AGENDA

Tuesday, June 16, 2020

5:00 P.M. Closed Session
6:30 P.M. Open Session

REGULAR MEETING

CITY COUNCIL, AIRPORT COMMISSION, MARINA ABRAMS B NON-PROFIT CORPORATION, PRESTON PARK SUSTAINABLE COMMUNITY NON-PROFIT CORPORATION, SUCCESSOR AGENCY OF THE FORMER MARINA REDEVELOPMENT AGENCY AND MARINA GROUNDWATER SUSTAINABILITY AGENCY

Council Chambers
211 Hillcrest Avenue
Marina, California

Zoom Meeting URL: https://zoom.us/j/730251556
Zoom Meeting Telephone Only Participation: 1-669-900-9128 - Webinar ID: 730 251 556

In response to Governor Newsom's Executive Order N.29-20 and City Council Resolution 2020-29 ratifying the Proclamation of a Local Emergency by the City Manager/Director of Emergency Services related to the COVID-19 (coronavirus) pandemic, public participation in the City of Marina City Council and other public meetings shall be electronic only and without a physical location for public participation, until further notice in compliance with California state guidelines on social distancing. This meeting is being broadcast "live" on Access Media Productions (AMP) Community Television Cable 25 and on the City of Marina Channel and on the internet at https://accessmediaproductions.org/

PARTICIPATION

You may participate in the City Council meeting in real-time by calling Zoom Meeting via the weblink and phone number provided at the top of this agenda. Instructions on how to access, view and participate in remote meetings are provided by visiting the City's home page at https://cityofmarina.org/. Attendees can make oral comments during the meeting by using the "Raise Your Hand" feature in the webinar or by pressing *9 on your telephone keypad if joining by phone only. If you are unable to participate in real-time, you may email to marina@cityofmarina.org with the subject line "Public Comment Item#__ " (insert the item number relevant to your comment) or "Public Comment – Non Agenda Item." Comments will be reviewed and distributed before the meeting if received by 5:00 p.m. on the day of the meeting. All comments received will become part of the record. Council will have the option to modify their action on items based on comments received.

AGENDA MATERIALS

Agenda materials, staff reports and background information related to regular agenda items are available on the City of Marina's website www.cityofmarina.org. Materials related to an item on this agenda submitted to the Council after distribution of the agenda packet will be made available on the City of Marina website www.cityofmarina.org subject to City staff's ability to post the documents before the meeting

VISION STATEMENT

Marina will grow and mature from a small town bedroom community to a small city which is diversified, vibrant and through positive relationships with regional agencies, self-sufficient. The City will develop in a way that insulates it from the negative impacts of urban sprawl to become a desirable residential and business community in a natural setting. **(Resolution No. 2006-112 - May 2, 2006)**

MISSION STATEMENT

The City Council will provide the leadership in protecting Marina's natural setting while developing the City in a way that provides a balance of housing, jobs and business opportunities that will result in a community characterized by a desirable quality of life, including recreation and cultural opportunities, a safe environment and an economic viability that supports a high level of municipal services and infrastructure. **(Resolution No. 2006-112 - May 2, 2006)**

1. CALL TO ORDER

2. ROLL CALL & ESTABLISHMENT OF QUORUM: (City Council, Airport Commissioners, Marina Abrams B Non-Profit Corporation, Preston Park Sustainable Communities Nonprofit Corporation, Successor Agency of the Former Redevelopment Agency Members and Marina Groundwater Sustainability Agency)

   Lisa Berkley, Adam Urrutia, Frank O'Connell, Mayor Pro-Tem/Vice Chair, Gail Morton, Mayor/Chair Bruce C. Delgado

3. CLOSED SESSION: *As permitted by Government Code Section 54956 et seq.*, the (City Council, Airport Commissioners, Marina Abrams B Non-Profit Corporation, Preston Park Sustainable Communities Nonprofit Corporation, Successor Agency of the Former Redevelopment Agency Members and Marina Groundwater Sustainability Agency) *may adjourn to a Closed or Executive Session to consider specific matters dealing with litigation, certain personnel matters, property negotiations or to confer with the City's Meyers-Milias-Brown Act representative.*

   a. Labor Negotiations
      i. Marina Employee Association
      ii. Marina Professional Fire Fighters Association
      iii. Marina Public Safety Managers Association
      iv. Marina Middle Manager Association
      v. Directors
         i. Community Development Director
         ii. Finance Director
         iii. Fire Chief
         iv. Police Chief
         v. Public Works Director
         vi. Recreation & Cultural Services Director
         vii. Assistant City Manager

   City Negotiators: Layne P. Long, City Manager and Employee Relations Officer

   b. Real Property Negotiations

      i. Property: Marina Municipal Airport, South Tarmac, APN 031-112-001, a portion
      Negotiating Party: Joby Aero, Inc.
      Property Negotiator: City Manager and Eric Frost, Interim Finance Director
      Terms: Price and Terms

ii. Property: 721 Neeson Road, Marina, CA 93933
Negotiating Party: Skydive Monterey Bay
Property Negotiator: City Manager and Eric Frost, Interim Finance Director
Terms: Price and Terms

6:30 PM - RECONVENE OPEN SESSION AND REPORT ON ANY ACTIONS TAKEN IN CLOSED SESSION

4. MOMENT OF SILENCE & PLEDGE OF ALLEGIANCE (Please stand)

5. SPECIAL PRESENTATIONS:

   a Civil Disobedience Day Proclamation

   b Pride Month Proclamation

   c Recreation Announcements

6. SPECIAL ANNOUNCEMENTS AND COMMUNICATIONS FROM THE FLOOR**:** *Any member of the Public or the City Council may make an announcement of special events or meetings of interest as information to Council and Public. Any member of the public may comment on any matter within the City Council's jurisdiction which is not on the agenda. Please state your name for the record. Action will not be taken on an item that is not on the agenda. If it requires action, it will be referred to staff and/or placed on a future agenda. City Council members or City staff may briefly respond to statements made or questions posed as permitted by Government Code Section 54954.2. In order that all interested parties have an opportunity to speak, please limit comments to a maximum of four (4) minutes. Any member of the public may comment on any matter listed on this agenda at the time the matter is being considered by the City Council.*

7. CONSENT AGENDA FOR THE SUCCESSOR AGENCY TO THE FORMER MARINA REDEVELOPMENT AGENCY: *Background information has been provided to the Successor Agency of the former Redevelopment Agency on all matters listed under the Consent Agenda, and these items are considered to be routine. All items under the Consent Agenda are normally approved by one motion. Prior to such a motion being made, any member of the public or the City Council may ask a question or make a comment about an agenda item and staff will provide a response. If discussion or a lengthy explanation is required, that item will be removed from the Consent Agenda for Successor Agency to the former Marina Redevelopment Agency and placed at the end of Other Action Items Successor Agency to the former Marina Redevelopment Agency.*

8. CONSENT AGENDA: *Background information has been provided to the City Council, Airport Commission, Marina Abrams B Non-Profit Corporation, and Redevelopment Agency on all matters listed under the Consent Agenda, and these items are considered to be routine. All items under the Consent Agenda are normally approved by one motion. Prior to such a motion being made, any member of the public or the City Council may ask a question or make a comment about an agenda item and staff will provide a response. If discussion or a lengthy explanation is required, that item will be removed from the Consent Agenda and placed at the end of Other Action Items.*

   a. ACCOUNTS PAYABLE:

      (1) Accounts Payable Check Numbers 95172-95284, totaling $384,165.58
      Accounts Payable Successor Agency EFT totaling $47.50

   b. MINUTES:

      (1) April 25, 2017, Special Joint City Council-Planning Commission Meeting

c. CLAIMS AGAINST THE CITY:

(1) Rejection of Claim - staff recommends that the City Council reject the following claim and direct sending appropriate notice of rejection to claimant: Mark A. Feldman, Esq. of Feldman & Associates on behalf of Resources Environmental, Inc. (REI) for an amount exceeding $2,287,596.09 for a claim received on March 27, 2020.

d. AWARD OF BID: None

e. CALL FOR BIDS:

(1) City Council consider adopting Resolution No. 2020-, approving advertising and call for bids for the 2020 Reservation Road Pavement Rehabilitation Project.

f. ADOPTION OF RESOLUTIONS:

(1) City Council consider adopting Resolution No. 2020-, certifying City of Marina compliance with State law (Proposition 218) with respect to special assessment for Cypress Cove II Landscape Maintenance Assessment District for FY 2020-21.

(2) City Council consider adopting Resolution No. 2020-, certifying City of Marina compliance with State law (Proposition 218) with respect to special assessment for Seabreeze Landscape Maintenance Assessment District for FY 2020-21.

(3) City Council consider adopting Resolution No. 2020-, certifying City of Marina compliance with State law (Proposition 218) with respect to special assessment for Monterey Bay Estates Landscape Maintenance Assessment District for FY 2020-21.

(4) City Council consider adopting Resolution No. 2020-, confirming levy of a special tax for the City of Marina Community Facilities District No. 2007-2 (Locke Paddon) for Fiscal Year 2020-2021 as authorized by Ordinance No. 2007-09, and; consider adopting Resolution No. 2020-, certifying City of Marina compliance with State law (Proposition 218) with respect to levying of special taxes for the City of Marina Community Facilities District No. 2007-2 for Fiscal Year 2020-2021 as authorized by Ordinance No. 2007-09.

g. APPROVAL OF AGREEMENTS

(1) City Council consider adopting Resolution No. 2020-, authorizing application for and acceptance of a Federal Aviation Administration (FAA) 2020 CARES Act Grant for the Airport, and; authorizing City Manager to execute the application and grant agreement.

h. ACCEPTANCE OF PUBLIC IMPROVEMENTS: None

i. MAPS: None

j. REPORTS: (RECEIVE AND FILE):

(1) Monterey-Salinas Transit Public Participation Plan Public Comment Period.

k. FUNDING & BUDGET MATTERS: None

l. APPROVE ORDINANCES (WAIVE SECOND READING): None

m. APPROVE APPOINTMENTS: None

9. PUBLIC HEARINGS:

   a. City Council of the City of Marina Open a Public Hearing, Take any Testimony from the Public and Consider Planning Commission Recommendation to adopt Resolutions 1) Accepting Addendum to Final Environmental Assessment and Environmental Impact Report for the 1995 Airport Master Plan (EIR SCH No. 94093005); 2) Approving Specific Plan for the Marina Municipal Airport Business and Industrial Park/UC MBEST Center; and, 3) Finding the Specific Plan Consistent with the Fort Ord Base Reuse Plan and Regional Urban Design Guidelines.

   b. City Council consider opening a noticed public hearing and take any testimony from members of the public; and receive the recommendation of the Planning Commission; and consider adoption of Resolution 2020-, submitting to the voters at the November 3, 2020 General Municipal Election a Measure approving a General Plan Amendment and Local Coastal Program Amendment extending the expiration date of the operative provisions of the 2000 Marina Urban Growth Boundary Initiative to December 31, 2040, substantially in the form attached hereto, subject to final review and approval by the City Attorney; requesting Monterey County Elections to conduct the election and requesting consolidation of the election.

10. OTHER ACTIONS ITEMS OF THE SUCCESSOR AGENCY TO THE FORMER MARINA REDEVELOPMENT AGENCY: *Action listed for each Agenda item is that which is requested by staff. The Successor Agency may, at its discretion, take action on any items. The public is invited to approach the podium to provide up to four (4) minutes of public comment.*

11. OTHER ACTION ITEMS: *Action listed for each Agenda item is that which is requested by staff. The City Council may, at its discretion, take action on any items. The public is invited to approach the podium to provide up to four (4) minutes of public comment.*

Note: No additional major projects or programs should be undertaken without review of the impacts on existing priorities (Resolution No. 2006-79 – April 4, 2006).

   a. City Council consider adopting Resolution No. 2020-, establishing appropriations limit for FY 2019-20.

   b. City Council consider adopting fiscal year 2020-21 budget, establishing procedures for amending budget, and authorizing the finance director to make necessary accounting and budgetary entries; and consider adopting Resolution No. 2020-, authorizing finance director to make certain post year-end accounting adjustments to FY 2019-20 and FY 2020-21 budgets.

   c. COVID-19 Update and Direction from Council

      i. Adopting Resolution No. 2020-, revising the loan program for residents and businesses of the city in response to the Covid-19 pandemic, vesting discretion in the City Manager, City Finance Director and City Attorney to make required changes to the program guidelines necessary to implement and administer the program, authorizing the City Manager to execute any agreements and promissory notes necessary to implement the program, and authorizing the Finance Director to make necessary accounting and budgetary entries.

ii. City Council consider adopting Resolution No. 2020-, authorizing an abatement of Business License penalties until October 2020 and offering to waive past penalties for unregistered businesses which register and pay their past due taxes by October 31, 2020.

iii. Other Impacts

12. COUNCIL & STAFF INFORMATIONAL REPORTS:

a. Monterey County Mayor's Association [Mayor Bruce Delgado]

b. Council and staff opportunity to ask a question for clarification or make a brief report on his or her own activities as permitted by Government Code Section 54954.2.

c. Proclamation of Local Emergency Update

13. ADJOURNMENT:

CERTIFICATION

I, Anita Sharp, Deputy City Clerk, of the City of Marina, do hereby certify that a copy of the foregoing agenda was posted at City Hall and Council Chambers Bulletin Board at 211 Hillcrest Avenue, Monterey County Library Marina Branch at 190 Seaside Circle, City Bulletin Board at the corner of Reservation Road and Del Monte Boulevard on or before 6:30 p.m., Friday, June 12, 2020.

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ANITA SHARP, DEPUTY CITY CLERK

City Council, Airport Commission and Redevelopment Agency meetings are recorded on tape and available for public review and listening at the Office of the City Clerk and kept for a period of 90 days after the formal approval of MINUTES.

City Council meetings may be viewed live on the meeting night and at 12:30 p.m. and 3:00 p.m. on Cable Channel 25 on the Sunday following the Regular City Council meeting date. In addition, Council meetings can be viewed at 6:30 p.m. every Monday, Tuesday and Wednesday. For more information about viewing the Council Meetings on Channel 25, you may contact Access Monterey Peninsula directly at 831-333-1267.

Agenda items and staff reports are public record and are available for public review on the City's website (www.ciytofmarina.org), at the Monterey County Marina Library Branch at 190 Seaside Circle and at the Office of the City Clerk at 211 Hillcrest Avenue, Marina between the hours of 10:00 a.m. 5:00 p.m., on the Monday preceding the meeting.

Supplemental materials received after the close of the final agenda and through noon on the day of the scheduled meeting will be available for public review at the City Clerk's Office during regular office hours and in a 'Supplemental Binder' at the meeting.

Members of the public may receive the City Council, Airport Commission and Successor Agency of the Former Redevelopment Agency Agenda at a cost of $55 per year or by providing a self-addressed, stamped envelope to the City Clerk. The Agenda is also available at no cost via email by notifying the City Clerk at marina@cityofmarina.org

*ALL MEETINGS ARE OPEN TO THE PUBLIC. THE CITY OF MARINA DOES NOT DISCRIMINATE AGAINST PERSONS WITH DISABILITIES. Council Chambers are wheelchair accessible. meetings are broadcast on cable channel 25 and recordings of meetings can be provided upon request. to request assistive listening devices, sign language interpreters, readers, large print agendas or other accommodations, please call (831) 884-1278 or e-mail: marina@cityofmarina.org. requests must be made at least **48 hours** in advance of the meeting.*

Upcoming 2020 Meetings of the City Council, Airport Commission, Marina Abrams B Non-Profit Corporation, Preston Park Sustainable Community Nonprofit Corporation, Successor Agency of the Former Redevelopment Agency and Marina Groundwater Sustainability Agency
Regular Meetings: 5:00 p.m. Closed Session;
6:30 p.m. Regular Open Sessions

Tuesday, July 7, 2020
Tuesday, July 21, 2020

**** Wednesday, August 5, 2020**
Tuesday, August 18, 2020

Tuesday, September 1, 2020
Tuesday, September 15, 2020

Tuesday, October 6, 2020
Tuesday, October 20, 2020

***** Wednesday, November 4, 2020**
Tuesday, November 17, 2020

Tuesday, December 1, 2020
Tuesday, December 15, 2020

* Regular Meeting rescheduled due to Monday Holiday

******Regular Meeting rescheduled due to National Night Out Event

*** Regular Meeting rescheduled due to General Election Day

NOTE: Regular Meeting dates may be rescheduled by City Council only.

C I T Y H A L L 2 0 2 0 H O L I D A Y S
(City Hall Closed)

Independence Day (City Offices Closed) ---------- Friday, July 3, 2020
Labor Day ---------- Monday, September 7, 2020
Veterans Day ---------- Wednesday, November 11, 2020
Thanksgiving Day ---------- Thursday, November 26, 2020
Thanksgiving Break ---------- Friday, November 27, 2020
Winter Break ---------- Thursday, December 24, 2020-Thursday, December 31, 2020

2020 COMMISSION DATES

Upcoming 2020 Meetings of Design Review Board
3rd Wednesday of every month. Meetings are held at the Council Chambers at 6:30 P.M
** = Change in location due to conflict with Council meeting

June 17, 2020
July 15, 2020
August 19, 2020
September 16, 2020
October 21, 2020
November 18, 2020
December 16, 2020

Upcoming 2020 Meetings of Economic Development Commission
3rd Thursday of every month. Meetings are held at the Council Chambers at 4:00 P.M.

June 18, 2020 (Cancelled)
July 16, 2020 (Cancelled)
August 20, 2020 (Cancelled)
September 17, 2020 (Cancelled)
October 15, 2020 (Cancelled)
November 19, 2020 (Cancelled)
December 17, 2020 (Cancelled)

Upcoming 2020 Meetings of Planning Commission
2nd and 4th Thursday of every month. Meetings are held at the Council Chambers at 6:30 P.M.

June 25, 2020
July 9, 2020
July 23, 2020
August 13, 2020
August 27, 2020
September 10, 2020
September 24, 2020
October 8, 2020
October 22, 2020
November 12, 2020
December 10, 2020

Upcoming 2020 Meetings of Public Works Commission
3rd Thursday of every month. Meetings are held at the Council Chambers at 6:30 P.M.

June 18, 2020
July 16, 2020
August 20, 2020
September 17, 2020
October 15, 2020
November 19, 2020
December 17, 2020 (Cancelled)

Upcoming 2020 Meetings of Recreation & Cultural Services Commission
1st Wednesday of every quarter month. Meetings are held at the Council Chambers at 6:30 P.M.

September 2, 2020
December 2, 2020

Upcoming 2020 Meetings of Marina Tree Committee
2nd Wednesday of every quarter month as needed. Meetings are held at the Council Chambers at 6:30 P.M.

July 8, 2020
October 14, 2020

Proclamation

ESTABLISHING JUNE 17TH OF 2020 AND OF EACH YEAR THEREAFTER AS CIVIL DISOBEDIENCE DAY IN MARINA, CA

WHEREAS, on May 25, 2020, George Floyd lost his life during an arrest in Minneapolis, Minnesota after a police officer pressed his knee to Mr. Floyd's neck for nearly nine minutes while he was face-down in the street in handcuffs and being restrained by multiple officers after police were called to the scene to investigate a suspected counterfeit $20 bill spent by Mr. Floyd at a convenience store; and

WHEREAS, this despicable act, viewed by the world, has led to a series of peaceful protests by groups and individuals exercising their First Amendment rights under the United States Constitution in addition to gatherings in countries around the world promoting peace and justice; and

WHEREAS, to peacefully assemble, exercise freedom of speech and petition the government for redress of grievances, are rights of all people in the United States of America; and

WHEREAS, the present federal administration's approach of using tear gas, batons, rubber bullets and the military, hindering peaceful protests and bringing physical harm to participants, will not be condoned; and

WHEREAS, throughout the United States people are outraged by racism toward people of color and the resulting violent criminal acts on those who assemble to protest racism; and

WHEREAS, the tragic and senseless killing of Mr. Floyd is sobering on its own, however, the circumstances surrounding his death are made even more urgent by the historical context of state-sponsored violence, racism, and systemic injustice that has been directed at people of color for hundreds of years throughout the United States; and

WHEREAS, the wrongful deaths of George Floyd in 2020, Michael Brown in 2014, Oscar Grant in 2009, and other persons of color, caused by persons who are sworn to serve and protect, is evidence of racism in some people of authority; and

WHEREAS, prejudice against people of color is not limited to some who are to serve and protect all persons, but remains the unjustified harmful attitude of many Americans; and

WHEREAS, while peacefully protesting racism, participants at Layette Square, Washington D. C., and cities throughout the United States, were subjected to violence by persons who are to serve and protect; and

WHEREAS, all well-meaning persons abhor the disruption of peaceful protests by violence of any type, including, but not limited to, physical harm, arson, and looting; and

WHEREAS, the citizens of the United States of America will continue to exercise their rights of civil disobedience which promote justice, decency and respect toward all peoples; and

WHEREAS, it is only by continuing to listen to the concerns of community members, leaders and activists that can we move forward and better address the feelings of frustration and the pervasive systemic inequality that have led to the persistence of racism and racial injustice in the United States; and

WHEREAS, it is of vital importance to the City of Marina as well as to our Nation that the essential right to engage in civil disobedience and to petition for the redress of grievances be recognized on June 17, 2020, and on the same date of every year hereafter, as a human right which should be guaranteed to all people.

NOW THEREFORE, BE IT RESOLVED, that I, Mayor Bruce Delgado, and the City Council of the City of Marina, hereby proclaim June 17TH of 2020 and that same date of each year hereafter as Civil Disobedience Day: to reaffirm the right of each and every person in the United States to assemble, and, in a civil manner, protest all acts and behavior of a violent nature toward all persons regardless of color; and call upon all citizens to exercise their constitutional right to assemble, oppose and condemn violence from any person, governmental entity or persons of authority.

Dated this 16th Day of June 2020

CITY OF MARINA INCORPORATED NOVEMBER 13, 1975 CALIFORNIA

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Bruce C. Delgado, Mayor

Proclamation

LGBTQ Pride Month

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WHEREAS, the City of Marina has a diverse Lesbian, Gay, Bisexual, Transgender and Queer (LGBTQ) community and is committed to celebrating and supporting visibility, dignity and equity for all people in the community;

WHEREAS, many of the residents within the City of Marina that contribute to the enrichment of our City are a part of the lesbian, gay, bisexual, and transgender community; and

WHEREAS, The City of Marina has a long and proud history of inclusion and civil rights;

WHEREAS, the City of Marina commends the bravery and courage of all those in the LGBTQ community that face adversity and various forms of violence;

WHEREAS, The Supreme Court decision guaranteeing marriage equality in all 50 States was a historic victory for the LGBTQ community, our country still has far to go with respect to the equitable treatment of the LGBTQ community;

WHEREAS, continued opposition and oppression against LGBTQ peoples makes it important for cities to stand up and show solidarity and support for our LGBTQ residents and the community at large;

WHEREAS, several cities across the United States recognize and celebrate June as LGBTQ Pride Month, June has become a symbolic month in which the LGBTQ community and allies come together in various celebrations of pride; and

NOW THEREFORE, the City Council of the City of Marina does hereby declare the month of June as Lesbian, Gay, Bisexual, Transgender and Queer Pride month, symbolizing the City's celebration of diversity and support for the Lesbian, Gay, Bisexual, Transgender and Queer community.

