal period, such inaction by the Developer shall be deemed to constitute all of the following on behalf of the Developer:

   a. Acceptance of the **Coastal Development Permit** by the Developer; and

   b. Agreement by the Developer to be bound by, to comply with, and to do all things required of or by the Developer pursuant to all of the terms, provisions, and conditions of this **Coastal Development Permit** or other approval and the provisions of the Carlsbad Municipal Code applicable to such permit.

8. The Planning Commission has reviewed each of the exactions imposed on the Developer contained in this resolution, and hereby finds, in this case, that the exactions are imposed to mitigate impacts caused by or reasonably related to the project, and the extent and the degree of the exaction is in rough proportionality to the impact caused by the project.

Conditions:

General

NOTE: Unless otherwise specified herein, all conditions shall be satisfied prior to **issuance of a building permit or grading permit, whichever occurs first**.

1. Approval is granted for **CDP 2022-0067 (DEV2022-0220) – LABOUNTY RESIDENCE - 3950** as shown on Exhibits **"A" – "O"**, dated **Nov. 15, 2023**, on file in the Planning Division and incorporated herein by reference. Development shall occur substantially as shown unless otherwise noted in these conditions.

2. If any of the following conditions fail to occur, or if they are, by their terms, to be implemented and maintained over time, if any of such conditions fail to be so implemented and maintained according to their terms, the city shall have the right to revoke or modify all approvals herein granted; deny or further condition issuance of all future building permits; deny, revoke, or further condition all certificates of occupancy issued under the authority of approvals herein granted; record a notice of violation on the property title; institute and prosecute litigation to compel their compliance with said conditions or seek damages for their violation. No vested rights are gained by Developer or a successor in interest by the city's approval of this **Coastal Development Permit.**

3. Staff is authorized and directed to make, or require the Developer to make, all corrections and modifications to the **Coastal Development Permit** documents, as necessary to make them internally consistent and in conformity with the final action on the project. Development shall occur substantially as shown on the approved Exhibits. Any proposed development, different from this approval, shall require an amendment to this approval.

4. Developer shall comply with all applicable provisions of federal, state, and local laws and regulations in effect at the time of building permit issuance.

5. If any condition for construction of any public improvements or facilities, or the payment of any fees in-lieu thereof, imposed by this approval or imposed by law on this Project are challenged, this approval shall be suspended as provided in Government Code Section 66020. If any such condition is determined to be invalid, this approval shall be invalid unless the City Council determines that the project without the condition complies with all requirements of law.

6. Developer/Operator shall and does hereby agree to indemnify, protect, defend, and hold harmless the City of Carlsbad, its Council members, officers, employees, agents, and representatives, from and against any and all liabilities, losses, damages, demands, claims and costs, including court costs and attorney's fees incurred by the city arising, directly or indirectly, from (a) city's approval and issuance of this **Coastal Development Permit**, (b) city's approval or issuance of any permit or action, whether discretionary or nondiscretionary, in connection with the use contemplated herein, and (c) Developer/Operator's installation and operation of the facility permitted hereby, including without limitation, any and all liabilities arising from the emission by the facility of electromagnetic fields or other energy waves or emissions. This obligation survives until all legal proceedings have been concluded and continues even if the city's approval is not validated.

7. Prior to submittal of the building plans, improvement plans, grading plans, or final map, whichever occurs first, developer shall submit to the City Planner, a 24" x 36" copy of the site plan or other, conceptual grading plan and preliminary utility plan reflecting the conditions approved by the final decision-making body. The copy shall be submitted to the City Planner, reviewed and, if found acceptable, signed by the city's project planner and project engineer. If no changes were required, the approved exhibits shall fulfill this condition.

8. Prior to the issuance of a building permit, the Developer shall provide proof to the Building Division from the **Carlsbad Unified** School District that this project has satisfied its obligation to provide school facilities.

9. This project shall comply with all conditions and mitigation measures which are required as part of the Zone **1** Local Facilities Management Plan and any amendments made to that Plan prior to the issuance of building permits.

10. This approval shall become null and void if building permits are not issued for this project within 24 months from the date of project approval.

11. Prior to the issuance of the **Building Permit**, Developer shall submit to the city a Notice of Restriction executed by the owner of the real property to be developed. Said notice is to be filed in the office of the County Recorder, subject to the satisfaction of the City Planner, notifying all interested parties and successors in interest that the City of Carlsbad has issued a(n) **Coastal Development Permit** by the subject Resolution on the property. Said Notice of Restriction shall note the property description, location of the file containing complete project details and all conditions of approval as well as any conditions or restrictions specified for inclusion in the Notice of Restriction. The City Planner has the authority to execute and record an amendment to the notice which modifies or terminates said notice upon a showing of good cause by the Developer or successor in interest.

12. Building permits will not be issued for this project unless the local agency providing water and sewer services to the project provides written certification to the city that adequate water service and sewer facilities, respectively, are available to the project at the time of the application for the building permit, and that water and sewer capacity and facilities will continue to be available until the time of occupancy.

13. The project is subject to the Prescriptive Compliance Option (PCO) of the City of Carlsbad's Landscape Manual. Developer shall construct and install all landscaping and irrigation as shown on the PCO plan approved as part of this project and on file in the Planning Division. Prior to issuance of a building permit, Developer shall submit an application pursuant to the landscape plan check process on file in the Planning Division; however, no landscape plans are required, and Developer shall only be responsible to pay the landscape inspection fee, with said application. The approved PCO plan will be utilized by the city as part of the project's final inspection process.

14. **Prior to issuance of building demolition permit for the existing duplex, building permit(s) shall be issued for the proposed single-family home and accessory dwelling unit (ADU). The Accessory Dwelling Unit shall be built and obtain final occupancy concurrently with the single-family residence. The purpose of this condition is to ensure compliance with the "no net loss" provision of the Housing Crisis Act (Government Code Section 66300).**

<u>Engineering Conditions</u>

NOTE: Unless specifically stated in the condition, all of the following conditions, upon the approval of this proposed development, must be met prior to approval of a building or grading permit, whichever occurs first.

General

15. Prior to hauling dirt or construction materials to or from any proposed construction site within this project, developer shall apply for and obtain approval from, the city engineer for the proposed haul route.

16. This project is approved upon the express condition that building permits will not be

issued for the development of the subject property, unless the district engineer has determined that adequate water and sewer facilities are available at the time of permit issuance and will continue to be available until time of occupancy.

17. Developer shall include rain gutters on the building plans subject to the city engineer's review and approval. Developer shall install rain gutters in accordance with said plans.

18. Developer shall install sight distance corridors at all street intersections and driveways in accordance with City Engineering Standards. The property owner shall maintain this condition.

19. Property owner shall maintain all landscaping (street trees, tree grates, shrubs, groundcover, etc.) and irrigation along the parkway frontage with Garfield Street as shown on the Site Plan.

Fees/Agreements

20. Developer shall cause property owner to execute and submit to the city engineer for recordation, the city's standard form Geologic Failure Hold Harmless Agreement.

21. Developer shall cause property owner to execute and submit to the city engineer for recordation the city's standard form Drainage Hold Harmless Agreement.

22. Developer shall cause owner to execute, for recordation, a city standard Local Improvement District Agreement to pay fair share contributions for undergrounding of all existing overhead utilities and installation of street lights, as needed, along the subdivision frontage, should a future district be formed.

Grading

23. Based upon a review of the proposed grading and the grading quantities shown on the site plan, a grading permit for this project is required. Developer shall prepare and submit plans and technical studies/reports as required by city engineer, post security and pay all applicable grading plan review and permit fees per the city's latest fee schedule.

24. Prior to issuance of the grading permit, the contractor shall submit a Construction Plan to the city engineer for review and approval. Said Plan may be required to include, but not be limited to, identifying the location of the construction trailer, material staging, bathroom facilities, parking of construction vehicles, employee parking, construction fencing and gates, obtaining any necessary permission for off-site encroachment, addressing pedestrian safety, and identifying time restrictions for various construction activities.

Storm Water Quality

25. Developer shall comply with the city's Stormwater Regulations, latest version, and shall implement best management practices at all times. Best management practices include

but are not limited to pollution control practices or devices, erosion control to prevent silt runoff during construction, general housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices or devices to prevent or reduce the discharge of pollutants to stormwater, receiving water or stormwater conveyance system to the maximum extent practicable. Developer shall notify prospective owners and tenants of the above requirements.

26. Developer shall complete and submit to the city engineer a Determination of Project's SWPPP Tier Level and Construction Threat Level Form pursuant to City Engineering Standards. Developer shall also submit the appropriate Tier level Storm Water Compliance form and appropriate Tier level Storm Water Pollution Prevention Plan (SWPPP) to the satisfaction of the city engineer. Developer shall pay all applicable SWPPP plan review and inspection fees per the city's latest fee schedule.

27. Developer shall complete the City of Carlsbad Standard Stormwater Requirement Checklist Form. Developer is responsible to ensure that all final design plans, grading plans, and building plans incorporate applicable best management practices (BMPs). These BMPs include site design, source control and Low Impact Design (LID) measures including, but not limited to, minimizing the use of impervious area (paving), routing run-off from impervious area to pervious/landscape areas, preventing illicit discharges into the storm drain and adding storm drain stenciling or signage all to the satisfaction of the city engineer.

Dedications/Improvements

28. Developer shall design the private drainage systems, as shown on the site plan to the satisfaction of the city engineer. All private drainage systems 12" diameter storm drain and larger shall be inspected by the city. Developer shall pay the standard improvement plan check and inspection fees for private drainage systems.

29. Prior to any work in city right-of-way or public easements, Developer shall apply for and obtain a right-of-way permit to the satisfaction of the city engineer.

30. Developer shall prepare and process public improvement plans and, prior to city engineer approval of said plans, shall execute a city standard development Improvement Agreement to install and shall post security in accordance with C.M.C. Section 20.16.070 for public improvements shown on the site plan. Said improvements shall be installed to city standards to the satisfaction of the city engineer. These improvements include, but are not limited to:

    A. Widen street pavement and install curb, gutter and sidewalk.
    B. Install driveway approach.
    C. Install transitional asphalt concrete berm and pavement.
    D. Remove existing water service and replace with new 1 inch service, meter and backflow.

Additional public improvements required in other conditions of this resolution are hereby

included in the above list by reference. Developer shall pay the standard improvement plan check and inspection fees in accordance with the fee schedule. Improvements listed above shall be constructed within 36 months of approval of the subdivision or development improvement agreement or such other time as provided in said agreement.

31. Developer is responsible to ensure utility transformers or raised water backflow preventers that serve this development are located outside the right-of-way as shown on the Site Plan and to the satisfaction of the city engineer. These facilities shall be constructed within the property.

Utilities

32. Developer shall install potable water and/or recycled water services and meters at locations approved by the district engineer. The locations of said services shall be reflected on public improvement plans.

33. The developer shall agree to install sewer laterals and clean-outs at locations approved by the city engineer. The locations of sewer laterals shall be reflected on public improvement plans.

34. The developer shall design and agree to construct public water, sewer, and recycled water facilities substantially as shown on the site plan to the satisfaction of the district engineer and city engineer.

Code Reminders

The project is subject to all applicable provisions of local ordinances, including but not limited to the following:

35. Developer shall pay planned local area drainage fees in accordance with Section 15.08.020 of the City of Carlsbad Municipal Code to the satisfaction of the city engineer.

NOTICE TO APPLICANT

An appeal of this decision to the City Council must be filed with the City Clerk at 1200 Carlsbad Village Drive, Carlsbad, California, 92008, within ten (10) calendar days of the date of the Planning Commission's decision. Pursuant to Carlsbad Municipal Code Chapter 21.54, section 21.54.150, the appeal must be in writing and state the reason(s) for the appeal. The City Council must make a determination on the appeal prior to any judicial review.

The project site is within the appealable area of the California Coastal Commission. This Coastal Development Permit (CDP) shall not become effective until ten (10) working days have elapsed, without a valid appeal being filed with the Coastal Commission, following the Coastal Commission's receipt of the city's notice of the CDP issuance ("Notice of Final Action"). The filing of a valid appeal with the Coastal Commission within such time limit shall stay the effective date of this CDP until such time as a final decision on the appeal is reached by the Coastal Commission.

NOTICE

Please take **NOTICE** that approval of your project includes the "imposition" of fees, dedications, reservations, or other exactions hereafter collectively referred to for convenience as "fees/exactions."

You have 90 days from date of final approval to protest imposition of these fees/exactions. If you protest them, you must follow the protest procedure set forth in Government Code Section 66020(a), and file the protest and any other required information with the City Manager for processing in accordance with Carlsbad Municipal Code Section 3.32.030. Failure to timely follow that procedure will bar any subsequent legal action to attack, review, set aside, void, or annul their imposition.

You are hereby FURTHER NOTIFIED that your right to protest the specified fees/exactions DOES NOT APPLY to water and sewer connection fees and capacity charges, nor planning, zoning, grading, or other similar application processing or service fees in connection with this project; NOR DOES IT APPLY to any fees/exactions of which you have previously been given a NOTICE similar to this, or as to which the statute of limitations has previously otherwise expired.

PASSED, APPROVED, AND ADOPTED at a regular meeting of the Planning Commission of the City of Carlsbad, California, held on **Nov. 15, 2023**, by the following vote, to wit:

AYES:

NAYES:

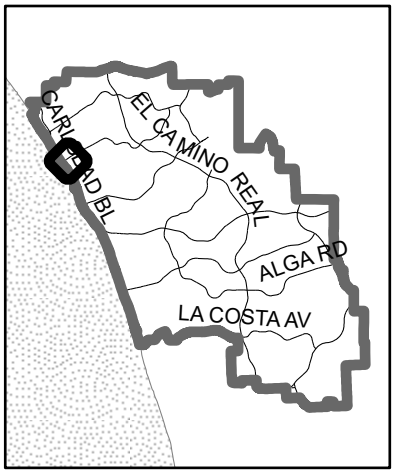
ABSENT:

ABSTAIN:

PETER MERZ, Chair
CARLSBAD PLANNING COMMISSION

ATTEST:

ERIC LARDY
City Planner



SITE MAP

NOT TO SCALE

Labounty Residence - 3950
CDP 2022-0067 (DEV2022-0220)

Map generated on: 4/24/2023

PROJECT ANALYSIS

The project is subject to the following regulations:

A. General Plan (Residential, R-23) Land Use Designation.
B. Residential Density-Multiple (RD-M) Zone (CMC Chapter 21.24) and Beach Area Overlay (BAO) Zone (CMC Chapter 21.82).
C. Coastal Development Procedures for the Mello II Segment of the Local Coastal Program (CMC Chapter 21.201); and Coastal Resource Protection Overlay Zone (CMC Chapter 21.203).
D. Growth Management (CMC Chapter 21.90).
E. California Environmental Quality Act Exemption (Environmental Statement).

The recommendation for approval of this project was developed by analyzing the project's consistency with the applicable regulations and policies. The project's compliance with each of the above regulations is discussed in detail within the sections below.

A. General Plan (Residential, R-23) Land Use Designation

The General Plan Land Use designation for the property is R-23, Residential. The R-23, Residential Land Use designation allows for the development of single- and multi- family residences at a density of 15 to 23 dwelling units per acre. Per the General Plan Land Use Element, Policy 2-P.7, one single-family dwelling is permitted to be constructed on a legal lot that existed as of October 28, 2004. The project proposes the demolition of an existing duplex and the construction of one single-family residence and accessory dwelling unit (under a separate CDP). The subject lot (lot 6, block L) was legally created on February 5, 1923, as part of the Palisades subdivision, Map No. 1747. Therefore, the proposed single-family residence is consistent with the Elements of the city's General Plan.

The Housing Crisis Act prohibits a reduction in residential density through the removal of residential housing units with redevelopment projects regardless of underlying zoning and density designations (Government Code Section 66300). The demolition of one or more residential dwelling unit is prohibited unless the project will create at least as many residential units as will be demolished. The existing structure proposed to be demolished consists of two residential units. The project will replace the existing duplex with two residential units, a single-family residence and a detached accessory dwelling unit. Therefore, the project complies with the Housing Crisis Act.

B. Residential Density-Multiple (RD-M) Zone (CMC Chapter 21.24) and Beach Area Overlay (BAO) Zone (CMC Chapter 21.82)

The project is required to comply with all applicable regulations and development standards of the Carlsbad Municipal Code (CMC) including the Residential Density-Multiple (RD-M) zone. The proposed project meets or exceeds all applicable requirements of the RD-M Zone as shown in Table "A" below.

TABLE A – R-1 ZONE DEVELOPMENT STANDARDS

STANDARD	REQUIRED/ALLOWED	PROPOSED
Front Yard Setback	20 feet	20 feet
Side Yard Setback	5 feet	5 feet
Rear Yard Setback	10 feet	31.5 feet
Lot Coverage	60%	44%

Parking	Two-car garage	Two-car garage

The project is required to comply with the development standards of the Beach Area Overlay (BAO) zone. The proposed project meets all applicable requirements of the BAO zone as demonstrated in Table B below. CMC Section 21.82.040 requires that a site development plan be approved in order for any building permits or other entitlements to be issued for any use in the BAO zone. However, a site development plan is not required for the construction, reconstruction, alteration, or enlargement of a single-family residential dwelling on a residentially zoned lot.

TABLE B – BAO ZONE DEVELOPMENT STANDARDS

STANDARD	REQUIRED/ALLOWED	PROPOSED
Building Height	30 feet for roof pitch ≥3:12 or 24 feet for roof pitch <3:12	30 feet (w/ 3:12 pitched roof)
Visitor Parking	0.30 space per unit (1 space rounded up)	1 visitor parking space

C. Coastal Development Procedures for the Mello II Segment of the Local Coastal Program (CMC Chapter 21.201) and the Coastal Resource Protection Overlay Zone (CMC Chapter 21.203)

The project site is located within the Mello II Segment of the Local Coastal Program and is in the appeal jurisdiction. The site is also located within and subject to the Coastal Resources Protection Overlay Zone. The project's compliance with each of these programs and ordinances is discussed below:

1. Mello II Segment of the Certified Local Coastal Program and all applicable policies.

The project is located in the Mello II Local Coastal Program Segment. The subject site has an LCP Land Use Plan designation of R-23 Residential, which allows for a density of 15 to 23 du/acre and 19 du/acre at the Growth Management Control Point (GMCP). The project density of 7 du/ac is consistent with the R-23 General Plan Land Use designation as discussed in Section A above. Therefore, the project is consistent with the Mello II Segment of the LCP.

The project consists of the construction of a new 4,284 -square-foot, three-story single-family residence with a 571-square-foot attached two-car garage in an area designated for residential development. The proposed three-story, single-family residence is compatible with the surrounding development of one- and two-story single- and multi- family residences and the occasional three-story structure. The three-story residence will not obstruct views of the coastline as seen from public lands or the public right-of-way, nor otherwise damage the visual beauty of the coastal zone. No agricultural uses or sensitive resources currently exist on this previously graded and developed site. The proposed single-family residence is not located in an area of known geologic instability or flood hazard. Given that the site does not have frontage along the coastline, no public opportunities for coastal shoreline access or water-oriented recreational activities are available from the subject site.

2. Coastal Resource Protection Overlay Zone

The project is consistent with the provisions of the Coastal Resource Protection Overlay Zone (CMC Chapter 21.203 of the Zoning Ordinance) in that the project will adhere to the city's Master Drainage Plan, Grading Ordinance, Storm Water Ordinance, BMP Design Manual and Jurisdictional Runoff Management Program (JRMP) to avoid increased urban run-off, pollutants and soil erosion. The subject property does not include steep slopes (equal to or greater than 25% gradient) nor native vegetation. In addition, the site is not located in an area prone to landslides, or susceptible to accelerated erosion, floods or liquefaction.

D. Inclusionary Housing Ordinance (CMC Chapter 21.85)

Pursuant to CMC Chapter 21.85.030.D.3, a project may be exempt from the inclusionary housing requirement if the construction of a new residential structure replaces a residential structure that was demolished within two years prior to the application for a building permit for the new residential structure. The exemption is contingent upon the number of residential units not being increased from the number of residential units in the previously demolished residential structure. Since there will not be an increase in the number of units on the property, the project will be exempt from the inclusionary housing requirement if building permits are issued within two years of the demolition of the existing residential structure.

D. Growth Management (CMC Chapter 21.90)

The proposed project is located within Local Facilities Management Zone 1 in the northwest quadrant of the city. There will be no impact to public facilities because the new single-family residence and ADU is replacing an existing duplex.

E. Environmental Statement (California Environmental Quality Act)

The California Environmental Quality Act ("CEQA"), and its implementing regulations ("CEQA Guidelines") adopted by the Secretary of the California Natural Resources Agency, list classes of projects that have been determined not to have a significant effect on the environment and as a result are exempt from further environmental review under CEQA. City staff completed a review of the project and potential environmental impacts associated with the project pursuant to CEQA and concluded that the project qualified for an exemption pursuant to CEQA Guidelines section 15303(a) and (e)– New Construction or Conversion of Small Structures. CEQA Guidelines Section 15303 is a Class 3 exemption for new construction or conversion of small structures. Exempted is the construction of one-single residence in a residential zone, including accessory (appurtenant) structures such as garages, carports, patios, swimming pools and fences. The proposed project includes the construction of a single-family residence and attached garage, and therefore meet the criteria of the Section 15303 Class 3 New Construction or Conversion of Small Structures exemption.