Dated this 16th day of June 2020

CITY OF MARINA INCORPORATED NOVEMBER 15, 1975 CALIFORNIA

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Bruce C. Delgado, Mayor

Marina, CA

AP Check Register 06-05-20

Bank Account: 905 - Chase - Checking
Batch Date: 06/05/2020

Type	Date	Number Source	Payee Name	EFT Bank/Account	Transaction Amount
Bank Account: 905 - Chase - Checking					
Check	06/05/2020	95172 Accounts Payable	Access Monterey Peninsula		29,297.07
	Invoice	Date	Description		Amount
	03-31-20	05/21/2020	Qtr 3-PEG		29,297.07
Check	06/05/2020	95173 Accounts Payable	Ace Hardware		70.54
	Invoice	Date	Description		Amount
	074575	05/19/2020	Broom and dust pan		32.75
	074695	05/29/2020	Fasteners & marker		37.79
Check	06/05/2020	95174 Accounts Payable	Ace Hardware		140.13
	Invoice	Date	Description		Amount
	074590	05/20/2020	Breaker vacuum - Tate Park		8.73
	074593	05/20/2020	Flag mark - Tate Park		10.91
	074539	05/15/2020	Liquid wrench & barrel bolt - Unit 3000		19.64
	074618	05/22/2020	Wire brush		5.45
	074684	05/29/2020	Ess ext sg & roller cover - Swimming pool exterior		37.12
	074691	05/29/2020	Mark paint IC - Red paint		7.64
	074640	05/26/2020	Sign		16.22
	074638	05/26/2020	Misc. Hardware Supplies		7.64
	074658	05/27/2020	Misc. Hardware Supplies		9.80
	074727	06/02/2020	Fuel Farm Key Copies		16.98
Check	06/05/2020	95175 Accounts Payable	Ace High Designs Inc.		48.05
	Invoice	Date	Description		Amount
	01003877	05/29/2020	Long Sleeve Polo/Peloiva 5/29/20		48.05
Check	06/05/2020	95176 Accounts Payable	American Supply Co.		731.98
	Invoice	Date	Description		Amount
	0150353	05/27/2020	Cleaning Supply-CW		731.98
Check	06/05/2020	95177 Accounts Payable	Andersen's Lock & Safe, LLC		319.95
	Invoice	Date	Description		Amount
	39629	05/29/2020	B526_Replace Privacy Level in Bathroom		319.95
Check	06/05/2020	95178 Accounts Payable	Aramark Uniform Service		493.02

Type	Date	Number Source	Payee Name	EFT Bank/Account	Transaction Amount

Invoice	Date	Description	Amount
760792394	05/06/2020	Uniform Service - Public Works Crew	80.54
760792393	05/06/2020	Uniform Service - Public Works Crew	41.32
760792392	05/06/2020	Uniform Service - Public Works Crew	68.77
760792391	05/06/2020	Uniform Service - Public Works Crew	55.88
760801490	05/13/2020	Uniform Service - Public Works Crew	80.54
760801489	05/13/2020	Uniform Service - Public Works Crew	41.32
760801488	05/13/2020	Uniform Service - Public Works Crew	68.77
760801487	05/13/2020	Uniform Service - Public Works Crew	55.88

Check 06/05/2020 95179 Accounts Payable AT & T 261.35

Invoice	Date	Description	Amount
05-14-20	05/14/2020	AT&T Billing/Alarm, EOC & PEBST Equipment-Citywide 5/14/20	261.35

Check 06/05/2020 95180 Accounts Payable AT & T 643.63

Invoice	Date	Description	Amount
000014809660	05/28/2020	AT&T Billing/384-4718 4/28 thru 5/27/20	20.89
000014801374	05/27/2020	CALNET3-9391023476 (582-9611)	20.89
000014801369	05/27/2020	CALNET3-9391023471 (582-0100)	44.47
000014801371	05/27/2020	CALNET3-9391023473 (582-2398)	20.89
000014801373	05/27/2020	CALNET3-9391023475 (582-9032)	20.89
000014801375	05/27/2020	CALNET3-9391023477 (582-9803)	20.89
000014809644	05/28/2020	CALNET3-9391023440 (384-0860)	20.90
000014809661	05/28/2020	CALNET3-9391023457 (384-5140)	19.23
000014809667	05/28/2020	CALNET3-9391023461 (384-7238)	20.89
000014809645	05/28/2020	CALNET3-9391023441 (384-0888)	60.46
000014809668	05/28/2020	CALNET3-9391023462 (384-7547)	23.51
000014809669	05/28/2020	CALNET3-9391023463 (384-7854)	20.89
000014809646	05/28/2020	CALNET3-9391023442 (384-1702)	20.89
000014809676	05/28/2020	CALNET3--9391023470 (384-9682)	19.23
000014809672	05/28/2020	CALNET3-9391023466 (384-8477)	40.13
000014809643	05/28/2020	CALNET3-9391023439 (384-0552)	20.89
000014809652	05/28/2020	CALNET3-9391023448 (384-2934)	20.89
000014809641	05/28/2020	CALNET3-9391023437 (384-0425)	19.23
000014809656	05/28/2020	CALNET3-9391023452 (384-3717)	23.16

AP Check Register 06-05-20

Bank Account: 905 - Chase - Checking
Batch Date: 06/05/2020

Type	Date	Number Source	Payee Name	EFT Bank/Account	Transaction Amount
	000014809675	05/28/2020	CALNET3-9391023469 (384-9337)		20.89
	000014809673	05/28/2020	CALNET3-9391023467 (384-8760)		19.23
	000014809674	05/28/2020	CALNET3-9391023468 (384-9148)		21.08
	000014809647	05/28/2020	Phone Service for Fire Alarm System_B524		40.13
	000014809648	05/28/2020	Phone Service for Fire Alarm System_B533		40.13
	000014809653	05/28/2020	Phone Service for AWOS		22.95
Check	06/05/2020	95181 Accounts Payable	Bound Tree Medical		436.34
	Invoice	Date	Description		Amount
	83633905	05/20/2020	(4) Thermometers		436.34
Check	06/05/2020	95182 Accounts Payable	BPS Tactical, Inc.		3,850.51
	Invoice	Date	Description		Amount
	20021044	05/05/2020	Ball, Dhillon, Jean, DelQuadra, Rodrigues, Santana and Davila		3,850.51
Check	06/05/2020	95183 Accounts Payable	Branch's Janitorial		5,121.35
	Invoice	Date	Description		Amount
	227949	05/25/2020	Janitorial Service - CH, Corp Yard, LA, Annex & CC		2,886.35
	227954	05/25/2020	Janitorial Service-Police/Fire May 2020		2,235.00
Check	06/05/2020	95184 Accounts Payable	California Towing Inc.		262.50
	Invoice	Date	Description		Amount
	14435-T	05/13/2020	Heavy duty towing - 1998 fire truck		262.50
Check	06/05/2020	95185 Accounts Payable	Cardlock Vending, Inc.		235.00
	Invoice	Date	Description		Amount
	13712	05/29/2020	Annual agreement - internet		235.00
Check	06/05/2020	95186 Accounts Payable	Carmel Fire Protection Associates		600.00
	Invoice	Date	Description		Amount
	120174	05/16/2020	Plan registration and inspection - Joby Tent 72 , 3200 Imjin		200.00
	120173	05/16/2020	Plan review and inspection at Joby Aviation 72		200.00
	120176	05/23/2020	Plan review and inspection at Joby Tent 13		200.00
Check	06/05/2020	95187 Accounts Payable	Cheryl Kent		7,200.00
	Invoice	Date	Description		Amount
	2020-15	05/08/2020	Code Enforcement Investigations		2,400.00

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Bank Account: 905 - Chase - Checking
Batch Date: 06/05/2020

Type	Date	Number Source	Payee Name	EFT Bank/Account	Transaction Amount
	2020-20	05/15/2020	Code Enforcement Investigations		2,400.00
	2020-25	05/22/2020	Code Enforcement Investigations		2,400.00
Check	06/05/2020	95188 Accounts Payable	Cintas Corporation		50.94
	Invoice	Date	Description		Amount
	4051576873	05/29/2020	Mat Service City Hall		50.94
Check	06/05/2020	95189 Accounts Payable	Commercial Environment Landscape		3,333.33
	Invoice	Date	Description		Amount
	2796-0520	05/01/2020	Airport Landscape Services_May 20		3,333.33
Check	06/05/2020	95190 Accounts Payable	Commercial Truck Company		170.47
	Invoice	Date	Description		Amount
	SAL-1044148	05/27/2020	Filter Lube oil - Unit 98-01		170.47
Check	06/05/2020	95191 Accounts Payable	CSC of Salinas		141.54
	Invoice	Date	Description		Amount
	000749527	05/26/2020	4000 Psi hose & worm gear clamp - Unit 599		141.54
Check	06/05/2020	95192 Accounts Payable	CSG Consultants		69,332.50
	Invoice	Date	Description		Amount
	30562	05/11/2020	CSG Eng: Salinas Ave Wide (EDR1904) (04/01/20 - 04/24/20)		160.00
	30565	05/11/2020	CSG Eng: Permits/Development (04/01/20 - 04/24/20)		7,087.50
	30566	05/11/2020	CSG Eng: Staff Augmentation (04/01/20 - 04/24/20)		5,780.00
	30567	05/11/2020	CSG Eng: RWQCB (04/01/20 - 04/24/20)		960.00
	30572	05/11/2020	CSG Eng: FAE CHISPA/Junsay Oaks (04/01/20 - 04/24/20)		437.50
	30559	05/11/2020	CSG Eng: (APR 1801) Annual Sts Resurf. (04/01/20 - 04/24/20)		20,867.50
	30560	05/11/2020	CSG Eng: R46B Imjin Pkwy (04/01/20 - 04/24/20)		1,120.00
	30573	05/11/2020	CSG Eng: Marina Develop Projects(04/01/20 - 04/24/20)		375.00
	30577	05/11/2020	CSG Eng: SH2 Sea Haven - Plan Ck (04/01/20 - 04/24/20)		11,010.00
	30561	05/11/2020	CSG Eng: R5 2nd Ave Ext (#713) (04/01/20 - 04/24/20)		5,920.00
	30579	05/11/2020	CSG Eng: SH3A Sea Haven-Inspection (04/01/20 - 04/24/20)		4,875.00
	30571	05/11/2020	CSG Eng: SH1 -2 Sea Haven-Inspection (04/01/20 - 04/24/20)		1,250.00
	29214	02/14/2020	CSG Eng: Seabreeze LMD (01/01/20 - 01/31/20)		240.00
	30557	05/11/2020	CSG - Monterey Bay Est LMD (04/01/20 - 04/24/20)		640.00
	30580	05/11/2020	CSG Eng: SH5A Sea Haven-Inspection (04/01/20 - 04/24/20)		3,625.00

AP Check Register 06-05-20

Bank Account: 905 - Chase - Checking
Batch Date: 06/05/2020

Type	Date	Number	Source	Payee Name / Invoice	EFT Bank/Account / Date	Description	Transaction Amount
	30556		05/11/2020	CSG Eng: Seabreeze LMD (04/01/20 - 04/24/20)			640.00
	30558		05/11/2020	CSG Eng: Cypress Cove LMD (04/01/20 - 04/24/20)			2,585.00
	30575		05/11/2020	CSG Eng: SH5A Sea Haven - Plan Ck (04/01/20 - 04/24/20)			1,760.00
Check	06/05/2020	95193	Accounts Payable	CSUMB			5,000.00
	Invoice		Date	Description			Amount
	610182		05/28/2020	EOC Annual Maintenance Fees - 07/01/19 to 06/30/20			5,000.00
Check	06/05/2020	95194	Accounts Payable	Dave's Repair Service			75.00
	Invoice		Date	Description			Amount
	99030220		03/03/2020	Download CM Data			75.00
Check	06/05/2020	95195	Accounts Payable	Directv			5.00
	Invoice		Date	Description			Amount
	37470935735		05/26/2020	TV Service for Pilot's Lounge			5.00
Check	06/05/2020	95196	Accounts Payable	Ferguson Enterprise, Inc. # 1423			189.44
	Invoice		Date	Description			Amount
	8418925		05/11/2020	1.28 Smart II dufl tank			189.44
Check	06/05/2020	95197	Accounts Payable	Gavilan Pest Control			1,225.00
	Invoice		Date	Description			Amount
	0130494		05/31/2020	Airport Pest Control Services			1,150.00
	0130495		05/31/2020	Airport Pest Control Services_B504			75.00
Check	06/05/2020	95198	Accounts Payable	GCS Environmental Equipment Services			75.73
	Invoice		Date	Description			Amount
	21478		05/21/2020	Switch-pickup head 600 & paddle handle latch with loc - Unit 599			75.73
Check	06/05/2020	95199	Accounts Payable	George T. Powell			1,200.00
	Invoice		Date	Description			Amount
	05012020		05/01/2020	Parking Rental-Police/Fire 5/1 thru 5/31/20			1,200.00
Check	06/05/2020	95200	Accounts Payable	Green Line			380.00
	Invoice		Date	Description			Amount
	14702429		05/15/2020	Pump grease trap - Community Center			380.00
Check	06/05/2020	95201	Accounts Payable	Home Depot Credit Service			212.91

AP Check Register 06-05-20

Bank Account: 905 - Chase - Checking
Batch Date: 06/05/2020

Type	Date	Number Source	Payee Name	EFT Bank/Account	Transaction Amount
	Invoice	Date	Description		Amount
	05-27-20	05/27/2020	Lock kit, carbide door hinge & lumber fee		212.91
Check	06/05/2020	95202 Accounts Payable	J & M Aircraft Supply, Inc.		170.70
	Invoice	Date	Description		Amount
	40678	05/22/2020	Replacement Lens for Airfield Lighting		170.70
Check	06/05/2020	95203 Accounts Payable	Johnson Associates		400.28
	Invoice	Date	Description		Amount
	440565	05/26/2020	Sealed tog switch, in-line fuse holder/LED mini light-Unit 596		328.13
	440336	05/20/2020	Marine Seal kit - Unit 020		17.31
	440427	05/21/2020	Grab handle alu, - Unit 595		54.84
Check	06/05/2020	95204 Accounts Payable	Juli L. Hofman		1,105.00
	Invoice	Date	Description		Amount
	2579	05/14/2020	Printing Services - COVID-19 Citywide Mailer		1,105.00
Check	06/05/2020	95205 Accounts Payable	Kimley-Horn & Associates		34,023.00
	Invoice	Date	Description		Amount
	16219112	02/29/2020	Kimley-Horn - VMT Feb 2020		25,445.00
	16626785	04/30/2020	Preliminary Eng - CCIP R46B: Imjin Pkwy Wide Proj (04/30/20)		1,560.00
	16666646	04/30/2020	2nd Ave Extension & Patton Pkwy (R5) (04/01/20 - 04/30/20)		7,018.00
Check	06/05/2020	95206 Accounts Payable	L.N. Curtis & Sons		854.94
	Invoice	Date	Description		Amount
	INV390162	05/19/2020	Orange custom bulldog hose		239.27
	INV392424	05/28/2020	Medium Advantage 420 Respirator (10)		426.13
	INV392042	05/27/2020	Equipment for new engine		189.54
Check	06/05/2020	95207 Accounts Payable	Liebert Cassidy Whitmore		4,962.50
	Invoice	Date	Description		Amount
	1497868	04/30/2020	LCW - Professional Services		494.00
	1497869	04/30/2020	LCW - Professional Services		2,122.00
	1497870	04/30/2020	LCW - Professional Services		2,346.50
Check	06/05/2020	95208 Accounts Payable	M3 Environmental Consulting, LLC		6,020.00
	Invoice	Date	Description		Amount

Type	Date	Number	Source	Payee Name	EFT Bank/Account	Transaction Amount
	2018001		05/22/2020	9th St Stockade - Barracks @ Former Ft Ord_FORA CARETAKER		6,020.00
Check	06/05/2020	95209	Accounts Payable	Marina Coast Water District		3,465.96
	Invoice		Date	Description		Amount
	000056027 051520		05/15/2020	000056 027 - Center Med & ROW Calif Ave (04/15/20 - 05/15/20)		44.13
	000056025 051520		05/15/2020	000056 025- 327 Reind- Los Arb Sprt Comp (04/15/20 - 05/15/20)		63.96
	000056005 051520		05/15/2020	000056 005 - Calif Ave. and Patton Pkwy (04/15/20 - 05/15/20)		82.30
	000056007 051520		05/15/2020	000056 007 - Califor Ave Landscape (04/15/20 - 05/15/20)		82.30
	012016000 042220		05/22/2020	012016 000 - 199 Paddon Pl Locke Paddon (04/25/20 - 05/22/20)		61.03
	000056021 052120		05/15/2020	000056 021 - Ctr Med Res Rd-Post Off (04/18/20 - 05/15/20)		33.99
	000056016 051520		05/15/2020	000056 016 - Ctr Med Reserv & Seac (04/18/20 - 05/15/20)		33.99
	000056020 051520		05/15/2020	000056 020 - 304 Hillcrest Ave, Teen Ctr (04/18/20 - 05/15/20)		92.55
	000056024 051520		05/15/2020	000056 024 - Ctr Med Del Mon Blvd/Palm Ave (04/18/20 - 05/15/20)		82.30
	000056001 051520		05/15/2020	000056 001 - 209-13 Cypress (04/18/20 - 05/15/20)		95.09
	000056017 051520		05/15/2020	000056 017 - 208 A Palm Ave, Fire Station (04/18/20 - 05/15/20)		74.78
	000056018 051520		05/15/2020	000056 018 - 208 Palm Ave, Fire Station (04/18/20 - 05/15/20)		126.40
	000056019 051520		05/15/2020	000056 019 - 213 Hillcrest Ave, Comm Ctr (04/18/20 - 05/15/20)		935.92
	00005602 051520		05/15/2020	000056 022 - Ctr Median & Row Del Monte (04/18/20 - 05/15/20)		33.99
	000056045 052220		05/22/2020	000056 045 - 3100 Preston Park Irrig (04/25/20 - 05/22/20)		1,078.64
	000056046 052220		05/22/2020	000056 046 - 3100 Preston Park Bldg (04/25/20 - 05/22/20)		140.28
	000056094 052220		05/22/2020	000056 094 - 2660 5th Ave (04/25/20 - 05/22/20)		404.31
Check	06/05/2020	95210	Accounts Payable	Maynard Group Inc.		919.88
	Invoice		Date	Description		Amount
	P255828		06/01/2020	Platinum service Maintenance Coverage/Citywide 6/1/20		919.88
Check	06/05/2020	95211	Accounts Payable	Monterey Auto Supply		289.00
	Invoice		Date	Description		Amount
	724904		05/15/2020	Veh - Maint Parts & Supply - Unit 4000		163.02
	724737		05/15/2020	Veh - Maint Parts & Supply - Unit 813		14.34
	724607		05/14/2020	Veh - Maint Parts & Supply - Unit 816		13.58
	724169		05/13/2020	Veh - Maint Parts & Supply - Unit 582		22.30
	724631		05/14/2020	Veh - Maint Parts & Supply - Unit 813		27.92
	724281		05/13/2020	Veh - Maint Parts & Supply - Unit 599		47.84
Check	06/05/2020	95212	Accounts Payable	Monterey County Convention & Visitors		12,639.33

Type	Date	Number Source	Payee Name	EFT Bank/Account	Transaction Amount
			Bureau		
	Invoice	Date	Description		Amount
	Feb 2020	05/21/2020	Feb 2020 TID		12,639.33
Check	06/05/2020	95213 Accounts Payable	Monterey County Department of Health		3,785.00
	Invoice	Date	Description		Amount
	IN1008102	05/19/2020	Health Permit Fee - 3040 Lake Ct (FA0820582)		864.00
	IN1004491	05/19/2020	Health Permit Fee - 211 Hillcrest Ave (FA0813602)		1,686.00
	IN1008103	05/19/2020	Airport_Hazardous Materials Annual Fees_7-1-20 to 6-30-21		1,235.00
Check	06/05/2020	95214 Accounts Payable	Monterey County Petroleum-Sturdy Oil Co.		3,446.51
	Invoice	Date	Description		Amount
	0336793-IN	05/22/2020	Diesel Fuel (600 gal)		1,157.74
	0336400-IN	04/24/2020	Unleaded Fuel (1400 gal)		2,288.77
Check	06/05/2020	95215 Accounts Payable	Monterey One Water		355.10
	Invoice	Date	Description		Amount
	13-000144_050120	05/31/2020	Sewer Service_B507		15.90
	13-000145_050120	05/31/2020	Sewer Service_B514		26.50
	13-000148_050120	05/31/2020	Sewer Service_B520		26.50
	13-000149_050120	05/31/2020	Sewer Service_B521		15.90
	13-000153_050120	05/31/2020	Sewer Service_B529		15.90
	13-000157_050120	05/31/2020	Sewer Service_B533		106.00
	13-000158_050120	05/31/2020	Sewer Service_B535		26.50
	13-000161_050120	05/31/2020	Sewer Service_B524		121.90
Check	06/05/2020	95216 Accounts Payable	Monterey Regional Waste Management District		3,893.74
	Invoice	Date	Description		Amount
	04-30-20	04/30/2020	Citywide -Dump Fees		3,893.74
Check	06/05/2020	95217 Accounts Payable	My Chevrolet		70.27
	Invoice	Date	Description		Amount
	113915CVR	05/19/2020	Filter - Unit 882		33.71
	113917CVR	05/19/2020	Hose - Unit 882		36.56
Check	06/05/2020	95218 Accounts Payable	National Signal		372.55

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Bank Account: 905 - Chase - Checking
Batch Date: 06/05/2020

Type	Date	Number	Source	Payee Name	EFT Bank/Account	Transaction Amount
	Invoice		Date	Description		Amount
	0032274-IN		05/15/2020	Control repair		372.55
Check	06/05/2020	95219	Accounts Payable	Office Depot		6.38
	Invoice		Date	Description		Amount
	2404474581		05/13/2020	Accordian file		6.38
Check	06/05/2020	95220	Accounts Payable	Overhead Door Company		1,520.00
	Invoice		Date	Description		Amount
	1035-9087		05/19/2020	Repair slats and reset limits - Corp Yard		1,520.00
Check	06/05/2020	95221	Accounts Payable	Pacific Gas & Electric		264.59
	Invoice		Date	Description		Amount
	795-7.MAY20		05/21/2020	PG&E - 4467294795-7		264.59
Check	06/05/2020	95222	Accounts Payable	Proforce		327.75
	Invoice		Date	Description		Amount
	411830		05/26/2020	Tazer Training Targets		327.75
Check	06/05/2020	95223	Accounts Payable	Quill Corporation		124.44
	Invoice		Date	Description		Amount
	7061924		05/19/2020	Purell Hand Sanitizer/Records 5/19/20		60.73
	7133213		05/21/2020	Lysol Spray/Records 5/21/20		38.41
	7174121		05/22/2020	Clorox Disinfectant Wipes/Records 5/22/20		25.30
Check	06/05/2020	95224	Accounts Payable	RDO Equipment Co.		3,614.47
	Invoice		Date	Description		Amount
	W3913338		05/28/2020	Veh - Maint Parts & Supply - Unit F450		3,614.47
Check	06/05/2020	95225	Accounts Payable	Regal Pacific Aviation Equipment Inc.		992.43
	Invoice		Date	Description		Amount
	23226		05/07/2020	Replacement 100LL Fuel Hose		992.43
Check	06/05/2020	95226	Accounts Payable	Robert R. Wellington		90.00
	Invoice		Date	Description		Amount
	25287		05/15/2020	Marina Municipal Airport Matters_April 2020		90.00
Check	06/05/2020	95227	Accounts Payable	Salinas Valley Ford		48.51

Type	Date	Number	Source	Payee Name	EFT Bank/Account	Transaction Amount
	Invoice		Date	Description		Amount
	103524		05/13/2020	Oil & cabin filters - Unit 612		65.99
	CM342463		04/14/2020	Core credit - CM		(17.48)
Check	06/05/2020	95228	Accounts Payable	Sierra Springs & Alhambra		93.69
	Invoice		Date	Description		Amount
	14225799 051320		05/13/2020	Annex - Sierra Spring - Water Svc		53.84
	7266038 051520		05/15/2020	Water Cooler Rental and Replacement Water		39.85
Check	06/05/2020	95229	Accounts Payable	SpeakWrite		1,822.84
	Invoice		Date	Description		Amount
	941ad024		06/01/2020	Transcription Service/Patrol June 2020		1,822.84
Check	06/05/2020	95230	Accounts Payable	Taygeta Scientific, Inc.		2,000.00
	Invoice		Date	Description		Amount
	000423-R-0018		06/01/2020	Network Defense/Jun20		2,000.00
Check	06/05/2020	95231	Accounts Payable	TechRx Technology Services		16,058.75
	Invoice		Date	Description		Amount
	8587		05/22/2020	Computers - Engineering		2,525.00
	8592		05/31/2020	Laptop		1,262.50
	8495		05/31/2020	Computer Privacy Screen/Investigations 5/31/20		142.03
	8545		05/04/2020	Moniter, key and mouse for Capt Goncalves desk		207.58
	8558		05/31/2020	IT Support - May 2020		10,200.00
	8568		06/01/2020	Veeam Virtual Backup Monthly Subscription - June 2020		324.00
	8571		06/01/2020	Ninite Monthly Subscription - June 2020		112.50
	8564		05/31/2020	Amazon Glacier Terabyte Storage - March-May 2020		1,109.25
	8597		05/31/2020	B533_Wireless Access Point		175.89
Check	06/05/2020	95232	Accounts Payable	Tim Kramer		41.86
	Invoice		Date	Description		Amount
	060220		06/02/2020	Refund on Fuel Purchase_Overcharged per advertised price		41.86
Check	06/05/2020	95233	Accounts Payable	Transportation Agency of Monterey County		26,705.00
	Invoice		Date	Description		Amount
	PMP #5		04/30/2020	PMP Consultant Svcs & Fair Share for MTC Street Saver		26,705.00

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Bank Account: 905 - Chase - Checking
Batch Date: 06/05/2020

Type	Date	Number	Source	Payee Name	EFT Bank/Account	Transaction Amount
Check	06/05/2020	95234	Accounts Payable	Tri County Fire Protection		151.77
	Invoice		Date	Description		Amount
	SY103165		05/18/2020	Fire protection inspection - Community Center		151.77
Check	06/05/2020	95235	Accounts Payable	Valley Fabrication		128.10
	Invoice		Date	Description		Amount
	282934		05/12/2020	Steel counter - Unit 595		128.10
Check	06/05/2020	95236	Accounts Payable	Valley Saw & Garden Equipment		98.27
	Invoice		Date	Description		Amount
	233522		05/21/2020	Protective chain saw		98.27
Check	06/05/2020	95237	Accounts Payable	Verizon Wireless		2,456.24
	Invoice		Date	Description		Amount
	9854906200		05/18/2020	PW Crew, Airport & Bldg Insp - Cell Phones		749.36
	9854836483		05/18/2020	Cell Phone Service/PD 4/19 thru 5/18/20		1,402.00
	9855363369		05/25/2020	FD Mobile Charges - April 26- May 25, 2020		304.88
Check	06/05/2020	95238	Accounts Payable	Xerox Financial Services		239.26
	Invoice		Date	Description		Amount
	2120241		05/28/2020	FD Monthly Copier Charges - 05/17/20 - 06/16/20		239.26
Check	06/05/2020	95239	Accounts Payable	Z.A.P. Manufacturing		310.31
	Invoice		Date	Description		Amount
	3603		05/05/2020	3290 4-B white		310.31
Check	06/05/2020	95240	Accounts Payable	Zee Service Co.		125.40
	Invoice		Date	Description		Amount
	66200745		05/27/2020	First Aide Supply - Corp Yard		125.40
Check	06/05/2020	95241	Accounts Payable	Zoom Imaging Solutions		327.19
	Invoice		Date	Description		Amount
	2219049		05/28/2020	MeterRead Maintenance/Patrol 5/28/20		208.01
	2219050		05/28/2020	MeterRead Maintenance/PD 5/28/20		119.18
905 Chase - Checking Totals:				Transactions: 70		$265,424.29

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Bank Account: 905 - Chase - Checking
Batch Date: 06/05/2020

Type	Date	Number	Source	Payee Name	EFT Bank/Account	Transaction Amount
	Checks:	70		$265,424.29		

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AP Check Register 06-12-20

Bank Account: 905 - Chase - Checking
Batch Date: 06/12/2020

Type	Date	Number Source	Payee Name	EFT Bank/Account	Transaction Amount
Bank Account: 905 - Chase - Checking					
Check	06/12/2020	95242 Accounts Payable	Ace Hardware		187.68
	Invoice	Date	Description		Amount
	074393	05/04/2020	Tools		78.59
	074733	06/02/2020	Pad felt - CH door		4.36
	074730	06/02/2020	Tape mounting, magnetic tape & staples		65.50
	074737	06/03/2020	Titebonditi		9.82
	074804	06/09/2020	Materials for Flag Pole - City Hall		18.50
	074815	06/09/2020	Tape		10.91
Check	06/12/2020	95243 Accounts Payable	American Supply Co.		867.55
	Invoice	Date	Description		Amount
	2896168	06/04/2020	Thermometer & cleaners- COVID 19 Response		468.57
	2896397	06/05/2020	Alcohol Gel - COVID 19 Response		398.98
Check	06/12/2020	95244 Accounts Payable	Aramark Uniform Service		431.68
	Invoice	Date	Description		Amount
	760819307	05/27/2020	Uniform Service - Public Works Crew		58.72
	760819308	05/27/2020	Uniform Service - Public Works Crew		71.63
	760819309	05/27/2020	Uniform Service - Public Works Crew		43.45
	760819310	05/27/2020	Uniform Service - Public Works Crew		91.91
	760828371	06/03/2020	Uniform Service - Public Works Crew		55.88
	760828372	06/03/2020	Uniform Service - Public Works Crew		68.77
	760828373	06/03/2020	Uniform Service - Public Works Crew		41.32
Check	06/12/2020	95245 Accounts Payable	Branch's Janitorial		2,886.35
	Invoice	Date	Description		Amount
	227929	04/22/2020	Janitorial Service - CH, Corp Yard, LA, Annex & CC		2,886.35
Check	06/12/2020	95246 Accounts Payable	California Department of Forestry and Fire Pr.		1,489.51
	Invoice	Date	Description		Amount
	1200452019DIG	08/01/2019	Fee for regulatory costs & late fee - VD Park		1,489.51
Check	06/12/2020	95247 Accounts Payable	Carmel Roasters, Inc.		476.33
	Invoice	Date	Description		Amount

Type	Date	Number	Source	Payee Name / Invoice	EFT Bank/Account / Date	Description	Transaction Amount
	59116		05/08/2020			FD Coffee, filters & In line water filter	183.54
	59228		06/04/2020			FD Coffee - 4 boxes	292.79
Check	06/12/2020	95248	Accounts Payable	Cheryl Kent			4,320.00
	Invoice				Date	Description	Amount
	2020-30				05/29/2020	Code Enforcement Investigations	1,920.00
	2020-35				06/01/2020	Code Enforcement Investigations	2,400.00
Check	06/12/2020	95249	Accounts Payable	City Of Salinas			9,300.00
	Invoice				Date	Description	Amount
	2020-00000131				06/01/2020	Animal Sheltering/January-March 2020 Quarter Billing	9,300.00
Check	06/12/2020	95250	Accounts Payable	Coast Counties Peterbilt			12,226.43
	Invoice				Date	Description	Amount
	0242486S				05/26/2020	Fire Truck Repair - Unit 98-01	12,226.43
Check	06/12/2020	95251	Accounts Payable	Comcast			163.46
	Invoice				Date	Description	Amount
	04-14-20				04/14/2020	teen center cable tv	94.14
	05-26-20				05/26/2020	Cable Service-Police/Fire 6/4 thru 7/3/20	69.32
Check	06/12/2020	95252	Accounts Payable	CSG Consultants			12,525.00
	Invoice				Date	Description	Amount
	30576				05/11/2020	CSG Eng: Permits/Dev: Seville Town (04/01/20 - 04/24/20)	160.00
	30578				05/11/2020	CSG Eng: FAE - DU2-1C Dunes Phas 2-Tent Map (04/01/20-04/24/20)	9,580.00
	30569				05/11/2020	Abdy Way Subdivision	800.00
	30568				05/11/2020	Dunes Tree Removal - Erik & Edrie	410.00
	30601				05/11/2020	Building Services through 4/24/2020	1,575.00
Check	06/12/2020	95253	Accounts Payable	Enterprise FM Trust			543.42
	Invoice				Date	Description	Amount
	FBN3969572				06/03/2020	Enterprise FM Trust: Monthly Lease Charges	543.42
Check	06/12/2020	95254	Accounts Payable	Formation Environmental, LLC			5,560.00
	Invoice				Date	Description	Amount
	5732				05/31/2020	Formation Enviro: Groundwater Sustain Plan (04/30/20-05/31/20)	5,560.00
Check	06/12/2020	95255	Accounts Payable	Gavilan Pest Control			1,827.00

Type	Date	Number	Source	Payee Name	EFT Bank/Account	Transaction Amount
	Invoice		Date	Description		Amount
	0130772		05/28/2020	Pest Control Svc @ Multiple Locations		1,750.00
	0131391		06/01/2020	Gavilan Pest Control - Comm Ctr		77.00
Check	06/12/2020	95256	Accounts Payable	George T. Powell		1,200.00
	Invoice		Date	Description		Amount
	06012020		06/01/2020	Parking Rental-Police/Fire 6/1 thru 6/30/20		1,200.00
Check	06/12/2020	95257	Accounts Payable	Graniterock/Pavex Construction		889.66
	Invoice		Date	Description		Amount
	1239238		05/23/2020	5 gal buckets & RS-1 gal		889.66
Check	06/12/2020	95258	Accounts Payable	Hydro Turf		1,808.37
	Invoice		Date	Description		Amount
	1732672		05/27/2020	Pressure washer		1,808.37
Check	06/12/2020	95259	Accounts Payable	L.N. Curtis & Sons		10,796.10
	Invoice		Date	Description		Amount
	INV393396		05/29/2020	GRANT - Turnouts for Michael Smith		3,598.70
	INV393402		05/29/2020	GRANT - Turnouts for RFF Samantha Flores		3,598.70
	INV393379		05/29/2020	GRANT - Turnouts for RFF Sam Figueroa		3,598.70
Check	06/12/2020	95260	Accounts Payable	Lexis Nexis Risk Solutions		450.00
	Invoice		Date	Description		Amount
	20200331		03/31/2020	Data Retrieval/Investigations 3/1 thru 3/31/20		150.00
	20200430		04/30/2020	Data Retrieval/Investigations 4/1 thru 4/30/20		150.00
	20200531		05/31/2020	Data Retrieval/Investigations 5/1 thru 5/31/20		150.00
Check	06/12/2020	95261	Accounts Payable	Marina Coast Water District		1,209.32
	Invoice		Date	Description		Amount
	000056061 052220		05/22/2020	000056 061 - Seaside Ct. & Reservation Rd (04/25/20 - 05/22/20)		55.95
	000056040 052220		05/22/2020	000056 040 - Center Median Hilo Ave (04/25/20 - 05/22/20)		69.31
	000056028 052220		05/22/2020	000056 028 - ROW Calif Ave and Jerry (04/25/20 - 05/22/20)		191.39
	000056090 052220		05/22/2020	000056 090 - Locke Padd Park (04/25/20 - 05/22/20)		55.95
	000056042 052220		05/22/2020	000056 042 - 3040 Lake Dr-Animal Shelter (04/25/20 - 05/22/20)		92.44
	000056006 052220		05/22/2020	000056 006 - 188 Seaside Circle (04/25/20 - 05/22/20)		62.58

Type	Date	Number	Source	Payee Name	EFT Bank/Account	Transaction Amount
	014874000 052920		05/29/2020	Water Billing/South Field Office 5/1 thru 5/29/20		137.24
	000056095 052920		05/29/2020	000056 095 - 2nd Ave Median (05/01/20 - 05/29/20)		227.64
	000056036 052920		05/29/2020	000056 036 - Center Median 2nd Ave (05/01/20 - 05/29/20)		158.41
	000056037 052920		05/29/2020	000056 037 - 2nd Avenue Irrigation (05/01/20 - 05/29/20)		158.41
Check	06/12/2020	95262	Accounts Payable	Marina Grocery Outlet		2,762.31

Invoice	Date	Description	Amount
02-05-20 con	02/05/2020	Concession Purchases	20.95
03-12-20 con	03/12/2020	Concession Purchases	119.95
01-06-20 gd	01/06/2020	General Donations Purchases	20.95
01-06-20 gd 2	01/06/2020	General Donations Purchases	35.96
01-14-20 gd	01/14/2020	General Donations Purchases	16.76
02-07-20 gd	02/07/2020	General Donations Purchases	30.38
02-08-20 gd	02/08/2020	General Donations Purchases	25.94
02-13-20 gd	02/13/2020	General Donations Purchases	64.52
02-18-20 gd	02/18/2020	General Donations Purchases	21.11
03-12-20 gd	03/12/2020	General Donations Purchases	130.06
03-23-20 gd	03/23/2020	General Donations Purchases	121.91
03-27-20 gd	03/27/2020	General Donations Purchases	60.87
01-08-20 yc	01/08/2020	Youth Center Purchases	96.16
01-09-20 yc	01/09/2020	Youth Center Purchases	67.63
01-16-20 yc	01/16/2020	Youth Center Purchases	46.16
01-17-20 yc	01/17/2020	Youth Center Purchases	4.35
01-27-20 yc	01/27/2020	Youth Center Purchases	27.23
01-27-20 yc 2	01/27/2020	Youth Center Purchases	88.74
03-12-20 yc	03/12/2020	Youth Center Purchases	51.87
01-08-20 sc	01/08/2020	Senior Center Purchases	413.57
01-09-20 sc	01/09/2020	Senior Center Purchases	51.33
01-16-20 sc	01/16/2020	Senior Center Purchases	42.76
01-23-20 sc	01/23/2020	Senior Center Purchases	102.00
01-27-20 sc	01/27/2020	Senior Center Purchases	160.73
01-31-20 sc	01/31/2020	Senior Center Purchases	4.47
02-03-20 sc	02/03/2020	Senior Center Purchases	12.57
02-07-20 sc	02/07/2020	Senior Center Purchases	39.95
02-12-20 sc	02/12/2020	Senior Center Purchases	205.13

Type	Date	Number	Source	Payee Name	EFT Bank/Account	Transaction Amount
	02-18-20 sc	02/18/2020		Senior Center Purchases		112.12
	02-18-20 sc 2	02/18/2020		Senior Center Purchases		78.04
	02-25-20 sc	02/25/2020		Senior Center Purchases		264.78
	02-28-20 sc	02/28/2020		Senior Center Purchases		10.95
	03-02-20 sc	03/02/2020		Senior Center Purchases		12.57
	03-05-20 sc	03/05/2020		Senior Center Purchases		199.84
Check	06/12/2020	95263	Accounts Payable	Monterey County Petroleum-Sturdy Oil Co.		3,136.15
	Invoice	Date		Description		Amount
	30336794-IN	05/22/2020		Unleaded Fuel (1665 gal)		3,136.15
Check	06/12/2020	95264	Accounts Payable	Monterey One Water		456.20
	Invoice	Date		Description		Amount
	12-000192 053120	05/31/2020		12-000192 - 3200 Del Monte Blvd (05/01/20 - 06/30/20)		26.50
	12-003949 053120	05/31/2020		12-003949 - 209 - 213 Cypress Ave #032311033 (05/01/20-06/30/20)		53.00
	13-000143 053120	05/31/2020		13-000143 - 3220 Imjin Rd (05/01/20 - 06/30/20)		15.90
	13-000328 052310	05/31/2020		13-000328 - 4th Ave & DX Dr (05/01/20 - 06/30/20)		159.00
	12-003451 053120	05/31/2020		12-003451 - 0 Seaside Ave & Reserv Rd (05/01/20 - 06/30/20)		29.55
	12-003245 053120	05/31/2020		12-003245 - 0 Cardoza Ave-Abdy Way (05/01/20 - 06/30/20)		26.50
	12-001708 053120	05/31/2020		12-001708 - 304 Hillcrest Ave (05/01/20 - 06/30/20)		29.15
	12-001627 053120	05/31/2020		12-001627 - 211 Hillcrest Ave (05/01/20 - 06/30/20)		116.60
Check	06/12/2020	95265	Accounts Payable	Monterey Tire Service		342.18
	Invoice	Date		Description		Amount
	1-94879	06/03/2020		Goodyear Eagle tire - Unit 897		318.14
	1-94877	06/01/2020		Tire disposal fee		24.04
Check	06/12/2020	95266	Accounts Payable	MuttMitt - ZW USA Inc.		1,488.10
	Invoice	Date		Description		Amount
	346770	06/09/2020		Mutt Mitts		1,488.10
Check	06/12/2020	95267	Accounts Payable	Office Depot		836.49
	Invoice	Date		Description		Amount
	494689632001	06/04/2020		Office Supplies-Finance		836.49
Check	06/12/2020	95268	Accounts Payable	Pacific Gas & Electric		6,036.93
	Invoice	Date		Description		Amount

Type	Date	Number Source	Payee Name	EFT Bank/Account	Transaction Amount
	313-6.MAY20	05/28/2020	PG&E 6793435313-6		6,036.93
Check	06/12/2020	95269 Accounts Payable	Pure H2O		163.84
	Invoice	Date	Description		Amount
	12927	06/01/2020	Water Cooler Service-Police/Fire 6/1/20		163.84
Check	06/12/2020	95270 Accounts Payable	Salinas Valley Pro Squad		119.63
	Invoice	Date	Description		Amount
	307700	06/01/2020	Baton Rings		119.63
Check	06/12/2020	95271 Accounts Payable	Sherwin-Williams		186.22
	Invoice	Date	Description		Amount
	6274-6	06/02/2020	Paint - 5 gal pro park red		186.22
Check	06/12/2020	95272 Accounts Payable	Sign Works		700.50
	Invoice	Date	Description		Amount
	11535	03/11/2020	Department Badge and Patch Signs		700.50
Check	06/12/2020	95273 Accounts Payable	T J K M		4,185.00
	Invoice	Date	Description		Amount
	0049743	05/31/2020	Engineering & Speed/Traf Survey (On-Call) (05/01/20 - 05/31/20)		4,185.00
Check	06/12/2020	95274 Accounts Payable	Thyssenkrupp Elevator Corporation		1,303.29
	Invoice	Date	Description		Amount
	3005281872	06/01/2020	Elevator Service - Public Service Bldg		1,303.29
Check	06/12/2020	95275 Accounts Payable	Union Bank - Corporate Trust Division		635.00
	Invoice	Date	Description		Amount
	05-20-20	06/04/2020	May 2020 - Apr 2021/2015 GO Ref Bonds		635.00
Check	06/12/2020	95276 Accounts Payable	USDA Rural Development		8,906.24
	Invoice	Date	Description		Amount
	05-08-20	06/04/2020	Case #04-027-0942321991		8,906.24
Check	06/12/2020	95277 Accounts Payable	Valley Fabrication		210.54
	Invoice	Date	Description		Amount
	284633	05/27/2020	Steel counter - Unit 020		210.54

Marina, CA

AP Check Register 06-12-20

Bank Account: 905 - Chase - Checking
Batch Date: 06/12/2020

Type	Date	Number	Source	Payee Name	EFT Bank/Account	Transaction Amount
Check	06/12/2020	95278	Accounts Payable	Ward Diesel Filter Systems		9,410.00
	Invoice		Date	Description		Amount
	5045		05/31/2020	Remove & install No smoke diesel exhaust for 2019 Rosenbauer		9,410.00
Check	06/12/2020	95279	Accounts Payable	Wex Bank		93.75
	Invoice		Date	Description		Amount
	65522791		05/23/2020	Gas Billing/Police 5/23/20		93.75
Check	06/12/2020	95280	Accounts Payable	Zee Service Co.		62.09
	Invoice		Date	Description		Amount
	66200761		06/05/2020	First Aide Supply - CW		62.09
Check	06/12/2020	95281	Accounts Payable	Marina Employees Association		160.00
	Invoice		Date	Description		Amount
	05-29-20		05/29/2020	24 - MEA Dues		160.00
Check	06/12/2020	95282	Accounts Payable	Marina Professional Fire Fighters Association		300.00
	Invoice		Date	Description		Amount
	05-29-20		05/29/2020	35 - MPFFA Dues		300.00
Check	06/12/2020	95283	Accounts Payable	Premier Access Insurance		1,196.00
	Invoice		Date	Description		Amount
	06-01-20		06/01/2020	101 - Dental EE+1*		5,143.94
	06-01-20.		06/01/2020	Dental Claim (06/2020)		(3,947.94)
Check	06/12/2020	95284	Accounts Payable	Vision Service Plan		1,984.47
	Invoice		Date	Description		Amount
	06-01-20		06/01/2020	103 - Vision EE*		1,894.06
	06-01-20.		06/01/2020	VSP Adjustment (06/2020)		90.41
EFT	06/12/2020	865	Accounts Payable	Richard B. Standridge	121042882 / 8312012522	3,372.50
	Invoice		Date	Description		Amount
	20-12		06/05/2020	Services 05-25/06-04-20		3,372.50
EFT	06/12/2020	866	Accounts Payable	Marina Police Association-MPOA	322271627 / 901587928	240.00
	Invoice		Date	Description		Amount

Marina, CA

AP Check Register 06-12-20

Bank Account: 905 - Chase - Checking
Batch Date: 06/12/2020

Type	Date	Number	Source	Payee Name	EFT Bank/Account	Transaction Amount
	05-29-20		05/29/2020	23 - MPOA Dues		240.00
EFT	06/12/2020	867	Accounts Payable	Police Officers Association - POA	322271627 / 901589106	1,296.00

Invoice	Date	Description	Amount
05-29-20	05/29/2020	25 - POA Dues	1,296.00

905 Chase - Checking Totals:				Transactions: 46	$118,741.29
	Checks:	43	$113,832.79		
	EFTs:	3	$4,908.50		

Marina, CA

SA Check Register 06-12-20

Bank Account: 921 - Chase - Successor Agency

Batch Date: 06/12/2020

Type	Date	Number	Source	Payee Name	EFT Bank/Account	Transaction Amount
Bank Account: 921 - Chase - Successor Agency						
EFT	06/12/2020	44	Accounts Payable	Richard B. Standridge	121042882 / 8312012522	47.50

Invoice	Date	Description	Amount
20-12 SA	06/05/2020	Services 05-25/06-04-20	47.50

921 Chase - Successor Agency Totals:		Transactions: 1	$47.50
EFTs:	1	$47.50	

DRAFT

Agenda Item **8b(1)**
City Council Meeting of
July 16, 2020

MINUTES

Tuesday, April 25, 2017 **5:30 P.M.**

SPECIAL JOINT MEETING OF CITY COUNCIL AND PLANNING COMMISSION

Council Chambers
211 Hillcrest Avenue
Marina, California

1. CALL TO ORDER

2. ROLL CALL & ESTABLISHMENT OF QUORUM: (City Council, Airport Commissioners, Marina Abrams B Non-Profit Corporation, and Redevelopment Agency)

   PRESENT: Council Members: Nancy L. Amadeo, Gail Morton, Frank O'Connell, Mayor Pro Tem/Vice Chair David W. Brown, Mayor/Chair Bruce C. Delgado (late, arrived at 5:35pm)

   PRESENT: Planning Commission Members: Katherine Biala, David Bielsker, Tim Ledesma (late, arrived at 6:20 pm), Adam Urrutia,

   ABSENT, Planning Commission Member: Chairperson David Burnett (Excused)

3. MOMENT OF SILENCE & PLEDGE OF ALLEGIANCE (Please stand)

4. OTHER ACTIONS:

   a. City Council and Planning Commission receive presentation and Discussion of the Marina Municipal Airport Business and Industrial Park/University of California Monterey Bay Education, Science and Technology Center (UC MBEST) Center Specific Plan.

Presentation by Frank Hazelton, LSA Associates.

Planning Commission/Council Questions followed the presentation. The proposed extension of the airport runway included on 1-13 was discussed. It was explained that this was not a part of this Plan, however, the runway is still on track to be extended at some future date. This would provide opportunities for larger aircraft to land at the airport.

Issues relating to clarifying Map 1-19, the General Plan Land Use Map, were also discussed for clarification.

The use of the FORA Regional Urban Design Guidelines (RUDG) in the development of the Specific Plan was then discussed. The consultant indicated that RUDG were utilized in the development of the Specific Plan Development Standards and Design Guidelines. There was clarification that changes could be made to the document.

Discussion of a charter school then took place and there were questions as to the status of schools that were already located within the park as the Specific Plan was adopted. Steve Matarazzo explained that schools meets the needs of the public service mission of the UC- Santa Cruz. Jeff Crechriou explained that a school of up to 300 per acre may be considered. Cal-trans would be the reviewing agency of that use.

The use of floor area ratios (FAR) was raised. Figures 2.4-1 and 2.4-2 were specifically referenced. The use of a .30 FAR is typical of an industrial park. The MBEST Master Plan was the source of much of the information included in the Plan.

The inclusion of four-foot-wide sidewalks, which were discussed in connection with the development of the site, was also questioned. The consultant explained that staff had raised this issue, feeling that such a width was too narrow. This was another standard identified in the MBEST Master Plan, but it can be altered to allow for wider sidewalks.

The issue of how things have changed since the 1997 Master Plan was then discussed. Mr Mattarazo indicated that the Specific Plan expands the types of uses to include light industrial. While the Master Plan identified the uses as exclusively UC research, that has been expanded, recognizing that there wasn't sufficient market to make the Park exclusively a UC research facility. He explained that it had originally been thought that our area would become an overflow for development in Silicon Valley, but that hasn't happened. He explained that the thought now is that the growth in the area will be more locally generated. He explained that there were parties looking at the sale of the 50-acre west campus. The UC property will be for sale and for ground lease.

On page 1-14 and on the following page of the background section of the Specific Plan, it indicates that the Final Environmental Assessment/Environmental Impact Statement (EIS) was prepared which included potential civilian reuse of the Army property. This included a decision regarding reuse of the former Fort Ord property by UC for a "multi-institutional center for science, technology, education and policy center to be built on approximately 970 acres. Discussion occurred around restrictions concerning the transfer of the property and how based on the uses defined, UC was not required to contribute to the mitigation of the impacts nor pay the 50% of land sales to FORA that other entities were required to do. While recognizing the need to expand uses, the issue of not paying the CFD for the mitigation nor the 50% of land sales to FORA was raised as a concern if the uses were no longer specific to the uses originally outlined for the property.

The reference to a golf course on page 1-26 was also raised as an indicator that the plan needed to be updated. It was clarified that this is background information from the general plan. There was then a question about whether or not the Specific Plan could deviate from the General Plan. Staff explained that the General Plan would need to be updated.

The discussion then turned to the variety of uses proposed in the Specific Plan and what impact the inclusion of hotel and retail space might have on drawing business from the downtown area and the new Dunes Commercial development. Additionally, the need for required standards that will protect the City was also discussed. The City Attorney indicated that there was new information presented tonight in learning that UC will be selling the land rather than leasing it and that should be addressed in the Plan. She explained that there are different zoning implications when land is sold as opposed to being leased. If UC were to retain ownership, there would be more control of what was developed than if the property is sold.

Section 5.6 Financing Capital Improvements was discussed as to its brevity. The Consultant indicated that this was a placeholder and would be expanded to provide information about alternatives for financing.

There was discussion about what areas the Specific Plan. Steve Matarazzo referred to Figure 1.4-2 and explained that the Central North Campus is the area covered under the Specific Plan. It was clarified that the reference to a golf course could be replaced with open space or landscaping. It was also pointed out that the General Plan needed to be amended to reflect the Specific Plan and that the Zoning Map should include an SP for the area.

The question was raised as to why the process for developing the Specific Plan had taken so long. It was explained that the two entities working together have priorities that don't always correspond. Both entities have had big staffing changes as well and these transitions have affected how the process.

There was discussion about the need to include information about the FORTAG trail system and the need for an interim and long-term alignment. The location for the trail would primarily be on the eastern edge of the property in the linear green space located on Figure 2.4-2. There needs to be recognition that the trail may need to extend out of that area, depending on slope. The Specific Plan would be a 100' buffer along Blanco Road.

The issue of need to amend the General Plan to accommodate the uses of the Specific Plan was adopted, along with the need to amend the zoning map to include a Specific Plan designation.

There was clarification that there could be property sales or ground lease on all of this property. The UC has Covenants, Codes and Restrictions that were recorded by UC, in addition to the Specific Plan at this point. Mr. Matarazzo indicated that all developers would be subject to the Community Facilities fees.

There was a question as to whether or not the UC Master Plan was adopted. It was indicated that it was not.

There was discussion about cannabis related sites at UC-MBEST. Mr. Haselton explained that if the land use was permitted on the use chart, it would be allowed. The City Attorney explained that cannabis research being directed by the UC may be able to occur and would not be subject to City regulations. She further explained that the land uses would be under the adopted City Ordinances related to cannabis. While the current ordinance does not allow cannabis uses, the City Council is discussing options that would allow such uses.

The question of why the streets were so wide was discussed. It was explained that the wider streets were needed to accommodate larger vehicles associated with potential industrial uses. In most cases, the streets have already been installed.

The Master Plant list was next discussed. It was requested that consideration be given to primarily native plant material. The Consultant indicated that those changes could be made.

The compatibility of land uses north of the runway with the Park was raised. The consultant indicated that there wasn't information concerning land uses north of the runway, which made such a consideration difficult. Jeff Crechriou indicated that the Airport Land Use Commission, which is a recommending body, reviews land uses for compatibility with the airport. The same question was asked about the habitat reserved to the west of the runway. Mr. Crechriou indicated that the area was not specifically addressed in the Specific Plan, other than to mention it is describing uses in the area. The question of raising strawberries was discussed and whether they could be grown in habitat reserve. Mr. Crechriou indicated that they could not. Mr. Long indicated that many of the questions raised would be addressed in the Airport Master Plan Update, which covers other areas.

Clarification of standards and guidelines was requested. Mr. Haselton explained that a standard is required while a guideline provides direction of what is envisioned. Staff was directed to review the standards and guidelines.to ensure they represent the best interest of the City.

Under 1.5.1.9 and 1.5.1.10, relating to the Marina Municipal Airport Comprehensive Land Use Plan (2006) and the Marina Municipal Airport Master Plan Update (2018), it indicates that these documents are consistent with the proposed Specific Plan. Staff was directed to review these to ensure that such is the case.

The Substantial Conformance Section (5.3) was then discussed. The specific concern was the extent to which modifications may be approved and what really constitutes a minor modification. There was concern that the language went so far as to allowed modifying land uses. Examples of the use of Substantial Conformance being used in completed projects that resulted in less than desirable outcomes were cited. The concern was that the language be tightened to better specify what constituted a minor modification. There was further discussion about UC's ability to approve minor modifications of property under its control and whether this extended to properties they owned with intent to sell or lease; or, properties that were specifically utilized as part of UC's educational/research mission. It was felt that this language was unclear. Mr. Matarazzo stated that the UC would probably be fine with eliminating the Substantial Conformance Section, but he felt that it may be helpful for planning staff to address minor issues. The concern with not allowing for any minor changes was also mentioned.

The intent of Appendix C was brought up for discussion. It was felt that the language regarding deed restrictions may be a problem for the City. Mr. Matarazzo explained that the intent was that at the point the property was sold, it would be under the jurisdiction of the development and use standards and guidelines of the Specific Plan.

Mayor Delgado concluded the meeting.