Because the structure associated with the development request is more than 45 years old and proposed for demolition, the City Planner requested additional information and research to determine whether the property qualifies as a "historical resource" for the purposes of CEQA and/or to aid in the evaluation of the effects a proposed project may have on a historical resource. Specifically, a Cultural Resources Report was prepared by a qualified professional to determine if the property meets the terms and definitions applied to CEQA Guidelines section 15064.5. The property does not meet the criteria for

listing on the California Register of Historical Resources; therefore, the property cannot be deemed significant pursuant to the criteria in CEQA Guidelines Section 15064.5.

A notice of intended decision regarding the environmental determination was advertised on October 4, 2023 and posted on the city's website. The notice included a general description of the project, the proposed environmental findings, and a general explanation of the matter to be considered. The findings and determination contained in that notice was declared as final on the date of the noticed decision, unless appealed as provided by the procedures commencing in Chapter 21.54 (Procedures, Hearings, Notices, and Fees) of the Zoning Ordinance.

During the 10-day public review period, the city received no comment letters from the public regarding the prospective environmental determination. Since no appeal was filed and no substantial evidence was submitted that would support a finding that the exemption requirements would not be satisfied, the project was determined by the city planner to not have a significant effect on the environment. The CEQA Determination letter is attached to this staff report as Attachment 4 and demonstrates that the project is categorically exempt from further environmental review. The city planner's written decision is final and the CEQA determination is not within the Planning Commission's purview. With the appropriate environmental clearances in place, all the city's procedural requirements and relevant aspects of CEQA have been satisfied. In making this determination, the City Planner has found that the exceptions listed in Section 15300.2 of the state CEQA Guidelines and Chapter 19.04 of the Municipal Code do not apply to this project, including "historical resources."

Exhibit 4

City of Carlsbad

DISCLOSURE STATEMENT
P- 1(A)

Development Services
Planning Division
1635 Faraday Avenue
(442) 339-2610
www.carlsbadca.gov

Applicant's statement or disclosure of certain ownership interests on all applications which will require discretionary action on the part of the City Council or any appointed Board, Commission or Committee.

The following information **MUST** be disclosed at the time of application submittal. Your project cannot be reviewed until this information is completed. Please print.

Note:
Person is defined as "Any individual, firm, co-partnership, joint venture, association, social club, fraternal organization, corporation, estate, trust, receiver, syndicate, in this and any other county, city and county, city municipality, district or other political subdivision or any other group or combination acting as a unit."

Agents may sign this document; however, the legal name and entity of the applicant and property owner must be provided below.

1. **APPLICANT** (Not the applicant's agent)
Provide the **COMPLETE, LEGAL** names and addresses of **ALL** persons having a financial interest in the application. If the applicant includes a corporation or partnership, include the names, titles, addresses of all individuals owning more than 10% of the shares. IF NO INDIVIDUALS OWN MORE THAN 10% OF THE SHARES, PLEASE INDICATE NON-APPLICABLE (N/A) IN THE SPACE BELOW. If a publicly-owned corporation, include the names, titles, and addresses of the corporate officers. (A separate page may be attached if necessary.)

Person ALLAN TETA Corp/Part _____

Title APPLICANT Title _____

Address 300 CARLSBAD VILLAGE DR. Address _____

2. **OWNER** (Not the owner's agent)
Provide the **COMPLETE, LEGAL** names and addresses of **ALL** persons having any ownership interest in the property involved. Also, provide the nature of the legal ownership (i.e., partnership, tenants in common, non-profit, corporation, etc.). If the ownership includes a corporation or partnership, include the names, titles, addresses of all individuals owning more than 10% of the shares. IF NO INDIVIDUALS OWN MORE THAN 10% OF THE SHARES, PLEASE INDICATE NON-APPLICABLE (N/A) IN THE SPACE BELOW. If a publicly-owned corporation, include the names, titles, and addresses of the corporate officers. (A separate page may be attached if necessary.)

Person JUDITH AND PAUL LABOUNTY Corp/Part _____

Title _____ Title _____

Address 1314 GULL COURT Address _____

CARLSBAD, CA 92011 _____

3. **NON-PROFIT ORGANIZATION OR TRUST**

If any person identified pursuant to (1) or (2) above is a nonprofit organization or a trust, list the names and addresses of **ANY** person serving as an officer or director of the non-profit organization or as trustee or beneficiary of the.

Non Profit/Trust_____ Non Profit/Trust_____

Title_____ Title_____

Address_____ Address_____

_____ _____

4. Have you had more than $500 worth of business transacted with any member of City staff, Boards, Commissions, Committees and/or Council within the past twelve (12) months?

☐ Yes ☒ No If yes, please indicate person(s):_____

_____

NOTE: Attach additional sheets if necessary.

I certify that all the above information is true and correct to the best of my knowledge.

Paul LaBounty 11/21/22 Allan F. Teta 11/21/22

Signature of owner/date Signature of applicant/date

Paul LaBounty ALLAN TETA - TRE ARCHITECTURE

Print or type name of owner Print or type name of applicant

_____

Signature of owner/applicant's agent if applicable/date

_____

Print or type name of owner/applicant's agent

CEQA DETERMINATION OF EXEMPTION

Subject: This California Environmental Quality Act (CEQA) Determination of Exemption is in compliance with Carlsbad Municipal Code Section 19.04.060. An appeal to this determination must be filed in writing with the required fee within ten (10) calendar days of the City Planner's decision consistent with Carlsbad Municipal Code Section 21.54.140.

City Planner Decision Date: October 4, 2023

Project Number and Title: CDP 2022-0067 (DEV2022-0220) – LABOUNTY RESIDENCE - 3950

Project Location - Specific: 3950 Garfield Street (APN 206-012-06-00)

Project Location - City: Carlsbad **Project Location - County:** San Diego

Description of Project: Demolition of an existing duplex and construction of a 4,284-square-foot, 30-foot-tall, three-story single-family dwelling with 2,240-square-feet of decks and patios, including a 663-square foot roof deck and 149-square-feet of roof storage, and a 571-square foot attached garage. A detached ADU is proposed under a separate CDP.

Name of Public Agency Approving Project: City of Carlsbad

Name of Person or Agency Carrying Out Project: City of Carlsbad

Name of Applicant: Allan Teta

Applicant's Address: 300 Carlsbad Village Drive, Suite 108A-336, Carlsbad, CA 92008

Applicant's Telephone Number: 760-268-9090

Name of Applicant/Identity of person undertaking the project: Allan Teta

Exempt Status: Categorical Exemption: Section 15303(a) and (e)(New Construction or Conversion of Small Structures)

Reasons why project is exempt: Categorical Exemption: Section 15303(a) and (e) of CEQA exemptions (Class 3) exempts the construction of one single-family residence, or a second dwelling unit in a residential zone and accessory structures including garages. The project consists of a single-family residence and attached garage in a residential zone.

Lead Agency Contact Person: Lauren Yzaguirre, Associate Planner **Telephone:** 442-339-2634

Eric Lardy 10-4-23

ERIC LARDY, City Planner Date

LIST OF ACRONYMS AND ABBREVIATIONS

Exhibit 6

This is a list of acronyms and abbreviations (in alphabetical order) that are commonly used in staff reports.

Acronym	Description	Acronym	Description
APA	American Planning Association	LCPA	Local Coastal Program Amendment
APN	Assessor Parcel Number	LOS	Level of Service
AQMD	Air Quality Management District	MND	Mitigated Negative Declaration
BMP	Best Management Practice	NCTD	North County Transit District
CALTRANS	California Department of Transportation	ND	Negative Declaration
CC	City Council	PC	Planning Commission
CCR	Conditions, Covenants and Restrictions	PDP	Planned Development Permit
CEQA	California Environmental Quality Act	PEIR	Program Environmental Impact Report
CFD	Community Facilities District	PUD	Planned Unit Development
CIP	Capital Improvement Program	ROW	Right of Way
COA	Conditions of Approval	RWQCB	Regional Water Quality Control Board
CofO	Certificate of Occupancy	SANDAG	San Diego Association of Governments
CT	Tentative Parcel Map	SDP	Site Development Permit
CUP	Conditional Use Permit	SP	Specific Plan
DIF	Development Impact Fee	SWPPP	Storm Water Pollution Prevention Program
DISTRICT	City Council Member District Number	TM	Tentative Map
EIR	Environmental Impact Report	ZC	Zone Change
EIS	Environmental Impact Statement (federal)		
EPA	Environmental Protection Agency		
FEMA	Federal Emergency Management Agency		
GP	General Plan		
GPA	General Plan Amendment		
GIS	Geographic Information Systems		
HCA	Housing Crisis Act 2019		
IS	Initial Study		

LABOUNTY RESIDENCE - 3950

3950 GARFIELD ST.
CARLSBAD, CA 92008
APN: 206-012-06-00

PROJECT DATA

SITE ADDRESS: 3950 GARFIELD ST. CARLSBAD, CA 92008
APN: 206-012-06-00

OWNER: JUDITH AND PAUL LABOUNTY

APPLICANT: TRE ARCHITECTURE - ALLAN TETA
300 CARLSBAD VILLAGE DRIVE
SUITE 108A-336
CARLSBAD, CA 92008
760-268-9090

PROJECT SCOPE

- CONSTRUCT NEW 3-STORY RESIDENCE
  - COVERED PATIOS AND UNCOVERED PATIO
  - 2-CAR GARAGE
  - ROOF DECK
- NEW SITE WALLS
- NEW LANDSCAPE
- NEW FIRE SPRINKLERS
- DETACHED ADU TO BE PROCESSED UNDER SEPARATE CDP

PROJECT INFORMATION

LABOUNTY RESIDENCE - 3950
3950 GARFIELD ST.
CARLSBAD, CA 92008
APN: 206-012-06-00

LEGAL DESCRIPTION

LOT 6, BLOCK "L", AS SHOWN ON THAT CERTAIN MAP ENTITLED PALISADES, WHICH MAP WAS FILED IN THE OFFICE OF THE RECORDER OF THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP NO 1747, FILED ON FEBRUARY 5, 1923.

PROCESSING
COASTAL DEVELOPMENT PERMIT

LOT AREA: 6,000 SF

EXISTING: R-3 AND BEACH OVERLAY

PROPOSED: R-3 AND BEACH OVERLAY

PROPOSED: SINGLE FAMILY RESIDENCE

CARLSBAD SEWER DISTRICT, CARLSBAD MWD, CARLSBAD UNIFIED
CARLSBAD FIRE

OCCUPANCY: R-3 / U

CONSTRUCTION TYPE: V-B (SPINKLERED)

TOTAL BUILDING AREA

BUILDING COVERAGE	2,632 SF
MAIN HOUSE (CONDITIONED)	4,284 SF
BUILDING SQUARE FOOTAGE (NON-CONDITIONED)	681 SF
DECKS/PATIOS	2,240 SF

LOT COVERAGE

BUILDING COVERAGE / LOT AREA (MAX. 60%) (2,632/6,000)	44%

LANDSCAPE AREA

PERCENTAGE OF SITE TO BE LANDSCAPED	

PARKING INFORMATION

TOTAL REQUIRED/PROVIDED	2 SPACES/2 SPACES
VISITOR PARKING (OFF-STREET)	1 SPACE / 1 SPACE

AREA CALCULATION
MAIN HOUSE
FIRST FLOOR LEVEL: 1,580 SF (CONDITIONED)
GARAGE: 571 SF (NON CONDITIONED)
SECOND FLOOR LEVEL: 2,040 SF (CONDITIONED)
THIRD FLOOR ROOF DECK: 663 SF (CONDITIONED)
THIRD FLOOR ROOF DECK STORAGE: 149 SF (NON CONDITIONED)

FIRST FLOOR ENTRY COVERED PATIO: 96 SF (NON CONDITIONED)
FIRST FLOOR COVERED PATIOS: 385 SF (NON CONDITIONED)
SECOND FLOOR COVERED PATIOS: 587 SF (NON CONDITIONED
THIRD FLOOR COVERED ROOF PATIO: 178 SF (NON CONDITIONED
NONCOVERED ROOF DECK: 993 SF (NON CONDITIONED)

TOTAL GARAGE (NON CONDITIONED): 571 SF
TOTAL CONDITIONED SPACE: 4,284 SF
TOTAL COVERED PATIO: 1,246
TOTAL NON COVERED DECKS: 993

SETBACKS
FRONT SETBACK: 20FT
SIDE SETBACK: 5FT
REAR SETBACK: 10FT

CLIMATE ACTION PLAN

CONSISTENT WITH EXISTING GENERAL PLAN LAND USE AND ZONING: YES

GHG STUDY REQUIRED: NO

ENERGY EFFICIENCY REQUIREMENT: YES

PHOTOVOLTAIC REQUIREMENT: YES, 3.9 KW-DC ROOF MOUNTED

ELECTRIC VEHICLE CHARGING REQUIREMENT: YES, 1EV READY

HOT WATER HEATING REQUIREMENT: YES

TRAFFIC DEMAND MANAGEMENT REQUIRED: NO

SHEET INDEX

A0.1	TITLE SHEET
A1.1	PROPOSED SITE PLAN
A1.2	SITE SECTIONS
A2.1	PROPOSED FIRST FLOOR PLAN
A2.2	PROPOSED SECOND FLOOR PLAN
A2.3	PROPOSED THIRD FLOOR PLAN/ROOF DEC
A4.1	ROOF PLAN
A5.1	EXTERIOR ELEVATIONS
A5.2	EXTERIOR ELEVATIONS
A6.1	BUILDING SECTIONS
L1	TITLE SHEET
L2	CONCEPT LANDSCAPE PLAN
L3	HYDROZONE PLAN
C.0	EXISTING SITE CONDITIONS
C.1	GRADING & DRAINAGE PLAN

PROJECT TEAM

CLIENT

JUDITH AND PAUL LABOUNTY
3940 GARFIELD ST.
Carlsbad, CA 92008

APPLICANT / ARCHITECT

TRE ARCHITECTURE
300 Carlsbad Village Drive
Suite 108A #336
Carlsbad, CA 92008
contact: ALLAN TETA
phone: 760 268 9090
fax: 760 268 9167
email :
allan@trearch.com

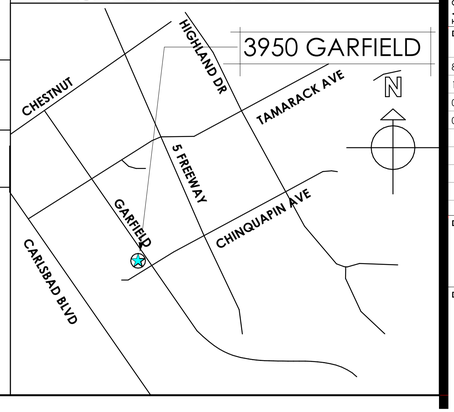
LANDSCAPE ARCHITECT

JPBLA
4403 MANCHESTER AVE.
SUITE 108A-336
CARLSBAD, CA 92008
contact: JIM BENEDITTI
phone: (760) 479 0644
email :
JIM@JPBLA.COM

CIVIL ENGINEERING

COFFEY ENGINEERING
27127 Calle Arroyo, Ste 1904
San Juan Capistrano, CA 92675
contact: DAN VALDEZ
phone: (858) 831 0111
email: info@coffeyengineering.com

VICINITY MAP



ABBREVIATIONS

A.B.	ANCHOR BOLT
ABV.	ABOVE
A.C.	ASPHALTIC CONCRETE/ AIR CONDITIONING
ACOUS	ACOUSTIC
A.D.	ACCESS DOOR/AREA DRAIN
ADD	ADDENDUM
ADJ	ADJUSTABLE
A.F.F.	ABOVE FINISH FLOOR
AL	ALUMINUM
ALT	ALTERNATE
ANOD	ANODIZED
ARCH	ARCHITECT(URAL)
ASPH	ASPHALT
@	AT
BD	BOARD
BET	BETWEEN
B.F.	BOTTOM FOOTING
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
B.N.	BOUNDARY NAIL
BOT	BOTTOM
BRS	BEARING
BSMT	BASEMENT
B.U.	BUILD UP
CAB	CABINET
C/L	CENTERLINE
CER	CERAMIC
C.J.	CONTROL JOINT
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONSTR	CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATE
CORR	CORRIDOR
CSK	COUNTERSINK
CTR	CENTER
C	CHANNEL
CS	CASEMENT
d	PENNY (NAILS)
DBL	DOUBLE
DET	DETAIL
DIA	DIAGONAL
DIAPH	DIAPHRAGM
D.F.	DRINKING FOUNTAIN/

DF	DOUGLAS FIR
DIM	DIMENSION
D.L.	DEAD LOAD
DN	DOWN
D.S.	DOWN SPOUT
DWG	DRAWING
DWLS	DOWELS
DWR	DRAWER
E	EAST
EA	EACH
E.B.	EXPANSION BOLT
E.J.	EXPANSION JOINT
EL	ELEVATOR
ELEV	ELEVATION
ELEC	ELECTRIC(AL)
E.N.	EDGE NAIL
ENC	ENCLOSURE
EQ	EQUAL
E.W.	EACH WAY
EXT	EXTERIOR
EXST	EXISTING
F.B.	FLAT BAR
F.D., FD	FLOOR DRAIN, FRENCH DOOR
F.F.	FINISHED FLOOR/FACTORY FINISH
FDN	FOUNDATION
F.E.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
F.F.E.	FINISH FLOOR ELEVATION
FIN	FLOOR
FLUOR	FLUORESCENT
F.N.	FIELD OF NAILING
F.O.	FACE OF (SPECIFY ITEM)
F.O.B.	FACE OF BRICK
F.O.C.	FACE OF CONCRETE
F.O.M.	FACE OF MASONRY
F.O.P.	FACE OF PANEL
F.O.S.	FACE OF STUD
F.P.	FIREPROOF(ING)
FT	FOOT/FEET
F.S.	FLOOR SINK
FX	FIXED
GA	GAUGE
GALV	GALVANIZED
G.I.	GALVANIZED IRON
GL	GLASS
GLB	GLU LAM BEAM
GYP. BD.	GYPSUM BOARD
H.B.	HOSE BIBB

H.C.	HOLLOW CORE
HDR	HEADER
HDWR	HARDWARE
HGR	HANGER
HP	HOPPER
HORIZ	HORIZONTAL
HT	HEIGHT
H.V.A.C.	HEATING VENTILATING AND AIR CONDITIONING
H.W.	HOT WATER
IN	INCH
I.D.	INSIDE DIAMETER
INCL	INCLUDED
I.E.	INVERT ELEVATIONS
INSUL	INSULATION
INT	INTERIOR
JAN	JANITOR
JST	JOIST
JT	JOINT
KIT	KITCHEN
LAM	LAMINATED
L.G.	LAG BOLT
L.L	LIVE LOAD
LLH	LONG LEG VERTICAL
LONGIT	LONGITUDINAL
L.P.	LOW POINT
L.W.C.	LIGHT WEIGHT CONCRETE
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
M.C.	MEDICINE CABINET
MECH	MECHANICAL
MEMB	MEMBRANE
MET	METAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
N	NORTH
N.I.C	NOT IN CONTRACT
NO	NUMBER
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.F.	OVERFLOW/OUTSIDE FACE
O.H.	OPPOSITE HEAD
OPG	OPENING

OPP	OPPOSITE
OHD	OVERHEAD
P/L	PROPERTY LINE/PLATE
PWD	PLYWOOD
P.S.F.	POUNDS PER SQ. FT.
P.S.I.	POUNDS PER SQ. INCH
P.T.	PRESSURE TREATED
P.T.S.	POST TENSION SLAB
PERIM	PERIMETER
PERP	PERPENDICULAR
PLAS	PLASTER
PLAST	PLASTIC
R	RISE
R.D.	ROOF DRAIN
REF	REFER(ENCE)
REINF	REINFORCING
RESIL	RETAIN(ING)
RET	RESILIENT
REQ.(D)	REQUIRE/REQUIRED
RE/S	RE-SAWN
RM	ROOM
R.O.	ROUGH OPENING
S	SOUTH
SC	SOLID CORE
SCHED	SCHEDULE
SHT	SHEET
S.F.	SQUARE FEET
SIM	SIMILAR
SP'G	SPACING
SPEC	SPECIFICATION
SQ	SQUARE
S.S.	STAINLESS STEET
STAGG	STAGGERED
STD	STANDARD
STIFF	STIFFENED
STR	STRUCTURAL
STL	STEEL

TRD.	TREAD
TEMP.	TEMPERED
T.C.	TOP OF CURB/TOP OF CONC.
T & G	TONGUE AND GROOVE
THR	THRESHOLD
R.J.	TOOLED JOINT
T.N.	TOE NAIL
T.O.	TOP OF (SPECIFY ITEM)
T.O.F.	TOP OF FOOTING
T.O.R.	TOP OF ROOF
T.O.S.	TOP OF SURFACE/SLAB
T.O.W.	TOP OF WALL
TRANS	TRANSVERSE
TYP	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
U.B.C.	UNIFORM BUILDING CODE
V.A.T.	VINYL ASBESTOS TILE
V.B.	VAPOR BARRIER
VERT	VERTICAL
VENT	VENTILATOR OR VENTILATION
W	WEST
W/	WITH
WD	WOOD
W.GL.	WIRE GLASS
W.H.	WATER HEATER
W/O	WITHOUT
WP	WATERPROOF
W.P.J.	WEAKENED PLANE JOINT
W.R.	WATER RESISTANT
WT	WEIGHT
W.W.F.	WELDED WIRE FABRIC
YD	YARD

LEGEND

3 / A4.1	SECTION SECTION NUMBER IN UPPER HALF OF CIRCLE AND SHEET NUMBER IN LOWER HALF OF CIRCLE
3 / A5.2 / 2	INTERIOR ELEVATIONS DARKEN AREAS TO INDICATE WHICH ELEVATIONS ARE DRAWN. REFERENCE NUMBER IN UPPER HALF OF CIRCLE & SHEET WHERE ELEVATION IS DRAWN IN LOWER CIRCLE
ACTIVITY / A	ROOM NAME/FINISH TYPE LETTER DESIGNATION OF FINISH TYPE ON FINISH SCHEDULE
	DOOR NUMBER
	WINDOW TYPE LETTER DESIGNATION OF NUMBER IF WINDOW SCHEDULE IS PROVIDED
	REVISION TRIANGLE WITH NUMBERED REVISION CLOUD
F.D.	FLOOR DRAIN
	SHOWER HEAD
	ELEVATION SYMBOL - BENCH MARK OR CONSTANT ELEVATION
	ROOF, DRAIN & OVERFLOW
X X	FENCING (X's DO NOT INDICATE POSTS)
369.30	EXISTING CONTOURS
369.30 TW	POINT ELEVATIONS
LEVEL 16 ELEV. 160'-0"	ELEVATION TARGET/CONTROL POINT
	PROPERTY LINE HEAVY BROKEN LINES WITH TWO DASHED LINES IN BETWEEN.
	GRID OR COLUMN LINE FINE AND SHARP BROKEN LINES WITH TWO DOTS IN BETWEEN.
3 / A4.1	REFERENCE DETAIL DETAIL NUMBER IN UPPER HALF OF CIRCLE AND SHEET IN LOWER HALF OF CIRCLE.
3	AREA REFERENCE DETAIL.