4. ADJOURNMENT: The meeting adjourned at 8:07 PM

_____

Anita Sharp, Deputy City Clerk

ATTEST:

_____

Bruce C. Delgado, Mayor

FELDMAN & ASSOCIATES, INC.
ATTORNEYS AT LAW
11030 SANTA MONICA BOULEVARD
SUITE 109
LOS ANGELES, CALIFORNIA 90025
(310) 312-5401
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May 27, 2020

VIA E-MAIL AND MAIL

Board Secretary or Clerk
City of Marina
211 Hillcrest Avenue
Marina, CA 93933

RE: Resource Environmental, Inc./ Fort Ord Reuse Authority ("FORA")
Our Client: Resource Environmental, Inc.
Project: Hazardous Material and Building Removal at Surplus II
Project No.: S201

Dear Board Secretary or Clerk:

This office represents Resource Environmental, Inc., ("REI") a contractor who performed work on the above referenced project. REI is seeking to collect certain sums of money from the Ford Ord Reuse Authority ("FORA") and the City of Marina ("Marina") that are owed to REI.

This government code claim is being directed to Marina because FORA has an obligation to pay its debts and honor its contracts pursuant to Government Code section 67700. However, if REI is not paid before June 30, 2020, when FORA dissolves, FORA is obligated to transfer its assets and liabilities to successor agencies. It is our understanding that the real property that was improved by REI will be transferred to Marina, so Marina will be responsible for the liabilities as the successor agency.

It would be best if Marina made sure that REI was paid in full prior to June 30, 2020.

The following list represents the reasons why REI is owed money by FORA and Marina on the above mentioned project:

A. Unpaid Change Order

REI is owed approximately $126,477 in unpaid contract funds for Change Order 2.

The brief explanation for Change Order 2 is that FORA initiated Change Order No. 2 since FORA did not provide plans showing the location of certain underground utilities. The purpose of Change Order No. 2 was to locate utilities not shown on the plans, for safety reasons, and to mark the location of the utilities by putting paint marks on the ground. Harris and Associates, the project manager for FORA, reviewed the price quotations for Change Order No. 2, found them acceptable for the scope of work found in the quotations, had the Change Order signed, and then the work was performed. This amount was already billed in payment application 10, but not paid. There is no reason this approved Change Order, which was completed, was not paid.

B. Unpaid Retention

REI is owed approximately $150,094.96 in unpaid retention.

FORA withheld a five percent (5%) retention from nine approved (9) payment applications. The retention is still being withheld by FORA for no known reason. Therefore, REI demands it be paid the full amount of the retention. This amount was already billed in payment application 11, but not paid.

C. Unpaid RFCs (excluding number 16)

REI is owed approximately $890,769.68 for Requests for Change ("RFCs") 5, 6, 7, and 11-14. These RFCs are for extra work performed by REI.

However, as a result of the contractually required meet and confer process the parties were able to reach an agreement to resolve these seven outstanding RFCs. The agreement reached between the parties resolved RFCs 5 through 14 for $640,000.00. The parties could not reach an agreement as to RFC 16 mentioned below. If FORA wants to deny that the meet and confer process resulted in the resolution of these RFCs then REI is owed $890,769.68. However if FORA chooses to honor the agreement that was reached as a result of the contractual meet and confer process, then REI is owed the amount of $640,000.00 to resolve RFCs 5 through 14.

D. Unpaid RFC 16

REI is owed $1,120,254.45 for RFC 16.

RFC 16 is a claim for the extra work and costs associated with the high-density concrete that REI encountered throughout the Project. This high strength concrete was not disclosed to REI in the plans or specifications.

Based on many prior experiences at the project site (approximately 40-60 other building demolitions), and decades of experience in demolition/construction, it was proper for REI to assume that the concrete poured was required to be 2,500 psi concrete, in-line with all the other

buildings that our client demolished. If it was high strength concrete, which this turned out to be, FORA was required to disclose this to all bidders pursuant to Public Contract Code section 1104.

E. Interest, Penalties, and Attorneys' Fees

REI seeks interest for the unpaid Change Order and RFCs, penalties for the unpaid retention, and attorneys' fees as allowed by the contract and the law.

This correspondence is REI's formal presentation of claims for additional compensation under Government Code section 910, et seq. The total of REI's claims exceeds $2,287,596.09 plus interest, penalties and attorneys' fees.

Pursuant to California Government Code Section 910, REI is also providing you with the following information:

1. The name and post office address of the claimant:

Resource Environmental, Inc.
6634 Schilling Avenue
Long Beach, CA 90805

2. The address to which REI desires notices be sent:

Mark A. Feldman, Esq.
Tait Viskovich, Esq.
Feldman & Associates, Inc.
11030 Santa Monica Boulevard, Suite 109
Los Angeles, CA 90025

3. The date, place and other circumstances of the occurrence or transaction which gave rise to the claims asserted:

The damages, interest and attorneys' fees for which REI seeks reimbursement relates to work performed through approximately June of 2019. The place and other circumstances which gave rise to the claim are more fully described above.

4. A general description of the indebtedness:

The indebtedness is more fully described above but exceeds $2,287,596.09 plus interest, penalties, and attorneys' fees.

5. The name(s) of the public employee(s) causing the damages:

Peter Said, Mario Rebholz, Frank Lopez, and others unknown to REI at this time.

6. If the dollar amount of the claim exceeds $10,000.00, the claim shall indicate jurisdiction of this matter:

Monterey County Superior Court

We expect that you will promptly resolve this matter and provide REI with a cashier's check for the full amount of the claim, including interest and penalties.

Very truly yours,

Mark A. Feldman
for FELDMAN & ASSOCIATES, INC.

cc: Tait J. Viskovich, Esq.;
Resource Environmental, Inc.

June 4, 2020 Item No. **8e(1)**

Honorable Mayor and Members of the Marina City Council

City Council Meeting of June 16, 2020

RECOMMENDATION TO CONSIDER ADOPTING RESOLUTION NO. 2020-, APPROVING ADVERTISING AND CALL FOR BIDS FOR THE 2020 RESERVATION ROAD PAVEMENT REHABILITATION PROJECT

RECOMMENDATION:

It is recommended that the City Council consider adopting Resolution No. 2020-, approving advertising and call for bids for the 2020 Reservation Road Pavement Rehabilitation Project

BACKGROUND:

At the regular meeting of May 21, 2019, the City Council of the City of Marina adopted Resolution No. 2019-54, receiving the proposed 2019-20 & 2020-21 Capital Improvement Program (CIP) budget, receiving staff presentation thereof, and providing direction towards the CIP budget adoption. As part of the staff presentation, the City's annual street resurfacing project was introduced with Senate Bill 1 Road Maintenance and Rehabilitation Account funds, Measure X and General Fund funding a FY 19/20 budget for roadway maintenance.

At the regular meeting of May 16, 2019, the Public Works Commission received a presentation on the scope of the 2-year Citywide Street Repair Program.

ANALYSIS:

The proposed project to be advertised will address the failing pavement section of Reservation Road between Salinas Avenue and Imjin Parkway. As a major arterial connection for the City's street network, there was a concern of the integrity of the pavement section especially during winter season. This segment of Reservation Road accounts for the majority of the annual pothole patching effort by maintenance staff. Patching is only a stop-gap temporary treatment which does not halt the rate of deterioration of this segment of roadway.

Rehabilitation of this segment of Reservation Road is critical at this time as motorists will rely on Reservation Road more while the Imjin Parkway Widening Project is in construction for two years.

The project will rehabilitate failing pavement, address an area of stormwater ponding on the south side of the roadway, narrow the lane widths to encourage slower vehicle speeds, and provide a wider north shoulder as a result of narrower lanes.

As part of the ongoing pavement rehabilitation, staff is evaluating various methodologies to reduce costs and carbon footprint. Staff contracted a Geotechnical firm to assess options for Reservation Road. The project has been designed for a sustainable pavement treatment known as cold-in-place recycling that will reuse the existing pavement section as recycled asphalt pavement. The process will minimize traffic disruption, reduce the number of off-haul trucking trips and thus environmental concerns, and speed up paving production. The use of this sustainable paving construction process is expected to provide cost savings of up to 35% in comparison to traditional pavement rehabilitation methods. This method also reduces waste to the landfill, energy consumption by 77% and Green House Gas emissions by 78%. The rehabilitation has been designed to provide an expected life of 20 years which is equivalent to the expected life for a traditional rehabilitation project.

FISCAL IMPACT:
There is no fiscal impact to calling for bids. The current budget for this project is approximately $2.6 million.

CONCLUSION:
This request is submitted for City Council consideration and possible action.

Respectfully submitted,

_____
Edrie Delos Santos, P.E.
Senior Engineer
Public Works Department
City of Marina

REVIEWED/CONCUR:

_____
Brian McMinn, P.E., P.L.S.
Public Works Director/City Engineer
City of Marina

_____
Layne P. Long
City Manager
City of Marina

RESOLUTION NO. 2020-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MARINA APPROVING ADVERTISING AND CALL FOR BIDS FOR THE 2020 RESERVATION ROAD PAVEMENT REHABILITATION PROJECT

WHEREAS, at the regular meeting of May 21, 2019, the City Council of the City of Marina adopted Resolution No. 2019-54, receiving the proposed 2019-20 & 2020-21 Capital Improvement Program (CIP) budget, receiving staff presentation thereof, and providing direction towards the CIP budget adoption. As part of the staff presentation, the City's annual street resurfacing project was introduced with Senate Bill 1 Road Maintenance and Rehabilitation Account funds, Measure X and General Fund funding a FY 19/20 budget for roadway maintenance, and;

WHEREAS, at the regular meeting of May 16, 2019, the Public Works Commission received a presentation on the scope of the 2-year Citywide Street Repair Program, and;

WHEREAS, the proposed project to be advertised will address the failing pavement section of Reservation Road between Salinas Avenue and Imjin Parkway. As a major arterial connection for the City's street network, there was a concern of the integrity of the pavement section especially during winter season. This segment of Reservation Road accounts for the majority of the annual pothole patching effort by maintenance staff. Patching is only a stop-gap temporary treatment which does not halt the rate of deterioration of this segment of roadway. Motorists will rely on Reservation Road more while the Imjin Parkway Widening Project is in construction for two years, and;

WHEREAS, the project will rehabilitate failing pavement, address an area of stormwater ponding on the south side of the roadway, narrow the lane widths to encourage slower vehicle speeds, and provide a wider north shoulder as a result of narrower lanes. Staff contracted a Geotechnical firm to assess options for rehabilitation. The project has been designed for a sustainable pavement treatment known as cold-in-place recycling that will reuse the existing pavement section as recycled asphalt pavement. The process will minimize traffic disruption, reduce the number of off-haul trucking trips and thus environmental concerns, and speed up paving production. The use of this sustainable paving construction process is expected to provide cost savings of up to 35% in comparison to traditional pavement rehabilitation methods, addressing what is expected to be a critical local and regional roadway connection during the Imjin Parkway Widening Project's construction, and;

WHEREAS, there is no fiscal impact to calling for bids. The current budget for this project is approximately $2.6 million, and;

WHEREAS, the project is ready for advertisement.

NOW THEREFORE, BE IT RESOLVED that the City Council of the City of Marina does hereby approve advertising and call for bids for the 2020 Reservation Road Pavement Rehabilitation Project.

PASSED AND ADOPTED, at a regular meeting of the City Council of the City of Marina, duly held on the 16th day of June 2020, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

_____
Bruce C. Delgado, Mayor

ATTEST:

_____
Anita Sharp, Deputy City Clerk

June 3, 2020 Item No. **8f(1)**

Honorable Mayor and Members of the Marina City Council

City Council Meeting of June 16, 2020

CITY COUNCIL TO CONSIDER ADOPTING RESOLUTION NO. 2020-, CERTIFYING CITY OF MARINA COMPLIANCE WITH STATE LAW (PROPOSITION 218) WITH RESPECT TO SPECIAL ASSESSMENT FOR CYPRESS COVE II LANDSCAPE MAINTENANCE ASSESSMENT DISTRICT FOR FISCAL YEAR 2020-2021

RECOMMENDATION:

It is requested that the City Council:

1. Consider adopting Resolution No. 2020-, certifying City of Marina compliance with State law (Proposition 218) with respect to special assessment for Cypress Cove II Landscape Maintenance Assessment District for FY 2020-2021.

BACKGROUND:

On June 2, 2020, the City Council passed Resolution 2020-60 setting FY 2020-2021 special assessment for Cypress Cove II Landscape Maintenance Assessment District, as recommended in the engineer's report.

Except for the Constitutionally-limited 1% ad valorem tax, the Monterey County Auditor-Controller will not place taxes, assessments, fees or charges on the rolls unless the City Council certifies by resolution that the City is in compliance with Proposition 218, the 1996 '*Right to Vote on Taxes Act*' with respect to each such tax, assessment, fee and charge. Certification resolution(s) must contain hold harmless and indemnification provisions for administrative expenses of the County associated with collection of the City's taxes, assessments, fees and charges placed on the rolls. These certifications, along with copies of the resolutions setting the tax, assessment fee and/or charge rates and certain other documentation, must be submitted to the County no later than August 1, 2020.

ANALYSIS:

The following special levy, adopted by Resolution 2020-60 on June 2, 2020, is for assessment district operations and must be included in the certification adopted by the Council:

Cypress Cove II Landscape Maintenance Assessment District	$ 180.78

FISCAL IMPACT:

Special assessments finance the assessment district's approved maintenance. Total to be credited to the district is as follows:

Cypress Cove II Landscape Maintenance Assessment District	$ 19,885.80

CONCLUSION:

This request is submitted for City Council consideration and possible action.

Respectfully submitted,

_____
Edrie Delos Santos, P.E.
Senior Engineer
Public Works Department
City of Marina

REVIEWED/CONCUR:

_____
Eric Frost
Finance Director
City of Marina

_____
Brian McMinn, P.E., P.L.S.
Public Works Director/City Engineer
City of Marina

_____
Layne P. Long
City Manager
City of Marina

RESOLUTION NO. 2020-

A RESOLUTION OF THE CITY OF MARINA CERTIFYING COMPLIANCE WITH STATE LAW WITH RESPECT TO LEVYING OF SPECIAL ASSESSMENTS FOR FISCAL YEAR 2020-2021

WHEREAS, The City of Marina requests that the Monterey County Auditor-Controller enter the special assessment identified in Exhibit "A" on the property tax roll for collection and distribution by the Monterey County Treasurer-Tax Collector commencing with the property tax bills for fiscal year 2020-21 (**"EXHIBIT A"**).

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

1. The City hereby certifies that it has, without limitation, complied with all legal procedures and requirements necessary for the levying and imposition of the general or special taxes and assessments identified in **EXHIBIT A** regardless of whether those procedures and requirements are set forth in the Constitution of the State of California, in State statutes, or in the applicable decisional law of the State of California.

2. The City further certifies that, except for the sole negligence or misconduct of the County of Monterey, its officers, employees and agents, the City shall be solely liable and responsible for defending, at its sole expense, cost and risk, each and every action, suit or other proceeding brought against the County of Monterey, its officers, employees and agents for every claim, demand or challenge to the levying or imposition of the general or special taxes and assessments identified in **EXHIBIT A** and that the City shall pay or satisfy any judgment rendered against the County of Monterey, its officers, employees and agents on every such action, suit, or other proceeding, including all claims for refunds and interest thereon, legal fees, court costs and administrative expenses of the County of Monterey to correct the tax rolls.

PASSED AND ADOPTED by the City of Marina City Council at a regular meeting duly held on the 16th day of June 2020, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:

_____
Bruce C. Delgado, Mayor

ATTEST:

_____
Anita Sharp, Deputy City Clerk

EXHIBIT A

ATTACHMENT TO RESOLUTION NO. 2020-___ OF THE CITY OF MARINA, COUNTY OF MONTEREY, CALIFORNIA, CERTIFYING COMPLIANCE WITH STATE LAW WITH RESPECT TO THE LEVYING OF SPECIAL ASSESSMENTS FOR FISCAL YEAR 2020-2021

PER-PARCEL ASSESSMENTS:

Assessment District – Operations:

- Cypress Cove II Landscape Maintenance Assessment District $180.78

June 3, 2020 Item No. **8f(2)**

Honorable Mayor and Members of the Marina City Council

City Council Meeting of June 16, 2020

CITY COUNCIL TO CONSIDER ADOPTING RESOLUTION NO. 2020-, CERTIFYING CITY OF MARINA COMPLIANCE WITH STATE LAW (PROPOSITION 218) WITH RESPECT TO SPECIAL ASSESSMENT FOR SEABREEZE LANDSCAPE MAINTENANCE ASSESSMENT DISTRICT FOR FISCAL YEAR 2020-2021

RECOMMENDATION:
It is requested that the City Council:

1. Consider adopting Resolution No. 2020-, certifying City of Marina compliance with State law (Proposition 218) with respect to special assessment for Seabreeze Landscape Maintenance Assessment District for FY 2020-2021.

BACKGROUND:
On June 2, 2020, the City Council passed Resolution 2020-61 setting FY 2020/21 special assessment for Seabreeze Landscape Maintenance Assessment District as recommended in the engineer's report.

Except for the Constitutionally-limited 1% ad valorem tax, the Monterey County Auditor-Controller will not place taxes, assessments, fees or charges on the rolls unless the City Council certifies by resolution that the City is in compliance with Proposition 218, the 1996 '*Right to Vote on Taxes Act*' with respect to each such tax, assessment, fee and charge. Certification resolution(s) must contain hold harmless and indemnification provisions for administrative expenses of the County associated with collection of the City's taxes, assessments, fees and charges placed on the rolls. These certifications, along with copies of the resolutions setting the tax, assessment fee and/or charge rates and certain other documentation, must be submitted to the County no later than August 1, 2020.

ANALYSIS:
The following special levy, adopted by Resolution 2020-61 on June 2, 2020, is for assessment district operations and must be included in the certification adopted by the Council:

Seabreeze Landscape Maintenance Assessment District	$ 182.42 per parcel

FISCAL IMPACT:
Special assessments finance the assessment district's approved maintenance. Total to be credited to the district is as follows:

Seabreeze Landscape Maintenance Assessment District	$ 6,749.54

CONCLUSION:
This request is submitted for City Council consideration and possible action.

Respectfully submitted,

_____
Edrie Delos Santos, P.E.
Senior Engineer
Public Works Department
City of Marina

REVIEWED/CONCUR:

_____
Eric Frost
Finance Director
City of Marina

_____
Brian McMinn, P.E., P.L.S.
Public Works Director/City Engineer
City of Marina

_____
Layne P. Long
City Manager
City of Marina

RESOLUTION NO. 2020-

A RESOLUTION OF THE CITY OF MARINA CERTIFYING COMPLIANCE WITH STATE LAW WITH RESPECT TO LEVYING OF SPECIAL ASSESSMENTS FOR FISCAL YEAR 2020-2021

WHEREAS, The City of Marina requests that the Monterey County Auditor-Controller enter those special assessments identified in Exhibit "A" on the property tax roll for collection and distribution by the Monterey County Treasurer-Tax Collector commencing with the property tax bills for fiscal year 2020-2021 (**"EXHIBIT A"**).

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

1. The City hereby certifies that it has, without limitation, complied with all legal procedures and requirements necessary for the levying and imposition of the general or special taxes and assessments identified in **EXHIBIT A** regardless of whether those procedures and requirements are set forth in the Constitution of the State of California, in State statutes, or in the applicable decisional law of the State of California.

2. The City further certifies that, except for the sole negligence or misconduct of the County of Monterey, its officers, employees and agents, the City shall be solely liable and responsible for defending, at its sole expense, cost and risk, each and every action, suit or other proceeding brought against the County of Monterey, its officers, employees and agents for every claim, demand or challenge to the levying or imposition of the general or special taxes and assessments identified in **EXHIBIT A** and that the City shall pay or satisfy any judgment rendered against the County of Monterey, its officers, employees and agents on every such action, suit, or other proceeding, including all claims for refunds and interest thereon, legal fees, court costs and administrative expenses of the County of Monterey to correct the tax rolls.

PASSED AND ADOPTED by the City of Marina City Council at a regular meeting duly held on the 16th day of June 2020, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:

_____
Bruce C. Delgado, Mayor

ATTEST:

_____
Anita Sharp, Deputy City Clerk

EXHIBIT A

ATTACHMENT TO RESOLUTION NO. 2020-___ OF THE CITY OF MARINA, COUNTY OF MONTEREY, CALIFORNIA, CERTIFYING COMPLIANCE WITH STATE LAW WITH RESPECT TO THE LEVYING OF SPECIAL ASSESSMENTS FOR FISCAL YEAR 2020-2021

PER-PARCEL ASSESSMENTS:

Assessment Districts – Operations:

- Seabreeze Landscape Maintenance Assessment District $182.42

June 3, 2020 Item No. **8f(3)**

Honorable Mayor and Members of the Marina City Council

City Council Meeting of June 16, 2020

CITY COUNCIL TO CONSIDER ADOPTING RESOLUTION NO. 2020-, CERTIFYING CITY OF MARINA COMPLIANCE WITH STATE LAW (PROPOSITION 218) WITH RESPECT TO SPECIAL ASSESSMENT FOR MONTEREY BAY ESTATES LANDSCAPE MAINTENANCE ASSESSMENT DISTRICT FOR FISCAL YEAR 2020-2021

RECOMMENDATION:
It is requested that the City Council:

1. Consider adopting Resolution No. 2020-, certifying City of Marina compliance with State law (Proposition 218) with respect to special assessment for Monterey Bay Estates Landscape Maintenance Assessment District for FY 2020-2021.

BACKGROUND:
On June 2, 2020, the City Council passed Resolution No. 2020-62 setting the FY 2020/21 special assessment for Monterey Bay Estates Landscape Maintenance Assessment District as recommended in the engineer's report.

Except for the Constitutionally-limited 1% ad valorem tax, the Monterey County Auditor-Controller will not place taxes, assessments, fees or charges on the rolls unless the City Council certifies by resolution that the City is in compliance with Proposition 218, the 1996 '*Right to Vote on Taxes Act*' with respect to each such tax, assessment, fee and charge. Certification resolution(s) must contain hold harmless and indemnification provisions for administrative expenses of the County associated with collection of the City's taxes, assessments, fees and charges placed on the rolls. These certifications, along with copies of the resolutions setting the tax, assessment fee and/or charge rates and certain other documentation, must be submitted to the County no later than August 1, 2020.

ANALYSIS:
The following special levy, adopted by Resolution 2020-62 on June 2, 2020, is for assessment district operations and must be included in the certification adopted by the Council:

Monterey Bay Estates Landscape Maintenance Assessment District	$ 77.14 per parcel

FISCAL IMPACT:
Special assessments finance the assessment district's approved maintenance. Total to be credited to the district is as follows:

Monterey Bay Estates Landscape Maintenance Assessment District	$ 12,496.68

CONCLUSION:
This request is submitted for City Council consideration and possible action.

Respectfully submitted,

_____
Edrie Delos Santos, P.E.
Senior Engineer
Public Works Department
City of Marina

REVIEWED/CONCUR:

_____
Eric Frost
Finance Director
City of Marina

_____
Brian McMinn, P.E., P.L.S.
Public Works Director/City Engineer
City of Marina

_____
Layne P. Long
City Manager
City of Marina

RESOLUTION NO. 2020-

A RESOLUTION OF THE CITY OF MARINA CERTIFYING COMPLIANCE WITH STATE LAW WITH RESPECT TO LEVYING OF SPECIAL ASSESSMENT FOR FISCAL YEAR 2020-2021

WHEREAS, The City of Marina requests that the Monterey County Auditor-Controller enter that special assessment identified in Exhibit "A" on the property tax roll for collection and distribution by the Monterey County Treasurer-Tax Collector commencing with the property tax bills for fiscal year 2020-2021 (**"EXHIBIT A"**).

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

1. The City hereby certifies that it has, without limitation, complied with all legal procedures and requirements necessary for the levying and imposition of the general or special taxes and assessments identified in **EXHIBIT A** regardless of whether those procedures and requirements are set forth in the Constitution of the State of California, in State statutes, or in the applicable decisional law of the State of California.

2. The City further certifies that, except for the sole negligence or misconduct of the County of Monterey, its officers, employees and agents, the City shall be solely liable and responsible for defending, at its sole expense, cost and risk, each and every action, suit or other proceeding brought against the County of Monterey, its officers, employees and agents for every claim, demand or challenge to the levying or imposition of the general or special taxes and assessments identified in **EXHIBIT A** and that the City shall pay or satisfy any judgment rendered against the County of Monterey, its officers, employees and agents on every such action, suit, or other proceeding, including all claims for refunds and interest thereon, legal fees, court costs and administrative expenses of the County of Monterey to correct the tax rolls.

PASSED AND ADOPTED by the City of Marina City Council at a regular meeting duly held on the 16th day of June 2020, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:

_____
Bruce C. Delgado, Mayor

ATTEST:

_____
Anita Sharp, Deputy City Clerk

EXHIBIT A

ATTACHMENT TO RESOLUTION NO. 2020-___ OF THE CITY OF MARINA, COUNTY OF MONTEREY, CALIFORNIA, CERTIFYING COMPLIANCE WITH STATE LAW WITH RESPECT TO THE LEVYING OF SPECIAL ASSESSMENT FOR FISCAL YEAR 2020-2021

PER-PARCEL ASSESSMENTS:

Assessment District – Operations:

- Monterey Bay Estates Landscape Maintenance Assessment District $77.14

June 11, 2020 Item No. **8f(4)**

Honorable Mayor and Members
of the Marina City Council

City Council Meeting
of June 16, 2020

CITY COUNCIL TO CONSIDER ADOPTING RESOLUTION NO. 2020-, CONFIRMING LEVY OF A SPECIAL TAX FOR THE CITY OF MARINA COMMUNITY FACILITIES DISTRICT NO. 2007-2 (LOCKE PADDON) FOR FISCAL YEAR 2020-2021 AS AUTHORIZED BY ORDINANCE NO. 2007-09; AND RESOLUTION NO. 2020-, CERTIFYING CITY OF MARINA COMPLIANCE WITH STATE LAW (PROPOSITION 218) WITH RESPECT TO LEVYING OF SPECIAL TAXS ON BEHALF OF THE CITY OF MARINA COMMUNITY FACILITIES DISTRICT NO. 2007-2 FOR FISCAL YEAR 2020-2021 AS AUTHORIZED BY ORDINANCE NO. 2007-09

RECOMMENDATION:
It is requested that the City Council:

1. Consider adopting Resolution No. 2020-, confirming levy of a special tax for the City of Marina Community Facilities District No. 2007-2 (Locke Paddon) for Fiscal Year 2020-2021 as authorized by Ordinance No. 2007-09, and;

2. Consider adopting Resolution No. 2020-, certifying City of Marina compliance with State law (Proposition 218) with respect to levying of special taxes for the City of Marina Community Facilities District No. 2007-2 for Fiscal Year 2020-2021 as authorized by Ordinance No. 2007-09

BACKGROUND:
Pursuant to a special election held on July 17, 2007, on August 7, 2007, the City Council unanimously passed Ordinance No. 2007-09, forming the City of Marina Community Facilities District No. 2007-2 (commonly referred to as Locke-Paddon CFD, see EXHIBIT C). Ordinance 2007-09 also authorized an annual special tax levy for the purpose of landscape and park maintenance. The special tax was first levied for fiscal year 2008-09, in the amount of $898.58 for each of the fifteen (15) assessed properties. Each subsequent year, Ordinance 2007-09 requires the special tax to be increased by two percent (2.00%) from the previous approved Maximum Special Tax.

For fiscal years 2013/14, 2014/15 and 2015/16, the special tax was temporarily reduced to zero. The City Council Resolutions affirmed that for future calculations, the full, authorized, maximum rate would continue to increase per Ordinance 2007-09. Accordingly, the special tax for each fiscal year since inception has been as follows (NOTE: Monterey County requires that rates be divisible by 2 for placement on the rolls, so calculations are rounded each year):

Fiscal Year	Max. Per Parcel Tax	Actual Levy	Total Special Tax
FY 08/09	$898.58	$ 898.58	$ 13,478.70
FY 09/10	$916.56	$ 916.56	$ 13,748.40
FY 10/11	$934.90	$ 934.90	$ 14,023.50
FY 11/12	$953.60	$ 953.60	$ 14,304.00
FY 12/13	$972.68	$ 972.68	$ 14,590.20
FY 13/14	$992.14	$ -	$ -
FY 14/15	$1,011.98	$ -	$ -
FY 15/16	$1,032.22	$ -	$ -
FY 16/17	$1,052.86	$ 420.00	$ 6,300.00
FY 17/18	$1,073.92	$ 475.00	$ 7,125.00 [$6,652 actual]
FY 18/19	$1,095.40	$ 450.00	$ 6,750.00 [$6,284 actual]
FY 19/20	$1,117.30	$ 488.00	$ 7,320.00 [$7,309 actual]
FY 20/21	$1,139.64	$ 785.00	$ 11,775.00

ANALYSIS:

Each year's special tax is collected by the Monterey County Tax Collector, and then distributed to the City. When received by the City, special taxes are credited in the accounting system to Fund 251 - CFD No. 2007-2 Locke Paddon. Likewise, expenditures and costs incurred on behalf of the District are paid out of Fund 251 expenditure. It is estimated that by June 30, 2020, the unexpended fund balance in Fund 251 (cumulative tax revenue in excess of expenditures since inception) is projected to be approximately $1,595. Expected landscaping, utilities and City service expenditures for this coming fiscal year (2020-21) will be $9,737.00 ("**Exhibit B**").

A fund balance of $3,633 will be maintained for replacement costs of site improvements as they reach the end of their life expectancy (e.g. street light fixtures, irrigation system) and for tree removal/replacement as needed. A small deficit in revenue collection was noted for Fiscal Year 19/20, and the County Tax Collection office has identified the delinquent parcel and is working towards correcting the issue.

The cost allocation charges adopted in July 2018 for this District was identified to be $5,234.94. Staff had presented this cost figure to the City Council during the last assessment process for future consideration. These charges are associated with the expenses incurred by the City for administering the special tax assessment. As the District has not paid cost allocation charges in prior years, the additional charges would be a significant burden to the current budget. Staff is recommending a phased appropriation of cost allocation charges over a four-year period as shown in Exhibit B.

Section 2 of Ordinance 2007-09 requires the CFD Administrator (the City Manager) "...to determine each year, without further action of this Council, the Special Tax...and, without further action of this Council, to provide all necessary and appropriate information to the Monterey County Auditor...necessary to effect the correct and timely billing and collection of the Special Tax...." Upon evaluation of the anticipated expenditures of the District for the upcoming Fiscal Year 20/21, it is the opinion of the CFD Administrator to assess a special tax of $785.00 per parcel to maintain an adequate fund balance for any potential unforeseen extraordinary maintenance projects.

However, Monterey County will not impose or collect the special tax on the District's behalf unless the City submits, in a form provided by the County, a certification of compliance with State Law (Proposition 218) that includes a hold harmless and indemnification provision for administrative expenses of the County associated with collection of the City's taxes, assessments, fees or charges, other than the Constitutionally authorized 1% ad valorem tax.

Attached is a resolution which, if adopted by the Council will satisfy the County's certification, hold-harmless and indemnification requirements with respect to the City of Marina Community Facilities District No. 2007-2 Special Tax for the 2020-21 fiscal year.

FISCAL IMPACT:
Special assessments finance the CFD's approved landscape maintenance services. Total to be credited to the district is as follows:

Fund 251 Community Facilities District No. 2007-2	$11,775.00

CONCLUSION:
This request is submitted for City Council consideration and possible action.

Respectfully submitted,

_____
Edrie Delos Santos, P.E.
Senior Engineer
Public Works Department
City of Marina

REVIEWED/CONCUR:

_____
Brian McMinn, P.E., P.L.S.
Public Works Director/City Engineer
City of Marina

_____
Eric Frost, CPA
Finance Director
City of Marina

_____
Layne P. Long
City Manager
City of Marina

RESOLUTION NO. 2020-

A RESOLUTION OF THE CITY OF MARINA CONFIRMING LEVY OF A SPECIAL TAX FOR THE CITY OF MARINA COMMUNITY FACILITIES DISTRICT NO. 2007-2 (LOCKE PADDON) FOR FISCAL YEAR 2020-2021 AS AUTHORIZED BY ORDINANCE NO. 2007-09

WHEREAS, Ordinance 2007-09 authorized the levy of a special tax for the benefit of the City of Marina Community Facilities District 2007-2 starting in Fiscal Year 2008-2009, and increasing each year by two percent (2%); and

WHEREAS the special tax has been levied each fiscal year as authorized, but was temporarily reduced to zero for Fiscal Years 2013/14, 2014/15 and 2015/16; and

WHEREAS the Administrator has calculated the maximum Fiscal Year 2020-2021 special tax to be $1,139.64, and;

WHEREAS, the CFD administrator having further considered the special tax requirements in accordance with Exhibit A to Ordinance 2007-09, by which Community Facilities District 2007-2 was established and continues, has determined that a special tax for fiscal year 2020-2021 be assessed at $785.00 per parcel.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Marina that:

1. The City does hereby confirm the diagram and assessment as described in the Engineer's Report on file with the City Clerk.
2. The City does hereby order the levy and collection of said assessment, $785.00 per parcel for FY 2020-2021 assessment for the Locke Paddon Community Facilities District No. 2007-2.
3. It is the intention of the City of Marina that any monetary advance made by it during any fiscal year to cover a deficit in the improvement fund of Community Facilities District No. 2007-2 shall be repaid from the next annual assessments levied and collected within Community Facilities District No. 2007-2.
4. The City Clerk is hereby authorized and directed to file a certified copy of said diagram and assessment with the Monterey County Auditor prior to August 1, 2020.

PASSED AND ADOPTED by the City Council of the City of Marina at a regular meeting duly held on the 16th day of June 2020, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

_____
Bruce Delgado, Mayor

ATTEST:

_____
Anita Sharp, Deputy City Clerk

RESOLUTION NO. 2020-

A RESOLUTION OF THE CITY OF MARINA CERTIFYING COMPLIANCE WITH STATE LAW (PROPOSITOIN 218) WITH RESPECT TO LEVYING OF SPECIAL TAXES ON BEHALF OF CITY OF MARINA COMMUNITY FACILITIES DISTRICT NO. 2007-2 FOR FISCAL YEAR 2020-2021 AS AUTHORIZED BY ORDINANCE NO. 2007-09

WHEREAS, the City of Marina "Public Agency" requests that the Monterey County Auditor-Controller enter those general or special taxes, assessments, or property-related Fees or charges identified in Exhibit "A" on the tax roll for collection and distribution by the Monterey County Treasurer-Tax Collector commencing with the property tax bills for fiscal year 2020-2021.

NOW, THEREFORE, BE IT RESOLVED as follows:

1. The Public Agency hereby certifies that it has, without limitation, complied with all legal procedures and requirements necessary for the levying and imposition of the general or special taxes, assessments, or property-related fees or charges identified in Exhibit "A", regardless of whether those procedures and requirements are set forth in the Constitution of the State of California, in State statues, or in the applicable law of the State of California.

2. The Public Agency further certifies that, except for the sole negligence or misconduct of the County of Monterey, its officers, employees, and agents, with regards to the handling of the Cd or electronic file identified as Exhibit "A", the Public Agency shall be solely liable and responsible for defending, at its sole expense, cost, and risk, each and every action, suit, or other proceeding brought against the County of Monterey, its officers, employees, and agents for every claim, demand, or challenge to the levying or imposition of the general or special taxes, assessments, or property –related fees or charges identified in Exhibit "A" and that it shall pay or satisfy any judgment rendered against the County of Monterey, its officers, employees, and agents on every such action, suit, or other proceeding, including all claims for refunds and interest thereon, legal fees and court costs, and administrative expenses of the County of Monterey to correct the tax rolls.

PASSED AND ADOPTED by the City of Marina City Council at a regular meeting duly held on the 16th day of June 2020, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:

_____
Bruce C. Delgado, Mayor

ATTEST:

_____
Anita Shepherd-Sharp, Deputy City Clerk

EXHIBIT "A"

TO
RESOLUTION NO. 2020-___ OF THE CITY OF MARINA, COUNTY OF MONTEREY, CALIFORNIA, CERTIFYING COMPLIANCE WITH STATE LAW WITH RESPECT TO THE LEVYING OF SPECIAL TAXES FOR FISCAL YEAR 2020-2021

PER-PARCEL SPECIAL TAX:

DIAGRAM & LOT NO.	ASSESSOR'S PARCEL NUMBER	SPECIAL TAX ASSESSMENT
1	033-135-001-000	$ 785.00
2	033-135-002-000	$ 785.00
3	033-135-003-000	$ 785.00
4	033-135-004-000	$ 785.00
5	033-135-005-000	$ 785.00
6	033-135-006-000	$ 785.00
7	033-135-007-000	$ 785.00
8	033-135-008-000	$ 785.00
9	033-135-009-000	$ 785.00
10	033-135-010-000	$ 785.00
11	033-135-011-000	$ 785.00
12	033-135-012-000	$ 785.00
13	033-135-013-000	$ 785.00
14	033-135-014-000	$ 785.00
15	033-135-015-000	$ 785.00

EXHIBIT B
LOCKE-PADDON COMMUNITY FACILITIES DISTRICT

Summary	Estimates FY 2019-2020	Estimates FY 2020-2021	Estimates FY 2021-2022
Beginning Cash Balance, July 1st	**$ 5,260**	**$ 1,595**	**$ 3,633**
[a] Total Special Tax Revenue (15 Parcels)	**$ 7,320**	**$ 11,775**	**$ 11,138**
Expenditures			
Contractor Services			
[b] Landscape Maintenance Contract	$ 2,988	$ 3,078	$ 3,170
Utilities	$ 2,850	$ 2,850	$ 2,850
Large Tree Trimming	$ -	$ -	$ -
Extraordinary Maintenance	$ 3,647	$ 1,000	$ 1,000
Plant Replacement	$ -	$ -	$ -
Administrative Services			
Supervision	$ -	$ -	$ -
[c] Cost Allocation Charges	$ -	$ 1,309	$ 2,618
Administration (Incl. Engineer's Report)	$ 1,500	$ 1,500	$ 1,500
Total Expenditures	**$ 10,985**	**$ 9,737**	**$ 11,138**
[d] Net Change in Fund Balance	**$ (3,665)**	**$ 2,038**	**$ (0)**
[e] Ending Fund Balance, June 30th	**$ 1,595**	**$ 3,633**	**$ 3,633**

[a] Maximum Assessment per Rate of Apportionment is $1,139.64 per parcel for FY 20/21. Actual Per Parcel Assessment for FY 20/21 is $785.00

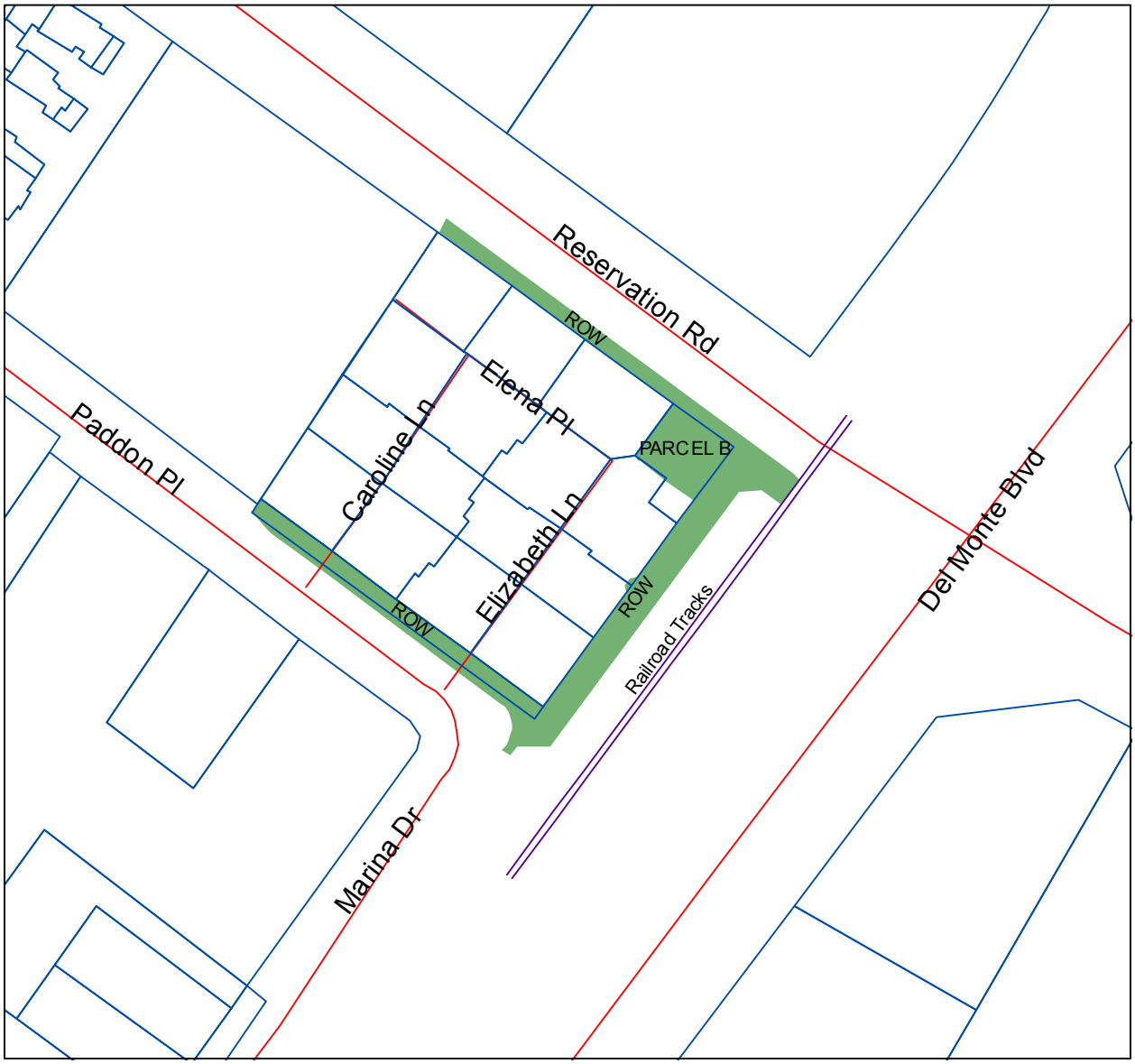
[b] Maintenance Costs are shown as increasing per fiscal year by an estimated Consumer Cost Index (CPI) of 3% as allowed by the Contract Specifications.

[c] Cost Allocation Charges adopted in 2018, of $5,234.94 will be incrementally applied over a four-year period. FY 20/21 cost allocation charges are $1,308.74

[d] Net Change in Fund Balance equals the Total Expenditures subtracted from Total Special Tax Revenue for that Fiscal Year.

[e] End Fund Balance equals the Net Change in Fund Balance plus the Beginning Cash Balance of that Fiscal Year.

EXHIBIT C
CFD DIAGRAM



Locke Paddon Point Landscape Maintenace District

Area To Maintain
Parcels
Roads
Railroad Tracks

N
W
E
S

0 62.5 125 250 375 500
Feet

June 12, 2020 Item No. **8g(1)**

Honorable Mayor and Members
of the Marina City Council

City Council Meeting
of June 16, 2020

CITY COUNCIL CONSIDER ADOPTING RESOLUTION NO. 2020-, AUTHORIZING APPLICATION FOR AND ACCEPTANCE OF A FEDERAL AVIATION ADMINISTRATION (FAA) 2020 CARES ACT GRANT FOR THE AIRPORT AND AUTHORIZING CITY MANAGER TO EXECUTE THE APPLICATION AND GRANT AGREEMENT

REQUEST:
It is requested that the City Council consider:

1. Adopting Resolution No. 2020-, authorizing application for and acceptance of a Federal Aviation Administration (FAA) 2020 CARES Act Grant for the Airport, and;
2. Authorizing City Manager to execute the application and grant agreement.

BACKGROUND:
The Coronavirus Aid, Relief, and Economic Security (CARES) Act, signed into law on March 27, 2020, provides $10 billion in funds to be awarded as economic relief to eligible U. S. airports affected by the prevention of, preparation for, and response to the COVID-19 pandemic. In addition, the CARES Act provides funds distributed by various formulas for all airports that are part of the national airport system. Based on the CARES Act formulas $100 million will be distributed amongst eligible general aviation airports.

ANALYSIS:
Based on the CARES Act formulas, the Marina Municipal Airport is eligible for a maximum grant distribution of $30,000. This grant offer requires no local match and the grant may be open for up to four years, however, FAA is encouraging airports to expend the funds expeditiously.

The funds received may be used for any purpose for any purpose which airport revenues may be lawfully used, as found in the Office of Airports Revenue Use Policy, except for development or land acquisition. To make these critical CARES funds available as quickly as possible, the FAA is issuing non-construction grants that permit expenditure for airport operating expenses and to pay airport debt service.

The FAA will reimburse sponsors for operational and maintenance expenses directly related to the airport incurred on or after January 20, 2020. Operational expenses are those expenses necessary to operate, maintain, and manage an airport. They include expenses such as payroll, utilities, service contracts, and items generally having a useful life of less than one year, including personal protective equipment and cleaning supplies.

FISCAL IMPACT:
Should the City Council approve this request, the airport can receive reimbursement for operational and maintenance expenses directly related to the airport incurred on or after January 20, 2020 of up to $30,000. Revenue received from the grant reimbursements will be recorded in the Airport Operations Fund 555, in an account to be established by the City Finance Department.

CONCLUSION:
This request is submitted for City Council consideration and possible action.

Respectfully submitted,

_____
Jeff Crechriou
Airport Services Manager
City of Marina

REVIEWED/CONCUR:

_____
Layne Long
City Manager
City of Marina

RESOLUTION NO. 2020-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MARINA AUTHORIZING APPLICATION FOR AND ACCEPTANCE OF A FEDERAL AVIATION ADMINISTRATION (FAA) 2020 CARES ACT GRANT FOR THE AIRPORT AND AUTHORIZING CITY MANAGER TO EXECUTE THE APPLICATION AND GRANT AGREEMENT

WHEREAS, the Coronavirus Aid, Relief, and Economic Security (CARES) Act, signed into law on March 27, 2020, provides $10 billion in funds to be awarded as economic relief to eligible U. S. airports affected by the prevention of, preparation for, and response to the COVID-19 pandemic. In addition, the CARES Act provides funds distributed by various formulas for all airports that are part of the national airport system. Based on the CARES Act formulas $100 million will be distributed amongst eligible general aviation airports, and;

WHEREAS, based on the CARES Act formulas, the Marina Municipal Airport is eligible for a maximum grant distribution of $30,000. This grant offer requires no local match and the grant may be open for up to four years, however, FAA is encouraging airports to expend the funds expeditiously, and;

WHRereas, FAA will reimburse sponsors for operational and maintenance expenses directly related to the airport incurred on or after January 20, 2020, and;

WHEREAS, the airport can receive reimbursement for operational and maintenance expenses directly related to the airport incurred on or after January 20, 2020 of up to $30,000. Revenue received from the grant reimbursements will be recorded in the Airport Operations Fund 555, in an account to be established by the City Finance Department, and

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Marina does hereby:

1. Authorize application for and acceptance of a Federal Aviation Administration (FAA) 2020 CARES Act Grant for the Airport, and;
2. Authorize City Manager to execute the application and grant agreement.

PASSED AND ADOPTED by the City Council of the City of Marina at a regular meeting duly held on the 16th day of June 2020, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

_____
Bruce C. Delgado, Mayor

ATTEST:

_____
Anita Sharp, Deputy City Clerk

U.S. Department of Transportation
Federal Aviation Administration

Airports Division
Western-Pacific Region
California

FAA SFO ADO
1000 Marina Blvd
Suite 220
Brisbane, CA 94005

CARES Act Grant Transmittal Letter

Mr. Layne Long
City Manager
City of Marina
211 Hillcrest Avenue
Marina, CA 93933

Dear Mr. Long:

Please find the following electronic CARES Act Grant Offer, Grant No. 3-06-0367-016-2020 for the Marina Municipal Airport. This letter outlines expectations for success. Please read and follow the instructions carefully.

To properly enter into this agreement, you must do the following:

a. The governing body must provide authority to execute the grant to the individual signing the grant; i.e. the sponsor's authorized representative.

b. The sponsor's authorized representative must execute the grant, followed by the attorney's certification, **no later than June 18, 2020** in order for the grant to be valid.

c. You may not make any modification to the text, terms or conditions of the grant offer.

d. The grant offer must be electronically signed by the sponsor's legal signatory authority and then the grant offer will be routed via email to the sponsor's attorney. Once the attorney has electronically attested to the grant, an email with the executed grant will be sent to all parties.

Subject to the requirements in 2 CFR § 200.305, each payment request for reimbursement under this grant must be made electronically via the Delphi eInvoicing System. Please see the attached Grant Agreement for more information regarding the use of this System. The terms and conditions of this agreement require you drawdown and expend these funds within four years.

An airport sponsor may use these funds for any purpose for which airport revenues may be lawfully used. CARES grant recipients should follow the FAA's Policy and Procedures Concerning the Use of Airport Revenues ("Revenue Use Policy"), 64 Federal Register 7696 (64 FR 7696), as amended by 78 Federal Register 55330 (78 FR 55330). The Revenue Use Policy defines permitted uses of airport revenue. In addition to the detailed guidance in the Revenue Use Policy, the CARES Act states the funds may not be used for any purpose not related to the airport.

With each payment request you are required to upload directly to Delphi:

- An invoice summary, even if you only paid a single invoice, and
- The documentation in support of each invoice covered in the payment request.

For the final payment request, in addition to the requirement listed above for all payment requests, you are required to upload directly to Delphi:

- A final financial report summarizing all of the costs incurred and reimbursed, and

- An SF-425, and
- A narrative report.

The narrative report will summarize the expenses covered by the CARES Act funds and state that all expenses were in accordance with the FAA's Policy and Procedures Concerning the Use of Airport Revenues and incurred after January 20, 2020.

As a condition of receiving Federal assistance under this award, you must comply with audit requirements as established under 2 CFR part 200. Subpart F requires non-Federal entities that expend $750,000 or more in Federal awards to conduct a single or program specific audit for that year. Note that this includes Federal expenditures made under other Federal-assistance programs. Please take appropriate and necessary action to assure your organization will comply with applicable audit requirements and standards.

Once you have drawn down all funds and uploaded the required documents to Delphi, notify Ron Biaoco by email that the grant is administratively and financially closed. Ron Biaoco is readily available to assist you and your designated representative with the requirements stated herein. We sincerely value your cooperation in these efforts.

Sincerely,

Laurie J. Suttmeier
Manager
[ADO has discretion to delegate signature authority to Program Manager]

U.S. Department
of Transportation
Federal Aviation
Administration

CARES ACT AIRPORT GRANTS AGREEMENT

Part I - Offer

Federal Award Offer Date _____

Airport/Planning Area Marina Municipal Airport

CARES Grant Number 3-06-0367-016-2020

Unique Entity Identifier 004948444

TO: City of Marina
(herein called the "Sponsor")

FROM: **The United States of America** (acting through the Federal Aviation Administration, herein called the "FAA")

WHEREAS, the Sponsor has submitted to the FAA a Coronavirus Aid, Relief, and Economic Security Act (CARES Act or "the Act") Airports Grants Application (herein called the "Grant") dated May 14, 2020, for a grant of Federal funds at or associated with the Marina Municipal Airport, which is included as part of this Grant Agreement; and

WHEREAS, the Sponsor has accepted the terms of FAA's Grant offer;

WHEREAS, in consideration of the promises, representations and assurances provided by the Sponsor, the FAA has approved the Grant Application for the Marina Municipal Airport, (herein called the "Grant") consisting of the following:

This Grant is provided in accordance with the CARES Act, as described below, to provide eligible Sponsors with funding to help offset a decline in revenues arising from diminished airport operations and activities as a result of the COVID-19 Public Health Emergency. CARES Act Airport Grants amounts to specific airports are derived by legislative formula.

The purpose of this Grant is to maintain safe and efficient airport operations. Funds provided under this Grant Agreement must only be used for purposes directly related to the airport. Such purposes can include the reimbursement of an airport's operational and maintenance expenses or debt service payments. CARES Act Airport Grants may be used to reimburse airport operational and maintenance expenses directly related to the Marina Municipal Airport incurred no earlier than January 20, 2020. CARES Act Airport Grants also may be used to reimburse a Sponsor's payment of debt service where such payments occur on or after April 14, 2020. Funds provided under the Grant will be governed by the

same principles that govern "airport revenue." New airport development projects may not be funded with this Grant unless and until the Grant Agreement is amended or superseded by a subsequent agreement that addresses and authorizes the use of funds for the airport development project.