Exhibit 7

TRE ARCHITECTURE

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PROJECT INFO

LABOUNTY - 3950
3950 GARFIELD ST.
CARLSBAD, CA, 92008
APN : 206-012-06-00

TA 2010

DOCUMENT LOG

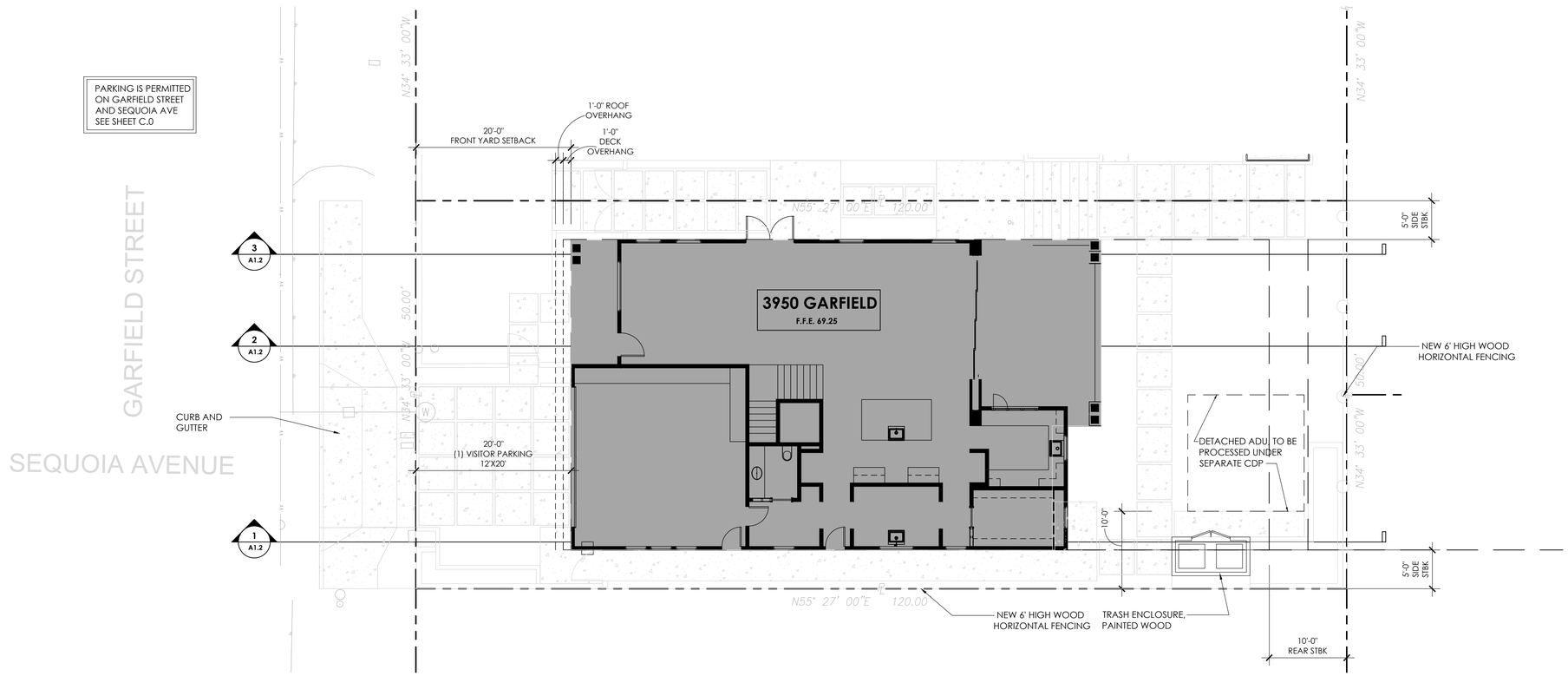
8/10/2022 PRELIMINARY REVIEW
12/01/2022 CDP1
03/20/2023 CDP2
06/14/2023 CDP3

DOCUMENT TITLE

TITLE

DOCUMENT NUMBER

A0.1



1 PROPOSED SITE PLAN

SCALE: 1/8" = 1'-0"

PROJECT INFORMATION

LABOUNTY RESIDENCES
3950 GARFIELD AVE.
CARLSBAD, CA 92008
APN: 206-012-06-00

LEGAL DESCRIPTION

LOT 6, BLOCK "L", AS SHOWN ON THAT CERTAIN MAP ENTITLED PALISADES, WHICH MAP WAS FILED IN THE OFFICE OF THE RECORDER OF THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP NO 1747, FILED ON FEBRUARY 5, 1923.

PROCESSING
COASTAL DEVELOPMENT PERMIT

LOT AREA: 6000 SF

EXISTING: R-3 AND BEACH OVERLAY

PROPOSED: R-3 AND BEACH OVERLAY

PROPOSED: SINGLE FAMILY RESIDENCE

CARLSBAD SEWER DISTRICT, CARLSBAD MWD, CARLSBAD UNIFIED
CARLSBAD FIRE

OCCUPANCY: R-3 / U

CONSTRUCTION TYPE: V-B (SPINKLERED)

TOTAL BUILDING AREA

BUILDING COVERAGE	2,632 S.F.
MAIN HOUSE (CONDITIONED)	4,284 S.F.
BUILDING SQUARE FOOTAGE (NON-CONDITIONED)	681 S.F.
DECKS/PATIOS	2,240 S.F.

LOT COVERAGE

BUILDING COVERAGE / LOT AREA (MAX. 60%)	2,632/6,000	44%

LANDSCAPE AREA

PERCENTAGE OF SITE TO BE LANDSCAPED	

PARKING INFORMATION

TOTAL REQUIRED/PROVIDED	2 SPACES/2 SPACES
VISITOR PARKING (OFF-STREET)	1 SPACE / 1 SPACE

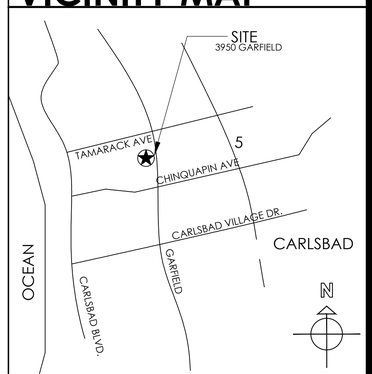
CONTRACTOR TO VERIFY INFORMATION AND CONFIRM PER NEW CONSTRUCTION PLAN

NEW GRADE INFORMATION AND STORMWATER MANAGEMENT PER CIVIL PLANS

SITE PLAN NOTES

1. PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING. THE GRADE SHALL FALL A MINIMUM OF 5% WITHIN THE FIRST 10 FEET (2% FOR IMPERVIOUS SURFACES)
2. SEE CIVIL DRAWINGS FOR FINISH GRADE ELEVATIONS.
3. ALL DIMENSIONS ARE TO THE FACE OF STUD OR GRIDLINE U.N.O.
4. SEE CIVIL DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR TO VERIFY ACTUAL UTILITY LOCATIONS.
5. SITE DRAINAGE. SLOPE MIN. $\frac{1}{4}$"/FT FROM ALL FOUNDATIONS.
6. GAS LINE SHALL NOT BE RUN IN GRADE UNDER ANY STRUCTURE OR COVER, INCLUDING LATTICE WORK, ETC.
7. PARKING AREAS AND DRIVEWAYS MUST BE SURFACED WITH A MINIMUM OF 2" ASPHALTIC CONCRETE OR EQUIVALENT.
8. DRIVEWAY SHALL BE CAPABLE OF SUPPORTING A LOAD OF 95,000 LBS.
9. HOUSE STREET NUMBER SHALL BE VISIBLE AND LEGIBLE FROM STREET (MINIMUM 4" HIGH x 1" WIDE

VICINITY MAP



TRE ARCHITECTURE

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PROJECT INFO

LABOUNTY RESIDENCE
3950 GARFIELD
CARLSBAD, CA 92008

TA 2110

DOCUMENT LOG

10/2/2023 CDP 4

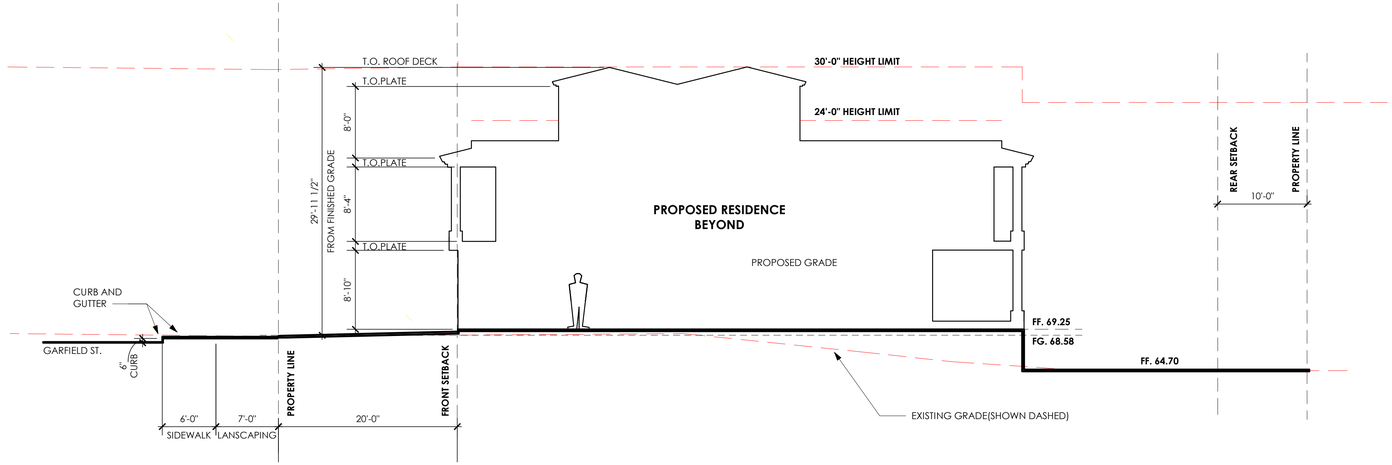
DOCUMENT TITLE

PROPOSED SITE PLAN

DOCUMENT NUMBER

A1.1

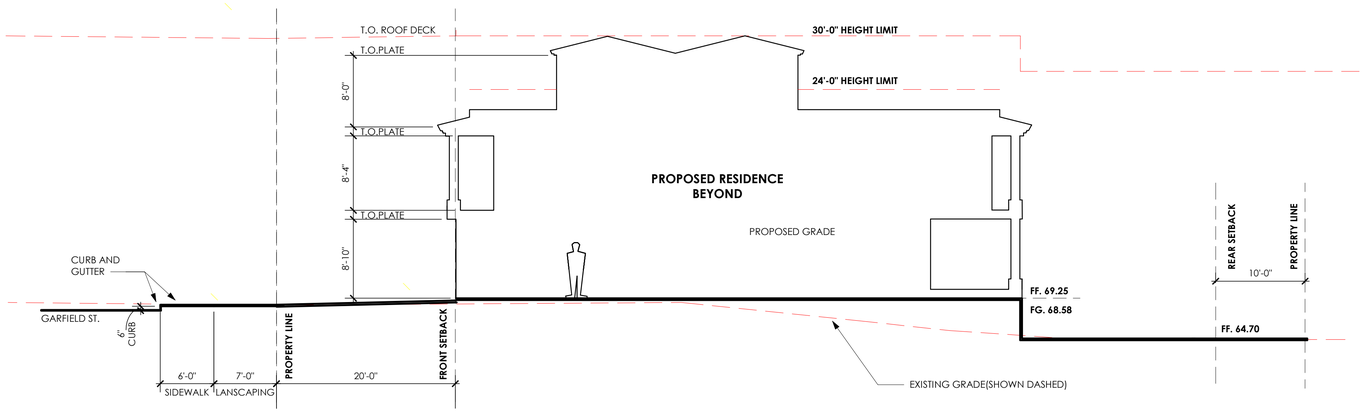
COASTAL DEVELOPMENT PERMIT



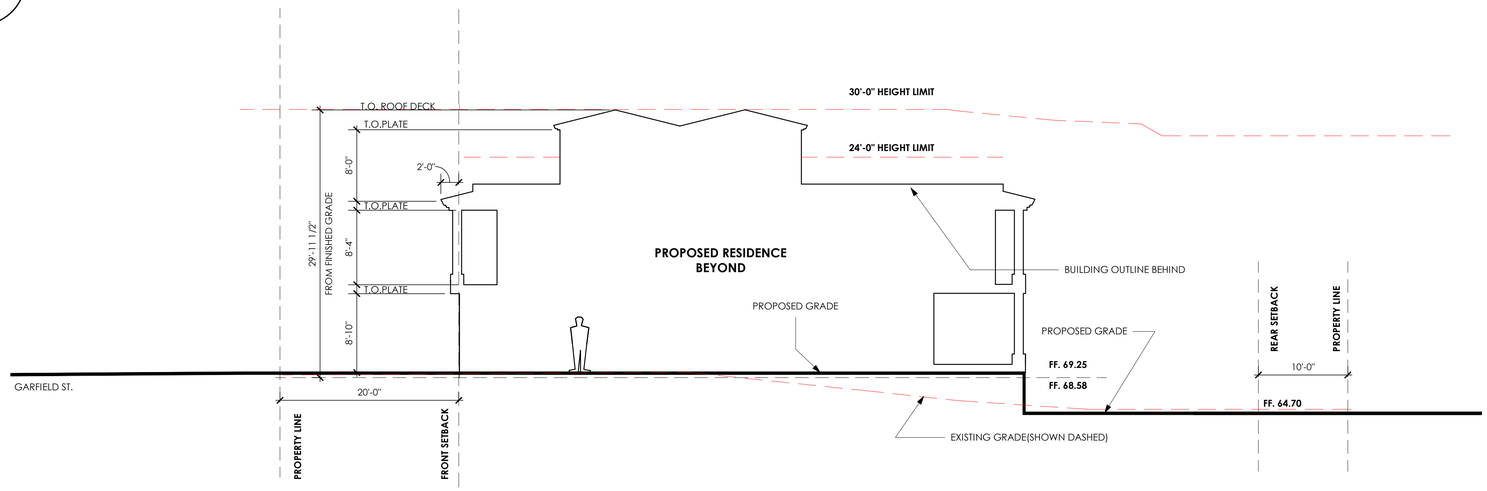
1 SITE SECTION
1/8" = 1'-0"

24' - 0" HEIGHT LIMIT @ ROOFS LESS THAN 3:12

30'-0" HEIGHT LIMIT @ ROOFS 3:12 OR GREATER



2 SITE SECTION
1/8" = 1'-0"



3 SITE SECTION
1/8" = 1'-0"

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LABOUNTY - 3950

3950 GARFIELD ST.
CARLSBAD, CA, 92008
APN : 206-012-06-00

TA 2010

DOCUMENT LOG

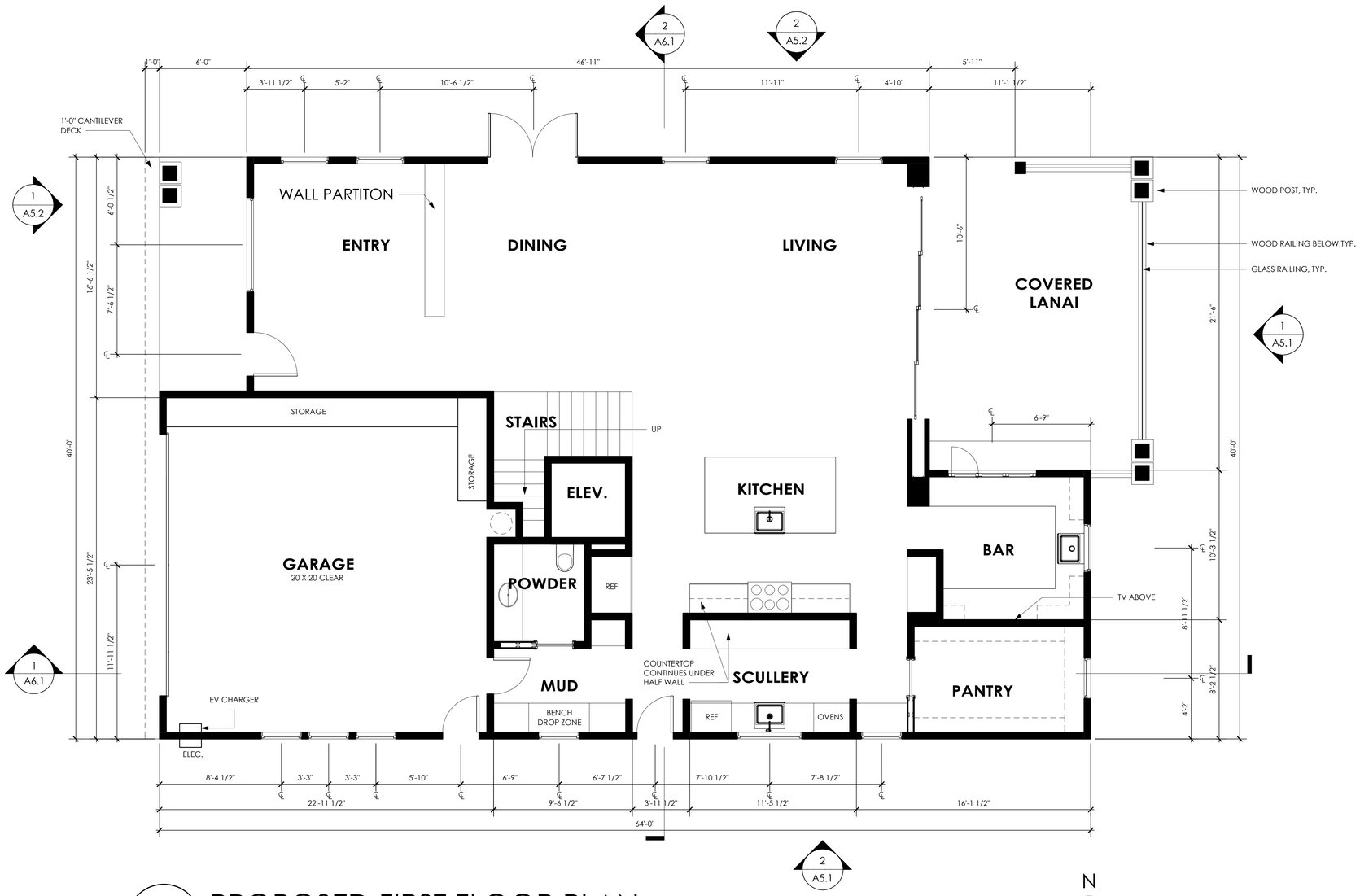
8/10/2022 PRELIMINARY REVIEW
12/01/2022 CDP1
03/20/2023 CDP2
06/14/2023 CDP3

DOCUMENT TITLE

SITE SECTIONS

DOCUMENT NUMBER

A1.2



1 PROPOSED FIRST FLOOR PLAN

1/4" = 1'-0"

PROJECT INFORMATION

LABOUNTY RESIDENCE - 3950
3950 GARFIELD ST.
CARLSBAD, CA 92008
APN: 206-012-06-00

LEGAL DISCRIPTION

LOT 6, BLOCK "L", AS SHOWN ON THAT CERTAIN MAP ENTITLED PALISADES, WHICH MAP WAS FILED IN THE OFFICE OF THE RECORDER OF THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP NO 1747, FILED ON FEBRUARY 5, 1923.

PROCESSING

COASTAL DEVELOPMENT PERMIT

LOT AREA: 6,000 SF

EXISTING: R-3 AND BEACH OVERLAY

PROPOSED: R-3 AND BEACH OVERLAY

PROPOSED: SINGLE FAMILY RESIDENCE

CARLSBAD SEWER DISTRICT, CARLSBAD MWD, CARLSBAD UNIFIED CARLSBAD FIRE

OCCUPANCY: R-3 / U

CONSTRUCTION TYPE: V-B (SPINKLERED)

TOTAL BUILDING AREA

BUILDING COVERAGE	2,632 SF
MAIN HOUSE (CONDITIONED)	4,284 SF
BUILDING SQUARE FOOTAGE (NON-CONDITIONED)	681 SF
DECKS/PATIOS	2,240 SF

LOT COVERAGE

BUILDING COVERAGE / LOT AREA (MAX. 60%) (2,632/6,000)	44%

LANDSCAPE AREA

PERCENTAGE OF SITE TO BE LANDSCAPED	

PARKING INFORMATION

TOTAL REQUIRED/PROVIDED	2 SPACES/2 SPACES
VISITOR PARKING (OFF-STREET)	1 SPACE / 1 SPACE

AREA CALCULATION

MAIN HOUSE

FIRST FLOOR LEVEL: 1,580 SF (CONDITIONED)
GARAGE: 571 SF (NON CONDITIONED)
SECOND FLOOR LEVEL: 2,040 SF (CONDITIONED)
ROOF DECK: 663 SF (CONDITIONED)
ROOF DECK STORAGE: 149 SF (NON CONDITIONED)

FIRST FLOOR ENTRY COVERED PATIO: 96 SF (NON CONDITIONED)
FIRST FLOOR COVERED PATIOS: 385 SF (NON CONDITIONED)
SECOND FLOOR COVERED PATIOS: 587 SF (NON CONDITIONED
COVERED ROOF PATIO: 178 SF (NON CONDITIONED
NONCOVERED ROOF DECK: 993 SF (NON CONDITIONED)

TOTAL GARAGE (NON CONDITIONED): 571 SF
TOTAL CONDITIONED SPACE: 4,284 SF
TOTAL COVERED PATIO: 1,246
TOTAL NON COVERED DECKS: 993

SETBACKS

FRONT SETBACK: 20FT
SIDE SETBACK: 5FT
REAR SETBACK: 10FT

WALL LEGEND

2X6 STUD WALL, FULL HEIGHT

SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION

FLOOR PLAN NOTES

1. SEE LANDSCAPE AND CIVIL DRAWINGS FOR ADDITIONAL SITE INFORMATION, INCLUDING FINISHED GRADE ELEVATIONS, DRAINAGE AND TOP OF SITE WALL ELEVATIONS.
2. PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING.
3. ALL DIMENSIONS ARE TO FACE OF STUD OR GRIDLINE U.N.O.
4. SEE SHEET RCP/ELECTRICAL PLANS FOR SMOKE DETECTOR LOCATIONS.
5. PROVIDE 5 AIR CHANGES PER HOUR FOR LAUNDRY AND BATHROOM VENTILATION.
6. ATTIC/UNDERFLOOR INSTALLATION MUST COMPLY WITH SECTIONS 904, 908, AND 909 OF THE CMC.
7. PROVIDE 30" UNOBSTRUCTED WORKING SPACE IN FRONT OF FURNACE
8. 1/2" MIN DROP IN EXTERIOR SLABS AT EXTERIOR OPENINGS THAT OPEN OUT. THRESHOLDS WHERE THE DOOR DOES NOT SWING OUT SHALL BE NO MORE THAN 7-3/4"
9. AUTOMATION SYSTEM FOR LIGHTING, AUDIO, SECURITY AND HVAC PER SPECIFICATIONS
10. THE CONTROL VALVES IN SHOWERS, TUB/SHOWERS, BATHTUBS, AND BIDETS MUST BE PRESSURE BALANCED OR THERMOSTATIC MIXING VALVES.
11. COMPLETE GAS PIPING SIZING DESIGN BASED UPON A MINIMUM INPUT OF 200,000 BTU/GR FOR EACH WATER HEATER.
12. INSTANTANEOUS WATER HEATERS SHALL HAVE ISOLATION VALVES ON BOTH THE COLD AND HOT WATER PIPING LEAVING THE WATER HEATER COMPLETE WITH HOSE BIBS OR OTHER FITTINGS ON EACH VALVE FOR FLUSHING THE WATER HEATER WHEN THE VALVES ARE CLOSED.
13. ALL HOT WATER PIPING SIZED 3/4" OR LARGER IS REQUIRED TO BE INSULATED AS FOLLOWS: 1" PIPE SIZE OR LESS: 1" THICK INSULATION, LARGER PIPE SIZES REQUIRE 1-1/2" THICK INSULATION ADDITIONAALLY, THE 1/2" HOT WATER PIPE TO THE KITCHEN SINKAND THE COLD WATER PIPE WITHIN 5' OF THE WATER HEATER ARE BOTH REQUIRED TO BE INSULATED.

TRE ARCHITECTURE

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PROJECT INFO

LABOUNTY - 3950

3950 GARFIELD ST.
CARLSBAD, CA. 92008
APN : 206-012-06-00

TA 2010

DOCUMENT LOG

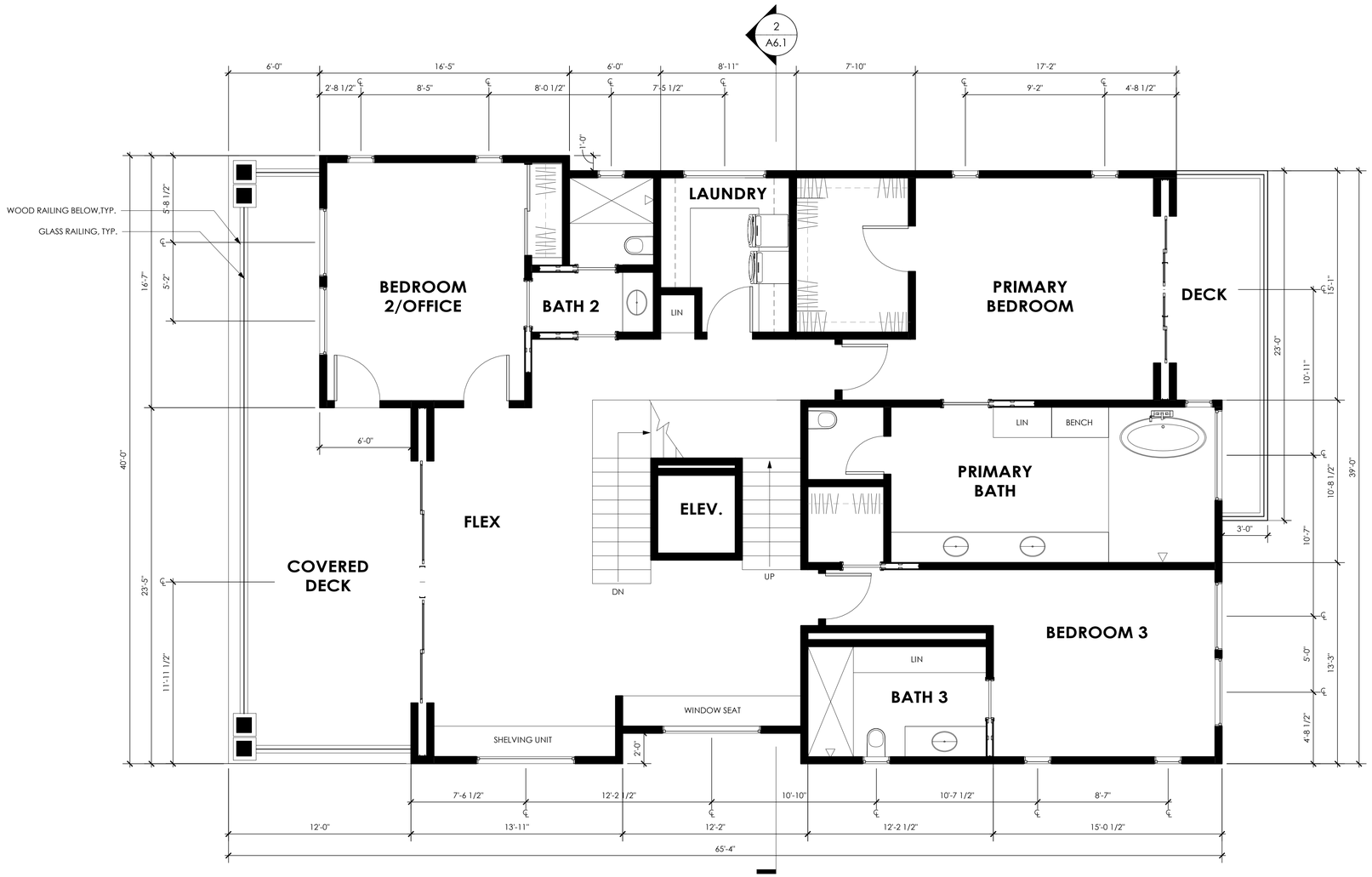
8/10/2022 PRELIMINARY REVIEW
12/01/2022 CDP1
03/20/2023 CDP2
06/14/2023 CDP3

DOCUMENT TITLE

PROPOSED FIRST FLOOR PLAN

DOCUMENT NUMBER

A2.1



1 PROPOSED SECOND FLOOR PLAN

1/4" = 1'-0"

PROJECT INFORMATION

LABOUNTY RESIDENCE - 3950
3950 GARFIELD ST.
CARLSBAD, CA 92008
APN: 206-012-06-00

LEGAL DISCRIPTION

LOT 6, BLOCK "L", AS SHOWN ON THAT CERTAIN MAP ENTITLED PALISADES, WHICH MAP WAS FILED IN THE OFFICE OF THE RECORDER OF THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP NO 1747, FILED ON FEBRUARY 5, 1923.

PROCESSING

COASTAL DEVELOPMENT PERMIT

LOT AREA: 6,000 SF

EXISTING: R-3 AND BEACH OVERLAY

PROPOSED: R-3 AND BEACH OVERLAY

PROPOSED: SINGLE FAMILY RESIDENCE

CARLSBAD SEWER DISTRICT, CARLSBAD MWD, CARLSBAD UNIFIED
CARLSBAD FIRE

OCCUPANCY: R-3 / U

CONSTRUCTION TYPE: V-B (SPINKLERED)

TOTAL BUILDING AREA

BUILDING COVERAGE	2,632 SF
MAIN HOUSE (CONDITIONED)	4,284 SF
BUILDING SQUARE FOOTAGE (NON-CONDITIONED)	681 SF
DECKS/PATIOS	2,240 SF

LOT COVERAGE

BUILDING COVERAGE / LOT AREA (MAX. 60%) (2,632/6,000)	44%

LANDSCAPE AREA

PERCENTAGE OF SITE TO BE LANDSCAPED	

PARKING INFORMATION

TOTAL REQUIRED/PROVIDED	2 SPACES/2 SPACES
VISITOR PARKING (OFF-STREET)	1 SPACE / 1 SPACE

AREA CALCULATION
MAIN HOUSE
FIRST FLOOR LEVEL: 1,580 SF (CONDITIONED)
GARAGE: 571 SF (NON CONDITIONED)
SECOND FLOOR LEVEL: 2,040 SF (CONDITIONED)
ROOF DECK: 663 SF (CONDITIONED)
ROOF DECK STORAGE: 149 SF (NON CONDITIONED)

FIRST FLOOR ENTRY COVERED PATIO: 96 SF (NON CONDITIONED)
FIRST FLOOR COVERED PATIOS: 385 SF (NON CONDITIONED)
SECOND FLOOR COVERED PATIOS: 587 SF (NON CONDITIONED
COVERED ROOF PATIO: 178 SF (NON CONDITIONED
NONCOVERED ROOF DECK: 993 SF (NON CONDITIONED)

TOTAL GARAGE (NON CONDITIONED): 571 SF
TOTAL CONDITIONED SPACE: 4,284 SF
TOTAL COVERED PATIO: 1,246
TOTAL NON COVERED DECKS: 993

SETBACKS
FRONT SETBACK: 20FT
SIDE SETBACK: 5FT
REAR SETBACK: 10FT

WALL LEGEND

2X6 STUD WALL, FULL HEIGHT

SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION

FLOOR PLAN NOTES

1. SEE LANDSCAPE AND CIVIL DRAWINGS FOR ADDITIONAL SITE INFORMATION, INCLUDING FINISHED GRADE ELEVATIONS, DRAINAGE AND TOP OF SITE WALL ELEVATIONS.
2. PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING.
3. ALL DIMENSIONS ARE TO FACE OF STUD OR GRIDLINE U.N.O.
4. SEE SHEET RCP/ELECTRICAL PLANS FOR SMOKE DETECTOR LOCATIONS.
5. PROVIDE 5 AIR CHANGES PER HOUR FOR LAUNDRY AND BATHROOM VENTILATION.
6. ATTIC/UNDERFLOOR INSTALLATION MUST COMPLY WITH SECTIONS 904, 908, AND 909 OF THE CMC.
7. PROVIDE 30" UNOBSTRUCTED WORKING SPACE IN FRONT OF FURNACE
8. 1/2" MIN DROP IN EXTERIOR SLABS AT EXTERIOR OPENINGS THAT OPEN OUT. THRESHOLDS WHERE THE DOOR DOES NOT SWING OUT SHALL BE NO MORE THAN 7-3/4"
9. AUTOMATION SYSTEM FOR LIGHTING, AUDIO, SECURITY AND HVAC PER SPECIFICATIONS
10. THE CONTROL VALVES IN SHOWERS, TUB/SHOWERS, BATHTUBS, AND BIDETS MUST BE PRESSURE BALANCED OR THERMOSTATIC MIXING VALVES.
11. COMPLETE GAS PIPING SIZING DESIGN BASED UPON A MINIMUM INPUT OF 200,000 BTU/GR FOR EACH WATER HEATER.
12. INSTANTANEOUS WATER HEATERS SHALL HAVE ISOLATION VALVES ON BOTH THE COLD AND HOT WATER PIPING LEAVING THE WATER HEATER COMPLETE WITH HOSE BIBS OR OTHER FITTINGS ON EACH VALVE FOR FLUSHING THE WATER HEATER WHEN THE VALVES ARE CLOSED.
13. ALL HOT WATER PIPING SIZED 3/4" OR LARGER IS REQUIRED TO BE INSULATED AS FOLLOWS: 1" PIPE SIZE OR LESS: 1" THICK INSULATION, LARGER PIPE SIZES REQUIRE 1-1/2" THICK INSULATION ADDITIONAALLY, THE 1/2" HOT WATER PIPE TO THE KITCHEN SINKAND THE COLD WATER PIPE WITHIN 5' OF THE WATER HEATER ARE BOTH REQUIRED TO BE INSULATED.

TRE ARCHITECTURE

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PROFESSIONAL STAMP

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PROJECT INFO

LABOUNTY - 3950

3950 GARFIELD ST.
CARLSBAD, CA. 92008
APN : 206-012-06-00

TA 2010

DOCUMENT LOG

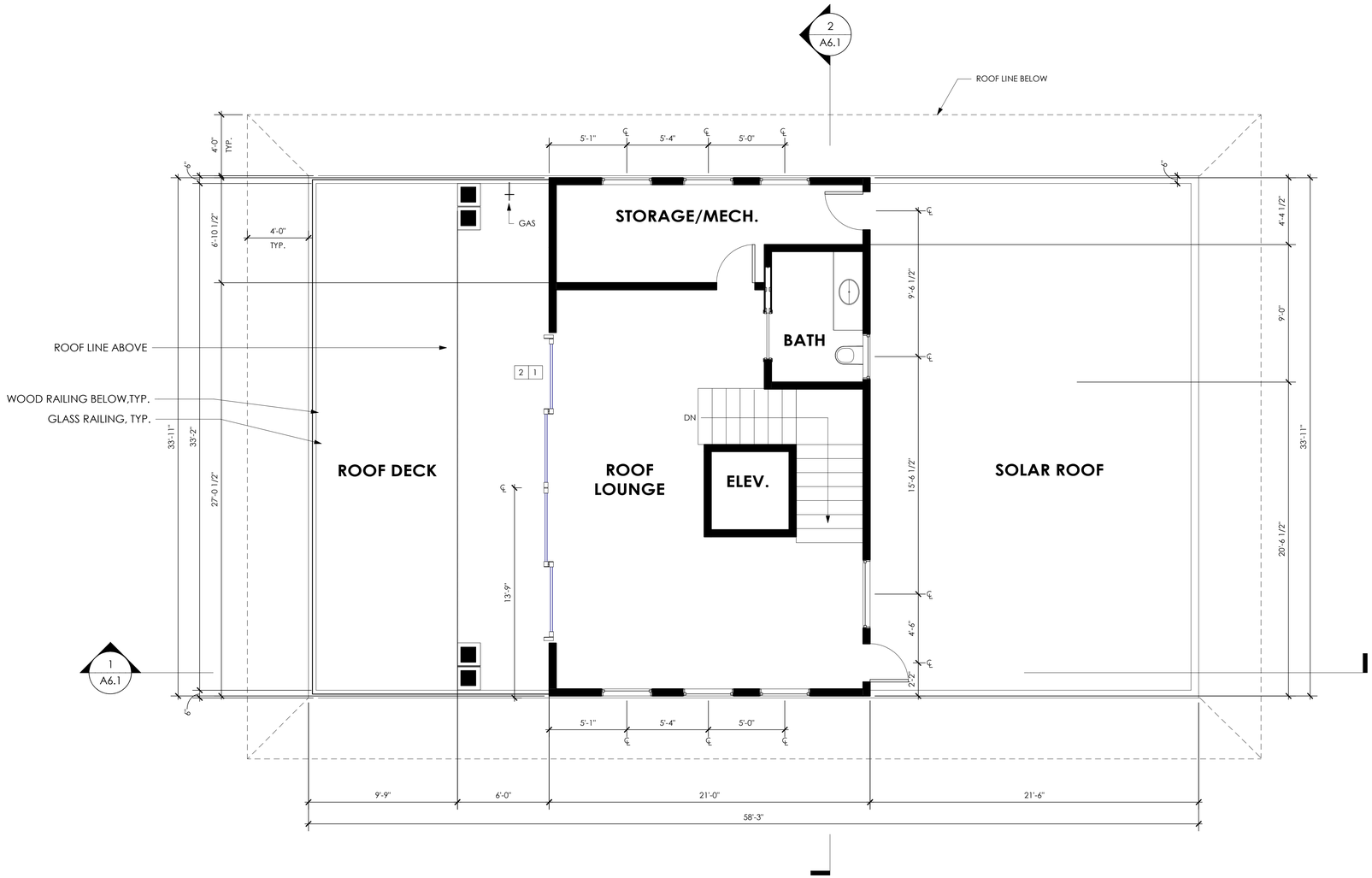
8/10/2022 PRELIMINARY REVIEW
12/01/2022 CDP1
03/20/2023 CDP2
06/14/2023 CDP3

DOCUMENT TITLE

PROPOSED SECOND FLOOR PLAN

DOCUMENT NUMBER

A2.2



1 ROOF DECK FLOOR PLAN

1/4" = 1'-0"

PROJECT INFORMATION

LABOUNTY RESIDENCE - 3950
3950 GARFIELD ST.
CARLSBAD, CA 92008
APN: 206-012-06-00

LEGAL DISCRIPTION

LOT 6, BLOCK "L", AS SHOWN ON THAT CERTAIN MAP ENTITLED PALISADES, WHICH MAP WAS FILED IN THE OFFICE OF THE RECORDER OF THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP NO 1747, FILED ON FEBRUARY 5, 1923.