NOW THEREFORE, in accordance with the applicable provisions of the CARES Act, Public Law 116-136, the representations contained in the Grant Application, and in consideration of, (a) the Sponsor's acceptance of this Offer; and, (b) the benefits to accrue to the United States and the public from the accomplishment of the Grant and in compliance with the conditions as herein provided,

THE FEDERAL AVIATION ADMINISTRATION, FOR AND ON BEHALF OF THE UNITED STATES, HEREBY OFFERS AND AGREES to pay 100% percent of the allowable costs incurred as a result of and in accordance with this Grant Agreement.

Assistance Listings Number (Formerly CFDA Number): 20.106

This Offer is made on and **SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:**

CONDITIONS

1. **Maximum Obligation.** The maximum obligation of the United States payable under this Offer is $30,000.

2. **Period of Performance.** The period of performance shall commence on the date the Sponsor formally accepts this agreement. The end date of the period of performance is 4 years (1,460 calendar days) from the date of acceptance.

   The Sponsor may only charge allowable costs for obligations incurred prior to the end date of the period of performance (2 CFR § 200.309). Unless the FAA authorizes a written extension, the Sponsor must submit all Grant closeout documentation and liquidate (pay-off) all obligations incurred under this award no later than 90 calendar days after the end date of the period of performance (2 CFR § 200.343).

   The period of performance end date shall not affect, relieve or reduce Sponsor obligations and assurances that extend beyond the closeout of this Grant Agreement.

3. **Unallowable Costs.** The Sponsor shall not seek reimbursement for any costs that the FAA has determined to be unallowable under the CARES Act.

4. **Indirect Costs - Sponsor.** The Sponsor may charge indirect costs under this award by applying the indirect cost rate identified in the Grant Application as accepted by the FAA, to allowable costs for Sponsor direct salaries and wages only.

5. **Final Federal Share of Costs.** The United States' share of allowable Grant costs will be 100%.

6. **Completing the Grant without Delay and in Conformance with Requirements.** The Sponsor must carry out and complete the Grant without undue delays and in accordance with this Grant Agreement, the CARES Act, and the regulations, policies, standards and procedures of the Secretary of Transportation ("Secretary"). Pursuant to 2 CFR § 200.308, the Sponsor agrees to report to the FAA any disengagement from funding eligible expenses under the Grant that exceeds three months and request prior approval from FAA. The report must include a reason for the stoppage. The Sponsor agrees to comply with the attached assurances, which are part of this agreement and any addendum that may be attached hereto at a later date by mutual consent.

7. **Amendments or Withdrawals before Grant Acceptance.** The FAA reserves the right to amend or withdraw this offer at any time prior to its acceptance by the Sponsor.

8. **Offer Expiration Date.** This offer will expire and the United States will not be obligated to pay any part of the costs unless this offer has been accepted by the Sponsor on or before June 18, 2020, or such subsequent date as may be prescribed in writing by the FAA.

9. **Improper Use of Federal Funds.** The Sponsor must take all steps, including litigation if necessary, to recover Federal funds spent fraudulently, wastefully, or in violation of Federal antitrust statutes, or misused in any other manner, including uses that violate this Grant Agreement, the CARES Act or other provision of applicable law. For the purposes of this Grant Agreement, the term "Federal funds" means funds however used or dispersed by the Sponsor, that were originally paid pursuant to this or any other Federal grant agreement(s). The Sponsor must return the recovered Federal share, including funds recovered by settlement, order, or judgment, to the Secretary. The Sponsor must furnish to the Secretary, upon request, all documents and records pertaining to the determination of the amount of the Federal share or to any settlement, litigation, negotiation, or other efforts taken to recover such funds. All settlements or other final positions of the Sponsor, in court or otherwise, involving the recovery of such Federal share require advance approval by the Secretary.

10. **United States Not Liable for Damage or Injury.** The United States is not responsible or liable for damage to property or injury to persons which may arise from, or relate to this Grant Agreement, including, but not limited to, any action taken by a Sponsor related to or arising from, directly or indirectly, this Grant Agreement.

11. **System for Award Management (SAM) Registration And Universal Identifier.** Unless the Sponsor is exempted from this requirement under 2 CFR § 25.110, the Sponsor must maintain the currency of its information in the SAM until the Sponsor submits the final financial report required under this Grant, or receives the final payment, whichever is later. This requires that the Sponsor review and update the information at least annually after the initial registration and more frequently if required by changes in information or another award term. Additional information about registration procedures may be found at the SAM website (currently at http://www.sam.gov).

12. **Electronic Grant Payment(s).** Unless otherwise directed by the FAA, the Sponsor must make each payment request under this agreement electronically via the Delphi eInvoicing System for Department of Transportation (DOT) Financial Assistance Awardees.

13. **Financial Reporting and Payment Requirements.** The Sponsor will comply with all Federal financial reporting requirements and payment requirements, including submittal of timely and accurate reports.

14. **Buy American.** Unless otherwise approved in advance by the FAA, the Sponsor will not acquire or permit any contractor or subcontractor to acquire any steel or manufactured products produced outside the United States to be used for any expense for which funds are provided under this Grant. The Sponsor will include a provision implementing applicable Buy American statutory and regulatory requirements in all contracts related to this Grant Agreement.

15. **Audits for Public Sponsors.** The Sponsor must provide for a Single Audit or program-specific audit in accordance with 2 CFR Part 200. The Sponsor must submit the audit reporting package to the Federal Audit Clearinghouse on the Federal Audit Clearinghouse's Internet Data Entry System at http://harvester.census.gov/facweb/. Upon request of the FAA, the Sponsor shall provide one copy of the completed audit to the FAA.

16. **Suspension or Debarment.** When entering into a "covered transaction" as defined by 2 CFR § 180.200, the Sponsor must:

    A. Verify the non-federal entity is eligible to participate in this Federal program by:

1. Checking the excluded parties list system (EPLS) as maintained within the System for Award Management (SAM) to determine if the non-federal entity is excluded or disqualified; or
2. Collecting a certification statement from the non-federal entity attesting the entity is not excluded or disqualified from participating; or
3. Adding a clause or condition to covered transactions attesting the individual or firm is not excluded or disqualified from participating.

B. Require prime contractors to comply with 2 CFR § 180.330 when entering into lower-tier transactions (e.g. sub-contracts).

C. Immediately disclose to the FAA whenever the Sponsor (1) learns the Sponsor has entered into a covered transaction with an ineligible entity, or (2) suspends or debars a contractor, person, or entity.

17. **Ban on Texting While Driving.**

A. In accordance with Executive Order 13513, Federal Leadership on Reducing Text Messaging While Driving, October 1, 2009, and DOT Order 3902.10, Text Messaging While Driving, December 30, 2009, the Sponsor is encouraged to:

1. Adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers including policies to ban text messaging while driving when performing any work for, or on behalf of, the Federal government, including work relating to this Grant or subgrant.
2. Conduct workplace safety initiatives in a manner commensurate with the size of the business, such as:
   a. Establishment of new rules and programs or re-evaluation of existing programs to prohibit text messaging while driving; and
   b. Education, awareness, and other outreach to employees about the safety risks associated with texting while driving.

B. The Sponsor must insert the substance of this clause on banning texting while driving in all subgrants, contracts and subcontracts.

18. **Trafficking in Persons.**

A. You as the recipient, your employees, subrecipients under this award, and subrecipients' employees may not –

1. Engage in severe forms of trafficking in persons during the period of time that the award is in effect;
2. Procure a commercial sex act during the period of time that the award is in effect; or
3. Use forced labor in the performance of the award or subawards under the award.

B. The FAA as the Federal awarding agency may unilaterally terminate this award, without penalty, if you or a subrecipient that is a private entity –

1. Is determined to have violated a prohibition in paragraph A of this award term; or
2. Has an employee who is determined by the agency official authorized to terminate the award to have violated a prohibition in paragraph A.1 of this award term through conduct that is either –

a. Associated with performance under this award; or

b. Imputed to the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR Part 180, "OMB Guidelines to Agencies on Government-wide Debarment and Suspension (Nonprocurement),"as implemented by the FAA at 2 CFR Part 1200.

3. You must inform us immediately of any information you receive from any source alleging a violation of a prohibition in paragraph A during this award term.

4. Our right to terminate unilaterally that is described in paragraph A of this section:

a. Implements section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), as amended (22 U.S.C. § 7104(g)), and

b. Is in addition to all other remedies for noncompliance that are available to the FAA under this award.

19. **Employee Protection from Reprisal.**

A. Prohibition of Reprisals —

1. In accordance with 41 U.S.C. § 4712, an employee of a grantee or subgrantee may not be discharged, demoted, or otherwise discriminated against as a reprisal for disclosing to a person or body described in sub-paragraph (A)(2), information that the employee reasonably believes is evidence of:

a. Gross mismanagement of a Federal grant;
b. Gross waste of Federal funds;
c. An abuse of authority relating to implementation or use of Federal funds;
d. A substantial and specific danger to public health or safety; or
e. A violation of law, rule, or regulation related to a Federal grant.

2. Persons and bodies covered: The persons and bodies to which a disclosure by an employee is covered are as follows:

a. A member of Congress or a representative of a committee of Congress;
b. An Inspector General;
c. The Government Accountability Office;
d. A Federal office or employee responsible for oversight of a grant program;
e. A court or grand jury;
f. A management office of the grantee or subgrantee; or
g. A Federal or State regulatory enforcement agency.

3. Submission of Complaint — A person who believes that they have been subjected to a reprisal prohibited by paragraph A of this grant term may submit a complaint regarding the reprisal to the Office of Inspector General (OIG) for the U.S. Department of Transportation.

4. Time Limitation for Submittal of a Complaint — A complaint may not be brought under this subsection more than three years after the date on which the alleged reprisal took place.

5. Required Actions of the Inspector General — Actions, limitations, and exceptions of the Inspector General's office are established under 41 U.S.C. § 4712(b).

6. Assumption of Rights to Civil Remedy — Upon receipt of an explanation of a decision not to conduct or continue an investigation by the Office of Inspector General, the person submitting a complaint assumes the right to a civil remedy under 41 U.S.C. § 4712(c).

20. **Limitations.** Nothing provided herein shall be construed to limit, cancel, annul, or modify the terms of any Federal grant agreement(s), including all terms and assurances related thereto, that have been entered into by the Sponsor and the FAA prior to the date of this Grant Agreement.

SPECIAL CONDITIONS

1. **ARFF and SRE Equipment and Vehicles.** The Sponsor agrees that it will:
   A. House and maintain the equipment in a state of operational readiness on and for the airport;
   B. Provide the necessary staffing and training to maintain and operate the vehicle and equipment;
   C. Restrict the vehicle to on-airport use only;
   D. Restrict the vehicle to the use for which it was intended; and
   E. Amend the Airport Emergency Plan and/or Snow and Ice Control Plan to reflect the acquisition of a vehicle and equipment.
2. **Equipment or Vehicle Replacement.** The Sponsor agrees that it will treat the proceeds from the trade-in or sale of equipment being replaced with these funds as airport revenue.
3. **Off-Airport Storage of ARFF Vehicle.** The Sponsor agrees that it will:
   A. House and maintain the vehicle in a state of operational readiness for the airport;
   B. Provide the necessary staffing and training to maintain and operate the vehicle;
   C. Restrict the vehicle to airport use only;
   D. Amend the Airport Emergency Plan to reflect the acquisition of the vehicle;
   E. Within 60 days, execute an agreement with local government including the above provisions and a provision that violation of said agreement could require repayment of Grant funding; and
   F. Submit a copy of the executed agreement to the FAA.
4. **Equipment Acquisition.** The Sponsor agrees that it will maintain Sponsor-owned and -operated equipment and use for purposes directly related to the airport.
5. **Utilities Proration.** For purposes of computing the United States' share of the allowable airport operations and maintenance costs, the allowable cost of utilities incurred by the Sponsor to operate and maintain airport(s) included in the Grant must not exceed the percent attributable to the capital or operating costs of the airport.
6. **Utility Relocation in Grant.** The Sponsor understands and agrees that:
   A. The United States will not participate in the cost of any utility relocation unless and until the Sponsor has submitted evidence satisfactory to the FAA that the Sponsor is legally responsible for payment of such costs;
   B. FAA participation is limited to those utilities located on-airport or off-airport only where the Sponsor has an easement for the utility; and
   C. The utilities must serve a purpose directly related to the Airport.

The Sponsor's acceptance of this Offer and ratification and adoption of the Grant Application incorporated herein shall be evidenced by execution of this instrument by the Sponsor, as hereinafter provided, and this Offer and Acceptance shall comprise a Grant Agreement, as provided by the CARES Act, constituting the contractual obligations and rights of the United States and the Sponsor with respect to the accomplishment of the Grant and compliance with the assurances and conditions as provided herein. Such Grant Agreement shall become effective upon the Sponsor's acceptance of this Offer.

UNITED STATES OF AMERICA
FEDERAL AVIATION ADMINISTRATION

_____
(Signature)

_____
(Typed Name)

_____
(Title of FAA Official)

Part II - Acceptance

The Sponsor does hereby ratify and adopt all assurances, statements, representations, warranties, covenants, and agreements contained in the Grant Application and incorporated materials referred to in the foregoing Offer under Part II of this Agreement, and does hereby accept this Offer and by such acceptance agrees to comply with all of the terms and conditions in this Offer and in the Grant Application.

Please read the following information: By signing this document, you are agreeing that you have reviewed the following consumer disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

I declare under penalty of perjury that the foregoing is true and correct.

Dated

City of Marina
(Name of Sponsor)

(Signature of Sponsor's Authorized Official)

By: *(Typed Name of Sponsor's Authorized Official)*

Title: *(Title of Sponsor's Authorized Official)*

CERTIFICATE OF SPONSOR'S ATTORNEY

I, , acting as Attorney for the Sponsor do hereby certify:

That in my opinion the Sponsor is empowered to enter into the foregoing Grant Agreement under the laws of the State of California. Further, I have examined the foregoing Grant Agreement and the actions taken by said Sponsor and Sponsor's official representative has been duly authorized and that the execution thereof is in all respects due and proper and in accordance with the laws of the said State and the CARES Act. The Sponsor understands funding made available under this Grant Agreement may only be used to reimburse for airport operational and maintenance expenses, and debt service payments. The Sponsor further understands it may submit a separate request to use funds for new airport/project development purposes, subject to additional terms, conditions, and assurances. Further, it is my opinion that the said Grant Agreement constitutes a legal and binding obligation of the Sponsor in accordance with the terms thereof.

Please read the following information: By signing this document, you are agreeing that you have reviewed the following consumer disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

Dated at

By: _____

(Signature of Sponsor's Attorney)

CARES ACT ASSURANCES

AIRPORT SPONSORS

A. General.

1. These assurances are required to be submitted as part of the application by sponsors requesting funds under the provisions of the Coronavirus Aid, Relief, and Economic Security Act of 2020 (CARES Act or "the Act"), Public Law 116-136. As used herein, the term "public agency sponsor" means a public agency with control of a public-use airport; the term "private sponsor" means a private owner of a public-use airport; and the term "sponsor" includes both public agency sponsors and private sponsors.
2. Upon acceptance of this Grant offer by the sponsor, these assurances are incorporated into and become part of this Grant Agreement.

B. Sponsor Certification.

The sponsor hereby assures and certifies, with respect to this Grant that:

It will comply with all applicable Federal laws, regulations, executive orders, policies, guidelines, and requirements as they relate to the application, acceptance, and use of Federal funds for this Grant including but not limited to the following:

FEDERAL LEGISLATION

a. Federal Fair Labor Standards Act — 29 U.S.C. 201, et seq.
b. Hatch Act — 5 U.S.C. 1501, et seq.
c. Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 Title 42 U.S.C. 4601, et seq.
d. National Historic Preservation Act of 1966 — Section 106 - 16 U.S.C. 470(f).
e. Archeological and Historic Preservation Act of 1974 — 16 U.S.C. 469 through 469c.
f. Native Americans Grave Repatriation Act — 25 U.S.C. Section 3001, et seq.
g. Clean Air Act, P.L. 90-148, as amended.
h. Coastal Zone Management Act, P.L. 93-205, as amended.
i. Flood Disaster Protection Act of 1973 — Section 102(a) - 42 U.S.C. 4012a.
j. Title 49, U.S.C., Section 303, (formerly known as Section 4(f)).
k. Rehabilitation Act of 1973 — 29 U.S.C. 794.
l. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin).
m. Americans with Disabilities Act of 1990, as amended, (42 U.S.C. § 12101 et seq.), prohibits discrimination on the basis of disability).
n. Age Discrimination Act of 1975 — 42 U.S.C. 6101, et seq.
o. American Indian Religious Freedom Act, P.L. 95-341, as amended.
p. Architectural Barriers Act of 1968 — 42 U.S.C. 4151, et seq.
q. Power plant and Industrial Fuel Use Act of 1978 — Section 403- 2 U.S.C. 8373.

r. Contract Work Hours and Safety Standards Act — 40 U.S.C. 327, et seq.

s. Copeland Anti-kickback Act — 18 U.S.C. 874.1.

t. National Environmental Policy Act of 1969 — 42 U.S.C. 4321, et seq.

u. Wild and Scenic Rivers Act, P.L. 90-542, as amended.

v. Single Audit Act of 1984 — 31 U.S.C. 7501, et seq.

w. Drug-Free Workplace Act of 1988 — 41 U.S.C. 702 through 706.

x. The Federal Funding Accountability and Transparency Act of 2006, as amended (Pub. L. 109-282, as amended by section 6202 of Pub. L. 110-252).

EXECUTIVE ORDERS

a. Executive Order 11246 – Equal Employment Opportunity

b. Executive Order 11990 – Protection of Wetlands

c. Executive Order 11998 – Flood Plain Management

d. Executive Order 12372 – Intergovernmental Review of Federal Programs

e. Executive Order 12699 – Seismic Safety of Federal and Federally Assisted New Building Construction

f. Executive Order 12898 – Environmental Justice

g. Executive Order 13788 – Buy American and Hire American

h. Executive Order 13858 – Strengthening Buy-American Preferences for Infrastructure Projects

FEDERAL REGULATIONS

a. 2 CFR Part 180 – OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement).

b. 2 CFR Part 200 – Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.

c. 2 CFR Part 1200 – Nonprocurement Suspension and Debarment.

d. 28 CFR Part 35 – Discrimination on the Basis of Disability in State and Local Government Services.

e. 28 CFR § 50.3 – U.S. Department of Justice Guidelines for Enforcement of Title VI of the Civil Rights Act of 1964.

f. 29 CFR Part 1 – Procedures for predetermination of wage rates.

g. 29 CFR Part 3 – Contractors and subcontractors on public building or public work financed in whole or part by loans or grants from the United States.

h. 29 CFR Part 5 – Labor standards provisions applicable to contracts covering Federally financed and assisted construction (also labor standards provisions applicable to non-construction contracts subject to the Contract Work Hours and Safety Standards Act).

i. 41 CFR Part 60 – Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor (Federal and Federally assisted contracting requirements).

j. 49 CFR Part 20 – New restrictions on lobbying.

k. 49 CFR Part 21 – Nondiscrimination in Federally-assisted programs of the Department of Transportation - effectuation of Title VI of the Civil Rights Act of 1964.

l. 49 CFR Part 26 – Participation by Disadvantaged Business Enterprises in Department of Transportation Program .49 CFR Part 27 — Nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance.

m. 49 CFR Part 28 – Enforcement of Nondiscrimination on the Basis of Handicap in Programs or Activities conducted by the Department of Transportation.

n. 49 CFR Part 30 – Denial of public works contracts to suppliers of goods and services of countries that deny procurement market access to U.S. contractors.

o. 49 CFR Part 32 – Government-wide Requirements for Drug-Free Workplace (Financial Assistance).

p. 49 CFR Part 37 – Transportation Services for Individuals with Disabilities (ADA).

q. 49 CFR Part 41 – Seismic safety of Federal and Federally assisted or regulated new building construction.

SPECIFIC ASSURANCES

Specific assurances required to be included in grant agreements by any of the above laws, regulations, or circulars are incorporated by reference in this Grant Agreement.

1. **Purpose Directly Related to the Airport**

   It certifies that the reimbursement sought is for a purpose directly related to the airport.

2. **Responsibility and Authority of the Sponsor.**

   a. Public Agency Sponsor:

      It has legal authority to apply for this Grant, and to finance and carry out the proposed grant; that an official decision has been made by the applicant's governing body authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the applicant to act in connection with the application and to provide such additional information as may be required.

   b. Private Sponsor:

      It has legal authority to apply for this Grant and to finance and carry out the proposed Grant and comply with all terms, conditions, and assurances of this Grant Agreement. It shall designate an official representative and shall in writing direct and authorize that person to file this application, including all understandings and assurances contained therein; to act in connection with this application; and to provide such additional information as may be required.

3. **Good Title.**

   It, a public agency or the Federal government, holds good title, satisfactory to the Secretary, to the landing area of the airport or site thereof, or will give assurance satisfactory to the Secretary that good title will be acquired.

4. **Preserving Rights and Powers.**

   a. It will not take or permit any action which would operate to deprive it of any of the rights and powers necessary to perform any or all of the terms, conditions, and assurances in this Grant

Agreement without the written approval of the Secretary, and will act promptly to acquire, extinguish, or modify any outstanding rights or claims of right of others which would interfere with such performance by the sponsor. This shall be done in a manner acceptable to the Secretary.

b. If the sponsor is a private sponsor, it will take steps satisfactory to the Secretary to ensure that the airport will continue to function as a public-use airport in accordance with this Grant Agreement.

c. If an arrangement is made for management and operation of the airport by any agency or person other than the sponsor or an employee of the sponsor, the sponsor will reserve sufficient rights and authority to insure that the airport will be operated and maintained in accordance Title 49, United States Code, the regulations, and the terms and conditions of this Grant Agreement.

5. Accounting System, Audit, and Record Keeping Requirements.

a. It shall keep all Grant accounts and records which fully disclose the amount and disposition by the recipient of the proceeds of this Grant, the total cost of the Grant in connection with which this Grant is given or used, and the amount or nature of that portion of the cost of the Grant supplied by other sources, and such other financial records pertinent to the Grant. The accounts and records shall be kept in accordance with an accounting system that will facilitate an effective audit in accordance with the Single Audit Act of 1984.

b. It shall make available to the Secretary and the Comptroller General of the United States, or any of their duly authorized representatives, for the purpose of audit and examination, any books, documents, papers, and records of the recipient that are pertinent to this Grant. The Secretary may require that an appropriate audit be conducted by a recipient. In any case in which an independent audit is made of the accounts of a sponsor relating to the disposition of the proceeds of a Grant or relating to the Grant in connection with which this Grant was given or used, it shall file a certified copy of such audit with the Comptroller General of the United States not later than six (6) months following the close of the fiscal year for which the audit was made.

6. Exclusive Rights.

The sponsor shall not grant an exclusive right to use an air navigation facility on which this Grant has been expended. However, providing services at an airport by only one fixed-based operator is not an exclusive right if—

a. it is unreasonably costly, burdensome, or impractical for more than one fixed-based operator to provide the services; and

b. allowing more than one fixed-based operator to provide the services requires a reduction in space leased under an agreement existing on September 3, 1982, between the operator and the airport.

7. Airport Revenues.

This Grant shall be available for any purpose for which airport revenues may lawfully be used. CARES Act Grant funds provided under this Grant Agreement will only be expended for the capital or operating costs of the airport; the local airport system; or other local facilities which are owned or operated by the owner or operator of the airport(s) subject to this agreement and all applicable addendums.

8. **Reports and Inspections.**

It will:

a. submit to the Secretary such annual or special financial and operations reports as the Secretary may reasonably request and make such reports available to the public; make available to the public at reasonable times and places a report of the airport budget in a format prescribed by the Secretary;

b. in a format and time prescribed by the Secretary, provide to the Secretary and make available to the public following each of its fiscal years, an annual report listing in detail:

1. all amounts paid by the airport to any other unit of government and the purposes for which each such payment was made; and

2. all services and property provided by the airport to other units of government and the amount of compensation received for provision of each such service and property.

9. **Civil Rights.**

It will promptly take any measures necessary to ensure that no person in the United States shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in any activity conducted with, or benefiting from, funds received from this Grant.

a. Using the definitions of activity, facility, and program as found and defined in §§ 21.23 (b) and 21.23 (e) of 49 CFR Part 21, the sponsor will facilitate all programs, operate all facilities, or conduct all programs in compliance with all non-discrimination requirements imposed by or pursuant to these assurances.

b. Applicability

1. Programs and Activities. If the sponsor has received a grant (or other Federal assistance) for any of the sponsor's program or activities, these requirements extend to all of the sponsor's programs and activities.

2. Facilities. Where it receives a grant or other Federal financial assistance to construct, expand, renovate, remodel, alter, or acquire a facility, or part of a facility, the assurance extends to the entire facility and facilities operated in connection therewith.

3. Real Property. Where the sponsor receives a grant or other Federal financial assistance in the form of, or for the acquisition of, real property or an interest in real property, the assurance will extend to rights to space on, over, or under such property.

c. Duration

The sponsor agrees that it is obligated to this assurance for the period during which Federal financial assistance is extended to the program, except where the Federal financial assistance is to provide, or is in the form of, personal property, or real property, or interest therein, or structures or improvements thereon, in which case the assurance obligates the sponsor, or any transferee for the longer of the following periods:

1. So long as the airport is used as an airport, or for another purpose involving the provision of similar services or benefits; or

2. So long as the sponsor retains ownership or possession of the property.

Required Solicitation Language. It will include the following notification in all solicitations for bids, Requests for Proposals for work, or material under this Grant and in all proposals for agreements, including airport concessions, regardless of funding source:

"The **City of Marina**, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that for any contract entered into pursuant to this advertisement, disadvantaged business enterprises and airport concession disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award."

d. Required Contract Provisions.

   1. It will insert the non-discrimination contract clauses requiring compliance with the acts and regulations relative to non-discrimination in Federally-assisted programs of the DOT, and incorporating the acts and regulations into the contracts by reference in every contract or agreement subject to the non-discrimination in Federally-assisted programs of the DOT acts and regulations.

   2. It will include a list of the pertinent non-discrimination authorities in every contract that is subject to the non-discrimination acts and regulations.

   3. It will insert non-discrimination contract clauses as a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a sponsor.

   4. It will insert non-discrimination contract clauses prohibiting discrimination on the basis of race, color, national origin, creed, sex, age, or handicap as a covenant running with the land, in any future deeds, leases, license, permits, or similar instruments entered into by the sponsor with other parties:

      A. For the subsequent transfer of real property acquired or improved under the applicable activity, grant, or program; and

      B. For the construction or use of, or access to, space on, over, or under real property acquired or improved under the applicable activity, grant, or program.

e. It will provide for such methods of administration for the program as are found by the Secretary to give reasonable guarantee that it, other recipients, sub-recipients, sub-grantees, contractors, subcontractors, consultants, transferees, successors in interest, and other participants of Federal financial assistance under such program will comply with all requirements imposed or pursuant to the acts, the regulations, and this assurance.

f. It agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under the acts, the regulations, and this assurance.

10. Foreign Market Restrictions.

It will not allow funds provided under this Grant to be used to fund any activity that uses any product or service of a foreign country during the period in which such foreign country is listed by the United States Trade Representative as denying fair and equitable market opportunities for products and suppliers of the United States in procurement and construction.

11. Acquisition Thresholds.

The FAA deems equipment to mean tangible personal property having a useful life greater than one year and a per-unit acquisition cost equal to or greater than $5,000. Procurements by micro-purchase means the acquisition of goods or services for which the aggregate dollar amount does not exceed $10,000. Procurement by small purchase procedures means those relatively simple and informal procurement methods for securing goods or services that do not exceed the $250,000 threshold for simplified acquisitions.

June 11, 2020 Item No. **9a**

To: Honorable Mayor and Members of the Marina City Council

City Council Meeting of June 16, 2020

CITY COUNCIL TO OPEN A PUBLIC HEARING, TAKE ANY TESTIMONY FROM THE PUBLIC AND CONSIDER RECOMMENDATION TO THE CITY COUNCIL TO ADOPT RESOLUTIONS 1) ACCEPTING ADDENDUM TO FINAL ENVIRONMENTAL ASSESSMENT AND ENVIRONMENTAL IMPACT REPORT FOR THE 1995 AIRPORT MASTER PLAN (EIR SCH No. 94093005); 2) APPROVING SPECIFIC PLAN FOR THE MARINA MUNICIPAL AIRPORT BUSINESS AND INDUSTRIAL PARK/UC MBEST CENTER; AND , 3) FINDING THE SPECIFIC PLAN CONSISTENT WITH THE FORT ORD BASE REUSE PLAN AND REGIONAL URBAN DESIGN GUIDELINES.

RECOMMENDATION:

The City Council consider the Planning Commission recommendation and take the following actions

1) Adopt Resolution No. 2020- ___, accepting Addendum to Final Environmental Assessment and Environmental Impact Report for the 1995 Airport Master Plan (EIR SCH No. 94093005); and,

2) Adopt Resolution No. 2020 ___, adopting the Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan; and,

3) Direct Staff to prepare amendments to the City of Marina General Plan to ensure consistency between the Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan and the City of Marina General Plan

SUMMARY:

This action for the City Council is consideration of the City of Marina Planning Commission's recommendation to accept the "Addendum to the Final Environmental Assessment/Environmental Impact Report for the Marina Municipal Airport" to the 1995 Airport Master Plan and to adopt the Marina Municipal Airport Business (**See Exhibit 1**) and Industrial Park/UC MBEST Center Specific Plan (**See Exhibit 2**) Additionally, the Planning Commission has recommended directing the Staff to prepare amendments to the City's adopted General Plan to ensure consistency between the Specific Plan and the General Plan.

On April 25, 2017, the City Council and Planning Commission was presented with a draft of Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan, A discussion was held to provide direction to the consultants and staff concerning changes and corrections to the document. Items discussed included:

1) Consistency between existing planning documents and the proposed Specific Plan
2) Greater utilization of native plants
3) Use of Floor-to-Area Ratio in the document
4) Use of standards and guidelines in the document and potential consequences
5) Appropriateness of land uses
6) Ownership vs. leasing of property

On June 12, 2020, The Planning Commission held a properly noticed public hearing. Public notice of this initiation hearing was provided in the newspaper as well as through mailings to all property owners within the Coastal Zone. Notice was provided 10 business days prior to the hearing as required by the Marina Municipal Code (Section 17.41.280) and California Government Code. D this meeting, the Commission discussed the following issues:

1) native trees, specifically the Monterey Cypress, and the importance of properly locating them to avoid damage to horizontal construction such as roads, sidewalks and other paved areas, along with the issue of proximity to the airport because of bird nesting and birds in general; and
2) inclusion of a hotel as a land use option; and
3) distribution of tax dollars from the site; and
4) greater use of native plants; and
5) UC's Chancellor intends to retain the UC MBEST property and lease rather than sell property; and
6) challenges of water allocation for the City portion of the Business and Industrial Park; and
7) how job growth may affect housing demand and traffic; and
8) the effect of transitioning from LOS to VMT on July 1, 2020.

No public comments were made at the meeting on this item.

BACKGROUND:

California State Law allows for the preparation of a Specific Plan to systematic implementation of the general plan for all or part of the area covered by the general plan (ARTICLE 8. Specific Plans, 65451 – Preparation of specific plans).

The Marina Municipal Airport Business and Industrial Park/University of California Monterey Bay Education Science and Technology (UC MBEST) Center (the Park) includes approximately 150 acres and is located on the eastern border of the City of Marina (City), bordered on the south by Reservation Road, on the east by Blanco Road, on the west and the north by Imjin Road and the Marina Municipal Airport (Airport). The properties are about evenly divided with approximately 75 acres controlled by each of the two entities.

In 1996, the UC MBEST Center Master Plan was created to guide development of the property in a way that reflects the UC mission, values and objectives. The Master Plan included a recommended development pattern for the Marina Airport Business and Industrial Park.

The reason for this inclusion was to illustrate a pattern of how two adjacent properties might be compatibly developed. This Plan is not binding on the City of Marina; however, the Plan is consistent with the City of Marina General Plan, adopted in 2000. The Land Use Plan Map of the General Plan illustrated the types of uses proposed for the area. **(See Exhibit 3. General Plan- Land Use Map).** This document ultimately directs the physical development of all the area included in the joint business/ research/industrial park.

The Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan (Specific Plan) represents that collaborative effort between the City and the UC to create an integrated development and implementation plan for this area. The Specific Plan will guide the development of these lands in a way that encourages the creation of a cohesive collection of buildings and activities reflective of: (a) the City's General Plan goals and policies; (b) UC's mission and values; (c) the unique land use types and standards for property next to a General Aviation Airport; (d) the prospect of generating revenue to support the viability of the Airport; and (e) the potential for economic development and employment growth that takes advantage of research, manufacturing and aviation activities.

The Specific Plan includes five sections:

1. Introduction
2. Land Use
3. Circulation and Mobility Concept
4. Public Services, Utilities, and Community Facilities
5. Administration

Efforts to develop the plan have been in process for approximately a decade, with several starts and stops occurring as a result of varying priorities of each of the entities involved in the development of the Plan. The last time this item came before the Planning Commission was in a joint meeting of the City Council and Planning Commission held on April 25, 2017. During that meeting, a variety of items were clarified, and the Consultant and Staff were directed to review, and in some cases, make changes to the document.

ANALYSIS:

Plan Consistency

The Marina Municipal Airport Area is currently subject to the Fort Ord Final Base Reuse Plan (1997). On June 30, 2020, that jurisdictional oversight will end.

The General Plan of the City of Marina, adopted October 31, 2000, provides the policy direction of the City Council related to the physical development of the City. The General Plan identifies the primary uses in the Specific Plan Area to include Office/Research, Light Industrial/Service Commercial, and Retail/Service.

The General Plan is much more than just the Land Use Map. The policies of the document also provide important direction. Those policies are included in Section 1.6 of the document. Several of the policies are dated and will need to be amended to better reflect the changes of the past 20 years. More details are included in the General Plan Amendments section listed below.

Other planning documents included in the development of the Specific Plan area are included in the first chapter of the draft. Several of these are very Airport oriented. It is important to take these into consideration in reviewing the Specific Plan because of the need to protect the aeronautical mission of the Airport, which is under FAA regulations.

Two of these documents have been updated since the 2017 review by the City Council and the Planning Commission. These are the Marina Municipal Airport Master Plan Update (2018) and the Marina Municipal Airport Comprehensive Land Use Plan (2019). These plans have been reviewed and found to be in compliance with the proposed Specific Plan. The Airport Land Use Plan from the Master Plan Update is included as **Exhibit 4**.

Land Use

The proposed development of non-aviation uses on the tarmac, located on the southeast edge of the runway has resulted in examining what to do with the area of the City's portion of the Park identified for Aviation Business Park, which would limit the uses to Aviation Uses as defined by the FAA. Consideration may be given to identifying this area as Business Park and including an Aviation Business Park Overlay Zone. This would provide important options for this area that may be needed in the future.

The inclusion of schools at the UC MBEST portion of the Park has also been an issue of discussion at the 2017 meeting. UC MBEST currently includes a non-traditional school with a limited number of students. Schools of up to 300 persons per acre are a use that the FAA would consider for this area. Educationally related uses have been included a permitted use in the Commercial/Mixed-Use area and as a conditional use in the Business Park and Business Aviation Reserve.

Another issue identified was that of commercial uses within the Park, approximately 19 acres are identified for commercial and mixed use. This primarily located along Imjin Road and West Blanco Road. A typical ratio of residents to suburban commercial development is 10 acres per 1,000 residents. This ratio can vary if the area is a regional center, a visitor destination, or a specialty city (e.g., City of Industry). The City of Marina currently includes approximately 333 acres of land being used commercially. The areas identified for commercial are appropriately located in terms of types of streets and, for the most part, proximity to residences. Additionally, as the area develops with business and industry, commercial uses are an important complement to those uses.

Tribal Consultation

While tribal consultation is not required for the Specific Plan, it will need to be carried out for the amendments to the General Plan. This process will take between two to three months.

Building and Site Design

The use of native plant materials was raised at the April 2017 meeting. Reference was made to the Regional Urban Design Guidelines (RUDG), developed by FORA, in conjunction with representatives from various government agencies. Reference to the RUDG requiring 80% native trees was mentioned. The Specific Plan requires 65%. To clarify, the RUDG document stated "Consider 80% native plant composition along roadway Right-of-Way for new development." Language has been amended to refer to the RUDG section on landscape materials and the Approved Plant Material list has been shortened to include all California Native Species, with the exception of two non-native trees.

The Floor Area Ratio (FAR) standards, which provides a percentage of floor area to the lot area, were included as part of the UC MBEST Master Plan from 1996. These standards are designed to create a low-density, campus-style office park and have been retained. Unlike some FAR standards, a maximum height has been included to address proximity to the Airport.

General Plan Amendments

Several General Plan policy statements will need to be amended to reflect the changes that have occurred over the past 20 years for the Park area. The primary changes are related to land uses. The UC MBEST portion of the Park was originally seen as a research office park, closely associated with the University. As time has progressed, this limited scope of land uses has been seen as being unrealistic from an economic perspective. The Specific Plan proposes an expansion of uses to allow for more general commercial, office, and industrial types of uses for the area. (e.g. Policies 2.65 and 2.66)

Water Policy statements concerning the use of non-potable water for large areas of turf, such as golf courses (see Policy 3.43), is no longer relevant to the vision of the City for that area.

Zoning Ordinance Amendments

The adoption of a Specific Plan results in amendments to the Zoning Map to include an SP designation. In some cases, there may be zoning text changes that may need to be considered. Where the Specific Plan is quiet on process, development standards, land uses, or design standards or guidelines, the Zoning Ordinance will be used. This can be done after the Plan has been adopted.

Subdivision

The inclusion of streets on a parcel of land necessitates the creation of a subdivision under California State Law. For some reason, the UC MBEST site was developed with road and infrastructure without going through a subdivision process. This issue is currently being remedied.

Environmental Review

An Addendum to the Final Environmental Assessment/Environmental Impact Report (hereinafter referred to as the Environmental Update) has been prepared to analyze the environmental effects, if any, of implementing the Specific Plan. The 1995 FEA/EIR (SCH No. 94093005) evaluated the 1995 Phase I Airport Master Plan prepared for the Airport as a project under the California Environmental Quality Act (CEQA) (hereinafter the 1995 Environmental studies are referred to as the Original Project). The 1995 Airport Master Plan and Original Project included modified airport components for transition of the military field to a civilian general aviation use airport. The project identified 876,000 square feet of aviation compatible business park/commercial/industrial uses for the City's portion of the Park and 790,178 square feet for the UC MBEST portion of the park.

In June, 2020, the Specific Plan has been prepared for the Park, including both the City and the UC properties. The Specific Plan includes 859,178 square feet of floor are in the City-owned portion of the Park and 759,905 square feet within the UC portion of the Park. The square footage figures, along with the type of permitted uses, are consistent with those identified in this portion of the Original Project.

Plan Updates

The City's Municipal Airport Master Plan (2008) was updated in 2018. The portion of the plan affecting the Specific Plan was essentially unchanged. Additionally, the Airport Comprehensive Land Use Plan (2006) was updated in 2019 and did not affect the Specific Plan area. Update changes were not included in the original draft, but have been included since. This change is reflected in **Exhibit 5**

Planning Commission Recommended Changes

The Planning Commission has recommended the following text changes

1) Under 2.3.2, eliminate "Chemical and allied products" from the list of Expressly Prohibited Uses (2.3.2) and include the following language immediately above "2.4 Site Development Standards,"

   Manufacturing, commercial and industrial uses that cannot meet any required hazardous, or public health standards required by the Marina Fire Department and/or the Monterey Bay Air Resources District are also expressly prohibited.

2) Amend 2.4.5.2 Landscaping of Streetscapes to include the following language from RUDG "Consider 80 percent native plant composition along roadway right-of-way for new development."

3) Under 2.4.5.1, include the following language:

   > "Special attention should be given in siting Monterey Cypress to ensure that there is adequate space for the root system at maturity. This will help protect vertical construction, such as roads, sidewalks and other paved areas, along with other structural systems such as walls."

and

"Potential for conflict between aircraft and birds shall be considered in selection of types of trees included in the landscape plan. Larger trees should be located further from the airport runway area."

FISCAL IMPACT:

The fiscal impacts to the City include reviewing and processing of applications. The City has adopted a fee schedule to cover these costs.

.

PLANNING COMMISSION ACTION

A motion was made by Commissioner Amadeo to recommend accepting the Addendum to the Final Environmental Assessment/Environmental Impact Report for the Marina Municipal Airport and recommended adopting the Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan with amendments (see above). The motion was seconded by Vice Chair Biala.

Commissioner	Aye	Nay	Abstain
Amadeo	X		
Biala, Vice Chair	X		
Bielsker	X		
Burnett, Chair	X		
Jacobsen	X		
Mann	X		
McCarthy	X		

CONCLUSION:

This request is submitted for City Council consideration and possible action.

Respectfully submitted,

_____

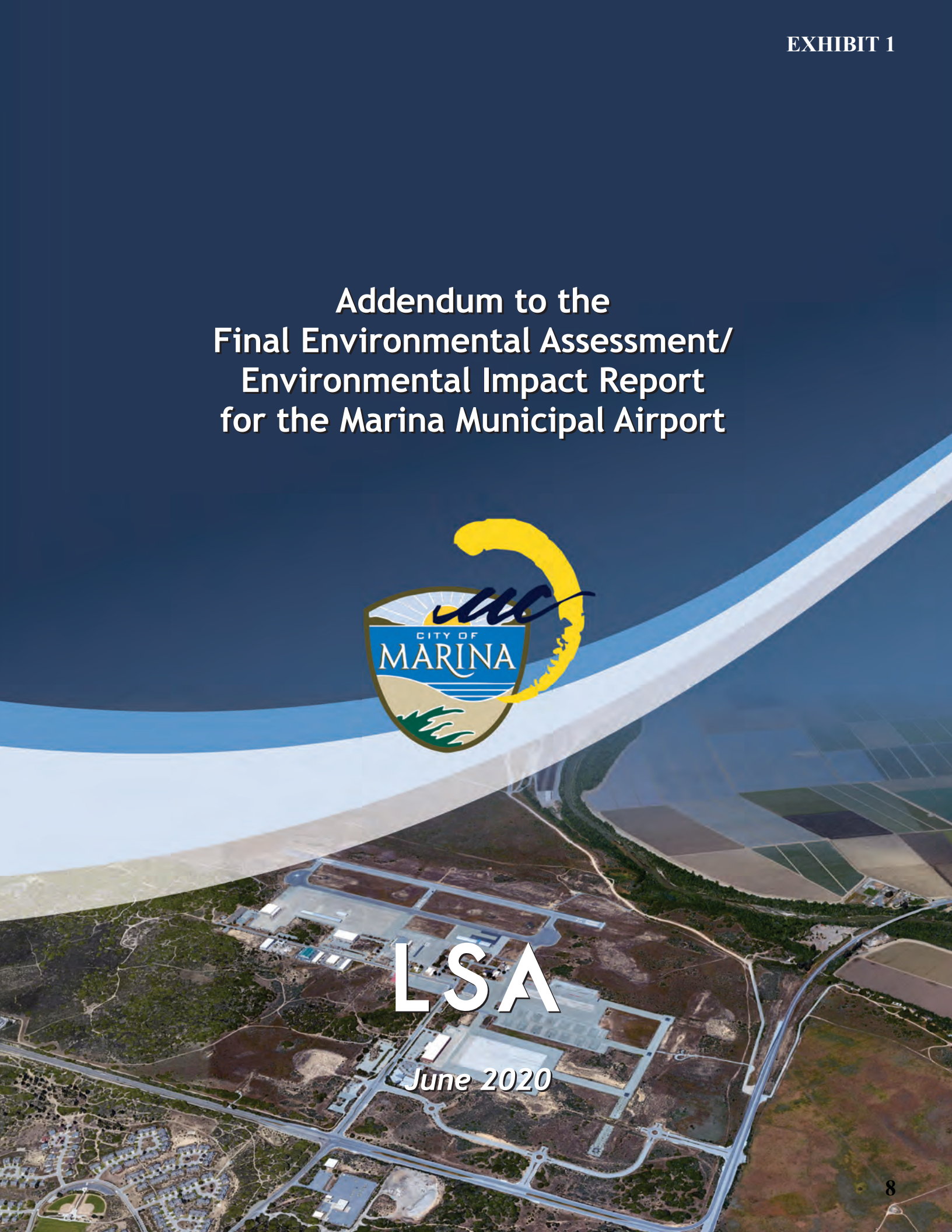
J. Fred Aegerter
Community Development Director
City of Marina

REVIEWED/CONCUR:

_____

Layne P. Long
City Manager
City of Marina

Addendum to the Final Environmental Assessment/ Environmental Impact Report for the Marina Municipal Airport



June 2020

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ADDENDUM

TO THE

FINAL ENVIRONMENTAL ASSESSMENT/ENVIRONMENTAL IMPACT REPORT

FOR THE

MARINA MUNICIPAL AIRPORT

Submitted to:

Community Development Department
City of Marina
211 Hillcrest Avenue
Marina, California 93933

Real Estate Office
University of California, Santa Cruz
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Santa Cruz, California 95064

Prepared by:

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Project No. MAR1202B

LSA

June 2020

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F: WATER SUPPLY ASSESSMENT AND WRITTEN VERIFICATION OF SUPPLY

LIST OF ABBREVIATIONS AND ACRONYMS

AAQS	ambient air quality standards
AB	Assembly Bill
afy	acre-feet per year
Airport	Marina Municipal Airport
AMBAG	Association of Monterey Bay Area Governments
AQMP	Air Quality Management Plan
BMPs	best management practices
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CH_4	methane
City	City of Marina
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CSUMB	California State University, Monterey Bay
dB	decibels
EIR	Environmental Impact Report
EO	Executive Order
FAA	Federal Aviation Administration
FEA/EIR	Final Environmental Assessment/Environmental Impact Report
FORA	Fort Ord Reuse Authority
GHG	greenhouse gas
HMP	Habitat Management Plan
kV	kilovolts
Ldn	day-night average noise level
LEED	Leadership in Energy and Environmental Design

LOS	level of service
MBARD	Monterey Bay Air Resources District
MBEST	Monterey Bay Education Science and Technology
MCWD	Marina Coast Water District
MMT	million metric tons
MPUSD	Monterey Peninsula Unified School District
MSHCP	Multi-Species Habitat Conservation Plan
MT	metric tons
N_2O	nitrous oxide
National Register	National Register of Historic Places
NO_X	nitrogen oxides
PG&E	Pacific Gas and Electric Company
PM_{10}	particulate matter less than 10 microns in size
$PM_{2.5}$	particulate matter less than 2.5 microns in size
Proposed Project	Marina Municipal Airport Business and Industrial Park/University of California (UC) Monterey Bay Education Science and Technology (MBEST) Center Specific Plan
RHNA	Regional Housing Needs Allocation Plan
ROD	Record of Decision
ROG	reactive organic gas
SB	Senate Bill
sf	square feet
SR-1	State Route 1
TACs	toxic air contaminants
UC	University of California
UC MBEST Specific Plan	Marina Municipal Airport Business and Industrial Park/University of California (UC) Monterey Bay Education Science and Technology (MBEST) Center Specific Plan
UCSC	University of Santa Cruz
USFWS	United States Fish and Wildlife Service
vpd	vehicles per day
WSA	Water Supply Assessment and Written Verification of Supply

1.0 INTRODUCTION

1.1 PROJECT INTRODUCTION AND BACKGROUND

This Addendum has been prepared to analyze the environmental effects, if any, of implementing the Marina Municipal Airport Business and Industrial Park/University of California (UC) Monterey Bay Education Science and Technology (MBEST) Center Specific Plan (Specific Plan) (hereinafter referred to as the Proposed Project[1]) within the Marina Municipal Airport Master Plan. The Proposed Project consists of an approximately 150-acre area, including an approximately 75-acre portion of the Marina Municipal Airport Master Plan (2008) area currently owned by the City of Marina (City) and an approximately 73-acre area within a 437-acre site owned by the UC and incorporated into the UC MBEST Master Plan (1996). The approximately 73-acre MBEST area included in the Proposed Project is the North Central Campus portion of the MBEST Master Plan. While the UC MBEST Central North Campus is adjacent to the southern boundary of the Marina Municipal Airport, a general aviation airport on 845.5 acres, the City-owned portion of the Proposed Project is within the southeastern portion of the Airport. The Proposed Project is located east and adjacent to the airport taxi- and runways, northwest of the intersection of Blanco Road and Reservation Road (refer to Figure 1.1).

The Marina Municipal Airport (Airport) is located on the site of the former Fritzsche Army Airfield, which served as the airport for the former Fort Ord, U.S. Army base. As one of the key elements for the initial Fort Ord Base Reuse Plan (State Clearinghouse [SCH] No. 96013022), the conversion of the airfield to civilian use was approved in April 1993 by Monterey County and local cities working together as the Fort Ord Reuse Group. When the former Fort Ord was closed, the City requested a public benefit conveyance of approximately 845.5 acres of the Fritzsche Army Airfield site for public airport use and the University of Santa Cruz (UCSC) requested a public benefit conveyance of the remainder of the site for educational and habitat enhancement purposes.

In 1995, the City and the Federal Aviation Administration (FAA) analyzed the potential environmental effects of the civilian reuse of the former Fritzsche Army Airfield. The Final Environmental Assessment/Environmental Impact Report (FEA/EIR) (SCH No. 94093005) evaluated the 1995 Phase I Airport Master Plan prepared for the Airport as a project under the California Environmental Quality Act (CEQA) (hereinafter referred to as the Original Project). The Original Project included modified airport components for transition of the military airfield to a civilian general aviation use airport, in addition to development of 876,000 square feet (sf) of aviation-compatible business park/commercial/industrial uses (City portion of the Proposed Project). Land uses included in the later phases of the Master Plan development included MBEST and related transportation and infrastructure improvements. The MBEST science and technology uses were analyzed in the FEA/EIR at a general plan (programmatic) level, pending subsequent and more specific development planning. The MBEST Central North Campus was planned for 790,178 sf of light industrial/research and development uses. In August of 1995, the 845.5-acre site was officially conveyed by the U.S. Army to the City of Marina for use as a municipal airfield.