PROCESSING

COASTAL DEVELOPMENT PERMIT

LOT AREA: 6,000 SF

EXISTING: R-3 AND BEACH OVERLAY

PROPOSED: R-3 AND BEACH OVERLAY

PROPOSED: SINGLE FAMILY RESIDENCE

CARLSBAD SEWER DISTRICT, CARLSBAD MWD, CARLSBAD UNIFIED
CARLSBAD FIRE

OCCUPANCY: R-3 / U

CONSTRUCTION TYPE: V-B (SPINKLERED)

TOTAL BUILDING AREA

BUILDING COVERAGE	2,632 SF
MAIN HOUSE (CONDITIONED)	4,284 SF
BUILDING SQUARE FOOTAGE (NON-CONDITIONED)	681 SF
DECKS/PATIOS	2,240 SF

LOT COVERAGE

BUILDING COVERAGE / LOT AREA (MAX. 60%) (2,632/6,000)	44%

LANDSCAPE AREA

PERCENTAGE OF SITE TO BE LANDSCAPED	

PARKING INFORMATION

TOTAL REQUIRED/PROVIDED	2 SPACES/2 SPACES
VISITOR PARKING (OFF-STREET)	1 SPACE / 1 SPACE

AREA CALCULATION

MAIN HOUSE
FIRST FLOOR LEVEL: 1,580 SF (CONDITIONED)
GARAGE: 571 SF (NON CONDITIONED)
SECOND FLOOR LEVEL: 2,040 SF (CONDITIONED)
ROOF DECK: 663 SF (CONDITIONED)
ROOF DECK STORAGE: 149 SF (NON CONDITIONED)

FIRST FLOOR ENTRY COVERED PATIO: 96 SF (NON CONDITIONED)
FIRST FLOOR COVERED PATIOS: 385 SF (NON CONDITIONED)
SECOND FLOOR COVERED PATIOS: 587 SF (NON CONDITIONED
COVERED ROOF PATIO: 178 SF (NON CONDITIONED
NONCOVERED ROOF DECK: 993 SF (NON CONDITIONED)

TOTAL GARAGE (NON CONDITIONED): 571 SF
TOTAL CONDITIONED SPACE: 4,284 SF
TOTAL COVERED PATIO: 1,246
TOTAL NON COVERED DECKS: 993

SETBACKS
FRONT SETBACK: 20FT
SIDE SETBACK: 5FT
REAR SETBACK: 10FT

WALL LEGEND

2X6 STUD WALL, FULL HEIGHT

SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION

FLOOR PLAN NOTES

1. SEE LANDSCAPE AND CIVIL DRAWINGS FOR ADDITIONAL SITE INFORMATION, INCLUDING FINISHED GRADE ELEVATIONS, DRAINAGE AND TOP OF SITE WALL ELEVATIONS.
2. PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING.
3. ALL DIMENSIONS ARE TO FACE OF STUD OR GRIDLINE U.N.O.
4. SEE SHEET RCP/ELECTRICAL PLANS FOR SMOKE DETECTOR LOCATIONS.
5. PROVIDE 5 AIR CHANGES PER HOUR FOR LAUNDRY AND BATHROOM VENTILATION.
6. ATTIC/UNDERFLOOR INSTALLATION MUST COMPLY WITH SECTIONS 904, 908, AND 909 OF THE CMC.
7. PROVIDE 30" UNOBSTRUCTED WORKING SPACE IN FRONT OF FURNACE
8. 1/2" MIN DROP IN EXTERIOR SLABS AT EXTERIOR OPENINGS THAT OPEN OUT. THRESHOLDS WHERE THE DOOR DOES NOT SWING OUT SHALL BE NO MORE THAN 7-3/4"
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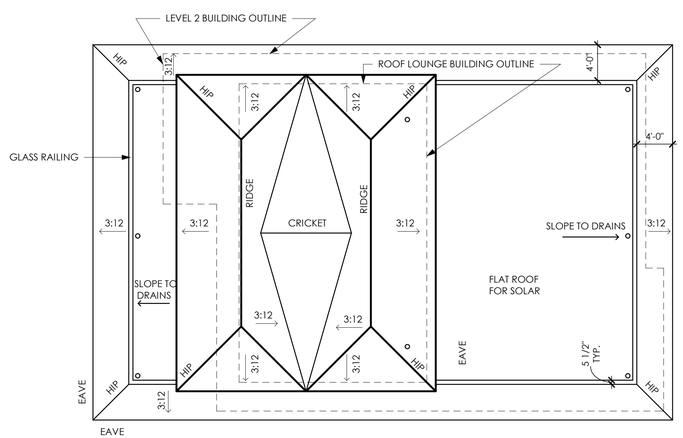
12/01/2022 CDP1
03/20/2023 CDP2
06/14/2023 CDP3

DOCUMENT TITLE

PROPOSED THIRD FLOOR PLAN ROOF DECK

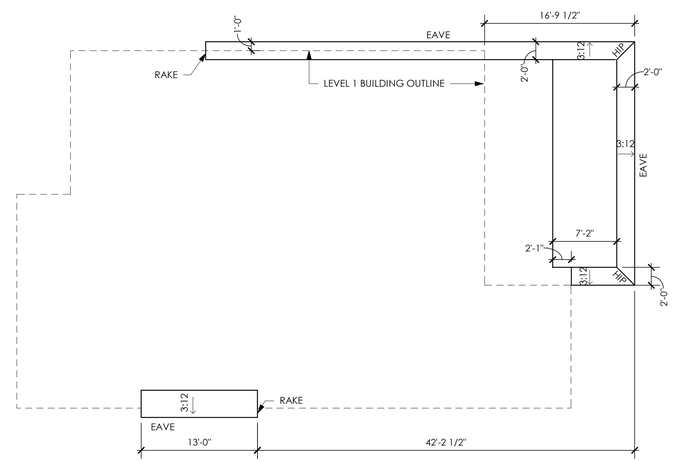
DOCUMENT NUMBER

A2.3



1 ROOF PLAN

1/8" = 1'-0"



2 LEVEL 1 - EYEBROW ROOF

1/8" = 1'-0"

ROOF PLAN NOTES

1. ALL DIMENSIONS ARE FACE OF WALL, GRID LINE, OR FACE OF STUD. (U.N.O.)
2. VERIFY THAT ALL ROOF AREAS HAVE POSITIVE DRAINAGE (3/8" PER FOOT/MIN.) PRIOR TO ROOF INSULATION INSTALLATION.
3. REFER TO STRUCTURAL DRAWINGS FOR ROOF FRAMING
4. CONTRACTOR TO VERIFY AND COORDINATE ALL LOCATIONS AND SIZES OF ROOF OPENINGS.
5. FOR TYP. ROOF PENETRATIONS, SEE DETAIL CONTRACTOR TO VERIFY ALL LOCATIONS
6. ALL ROOFING AND WATERPROOFING TO COMPLY WITH THE NATIONAL ROOFING CONTRACTOR'S ASSOCIATION MANUAL (CURRENT EDITION).

CONTRACTOR TO PROVIDE A VAPOR RETARDER HAVNG A TRANSMISSION
RATE NOT EXCEEDING 1 PERM IN ACCORDANCE WITH ASTM E 96 IS INSTALLED ON THE WARM SIDE OF THE ATTIC INSULATION

ROOF VENTILATION NOTES

1. ALL VENT OPENIINGS SHALL BE COVERED WITH CORROSION-RESISTANT METAL MESH W/ OPENINGS OF 1/8" DIAMETER.
2. SPACE VENTS EQUALLY ON BOTH SIDES OF ROOF, OR AS SHOWN ON ROOF PLAN, TO ENSURE CROSS VENTILATION.
3. ALL VENTILATION OPENINGS SHALL BE COVERED WITH NON- COMBUSTIBLE CORROSION-RESISTANT MESH. MESH OPENINGS SHALL BE 1/8 INCH.
4. VENTILATION OPENINGS ON STRUCTURES LOCATED IMMEDIATELY ADJACENT TO BRUSH MANAGEMENT ZONE 1 SHALL NOT BE DIRECTED TOWARD HAZZARDOUS AREAS OF NATIVE OR NATURALIZED VEGETATION.
5. ATTIC VENTILATION OPENINGS SHALL NOT BE LOCATED IN SOFFITS, IN EAVE OVERHANGS, BETWEEN RATERS AT EAVES , OR IN OTHER OVERHANG AREAS.
6. ROOF VENTS, DORMER VENTS, GABLE VENTS, FOUNDATION VENTILATION OPENINGS, VENTILATION OPENINGS IN VERTICAL WALLS, OR OTHER SIMILAR OPENINGS SHALL BE LOUVERED AND COVERED WITH 1/8" NON-COMBUSTIBLE CORROSION-RESISTANT METAL MESH
7. ROOF GUTTERS IF PROVIDED SHALL BE PROVIDED WITH THE MEANS TO PREVENT THE ACCUMULATION OF LEAVES AND DEBRIS IN THE GUTTER. ALL ROOF GUTTERS AND DOWNSPOUTS SHALL BE CONSTRUCTED OF NON-COMBUSTSIBLE MATERIALS.
8. WHEN DRIP EDGE FLASHING IS USED AT THE FREE EDGES OF ROOFING MATERIALS, IT SHALL BE NON-COMBUSTIBLE.

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PROJECT INFO

LABOUNTY - 3950

3950 GARFIELD ST.
CARLSBAD, CA. 92008
APN : 206-012-06-00

TA 2010

DOCUMENT LOG

8/10/2022 PRELIMINARY REVIEW
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03/20/2023 CDP2
06/14/2023 CDP3

DOCUMENT TITLE

PROPOSED ROOF PLAN

DOCUMENT NUMBER

A4.1

1 ELEVATION - EAST

1/4" = 1'-0"

2 ELEVATION - SOUTH

1/4" = 1'-0"

24' - 0" HEIGHT LIMIT @ ROOFS LESS THAN 3:12

30'-0" HEIGHT LIMIT @ ROOFS 3:12 OR GREATER

EXT. ELEVATION KEYNOTES

1. FINISH GRADE PER CIVIL,SLOPE AWAY FROM HOUSE @ 2% MIN. VERIFY LOCATION OF HARDSCAPE WITH LANDSCAPE PLANS.
2. STONE VENEER PER LEGEND. SEE DETAIL
3. DECK: CLASS 'A' MER-KO SHUR-DECK WATERPROOF DECKING OVER DECK IAMPO #517, OR EQUAL. SLOPE MIN. 1/4"/FT TO DRAIN OR EDGE.
4. WINDOW / DOORS PER SCHEDULE AND LEGEND
5. NOT USED
6. PAINTED WOOD CLAD GARAGE DOOR
7. STANDING SEAM METAL ROOF
8. GLASS GUARDRAIL
9. WOOD POST PER STRUCTURAL, SEE DETAIL
10. PAINTED METAL RAIN GUTTERS
11. METAL DOWNSPOUTS DRAIN TO EXISTING AREA DRAIN SYSTEM.
12. EXTERIOR LIGHTING. REFER TO LIGHTING CUT-SHEETS FOR SPECIFICATIONS.
13. PAINTED WOOD SIDING

EXT. ELEVATION LEGEND

-- REFERENCES EXTERIOR FINISH PER FINISH LEGEND BELOW

EXTERIOR FINISH LEGEND

NOTE	COLOR	MANUF.	REMARKS
A ROOF	CHARCOAL	AMERICAN SLATE OR EQ.	STANDING SEAM
B STONE	CUSTOM MISSON LIMESTONE	CUSTOM	HEAVY GRAY MORTAR
C SIDING	SWISS COFFEE	BENJAMIN MOORE OR EQ.	HARDIE PANEL VERT. SIDING OR EQ.
D DOORS & WINDOWS	BLACK ALUMINUM	WESTERN OR EQ.	ALUMINUM
E PAINTED WOOD	SWISS COFFEE	BENJAMIN MOORE OR EQ.	POSTS, TRIM, DECK
F WOOD	--	BENJAMIN MOORE OR EQ.	GARAGE DOOR

- CONTRACTOR TO SUPPLY SAMPLES FOR OWNER / ARCHITECT APPROVAL
- VERIFY ALL MATERIALS AND COLORS WITH OWNER

EXT. ELEVATION NOTES

1. ALL DIMENSIONS ARE TO FACE OF FRAMING (U.N.O.).
2. WRITTEN DIMENSIONS TO PREVAIL OVER SCALE OF DRAWINGS. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO START OF WORK. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPENCIES
3. ALL DETAIL REFERENCES ARE TYPICAL AND APPLY TO ALL SIMILAR CONDITIONS, WHETHER SPECIFICALLY REFERENCED OR NOT.
4. ALL EXPOSED METAL AND FLASHING TO BE COMPATIBLE WITH GUTTERS.

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DOCUMENT TITLE

EXTERIOR ELEVATIONS

DOCUMENT NUMBER

A5.1

24' - 0" HEIGHT LIMIT @ ROOFS LESS THAN 3:12

30'-0" HEIGHT LIMIT @ ROOFS 3:12 OR GREATER

1 ELEVATION - WEST

1/4" = 1'-0"

2 ELEVATION - NORTH

1/4" = 1'-0"

EXT. ELEVATION KEYNOTES

1. FINISH GRADE PER CIVIL.SLOPE AWAY FROM HOUSE @ 2% MIN. VERIFY LOCATION OF HARDSCAPE WITH LANDSCAPE PLANS.
2. STONE VENEER PER LEGEND. SEE DETAIL
3. DECK: CLASS 'A' MER-KO SHUR-DECK WATERPROOF DECKING OVER DECK IAMPO #517, OR EQUAL. SLOPE MIN. 1/4"/FT TO DRAIN OR EDGE.
4. WINDOW / DOORS PER SCHEDULE AND LEGEND
5. NOT USED
6. PAINTED WOOD CLAD GARAGE DOOR
7. STANDING SEAM METAL ROOF
8. GLASS GUARDRAIL
9. WOOD POST PER STRUCTURAL, SEE DETAIL
10. PAINTED METAL RAIN GUTTERS
11. METAL DOWNSPOUTS DRAIN TO EXISTING AREA DRAIN SYSTEM.
12. EXTERIOR LIGHTING. REFER TO LIGHTING CUT-SHEETS FOR SPECIFICATIONS.
13. PAINTED WOOD SIDING

EXT. ELEVATION LEGEND

-- REFERENCES EXTERIOR FINISH PER FINISH LEGEND BELOW

EXTERIOR FINISH LEGEND

NOTE	COLOR	MANUF.	REMARKS
A ROOF	CHARCOAL	AMERICAN SLATE OR EQ.	STANDING SEAM
B STONE	CUSTOM MISSON LIMESTONE	CUSTOM	HEAVY GRAY MORTAR
C SIDING	SWISS COFFEE	BENJAMIN MOORE OR EQ.	HARDIE PANEL VERT. SIDING OR EQ.
D DOORS & WINDOWS	BLACK ALUMINUM	WESTERN OR EQ.	ALUMINUM CLAD
E PAINTED WOOD	SWISS COFFEE	BENJAMIN MOORE OR EQ.	POSTS, TRIM, DECK
F WOOD	--	BENJAMIN MOORE OR EQ.	GARAGE DOOR

- CONTRACTOR TO SUPPLY SAMPLES FOR OWNER / ARCHITECT APPROVAL
- VERIFY ALL MATERIALS AND COLORS WITH OWNER

EXT. ELEVATION NOTES

1. ALL DIMENSIONS ARE TO FACE OF FRAMING (U.N.O.).
2. WRITTEN DIMENSIONS TO PREVAIL OVER SCALE OF DRAWINGS. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO START OF WORK. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPENCIES
3. ALL DETAIL REFERENCES ARE TYPICAL AND APPLY TO ALL SIMILAR CONDITIONS, WHETHER SPECIFICALLY REFERENCED OR NOT.
4. ALL EXPOSED METAL AND FLASHING TO BE COMPATIBLE WITH GUTTERS.

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06/14/2023 CDP3

DOCUMENT TITLE

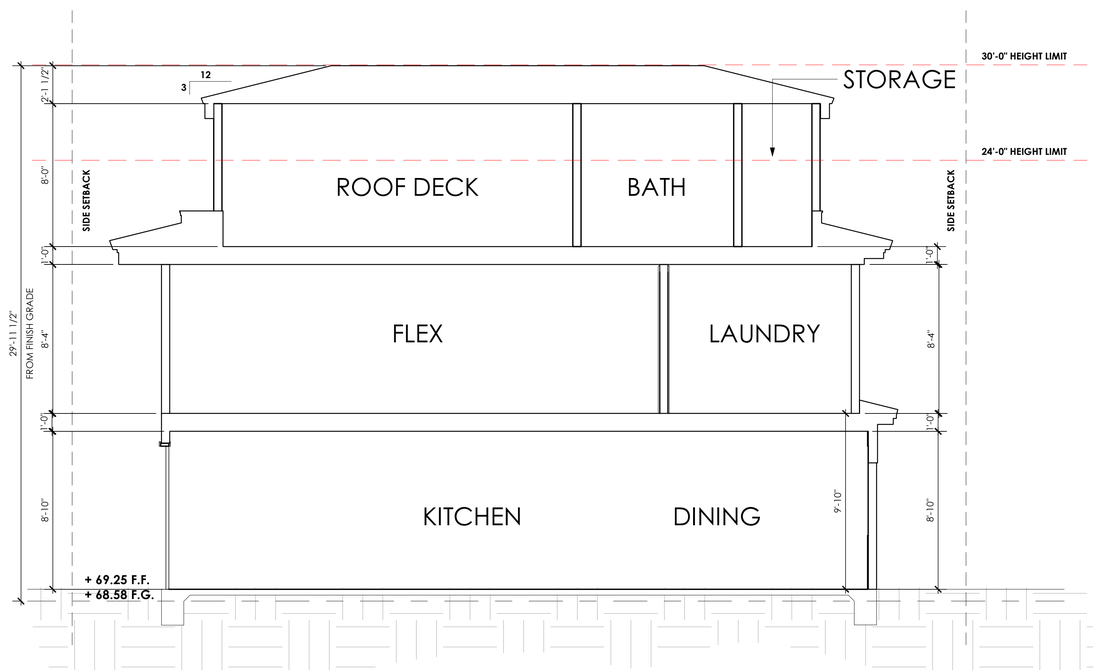
EXTERIOR ELEVATIONS

DOCUMENT NUMBER

A5.2

1 BUILDING SECTION - EAST/WEST

1/4" = 1'-0"



2 BUILDING SECTION - NORTH/SOUTH

1/4" = 1'-0"

24' - 0" HEIGHT LIMIT @ ROOFS LESS THAN 3:12

30'-0" HEIGHT LIMIT @ ROOFS 3:12 OR GREATER

SECTION NOTES

1. ALL DIMENSIONS ARE TO FACE OF FRAMING (U.N.O.).
2. WRITTEN DIMENSIONS TO PREVAIL OVER SCALE OF DRAWINGS. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO START OF WORK. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPENCIES
3. ALL EXPOSED WOOD SHALL BE PAINTED / STAINED PER EXTERIOR ELEVATION LEGEND.
4. ALL DETAIL REFERENCES ARE TYPICAL AND APPLY TO ALL SIMILAR CONDITIONS, WHETHER SPECIFICALLY REFERENCED OR NOT.
5. RISER DIMENSIONS TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION. MAXIMUM RISER HT. 7 3/4".
6. PROVIDE FIRESTOPS, VERTICAL AND HORIZONTAL, IN ENCLOSED SPACES AT 10'-0" INTERVALS MAXIMUM. (U.B.C. SEC 708.2.1)
7. STUD SPACING PER STRUCTURAL. FIREBLOCK 10'-0" EACH WAY MAX.

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DOCUMENT TITLE

BUILDING SECTIONS

DOCUMENT NUMBER

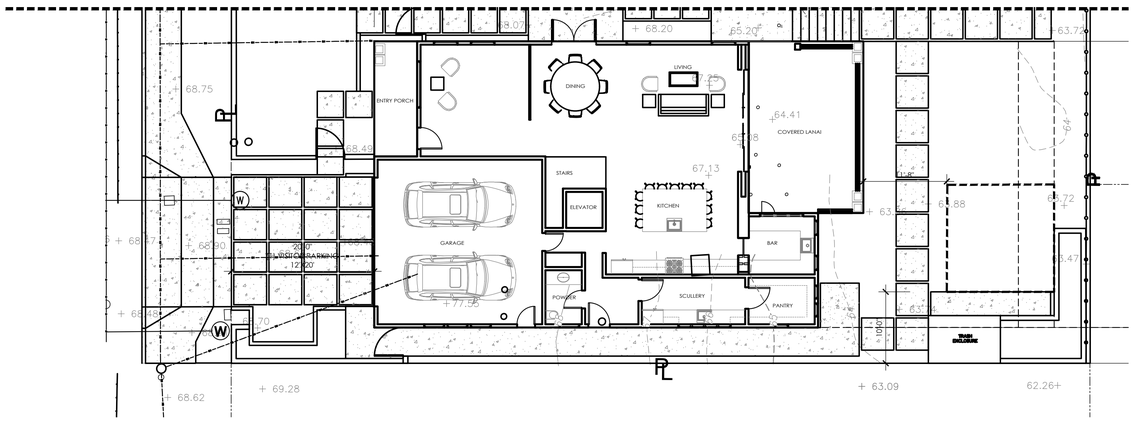
A6.1

LANDSCAPE ARCHITECTURAL PLANS FOR:

LA BOUNTY RESIDENCE

3950 GARFIELD ST, CARLSBAD, CA 92008

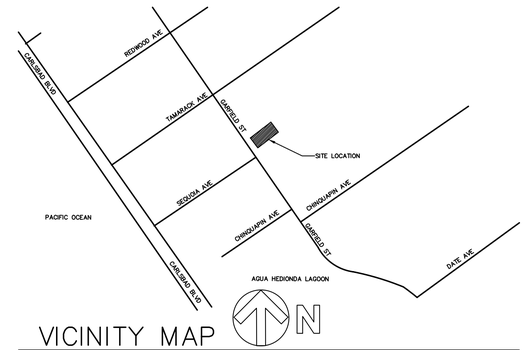
APN 206-012-0600



SITE PLAN

SCALE: 1"=10'-0"

TOTAL LANDSCAPED AREA = 1,690 SQ.FT.



VICINITY MAP

NTS

PROJECT INFO:

OWNER: MR & MRS LA BOUNTY

LANDSCAPE ARCHITECT:
JPBLA
4403 MANCHESTER AVE, STE 201
ENCINITAS,CA 92024
760-479-0644

CIVIL ENGINEER:
COFFEY ENGINEERING, INC.
9666 BUSINESSPARK AVE #210,
SAN DIEGO, CA 92131
858-831-0111

ARCHITECT:
TRE ARCHITECTURE
300 CARLSBAD VILLAGE DR #108A-336,
CARLSBAD, CA 92008
760-268-9090

SHEET INDEX:

TITLE SHEET	1
LANDSCAPE CONCEPT PLAN, LEGEND & SECTIONS	2
HYDROZONE PLAN, WATER CONSERVATION CALCULATIONS & NOTES	3

PROJECT NOTES:

GENERAL:

1 REFER TO ARCHITECTURAL SITE PLAN IS FOR BUILDING IDENTIFICATION AND INFORMATION ONLY.

2 IN THE EVENT OF A CONFLICT BETWEEN LANDSCAPE PLANS AND ARCHITECTURAL PLANS, LANDSCAPE PLANS SHALL TAKE PRECEDENCE FOR SITE DRAINAGE.

3 ALL LANDSCAPE AND IRRIGATION SHALL CONFORM TO THE STANDARDS OF THE COUNTY-WIDE LANDSCAPE REGULATIONS AND THE CITY OF CARLSBAD LAND DEVELOPMENT MANUAL LANDSCAPE STANDARDS AND ALL OTHER LANDSCAPE RELATED CITY AND REGIONAL STANDARDS.

PLANTING:

1. INCORPORATE COMPOST AT A RATE OF AT LEAST FOUR CUBIC YARDS PER 1,000 SQUARE FEET TO A DEPTH OF SIX INCHES INTO LANDSCAPE AREA (UNLESS CONTRADICTED BY A SOILS TEST)

2 A MINIMUM OF 3" OF TOP DRESS MULCH WILL BE APPLIED TO ALL EXPOSED SOIL SURFACE EXCLUDING TURF AREAS, CREEPING OR ROOTING GROUND COVERS OR DIRECT SEEDLING APPLICATIONS.

3 ALL IRRIGATION EMISSION DEVICES SHALL BE SUBSURFACE DRIP TUBE (NETAFIM OR EQUAL).

4 AT THE TIME OF FINAL INSPECTION, THE PERMIT APPLICANT MUST PROVIDE THE OWNER OF THE PROPERTY WITH A CERTIFICATE OF COMPLETION, CERTIFICATE OF INSTALLATION, IRRIGATION SCHEDULE, AND A LANDSCAPE & IRRIGATION MAINTENANCE SCHEDULE.

5 PROPERTY OWNER SHALL BE RESPONSIBLE FOR ALL LANDSCAPE MAINTENANCE.

6 ALL UTILITIES ARE TO BE SCREENED.

7 SPACING OF SLOPE SHRUBS AND GROUND COVERS SHALL BE ADEQUATE FOR EROSION CONTROL. REFER TO PLANTING LEGEND. REINFORCED STRAW MATTING WILL BE INSTALLED ON ALL SLOPES 3:1 OR GREATER.

8 ALL EXISTING TREES SHOWN ON PLAN ARE OFF-SITE.

9 PER APPENDIX D: AUTOMATIC IRRIGATION CONTROLLERS ARE REQUIRED AND MUST USE EVAPOTRANSPIRATION OR SOIL MOISTURE SENSOR DATA AND UTILIZE A RAIN SENSOR.

10 PER APPENDIX D: IRRIGATION CONTROLLERS SHALL BE OF A TYPE WHICH DOES NOT LOSE PROGRAMMING DATA IN THE EVENT THE PRIMARY POWER SOURCE IS INTERRUPTED.

11 PER APPENDIX D: PRESSURE REGULATORS SHALL BE INSTALLED ON THE IRRIGATION SYSTEM TO ENSURE THE DYNAMIC PRESSURE OF THE SYSTEM IS WITHIN THE MANUFACTURERS RECOMMENDED PRESSURE RANGE.

12 PER APPENDIX D: MANUAL SHUT-OFF VALVES (SUCH AS A GATE VALVE, BALL VALVE, OR BUTTERFLY VALVE) SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO THE POINT OF CONNECTION OF THE WATER SUPPLY. PLEASE INDICATE LOCATIONS ON THE IRRIGATION PLAN (IF AN IRRIGATION PLAN IS INCLUDED), OR PROVIDE A NOTE INDICATING A SHUT-OFF VALVE WILL BE INSTALLED AS CLOSE AS POSSIBLE TO THE POINT OF CONNECTION.

13 PER APPENDIX D: ALL IRRIGATION EMISSION DEVICES MUST MEET THE REQUIREMENTS SET IN THE ANSI STANDARD, ASABE/ICC 802-2014. LANDSCAPE IRRIGATION SPRINKLER AND EMITTER STANDARD, ALL SPRINKLER HEADS INSTALLED IN THE LANDSCAPE MUST DOCUMENT A DISTRIBUTION UNIFORMITY LOW QUARTER OF 0.65 OR HIGHER USING THE PROTOCOL DEFINED IN ASABE/ICC 802-2014.

14 PER APPENDIX D: AREAS LESS THAN TEN (10) FEET IN WIDTH IN ANY DIRECTION SHALL BE IRRIGATED WITH SUBSURFACE IRRIGATION OR OTHER MEANS THAT PRODUCES NO RUNOFF OR OVERSPRAY.

LANDSCAPE ARCHITECT OBSERVATION REQUIREMENTS.

1. ALL LANDSCAPE PROJECTS WILL REQUIRE THE FOLLOWING CERTIFICATIONS BE PRE-REVIEWED BEFORE PROJECT SUBMITTALS FOR CONFORMANCE WITH APPROVED PLANS. DRAINAGE HAS BEEN INSTALLED PER PLAN
2. PROVIDE A WRITTEN REVIEW OF THE IRRIGATION MAIN LINE PRESSURE TEST AND INSTALLED PER PLAN. NOTE THE PIPE DEPTH 18" FOR PRESSURE MAINLINE, 12" FOR LATERAL LINES, AND 2"-3" FOR DRIP IN-LINE TUBING.
3. PROVIDE A WRITTEN REVIEW OF THE IRRIGATION COVERAGE TEST
4. PROVIDE A WRITTEN REVIEW OF THE PLANT MATERIAL INSPECTION ON-SITE UPON DELIVERY, AND VERIFY PLANT LOCATIONS IN FIELD.
5. PROVIDE A WRITTEN REVIEW THAT THE INSTALLATION IS IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED PLANS.
6. PREPARE AN AS-BUILT PLAN OF ANY CHANGES AND PROVIDE THE OWNER AND HOA A COPY OF THE IRRIGATION DEPICTING AS-BUILT LOCATIONS OF THE MAINLINE AND REMOTE-CONTROL VALVES BY DIMENSIONS FROM KNOWN SITE ELEMENTS.

ALL CERTIFICATIONS WILL BE PROVIDED IN LETTER FORM. THESE OBSERVATION REQUIREMENTS SHOULD BE BUDGETED FOR AND SHOWN AS A SEPARATE LINE ITEM ON CONTRACTS WITH LANDSCAPE ARCHITECTS.

LANDSCAPE CONTRACTOR SHALL FOLLOW APPROVED PLANS FOR CONSTRUCTION. ANY DEVIATIONS FROM APPROVED PLANS SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT OF RECORD FOR REVIEW AND APPROVED PRIOR TO CONSTRUCTION

DECLARATION OF RESPONSIBLE CHARGE:

I AM FAMILIAR WITH THE REQUIREMENTS FOR LANDSCAPE AND IRRIGATION PLANS CONTAINED IN THE CITY OF CARLSBAD WATER EFFICIENT LANDSCAPE REGULATIONS. I HAVE PREPARED THIS PLAN IN COMPLIANCE WITH THOSE REGULATIONS AND THE LANDSCAPE DESIGN MANUAL. I CERTIFY THAT THE PLAN IMPLEMENTS THOSE REGULATIONS TO PROVIDE EFFICIENT USE OF WATER. UNDER PENALTY OF PERJURY, I AFFIRM THAT THE FOREGOING IS TRUE AND CORRECT.

09-28-23

JAMES P. BENEDETTI
LANDSCAPE ARCHITECT

DATE

LC-1

APPROVED FOR IRRIGATION AND PLANTING ONLY, INCLUDING PRECISE LOCATION OF PLANTING AREA.

"AS BUILT"

RCE _____ EXP. _____ DATE

REVIEWED BY:

INSPECTOR DATE

TITLE PAGE

ROOT BARRIER NOTE:

ALL TREES PLANTED WITHIN 5' OF ANY CURB, WALL, HARDSCAPE ELEMENT, BUILDING, FIRE HYDRANT, UTILITY VAULT, OR LIGHT FIXTURE SHALL RECEIVE A 10' LENGTH OF 24" DEEP ROOT BARRIER. NO ROOT BARRIER SHALL ENCIRCLE THE ROOT BALL.

Underground Service Alert
Call: TOLL FREE
1-800
227-2600

TWO WORKING DAYS BEFORE YOU DIG
"CAUTION": Remember that the USA Center notifies only those utilities belonging to the center. There could be other utilities present at the work site. The center will inform you of whom they will notify.

N

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SCALE: 1"=10'-0"

JPBLA
JAMES P. BENEDETTI
LANDSCAPE ARCHITECT
4403 MANCHESTER AVE., SUITE 201
ENCINITAS, CA 92024
760/479-0644 FAX 760/479-0645

LICENSED LANDSCAPE ARCHITECT JAMES P. BENEDETTI
Signature
Ren. Date 3/30/24
Date 09/28/23
STATE OF CALIFORNIA

Expiration Date: 9/30/24

DATE	INITIAL	REVISION DESCRIPTION	DATE	INITIAL	DATE	INITIAL
DESIGNER OF WORK			OTHER APPROVAL		CITY APPROVAL	

SHEET 1 | CITY OF CARLSBAD PLANNING DIVISION | SHEETS 3

LANDSCAPE IMPROVEMENT PLANS FOR:
LA BOUNTY RESIDENCE
3950 GARFIELD ST, CARLSBAD, CA 92008
APN 206-012-0600

APPROVED:

PLANNING

DWN BY: _____
CHKD BY: _____
RVWD BY: _____

PROJECT NO. CDP2022-0067

DRAWING NO.

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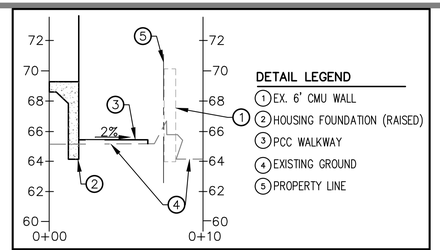

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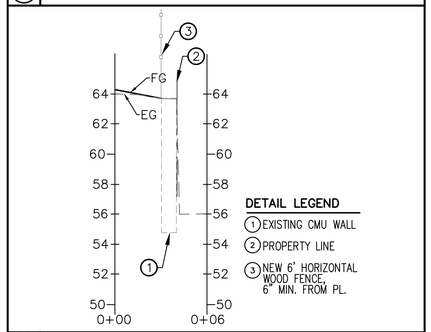

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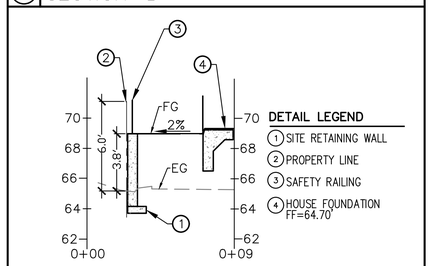

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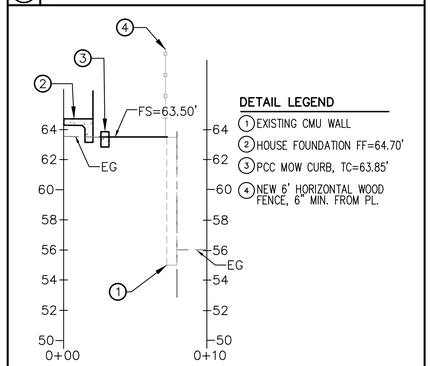

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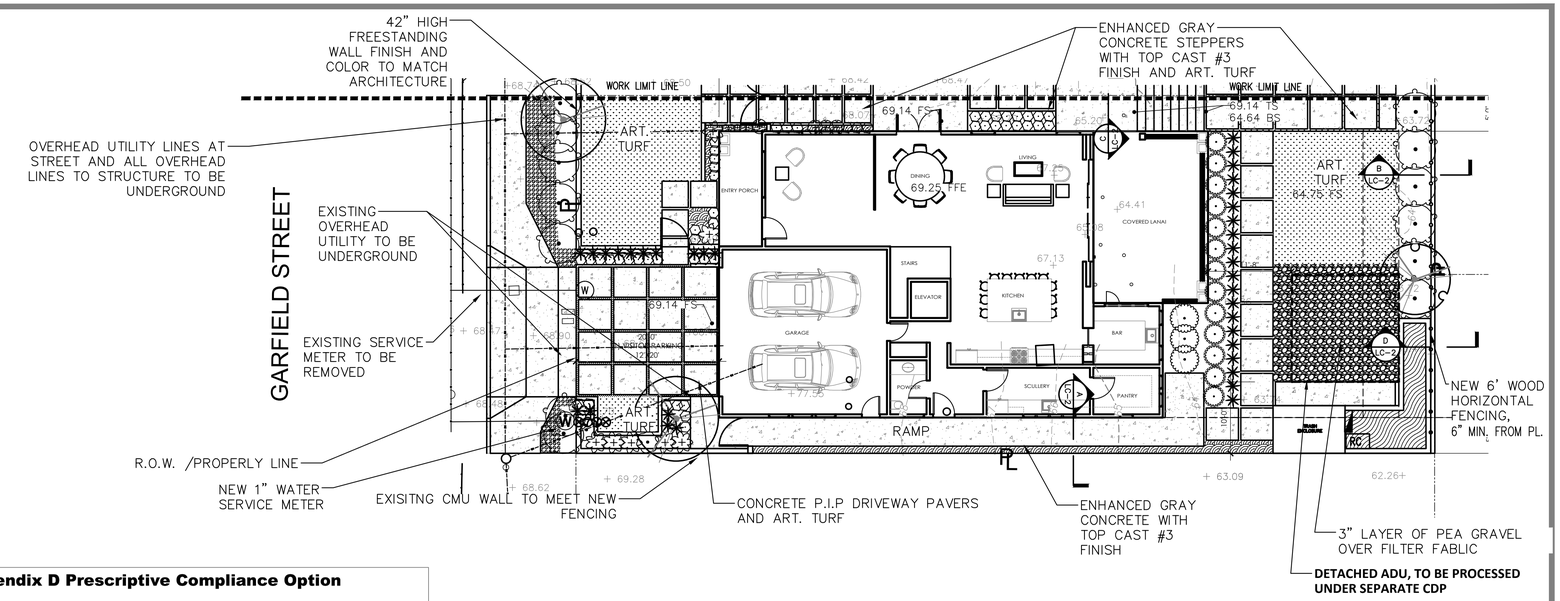

Appendix D Prescriptive Compliance Option

This appendix contains prescriptive requirements which may be used as a compliance option to the Water Efficient Landscape Ordinance and this Landscape Manual for projects of less than 2,500 square feet. Compliance with the following items is mandatory and must be documented on a landscape plan in order to use this option.

Project Applicant: LABOUNTY	Date: 03/15/2023	
Project Address: 3950 GARFIELD ST, CARLSBAD CA. 92008	Assessor's Parcel Number: 206-012-0600	
Total Landscape Area: 1,690 SQ.FT.	Turf Area: 785 SQ.FT.	Plant Area: 905 SQ.FT.
Project Type: RESIDENTIAL		
Water Supply Type: POTABLE		
Project Contact Name and Number: JAMES P. BENEDETTI / (760)-479-0644		
"I agree to comply with the requirements of the prescriptive compliance option to the City of Carlsbad Landscape Manual"		
Signed:	Date: 09/28/2023	

YES	N/A	REQUIREMENTS
x		A. Incorporate compost at a rate of at least four cubic yards per 1,000 square feet to a depth of six inches into landscape area (unless contraindicated by a soil test)
		B. Plant material shall comply with all of the following:
x		1. For residential areas, install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 75% of the plant area excluding edibles and areas using recycled water.
	x	2. For non-residential areas, install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 100% of the plant area excluding edibles and areas using recycled water.
x		3. A minimum three inch (3") layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated.
		C. Turf shall comply with all of the following:
x		1. Turf shall not exceed 25% of the landscape area in residential areas, and there shall be no turf in non-residential areas.
x		2. Turf shall not be planted on sloped areas which exceed a slope of 1 foot vertical elevation change for every 4 feet of horizontal length.
x		3. Turf is prohibited in parkways less than 10 feet wide, unless the parkway is adjacent to a parking strip and used to enter and exit vehicles. Any turf in parkways must be irrigated by subsurface irrigation or by other technology that creates no overspray or runoff.
		D. Irrigation systems shall comply with the following:
x		1. Automatic irrigation controllers are required and must use evapotranspiration or soil moisture sensor data and utilize a rain sensor.
x		2. Irrigation controllers shall be of a type which does not lose programming data in the event the primary power source is interrupted.
x		3. Pressure regulators shall be installed on the irrigation system to ensure the dynamic pressure of the system is within the manufacturers recommended pressure range.
x		4. Manual shut-off valves (such as a gate valve, ball valve, or butterfly valve) shall be installed as close as possible to the point of connection of the water supply.
x		5. All irrigation emission devices must meet the requirements set in the ANSI standard, ASABE/ICC 802-2014. "Landscape Irrigation Sprinkler and Emitter Standard," All sprinkler heads installed in the landscape must document a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.
x		6. Areas less than ten (10) feet in width in any direction shall be irrigated with subsurface irrigation or other means that produces no runoff or overspray.
	x	E. For non-residential projects with landscape areas of 1,000 sq. ft. or more, a private submeter(s) to measure landscape water use shall be installed.
x		At the time of final inspection, the permit applicant must provide the owner of the property with a certificate of completion, certificate of installation, irrigation schedule and a schedule of landscape and irrigation maintenance.

Appendix D

City of Carlsbad Landscape Manual

PLANT SCHEDULE

TREES	BOTANICAL / COMMON NAME	CONT	WUCOLS	QTY
	CERCIS CANADENSIS 'FOREST PANSY' / FOREST PANSY EASTERN REDBUD	36" BOX	L	2
	HYMENOSPORUM FLAVUM / SWEETSHADE	15 GAL	M	1

SHRUBS	BOTANICAL / COMMON NAME	CONT	WUCOLS	QTY
	AEONIUM X 'ZWARTKOP' / ZWARTKOP AEONIUM	1 GAL	L	4
	CAMELLIA SASANQUA 'CLEOPATRA' / CLEOPATRA CAMELLIA	5 GAL	M	3
	CHONDROPETALUM TECTORUM / SMALL CAPE RUSH	5 GAL	L	13
	DIANELLA REVOLUTA DTN03 BAB BLISS LA LIL	5 GAL	L	50
	GAURA LINDHEIMERI KLEGL14844 BELLE A HITE GAURA	5 GAL	L	35
	KALANCHOE THYRSIFLORA 'FLAPJACK' / FLAPJACK PADDLE PLANT	1 GAL	L	5
	LAVANDULA STOECHAS / SPANISH LAVENDER	5 GAL	L	2
	LIGUSTRUM JAPONICUM / JAPANESE PRIVET	15 GAL	M	13
	SALVIA LEUCANTHA `SANTA BARBARA` / SANTA BARBARA MEXICAN BUSH SAGE	5 GAL	L	7

GROUND COVERS	BOTANICAL / COMMON NAME	CONT	WUCOLS	SPACING	QTY
	ARTIFICIAL TURF / SYNTHETIC	SOD	L		762 SF
	CAREX TUMULICOLA / FOOTHILL SEDGE	1 GAL	L	24" o.c.	26
	CARISSA MACROCARPA 'GREEN CARPET' / GREEN CARPET NATAL PLUM	1 GAL	L	18" o.c.	50
	SENECIO SERPENS / BLUE CHALKSTICKS	1 GAL	L	12" o.c.	115

LC-2

APPROVED FOR IRRIGATION AND PLANTING ONLY, INCLUDING PRECISE LOCATION OF PLANTING AREA.

"AS BUILT"

RCE _____ EXP. _____ DATE

REVIEWED BY:

INSPECTOR DATE

IRRIGATION LEGEND

SYMBOL	DESCRIPTION	MANUFACTURER/MODEL	REMARKS
	AUTOMATIC CONTROLLER	HUNTER PRO-C HYDROWISE/HPC-400 W/PCM-900 INDOOR WALL MOUNT CONTROLLER	INSTALL IN STORAGE ROOM
RC	RAIN SHUT OFF SENSOR	HUNTER / RAIN-CLIK	INSTALL (1) PER MANUF. RECOMM,
	BACKFLOW PREVENTOR	FEBCO / 825YA-3/4" W/ PVR-1	INSTALL PER DISTRICT STANDARDS

ROOT BARRIER NOTE:

ALL TREES PLANTED WITHIN 5' OF ANY CURB, WALL, HARDSCAPE ELEMENT, BUILDING, FIRE HYDRANT, UTILITY VAULT, OR LIGHT FIXTURE SHALL RECEIVE A 10' LENGTH OF 24" DEEP ROOT BARRIER. NO ROOT BARRIER SHALL ENCIRCLE THE ROOT BALL.

Underground Service Alert TWO WORKING DAYS BEFORE YOU DIG

Call: TOLL FREE 1-800 227-2600

"CAUTION": Remember that the USA Center notifies only those utilities belonging to the center. There could be other utilities present at the work site. The center will inform you of whom they will notify.

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SCALE: 1"=10'-0"

JPBLA
JAMES P. BENEDETTI
LANDSCAPE ARCHITECT
4403 MANCHESTER AVE., SUITE 201
ENCINITAS, CA 92024
760/479-0644 FAX 760/479-0645

LICENSED LANDSCAPE ARCHITECT JAMES P. BENEDETTI No. 2604 Signature Ren Date 9/30/24 Date 09/28/23 STATE OF CALIFORNIA

Expiration Date: 9/30/24

CONCEPT PLAN, LEGEND & SECTIONS

DATE	INITIAL	REVISION DESCRIPTION	DATE	INITIAL	DATE	INITIAL
DESIGNER OF WORK			OTHER APPROVAL		CITY APPROVAL	

SHEET 2 | CITY OF CARLSBAD PLANNING DIVISION | SHEETS 3

LANDSCAPE IMPROVEMENT PLANS FOR:

LA BOUNTY RESIDENCE
3950 GARFIELD ST, CARLSBAD, CA 92008
APN 206-012-0600

APPROVED:

PLANNING

DWN BY: _____
CHKD BY: _____
RVWD BY: _____

PROJECT NO. CDP2022-0067

DRAWING NO.

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IRRIGATION NOTE:

AN AUTOMATIC IRRIGATION SYSTEM SHALL BE INSTALLED TO PROVIDE COVERAGE FOR ALL PLANTING AREAS SHOWN ON THE PLAN. LOW PRECIPITATION EQUIPMENT SHALL PROVIDE SUFFICIENT WATER FOR PLANT GROWTH WITH A MINIMUM WATER LOSS DUE TO WATER RUN OFF. IRRIGATION SYSTEMS SHALL USE HIGH QUALITY, AUTOMATIC CONTROL VALVES, CONTROLLERS AND OTHER NECESSARY IRRIGATION EQUIPMENT. ALL COMPONENTS SHALL BE OF NON CORROSIVE MATERIAL. ALL DRIP SYSTEMS SHALL BE ADEQUATELY FILTERED AND REGULATED PER THE MANUFACTURER'S RECOMMENDED DESIGN PARAMETERS. ALL IRRIGATION IMPROVEMENTS SHALL FOLLOW THE CITY OF CARLSBAD GUIDELINES AND WATER CONSERVATION ORDINANCE.

PLANTING NOTE:

THE SELECTION OF PLANT MATERIAL IS BASED ON CULTURAL, AESTHETIC, AND MAINTENANCE CONSIDERATIONS. ALL PLANTING AREAS SHALL BE PREPARED WITH APPROPRIATE SOIL AMENDMENTS, FERTILIZERS, AND APPROPRIATE SUPPLEMENTS BASED UPON A SOILS REPORT FROM AN AGRICULTURAL SUITABILITY SOIL SAMPLE TAKEN FROM THE SITE. GROUND COVERS OR BARK MULCH SHALL FILL IN BETWEEN THE SHRUBS TO SHIELD THE SOIL FROM THE SUN, EVAPOTRANSPORATION AND RUN OFF. ALL THE FLOWER AND SHRUB BEDS SHALL BE MULCHED TO A 3 DEPTH TO HELP CONSERVE WATER, LOWER THE SOIL TEMPERATURE AND REDUCE WEED GROWTH. THE SHRUBS SHALL BE ALLOWED TO GROW IN THEIR NATURAL FORMS. ALL LANDSCAPE IMPROVEMENTS SHALL FOLLOW THE CITY OF CARLSBAD GUIDELINES.

FIRE NOTES:

1. LANDSCAPE IMPROVEMENT PLAN SET AND INSTALLATION ARE REQUIRED TO IMPLEMENT APPROVED FIRE DEPT. REGULATIONS, CODES, AND STANDARDS AT THE TIME OF PROJECT APPROVAL.
2. ALL FIRE HYDRANTS, DOUBLE CHECK DETECTORS, POST INDICATION VALVES, AND FIRE DEPT. CONNECTIONS SHALL BE PROVIDED WITH A 3–FOOT CLEARANCE AROUND ALL FIRE APPARATUSES.
3. ALL TREES AT MATURITY SHALL MEET A HORIZONTAL CLEARANCE ALONG ALL ROADWAYS FROM CURB TO CURB. HORIZONTAL ROADWAY CLEARANCE FOR A ONE–STORY BUILDING IS 28–FEET WIDE.
4. ALL TREES AT MATURITY SHALL MEET A VERTICAL CLEARANCE OF 14–FEET FROM THE TOP OF THE ROADWAY TO THE LOWEST BRANCHES.

DRAINAGE NOTE:

ALL LANDSCAPE AREAS SHALL HAVE POSITIVE DRAINAGE (2% GRADE IN PLANTING AREAS) AWAY FROM ALL STRUCTURES AND TERMINATING IN AN APPROVED DRAINAGE SYSTEM.

MAINTENANCE RESPONSIBILITY NOTE:

THE PROPERTY OWNERS ARE RESPONSIBLE FOR THE CONTINUAL MAINTENANCE OF ALL LANDSCAPED AREAS ON SITE, AS WELL AS CONTIGUOUS PLANTING AREAS WITHIN THE PUBLIC RIGHT–OF–WAY. ALL LANDSCAPED AREAS SHALL BE KEPT FREE OF WEEDS AND DEBRIS. PLANTINGS SHALL BE MAINTAINED IN A HEALTHY, VIGOROUSLY GROWING CONDITION, AND SHALL RECEIVE REGULAR PRUNING, FERTILIZING, MOWING AND TRIMMING. IRRIGATION SYSTEMS SHALL BE REGULARLY INSPECTED AND KEPT IN FULLY OPERATIONAL CONDITION ACCORDING TO MANUFACTURERS' DESIGN STANDARDS AT ALL TIMES.

STREET TREES AND OTHER TREES SHALL BE SPACED:

1. 8 FEET (PREVIOUSLY 3 FEET) FROM TRANSFORMERS, CABLE, AND PULL BOXES.
2. 5 FEET FROM FIRE HYDRANTS (ALL SIDES)
3. 10 FEET FROM CENTERLINE (PREVIOUSLY 7 FEET) OF ALL UTILITY LINES (WITHOUT EASEMENT) (SEWER, WATER, STORM DRAINS, DOUBLE CHECK DETECTORS, AIR RELIEF VALVES AND GAS)
4. 10 FEET FROM EASEMENT BOUNDARIES (SEWER, WATER, STORM DRAINS, ACCESS OR OTHER UTILITIES)
5. 10 FEET FROM DRIVEWAYS (UNLESS A LINE OF SIGHT IS DETERMINED BY THE TRAFFIC DIVISION TO BE OTHERWISE)
6. 10 FEET FROM TRAFFIC AND DIRECTIONAL SIGNS
7. 15 FEET (MINIMUM) FROM STREETLIGHTS, OTHER UTILITY POLES, (DETERMINED BY SPECIFICATIONS)
8. LINE OF SIGHT AT ARTERIALS, COLLECTOR AND LOCAL STREETS SHALL BE REVIEWED AND DETERMINED BY TRAFFIC ENGINEER. A MINIMUM OF TWENTY–FIVE FEET (25') FROM STREET INTERSECTION OR AS APPROVED BY THE TRAFFIC ENGINEER.
9. MINIMUM FIFTEEN FEET (15') STREETLIGHT AND STOP SIGN OR CLEARANCE DETERMINED BY SPECIFICATIONS.
10. SCREEN ALL UTILITIES ACCORDING TO SPECIFIC AGENCY REQUIREMENTS.

LANDSCAPE CONCEPT STATEMENT:

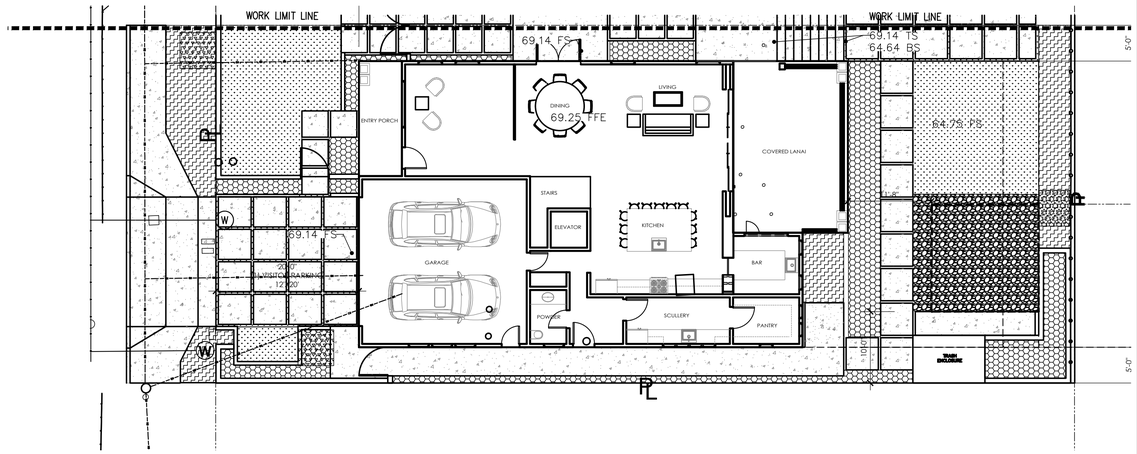
THE LANDSCAPING IS REMINISCENT OF A DROUGHT–TOLERANT YET CONTEMPORARY TROPICAL STYLE LANDSCAPE WITH A MIXTURE OF SMALL TREES, SHRUBS AND GROUND COVER. THE HARDSCAPE WILL BE A CENTRAL DESIGN FEATURE COMPLEMENTING THE UNIQUE ARCHITECTURAL DESIGN. CONTEMPORARY COLORED CONCRETE WITH STONE ACCENT PAVING COMPLEMENTS THE BUILDING ARCHITECTURE. VARIOUS GROUNDCOVER AND OTHER DECORATIVE SHRUBS WILL PROVIDE FOR AN INTERESTING AND AESTHETICALLY PLEASING LANDSCAPE.

LANDSCAPING WILL INCLUDE VARIOUS FLOWERING SHRUBS SUCH AS KANGAROO PAW, LAVANDER AND OTHERS. GROUND COVER SUCH AS BLUE CHALKSTICKS AND OTHERS WILL BE USED THROUGHOUT THE SITE.

THE LANDSCAPING HAS BEEN DESIGNED WITH WATER CONSERVATION IN MIND. AS WELL, IT WILL CREATE AN INTERESTING STREETSCAPE WHICH WILL BE A BENEFIT TO THE OVERALL COMMUNITY ATMOSPHERE.

LANDSCAPE NOTE:

1. FINAL LANDSCAPE PLANS SHALL ACCURATELY SHOW PLACEMENT OF TREES, SHRUBS AND GROUNDCOVERS.
2. LANDSCAPE ARCHITECT SHALL VERIFY UTILITY, SEWER, STORM DRAIN EASEMENT AND PLACE PLANTING LOCATIONS ACCORDING TO CITY OF CARLSBAD REQUIREMENTS.
3. ALL REQUIRED LANDSCAPE AREAS SHALL BE MAINTAINED BY OWNER. THE LANDSCAPE AREAS SHALL BE MAINTAINED PER CITY OF CARLSBAD REQUIREMENTS.
4. A TRASH RECEPTACLE WILL BE PLACED ON EACH FLOOR AT THE ELEVATOR/STAIR LOCATION, AND WILL BE COLLECTED BY USING EXISTING TRASH BINS ON–SITE.
5. LANDSCAPE FOR THE SITE SHOULD MAINTAIN 7 FT. CANOPY ON ALL TREES AND A 2 FT. MAXIMUM HEIGHT ON ALL GROUNDCOVER.
6. ALL STREET TREES SHALL COMPLY WITH THE CITY OF CARLSBAD APPROVED STREET TREES AND STANDARD DETAIL 211A.
7. ROOT BARRIERS SHALL BE INSTALLED ADJACENT TO ALL PAVING SURFACES WHERE A PAVING SURFACE IS LOCATED WITHIN 6 FEET OF A TREE TRUNK ON SITE (PRIVATE) AND WITHIN 5 FEET OF A TREE TRUNK IN THE RIGHT–OF–WAY (PUBLIC). ROOT BARRIERS SHALL EXTEND 5 FEET IN EACH DIRECTION FROM THE CENTERLINE OF THE TRUNK, FOR A TOTAL DISTANCE OF 10 FEET. ROOT BARRIERS SHALL BE 24 INCHES IN DEPTH. INSTALLING A ROOT BARRIER AROUND THE TREE'S ROOT BALL IS UNACCEPTABLE.



HYRDOZONE LEGEND

1. HYDROZONE ONE: DRIP (LOW WATER USE) (520 SF, 30% OF TOTAL LANDSCAPE AREA)
2. HYDROZONE TWO: DRIP (MEDIUM WATER USE) (383 SF, 22% OF TOTAL LANDSCAPE AREA)
3. HYDROZONE THREE: ARTIFICIAL TURF (VERY LOW WATER USE) (763 SF, 44% OF TOTAL LANDSCAPE AREA)
4. HYDROZONE FOUR: BUBBLERS (LOW WATER USE) (50 SF, 3% OF TOTAL LANDSCAPE AREA)
5. HYDROZONE FIVE: BUBBLERS (MED WATER USE) (25 SF, 1% OF TOTAL LANDSCAPE AREA)

TOTAL AREA 1,741 SF

City of Carlsbad

WELO WORKSHEETS
LANDSCAPE MANUAL
APPENDIX E
P-25(C)

Development Services
Planning Division
1635 Faraday Avenue
(760) 602-4610
www.carlsbadca.gov

WATER EFFICIENT LANDSCAPE WORKSHEET

This worksheet is filled out by the project applicant and it is a required element of the Landscape Documentation Package.

HYDROZONE INFORMATION TABLE
Please complete the hydrozone table(s) for each hydrozone. Use as many tables as necessary to provide the square footage of landscape area per hydrozone.

Controller #	Hydrozone*	Zone or Valve	Irrigation Method**	Plant Type/Factor*** (PF)	Hydrozone Area (Sq. Ft.)	% of Total Landscaped Area
A	1	–	DRIP	0.3	520	%30
A	2	–	DRIP	0.5	383	%22
A	3	–	ART TURF	0.1	763	%44
A	4	–	BUBBLERS	0.3	50	%3
A	5	–	BUBBLERS	0.5	25	%1
		Total				100%

** Hydrozone*
VLW - Very Low Water Use Plants
LW - Low Water Use Plants
MW - Moderate Water Use Plants
HW - High Water Use Plants

***Irrigation Method*
MS = Micro-spray
S = Spray
R = Rotor
B= Bubbler
D= Drip
O = Other

****Plant Factor from WUCOLS III or list as water feature as appropriate*

MAXIMUM APPLIED WATER ALLOWANCE
A landscape project subject to the Water Efficient Landscape Ordinance shall include the MAWA for the plans, including the calculations used to determine the MAWA. A landscape project shall not exceed the MAWA. The MAWA for a landscape project shall be determined by the following equation:

MAWA = (ETo)(0.62)[(0.7 x LA) + (0.3 x SLA)]

The abbreviations used in the equation have the following meanings:

MAWA	Maximum Applied Water Allowance in gallons per year.
ETo	Evapotranspiration in inches per year.
0.62	Conversion factor to gallons per square foot.
0.7	ET adjustment factor (ETAF) for plant factors and irrigation efficiency.
LA	Landscaped area includes special landscaped area in square feet.
0.3	The additional ET adjustment factor for a special landscaped area (1.0 - 0.7 = 0.3)
SLA	Special landscaped area in square feet.

Show Calculation:

MAWA
(40 X .62)(0.55 X 1,741) + (0.45 X 0) = MAWA
24.8 X 957.6 = MAWA
MAWA = 23,747.2

MAXIMUM APPLIED WATER ALLOWANCE = 23,747.2 GALLONS PER YEAR

ESTIMATED TOTAL WATER USE
A landscape project subject to the Water Efficient Landscape Ordinance shall include the ETWU for the plans, including the calculations used to determine the ETWU. The ETWU for a proposed project shall not exceed the MAWA. The following equation shall be used to calculate the ETWU for each landscaped area and the entire project:

$$ETWU = (ETo)(0.62)\left(\frac{PF\,x\,HA}{IE} + SLA\right)$$

The abbreviations used in the equation have the following meanings:

ETWU	Estimated total water use in gallons per year.
ETo	Evapotranspiration in inches per year.
0.62	Conversion factor to gallons per square foot.
PF	Plant factor from WUCOLS III
HA	Hydrozone Area in square feet. Each HA shall be classified based upon the data included in the landscape and irrigation plan as high, moderate, low, or very low water use.
IE	Irrigation Efficiency of the irrigation method used in the hydrozone.
SLA	Special landscaped area in square feet.

Hydrozone Table for Calculating ETWU
Please complete the hydrozone table(s). Use as many tables as necessary.

CITY OF CARLSBAD ESTIMATED TOTAL WATER USE (ETWU)							
		Hydrozone Number (1 – 5 with SLA Zone Below – use as many tables as necessary to complete all hydrozones)					
	Process Step No. (Below)	1	2	3	4	5	SLA
Evapotranspiration Rate (ETo)*	1	40					
Conversion Factor	2	0.62					
(Step 1 x Step 2)	3	24.8					
Plant Factor (PF)** (From WUCOLS) (VLW – HW) (0.1 - 0.8)	4	0.3	0.5	0.1	0.3	0.5	
Area of Hydrozone (sq. ft.) (HA)	5	520	383	763	50	25	
(Step 4 x Step 5)	6	156	191.5	76.3	15	12.5	
Irrigation Efficiency (IE)***	7	0.8	0.8	1	.75	.75	
(Step 6 ÷ Step 7)	8	195	239.4	76.3	20	16.6	
(Total All Step 8 + Total SLA sq. ft. in Step 5)	9	547.3					
(Step 3 x Step 9) Estimated Total Water Use in gallons per year (ETWU) - Total shall not exceed MAWA	10	13,573					

*ETo**
West of I-5 = 40.0
East of I-5 and West of El Camino Real = 44.0
East of El Camino Real = 47.0
Applicant may provide a different ETo if supported by documentation subject to approval by the City Planning Division

****IE*
Micro-spray = .80
Spray = .55
Rotor = .70
Bubbler = .75
Drip = .80
Applicant may provide a different IE if supported by documentation subject to approval by the City Planning Division (Turf and Landscape Irrigation Best Management Practices, April 2005)

*** Plant Factor & Water Use*
0.1 = VLW - Very Low Water Use Plants
0.3 = LW - Low Water Use Plants
0.5 = MW - Moderate Water Use Plants
0.8 = HW - High Water Use Plants

ROOT BARRIER NOTE:
ALL TREES PLANTED WITHIN 5' OF ANY CURB, WALL, HARDSCAPE ELEMENT, BUILDING, FIRE HYDRANT, UTILITY VAULT, OR LIGHT FIXTURE SHALL RECEIVE A 10' LENGTH OF 19.5" DEEP ROOT BARRIER. NO ROOT BARRIER SHALL ENCIRCLE THE ROOT BALL.

Underground Service Alert
Call: TOLL FREE 1–800 227–2600
TWO WORKING DAYS BEFORE YOU DIG
"CAUTION": Remember that the USA Center notifies only those utilities belonging to the center. There could be other utilities present at the work site. The center will inform you of whom they will notify.

HYDROZONE PLAN, WATER CONSERVATION CALCULATIONS & NOTES
LC–3

APPROVED FOR IRRIGATION AND PLANTING ONLY, INCLUDING PRECISE LOCATION OF PLANTING AREA.

"AS BUILT"

RCE _____ EXP. _____ DATE

REVIEWED BY:
INSPECTOR DATE

N
10 5 0 10 20 30
SCALE: 1"=10'–0"

JPBLA
JAMES P. BENEDETTI
LANDSCAPE ARCHITECT
4403 MANCHESTER AVE., SUITE 201
ENCINITAS, CA 92024
760/479-0644 FAX 760/479-0645

LICENSED LANDSCAPE ARCHITECT JAMES P. BENEDETTI
Signature
Ren. Date 9/30/24
Date 08/09/23
STATE OF CALIFORNIA
Expiration Date: 9/30/24

DATE	INITIAL	REVISION DESCRIPTION	DATE	INITIAL	DATE	INITIAL
DESIGNER OF WORK			OTHER APPROVAL		CITY APPROVAL	

SHEET 3 | CITY OF CARLSBAD PLANNING DIVISION | SHEETS 3

LANDSCAPE IMPROVEMENT PLANS FOR:
LA BOUNTY RESIDENCE
3950 GARFIELD ST, CARLSBAD, CA 92008
APN 206-012-0500

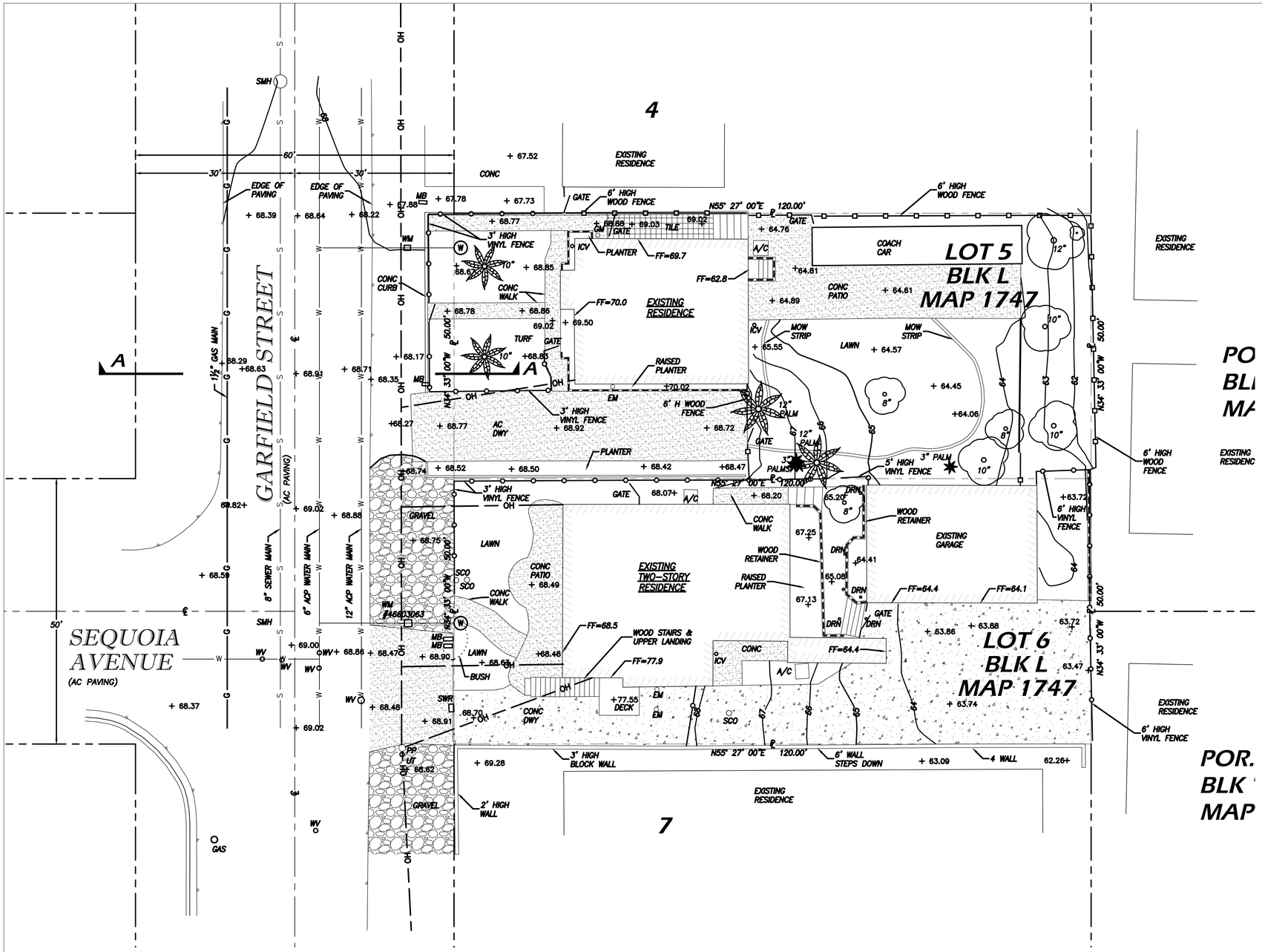
APPROVED:
PLANNING

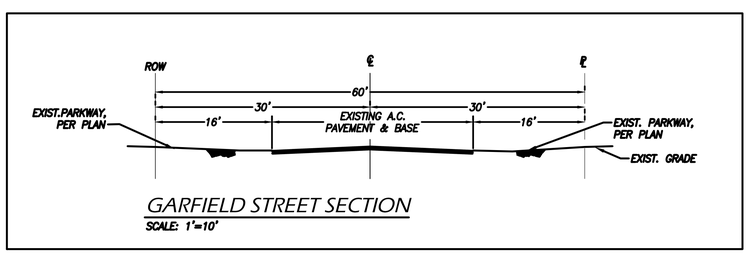
DWN BY: _____
CHKD BY: _____
RVWD BY: _____

PROJECT NO. CDP2022-0067

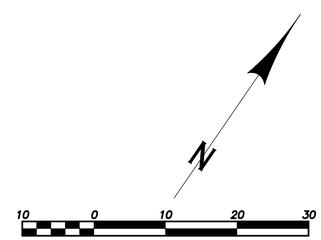
DRAWING NO.

C:\DRAWING FILES\TITLE SHEETS\CLSB–IP.DWG REVISED: 3/1/2016





GARFIELD STREET SECTION
SCALE: 1"=10'



SCALE: 1"=10'

LEGEND

DESCRIPTION	STD DWG	SYMBOL
PROPERTY LINE (RECORD)		N45°45'45"W
PROPERTY LINE – OFFSITE		
STREET CENTERLINE		℄
CONTOUR		90
LOT LINE (OFFSITE)		
OVERHEAD UTILITIES		OH
SEWER MAIN		S
WATER MAIN		W
WATER SERVICE		W
GAS MAIN		G
EDGE OF PAVING		
EXISTING SPOT ELEVATION		100.00 100.00
BUILDING FOOTPRINT		
WOOD FENCE		
VINYL FENCE		
FREE STANDING WALL		
RETAINING WALL		
POWER POLE		PP
TREE; PLANT; PALM		

ABBREVIATIONS

AC	ASPHALTIC CONCRETE	GM	GAS METER
A.C.	ASBESTOS CEMENT	H	HIGH
BLK	BLOCK	HB	HOSE BIBB
BRK	BRICK	ICV	IRRIGATION CONTROL VALVE
BW	GRADE AT BOTTOM OF WALL	MB	MAILBOX
℄	CENTER LINE	PLTR	PLANTER
C; CONC	CONCRETE	PVMT	PAVEMENT
C.O.	CLEANOUT	SCO	SEWER CLEANOUT
DS	DOWNSPOUT	SMH	SEWER MANHOLE
DRN	DRAIN	TEL	TELEPHONE
EL	ELECTRIC	TW	GRADE AT TOP OF WALL
EM	ELECTRIC METER	TYP	TYPICAL
ELEV	ELEVATION	WM	WATER METER
FF	FINISH FLOOR	WV	WATER VALVE
℄; FL	FLOW LINE		

NOTES

1. THIS TOPOGRAPHIC SURVEY WAS PERFORMED FOR THE PURPOSES OF A SPECIFIC PROJECT, AND SOME AREAS MAY HAVE GREATER OR LESSER DETAIL BASED ON PROJECT REQUIREMENTS. CHANGES TO THE SCOPE, DESIGNER, OR LOCATION OF WORK MAY REQUIRE THAT ADDITIONAL SURVEYING BE PERFORMED TO SATISFY THE NEW REQUIREMENTS.
2. THIS IS A TOPOGRAPHIC SURVEY, NOT A BOUNDARY SURVEY OR RECORD OF SURVEY. THE PROPERTY LINES DEPICTED ON THIS PLAN ARE GENERATED FROM EXISTING PUBLIC RECORD MAPS, DRAWINGS, OR DESCRIPTIONS. THE PROPERTY LINES AND/OR EASEMENTS SHOWN HEREON HAVE BEEN INCLUDED TO REPRESENT THEIR APPROXIMATE LOCATIONS RELATIVE TO THE TOPOGRAPHIC FEATURES.
3. THE LOCATIONS OF UTILITIES, IF ANY, SHOWN ON THIS PLAN ARE GENERATED FROM RECORDS PROVIDED BY UTILITY/GOVERNING AGENCIES AND/OR FIELD DATA COLLECTED DURING THE SURVEY. THE PLOTTING OF UTILITIES ON THIS PLAN DOES NOT CONSTITUTE A GUARANTEE OF THEIR LOCATION, DEPTH, SIZE, OR TYPE.

LEGAL DESCRIPTION

LOTS 5 & 6, BLOCK L OF MAP 1747, IN THE CITY OF CARLSBAD, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, RECORDED IN THE OFFICE OF THE COUNTY RECORDER, FEBRUARY 5, 1923.

APNS: 206-012-05, 206-012-06

BENCHMARK

POINT NUMBER 141 – 2.5" DISK IN SOUTHEAST CORNER OF VAULT ADJACENT TO THE NORTHEAST CORNER OF THE NORTHBOUND COAST HIGHWAY 101 BRIDGE OVER AGUA HEDIONDA LAGOON, STAMPED "CLSB-141".
ELEV = 28.698; DATUM: NAVD 88; SOURCE: CITY OF CARLSBAD SURVEY CONTROL.

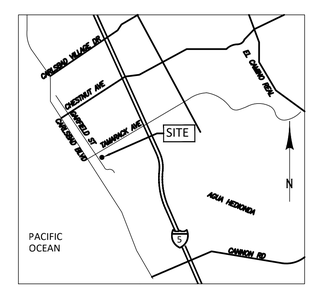
EASEMENTS

THIS SURVEY WAS PREPARED WITH THE BENEFIT OF A PRELIMINARY TITLE REPORT FOR EACH PROPERTY ADDRESS FROM FIRST AMERICAN TITLE COMPANY, ORDERS NO. DV-4717567 (#3940 GARFIELD STREET), DATED 6/27/2014 AND #DN-5642858 (#3950 GARFIELD STREET), DATED 2/12/2018. SAID REPORTS INDICATE THE FOLLOWING EASEMENTS FOR THE SUBJECT PROPERTIES:

#3940 – NO EASEMENTS LISTED AFFECTING THE PROPERTY.

#3950 – (3) THE RECITAL ON MAP 1787 WHICH AGREES TO ALLOW THE CROSSARMS OF POLES OR SIMILAR STRUCTURES PLACED ALONG THE RIGHT OF WAY OF HIGHWAYS LESS THAN SIXTY (60) FEET IN WIDTH TO HANG OVER THE ABUTTING LAND.
(4) AN EASEMENT FOR RIGHTS OF WAY FOR TELEPHONE AND/OR ELECTRIC POLES AND LINES, AND FOR SEWER, WATER AND/OR GAS MAINS AND PIPE LINES, IN UNDER, OVER AND ACROSS SAID PROPERTY, TOGETHER WITH THE RIGHT TO ENTER ON SAID PROPERTY FOR PURPOSES OF CONSTRUCTION, RECONSTRUCTION, REPAIRING AND/OR ALTERING ANY OF THE SAME AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED DECEMBER 24, 1937 AS BOOK 729, PAGE 313 OF OFFICIAL RECORDS.
(THE LOCATION OF THE EASEMENT CANNOT BE DETERMINED FROM RECORD INFORMATION.)

THE LEADING NUMBERS LISTED THUS: (X) FOR THE TWO PROPERTIES INDICATE THE ITEM NUMBER OF THE ASSOCIATED TITLE REPORT.



VICINITY MAP
THOMAS BROS. MAP 1106-E7
NO SCALE

COFFEY ENGINEERING, INC.
9466 BUSINESSPARK AVENUE, SUITE 210, SAN DIEGO, CA 92131 PH (858)831-0111 FAX (858)831-0179

PROFESSIONAL LAND SURVEYOR
JOHN S. COFFEY
No. 8733
STATE OF CALIFORNIA
9/14/21

LaBounty Residences
3950 & 3940 Garfield Street
Carlsbad, CA 92008

DRAWN BY:	EM/ GC
CHECKED BY:	JC
ORIGINAL	9/14/21
REVISION 1	
REVISION 2	
REVISION 3	
REVISION 4	
REVISION 5	

Topographic Survey

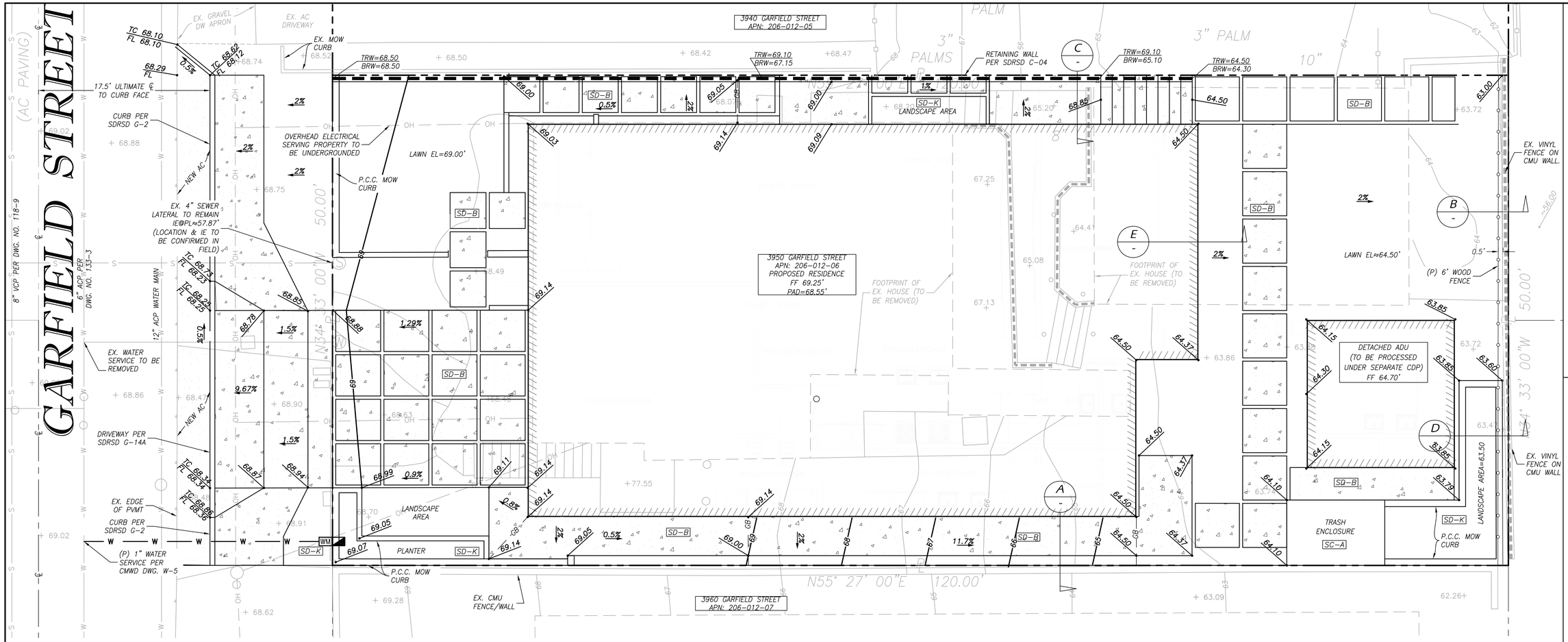
SCALE: 1" = 10'

C.0

SHT 1 OF 1 SHTS

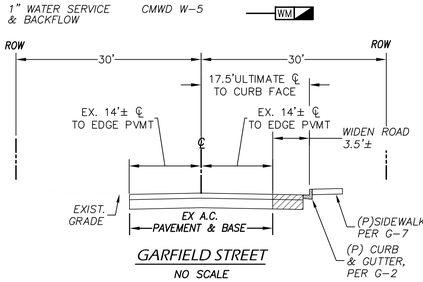
DATE OF SURVEY: 8/30/2021 SURVEY CREW CHIEF: E. Newmore

TOPOGRAPHIC SURVEY



LEGEND

DESCRIPTION	SYMBOL
PROPERTY LINE	N45°45'45"W
ROW CENTERLINE	℄
BUILDING FOOTPRINT	
EXISTING CONTOUR	90
PROPOSED CONTOUR	90
EXISTING SPOT ELEVATION	100.00
PROPOSED SITE RETAINING WALL	
PROPOSED PCC PAVING	
PROPOSED SPOT ELEVATION	100.00
DIRECTION OF FLOW	
1" WATER SERVICE & BACKFLOW — CMWD W-5	WM



GARFIELD STREET
NO SCALE

LEGAL DESCRIPTION

LOTS 6, BLOCK L OF MAP 1747, IN THE CITY OF CARLSBAD, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, RECORDED IN THE OFFICE OF THE COUNTY RECORDER, FEBRUARY 5, 1923.

APNS: 206-012-06

BENCHMARK

POINT NUMBER 141 – 2.5" DISK IN SOUTHEAST CORNER OF VAULT ADJACENT TO THE NORTHEAST CORNER OF THE NORTHBOUND COAST HIGHWAY 101 BRIDGE OVER AGUA HEDIONDA LAGOON, STAMPED "CLSB-141".
ELEV = 28.698; DATUM: NAVD 88; SOURCE: CITY OF CARLSBAD SURVEY CONTROL. FINAL GRADING PLANS TO USE NGVD29 VERTICAL DATUM.

EASEMENTS

THIS SURVEY WAS PREPARED WITH THE BENEFIT OF A PRELIMINARY TITLE REPORT FROM FIRST AMERICAN TITLE COMPANY, ORDER NO. DIV-6930240, DATED 11/23/22. SAID REPORTS INDICATE THE FOLLOWING EASEMENTS FOR THE SUBJECT PROPERTY:

(3) THE RECITAL ON MAP 1787 WHICH AGREES TO ALLOW THE CROSSARMS OF POLES OR SIMILAR STRUCTURES PLACED ALONG THE RIGHT OF WAY OF HIGHWAYS LESS THAN SIXTY (60) FEET IN WIDTH TO HANG OVER THE ABUTTING LAND.

(4) AN EASEMENT FOR RIGHTS OF WAY FOR TELEPHONE AND/OR ELECTRIC POLES AND LINES, AND FOR SEWER, WATER AND/OR GAS MAINS AND PIPE LINES, IN UNDER, OVER AND ACROSS SAID PROPERTY, TOGETHER WITH THE RIGHT TO ENTER ON SAID PROPERTY FOR PURPOSES OF CONSTRUCTION, RECONSTRUCTION, REPAIRING AND/OR ALTERING ANY OF THE SAME AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED DECEMBER 24, 1937 AS BOOK 729, PAGE 313 OF OFFICIAL RECORDS.
(THE LOCATION OF THE EASEMENT CANNOT BE DETERMINED FROM RECORD INFORMATION.)

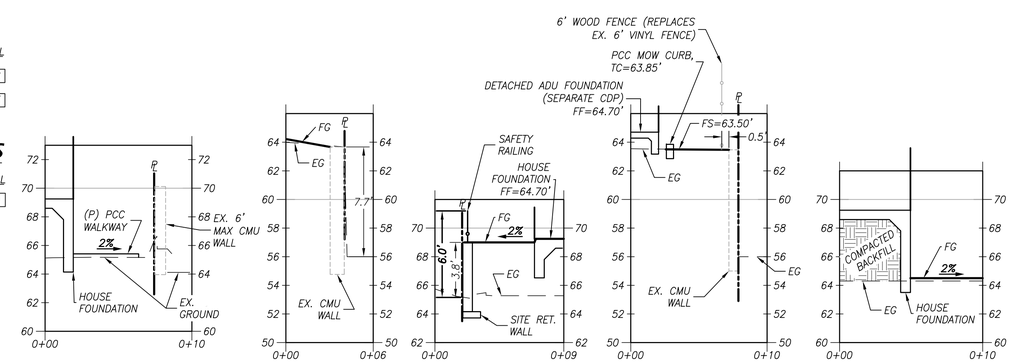
	IMPERVIOUS (EXISTING)	PERVIOUS (EXISTING)	IMPERVIOUS (PROPOSED)	PERVIOUS (PROPOSED)
AREA TRIBUTARY TO FRONT OF LOT (FT^2)	1,530	983	1,703	1,147
AREA TRIBUTARY TO REAR OF LOT (FT^2)	3,437	820	2,763	1,158

SITE DESIGN (LID) BMPs

DESCRIPTION	SYMBOL
IMPERVIOUS AREA DISPERSION	SD-B
SUSTAINABLE LANDSCAPING	SD-K

SOURCE CONTROL BMPS

DESCRIPTION	SYMBOL
PROTECT TRASH STORAGE AREAS	SC-A



SECTION 'A'
SCALE: 1"=5'

SECTION 'B'
SCALE: 1"=5'

SECTION 'C'
SCALE: 1"=5'

SECTION 'D'
SCALE: 1"=5'

SECTION 'E'
SCALE: 1"=5'

N

5 0 5 10 15

SCALE: 1"=5'

GRADING TABULATIONS**

TOTAL AMOUNT OF SITE TO BE GRADED: 6,000 SF — % OF TOTAL SITE: 100%
AMOUNT OF CUT: -0- CUBIC YARDS — MAXIMUM DEPTH OF CUT: -0- FEET
AMOUNT OF FILL: 270 CUBIC YARDS — MAXIMUM DEPTH OF FILL: 5.4' FEET
MAXIMUM HEIGHT OF FILL SLOPE(S): N/A FEET — SLOPE RATIO: N/A
MAXIMUM HEIGHT OF CUT SLOPE(S): N/A FEET — SLOPE RATIO: N/A
AMOUNT OF IMPORT/~~EXPORT~~ SOIL:* 270 CUBIC YARDS
SITE RETAINING/CRIB WALLS: LENGTH 110 FEET — MAXIMUM HEIGHT: 1.3 FEET

* THE PROJECT PROPOSES TO IMPORT 270 CUBIC YARDS OF MATERIAL FROM THIS SITE. ANY AND ALL EXPORT MATERIAL SHALL BE DISCHARGED TO A LEGAL DISPOSAL SITE. THE APPROVAL OF THIS PROJECT DOES NOT ALLOW PROCESSING AND SALE OF THE MATERIAL. ALL SUCH ACTIVITIES REQUIRE A SEPARATE CONDITIONAL USE PERMIT.

**THE GRADING QUANTITIES SHOWN ON THIS PLAN ARE FOR PERMIT PURPOSES ONLY. ACTUAL QUANTITIES MAY VARY DUE TO COMPACTION, EXPANSION, FOOTING EXCAVATIONS, DEBRIS, VEGETATION, INTERPRETATION OF USE OF MATERIALS, AND OTHER FACTORS. THE CONTRACTOR IS RESPONSIBLE FOR PREPARING TAKE-OFFS FOR THE GRADING WORK SHOWN HEREON.

COFFEY ENGINEERING, INC.
9666 BUSINESSPARK AVENUE, SUITE 210, SAN DIEGO, CA 92131 PH (858)831-0111 FAX (858)831-0179

REGISTERED PROFESSIONAL ENGINEER
DANIEL J. VALDEZ
No. C076074
CIVIL
STATE OF CALIFORNIA

LABOUNTY RESIDENCES

3950 Garfield Street
Carlsbad, CA 92008

DRAWN BY: DV	
CHECKED BY:	
ORIGINAL	11/28/22
REVISION 1	3/9/23
REVISION 2	6/19/23
REVISION 3	7/28/23
REVISION 4	10/2/23
REVISION 5	

GRADING & DRAINAGE PLAN
CDP2022-0067

SCALE: 1" = 5'

C.1

SHT 1 OF 1 SHTS

Full Size Exhibit(s) “A” – “O” dated Nov. 15, 2023 (On file in the Office of the City Clerk)