[1] The terms Specific Plan and Proposed Project are used interchangeably throughout this Addendum

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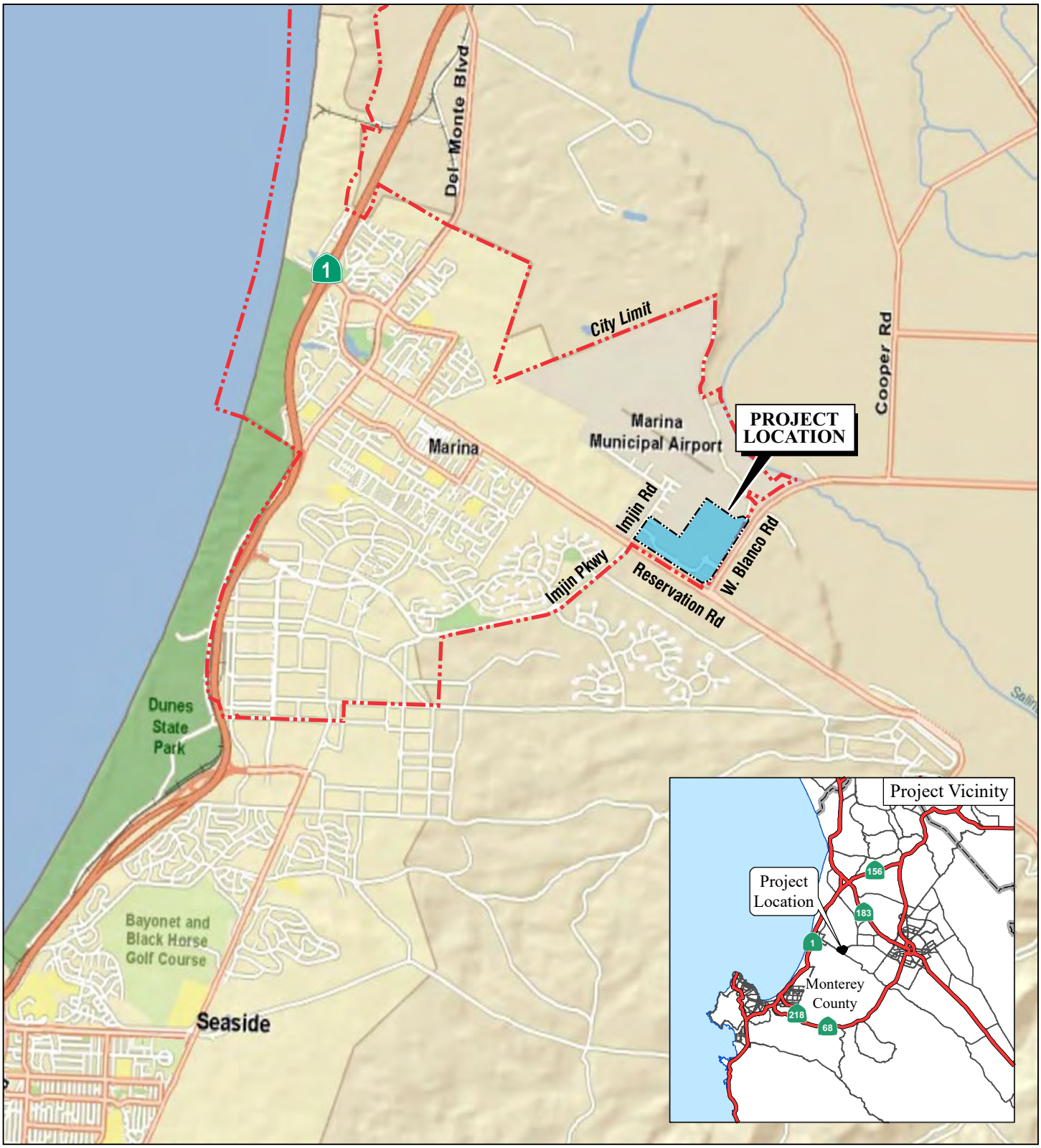

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LEGEND

- City Limit
- Specific Plan Area

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SOURCE: ESRI

FIGURE 1.1

Addendum to the Final Environmental Assessment/Environmental Impact Report for the Marina Municipal Airport

Specific Plan Project Location

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The FEA/EIR concluded that the proposed airport and adjacent business, science and industrial park uses would have environmental impacts that could be mitigated to below a level of significance, with the exception of cumulative air quality impacts. The Original Project's cumulative air quality impacts, specifically reactive organic gases, nitrogen oxides (NO_X), and particulate matter less than 10 microns in size (PM_{10}) emissions from development of the UC MBEST and airport business park/commercial/industrial area, were determined to exceed the thresholds of significance of the Monterey Bay Air Resources District (MBARD), and there were no additional feasible mitigation measures that could be implemented besides the City's trip reduction ordinance to reduce potential 2015 emissions. The FAA issued a Record of Decision (ROD), July 1995, in conjunction with the ROD rendered by the U.S. Army for the Disposal and Reuse of Fort Ord.

In 1997, the UC Regents approved a Master Plan for the UC MBEST Center, which would be operated by the UC. The UC MBEST Center Master Plan defines four campuses located adjacent to the Airport: the West Campus, the Central North Campus, the Central South Campus, and the East Campus. The UC MBEST Central North Campus portion is located within the Specific Plan area. The Master Plan provides a general design concept that includes roadways, land uses, and conceptual parcelization. Because the UC MBEST Center lands and the Marina Airport Business Park lands are adjacent to one another, the Master Plan also includes a recommendation development pattern for the Marina Airport Business Park. The Master Plan was not intended to reflect adopted policies of the City, only to illustrate a pattern on City-owned land that would be compatible with the UC MBEST Center. The Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan is consistent with the design concept and land uses identified in the Master Plan.

In June 2020, a Specific Plan was prepared for the Marina Municipal Airport Business and Industrial Park/UC MBEST Center to guide and facilitate development of the approximately 150-acre portion of the Marina Airport Master Plan (refer to Appendix A). The Specific Plan represents a collaborative effort between the City and the UC to create an integrated development and implementation plan for the lands on and directly adjacent to the southern portion of the Airport (refer to Figure 1.2). The Specific Plan reflects the City and UC's shared vision of expanding a general aviation facility and business park complemented by an adjoining university-related research and development business park. The Specific Plan is intended to implement the polices outlined in the City of Marina General Plan, the Marina Municipal Airport Master Plan Update, the Draft Marina Municipal Airport Comprehensive Land Use Plan, the Fort Ord Base Reuse Plan, and the UC MBEST Center Master Plan. The Specific Plan prescribes policies and standards that provide for a mix of industrial, manufacturing, research, and commercial land uses. Those land uses include both aviation and non-aviation-related uses, all of which would be compatible with existing and future Airport operations. The site development standards identified in the Specific Plan replace the development regulations of Chapter 17 of the City Municipal Code for the Specific Plan project area. The Proposed Project identifies the maximum gross industrial, research, and development floor area for the City-owned portion of the Specific Plan to be 859,178 sf and 759,905 sf for the UC-owned portion of the Specific Plan. These square footage figures along with the type of permitted uses are consistent with those identified for this portion of the Original Project.

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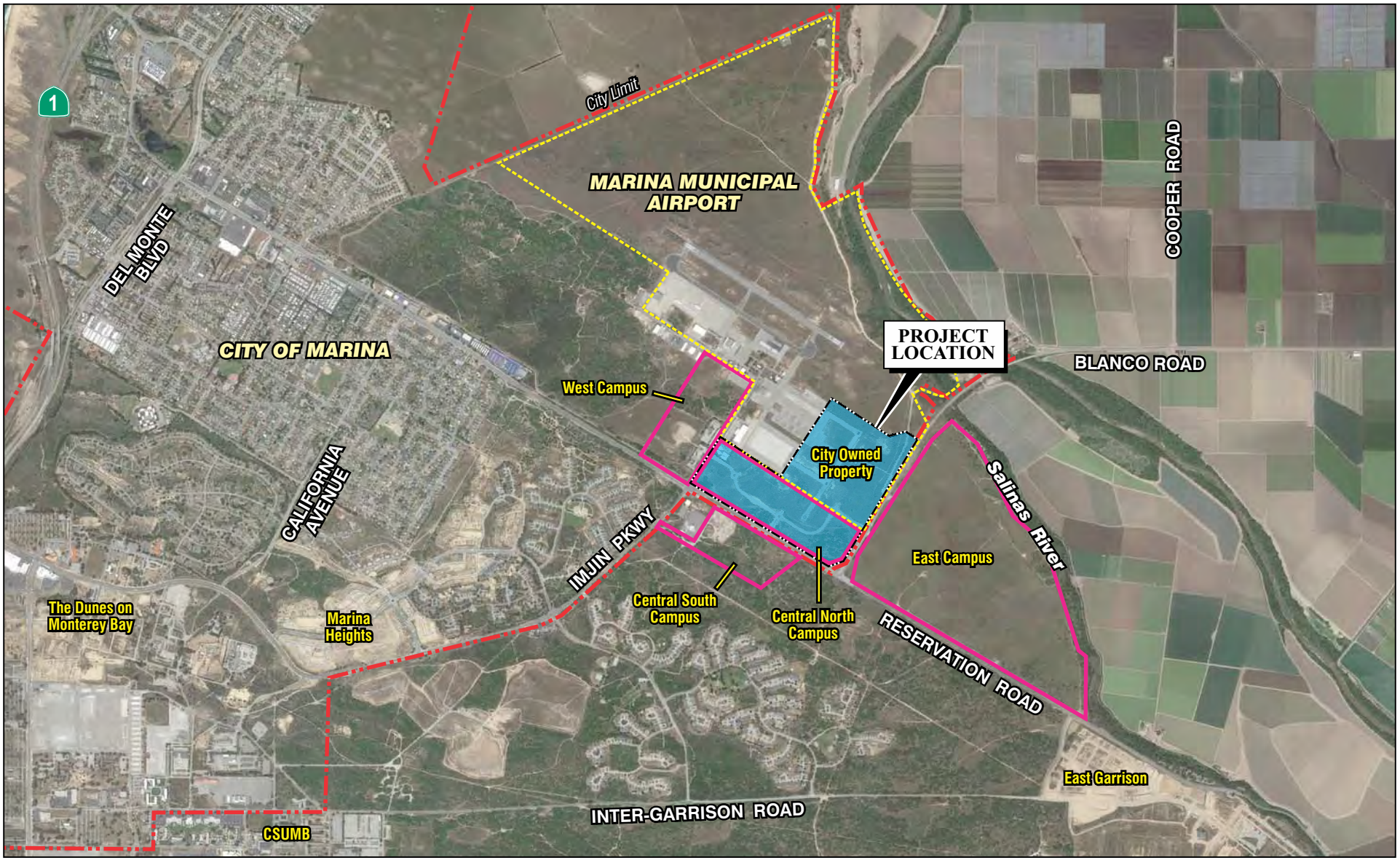

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SOURCE: Google Earth

LEGEND

- Marina City Limit
- Specific Plan Area
- Marina Municipal Airport
- UC MBEST Campus Locations

FIGURE 1.2

Addendum to the Final Environmental Assessment/Environmental Impact Report for the Marina Municipal Airport

Specific Plan Area

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1.2 PURPOSE OF THIS ADDENDUM

The purpose of this Addendum is to evaluate whether implementation of the Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan would result in any new or substantially greater significant impacts, or require any new mitigation measures not identified in the FEA/EIR. This Addendum, together with the FEA/EIR, will be used by the City when considering approval of the Proposed Project.

Based on all the information that follows, it has been determined that an Environmental Impact Report (EIR) Addendum is the appropriate environmental document for the project because none of the conditions requiring a subsequent EIR (as described in Section 1.3 below) exist. (See Sections 15162 and 15164 of the *State CEQA Guidelines*.)

1.3 CEQA FRAMEWORK FOR ADDENDUM

In accordance with Section 21166 of CEQA and Section 15162 of the *State CEQA Guidelines*, an Addendum to a certified EIR may be prepared if only minor technical changes or additions are necessary **or** none of the following conditions calling for the preparation of a subsequent EIR have occurred:

1. Substantial changes are proposed in the project that require major revisions of the previous EIR due to involvement of new significant environmental effects or a substantial increase in severity of previously identified significant effects;

2. Substantial changes have occurred with respect to the circumstances under which the project is undertaken that will require major revisions of the previous EIR due to involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

3. New information of substantial importance, which was not known and could not have been known with exercise of reasonable diligence at the time the previous EIR was certified, shows any of the following:

    a. The project will have one or more significant effects not discussed in the previous EIR;

    b. Significant effects previously examined will be substantially more severe than identified in the previous EIR;

    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponent declines to adopt the mitigation measures or alternatives; or

    d. Mitigation measures or alternatives that are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponent declines to adopt the mitigation measures or alternatives.

This Addendum reviews changes to existing conditions that have occurred since the certification of the FEA/EIR, and compares the environmental effects of development of the Proposed Project with those previously disclosed in the FEA/EIR. It also reviews new information of substantial importance that was not known or could not have been known with exercise of reasonable diligence at the time the FEA/EIR was certified and evaluates whether these are new or more severe significant environmental effects associated with changes in circumstances under which project development is being undertaken. It further examines whether, as a result of any changes or any new information, a subsequent or supplemental EIR may be required. This examination includes an analysis of provisions of Section 21166 of CEQA and Section 15162 of the *State CEQA Guidelines* and their applicability to the Project.

Based upon review of the facts as presented in the analysis contained in this document, an Addendum to the certified FEA/EIR is the appropriate document in compliance with CEQA. The rationale and the facts for this finding are provided in the body of this Addendum. Further legal analysis of this conclusion can be found in Appendix E.

2.0 PROJECT INFORMATION

2.1 SUMMARY OF ORIGINAL PROJECT AS ANALYZED IN THE CERTIFIED FEA/EIR

2.1.1 Project Location and Setting

The Original Project consisted of 1,395 acres located within the City of Marina and the boundaries of the former Fort Ord Military Reservation (refer to Figure 2.1). The City of Marina is located approximately 10 miles north of the City of Monterey, 75 miles south of the City of San Jose and 115 miles south of the City of San Francisco. The Original Project site encompasses the former Fritzsche Army Airfield.

The Original Project site is located north of the southerly right-of-way line of Reservation Road; west of Blanco Road and a portion of the Salinas River; and south of an area known as the Armstrong Ranch. The Original Project site is roughly wedge-shaped; topography ranges from flat to gently rolling hills with steep bluffs sloping down to the Salinas River.

2.1.2 Original Project Details

The Original Project, as defined in 1995 Phase 1 Airport master Plan and evaluated in the FEA/EIR, included modified airport components for the transition of the military airport to a civilian general aviation use airport, in addition to development of 876,000 sf of aviation-compatible business park/commercial/industrial uses. Land uses included in the Original Project included MBEST and related transportation and infrastructure improvements. The MBEST Central North Campus was planned for 790,178 sf of light industrial/research and development uses.

Specifically, the Original Project included the following components as evaluated in the FEA/EIR:

- Extension of the runway from 3,000 feet to 5,240 feet, and widening from 75 feet to 100 feet to comply with FAA design guidelines;
- Construction of additional aircraft hangars;
- Improvements to navigational aids, including an instrument landing system;
- Extensive refurbishing of hangars, office/shop and storage facilities, and significant use of such facilities by both aviation and non-aviation users (e.g., commercial/industrial);
- Capital improvements (roads, utilities, fencing, parking) in support of development on currently undeveloped portions of the airport;
- Up to 61,000 annual aircraft operations and a based aircraft fleet growing from about 100 to 200–300 over time as new hangar facilities are developed; and
- Approximately 876,000 sf of proposed business park/commercial/industrial development on the airport through 2015.

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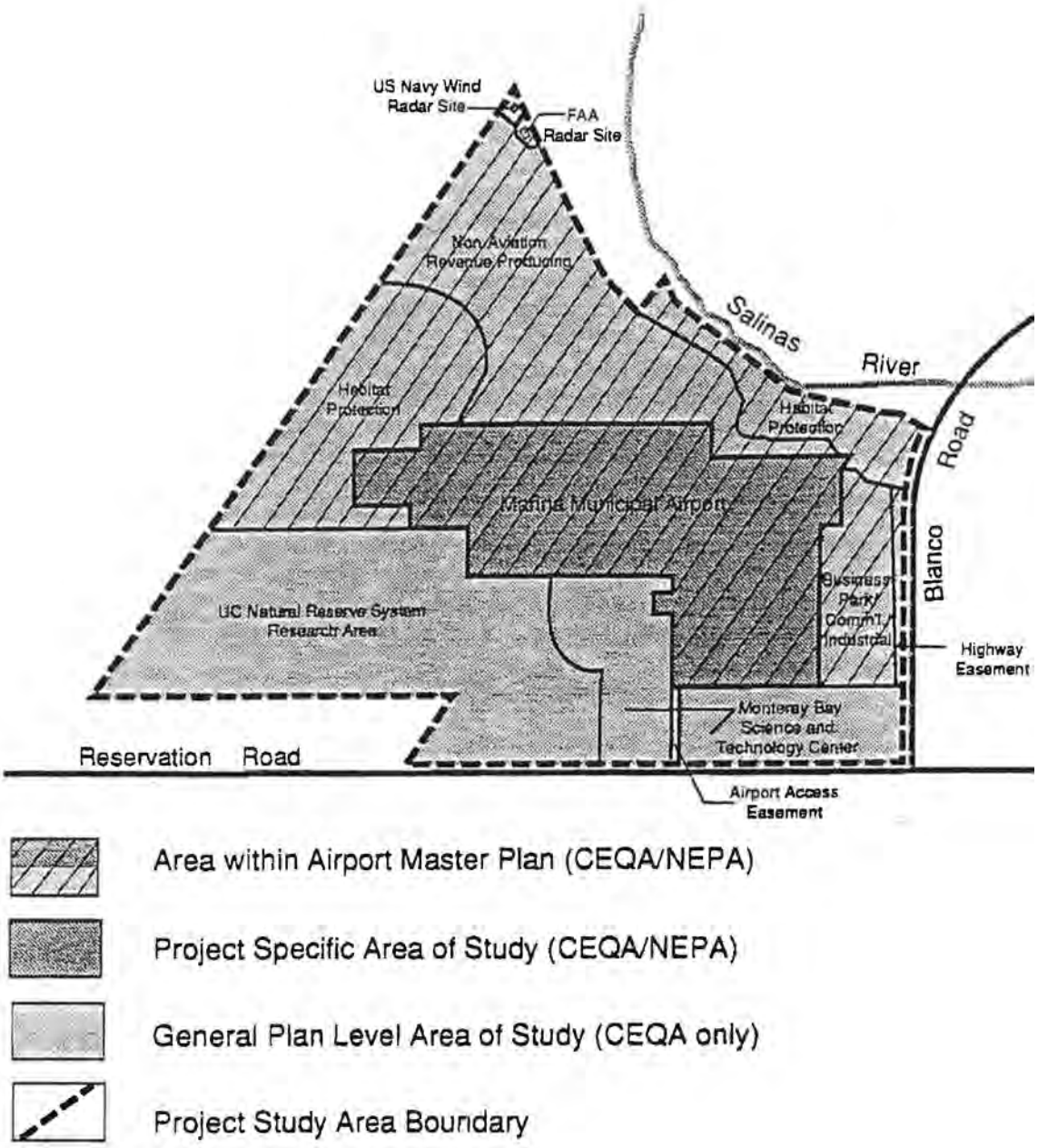

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FIGURE 2.1

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NO SCALE

SOURCE: Final Environmental Assessment/Environmental Impact Report (Volume 1) for the Marina Municipal Airport, June 23, 1995

Addendum to the Final Environmental Assessment/Environmental Impact Report for the Marina Municipal Airport

FEA/EIR Original Project Area

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2.1.3 Previous Project Approval

As stated in Section 1.0 (Project Introduction and Background) this Addendum is directly related to and an extension of the 1995 City of Marina Municipal Airport Master Plan and FEA/EIR. As noted in the Specific Plan, the following documents provided planning parameters and a background for its preparation. These documents represent a planning continuum leading up to and including the Specific Plan, and are provided for information only.

- The Fort Ord Reuse Group adopted the Fort Ord Initial Base Reuse Plan (March 19, 1993)
- The City of Marina certified the Marina Municipal Airport Master Plan and EA/EIR (June 1995)
- The City of Marina and the FAA recorded the Quitclaim Deed for Surplus Airport Property (August 1995)
- The UC prepared the UC MBEST Center Master Plan (1996)
- The Fort Ord Reuse Authority (FORA) adopted the Fort Ord Final Base Reuse Plan (June 13, 1997)
- The Marina City Council adopted the Guide for Development, City of Marina Municipal Airport and Business Park (August 1, 2000)
- The City adopted the City of Marina General Plan (October 31, 2000)
- The City drafted the Marina Airport Comprehensive Land Use Plan (2006)
- The City adopted the Marina Municipal Airport Master Plan Update (2008)

2.2 SUMMARY OF THE PROPOSED PROJECT

2.2.1 Proposed Project Location and Setting

The Specific Plan (Proposed Project) area is comprised of approximately 150 acres in the City of Marina. The Specific Plan area is part of the former Fritzsche Army Airfield site that was divided between lands deeded to the City and to the UC. Approximately 76 acres of the Specific Plan area is owned by the City and is referred to as the Marina Municipal Airport Business and Industrial Park, while another approximately 73 acres is owned by the UC and is referred to as the UC MBEST Central North Campus. The City-owned portion of the Specific Plan area is within the southeastern portion of the Marina Municipal Airport, while the UC MBEST Central North Campus is adjacent to the southern boundary of the Airport. The Specific Plan area is bounded on the north and west by the Airport and its associated uses, on the east by West Blanco road, on the south by Reservation Road, and on the west by Imjin Road (refer to Figure 1.2).

The general land uses immediately surrounding the Specific Plan area include a mix of aeronautical, public facility, commercial, and undeveloped land uses. Many of the properties in the general vicinity are undeveloped. Farther north and across the Salinas River is agricultural land, to the west is undeveloped UC land and habitat preserve land, to the east is undeveloped UC land, and to the south is undeveloped UC land, habitat preserve land, and former military dwelling units used now for faculty and student housing (refer to Figure 2.2).

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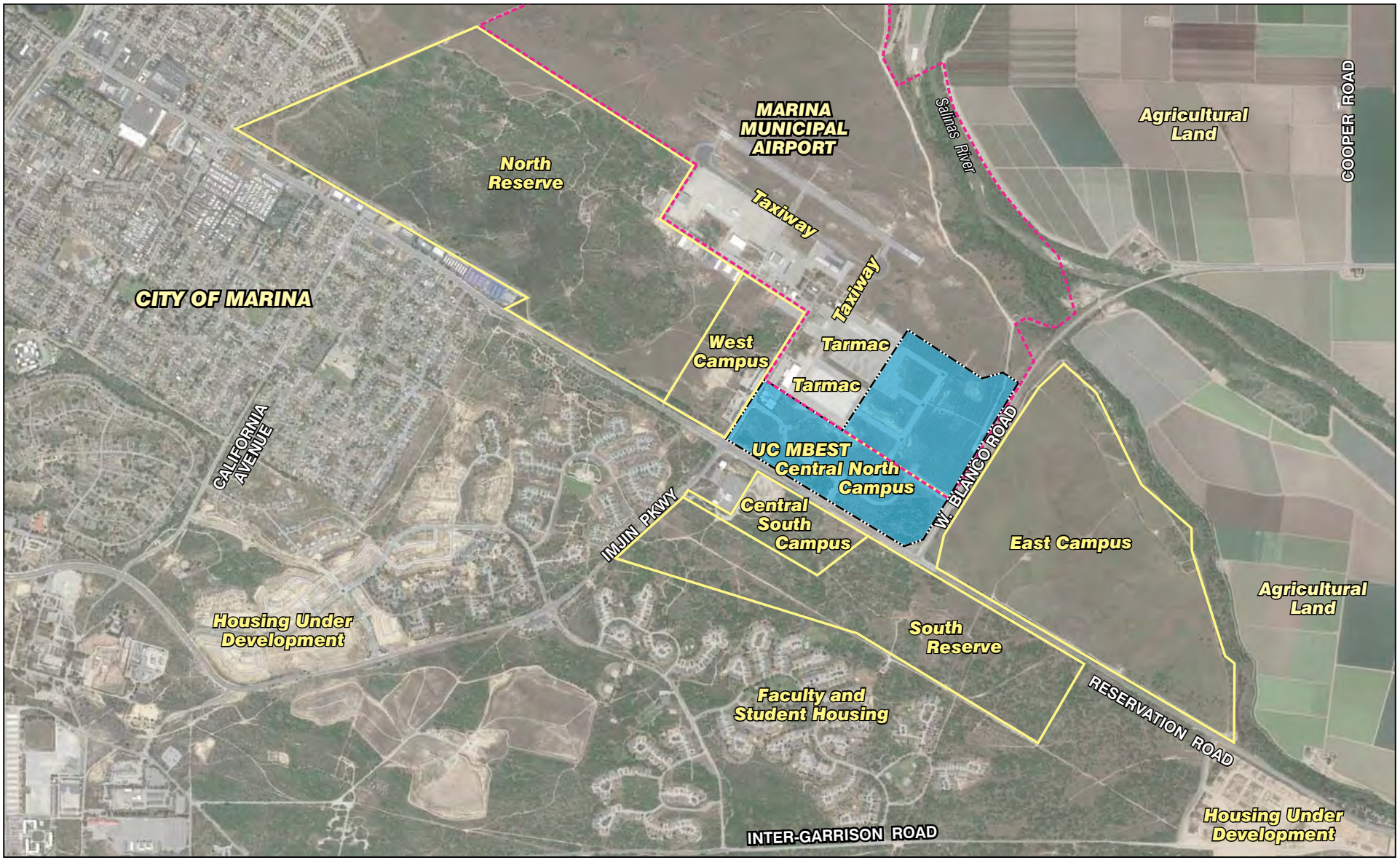

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LEGEND

- Specific Plan Area
- Marina Municipal Airport
- UC MBEST Campus Locations

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FEET

SOURCE: Google Earth

FIGURE 2.2

Addendum to the Final Environmental Assessment/Environmental Impact Report for the Marina Municipal Airport

Specific Plan Existing and Surrounding Land Uses

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The City-owned land in the Specific Plan area is largely undeveloped, with the exception of one-half of the Research Drive right-of-way improvements and various paved areas associated with Airport taxiway and tarmac areas. In addition, an unimproved road that provides access to Airport facilities (e.g., radar) and agricultural land north of the Specific Plan area parallels the eastern border of the City-owned Business Park-designated land before intersecting West Blanco Road.

A small portion of the northwest corner of the UC MBEST Central North Campus is developed with the UC MBEST Center Headquarters complex. The UC MBEST Central North Campus also includes roads that provide circulation and connectivity through the Specific Plan area. These roads (including University Drive, which traverses the UC MBEST Center property from Imjin Road to the west and terminates at Research Drive to the east; Research Drive, which extends along the boundary between City- and UC-owned lands to West Blanco Road; and MBEST Drive, which provides a link between Reservation Road to the south and University Drive) were developed as the initial part of a larger planned road network.

2.2.2 Proposed Project Details

The Specific Plan's land use concept takes into consideration two parallel planning processes by two separate entities: the City and the UC. The City has assumed direct planning responsibility for the northern approximately 76-acre portion while the UC directs the planning for the southern approximately 73-acre portion. The City will be encouraging the development of aviation-related and industrial uses within its portion of the Specific Plan area. Property that is adjacent to and have direct access to the Airport's airfield facilities (e.g., tarmac area) will be reserved for aviation/ aeronautical uses, and property without direct access may have non-aviation business type uses. Proceeding south toward Reservation Road and into the UC's portion of the Specific Plan area, the uses transition into research and development, commercial/mixed-use, and light industrial and office land uses. Thus, the Specific Plan will permit a range of industrial, research and development, educational, office, business park, and commercial uses; as well as, accommodate changing land use markets.

The Specific Plan identifies five land use designations including: Open Space, Research and Development, Commercial/Mixed Use, Business Park, and Business Aviation Reserve (refer to Figure 2.3). Education, as well as research and development uses shall be permitted on all portions of the UC MBEST Center where development is allowed. All five base land use designations would be compatible with the existing and future Airport operations as defined by the FAA.

Permitted uses, conditionally permitted uses, and accessory uses categories have been established for each land use designation as shown in Table 2.2.1.

As shown in Table 2.2.2, the estimated build out of the Specific Plan area allows for a maximum of 859,178 sf on the City-owned portion and 759,905 sf on the UC-owned portion.

The Specific Plan also identifies prohibited uses, site development standards, design guidelines, circulation system, public infrastructure and utilities, and administration guidelines.

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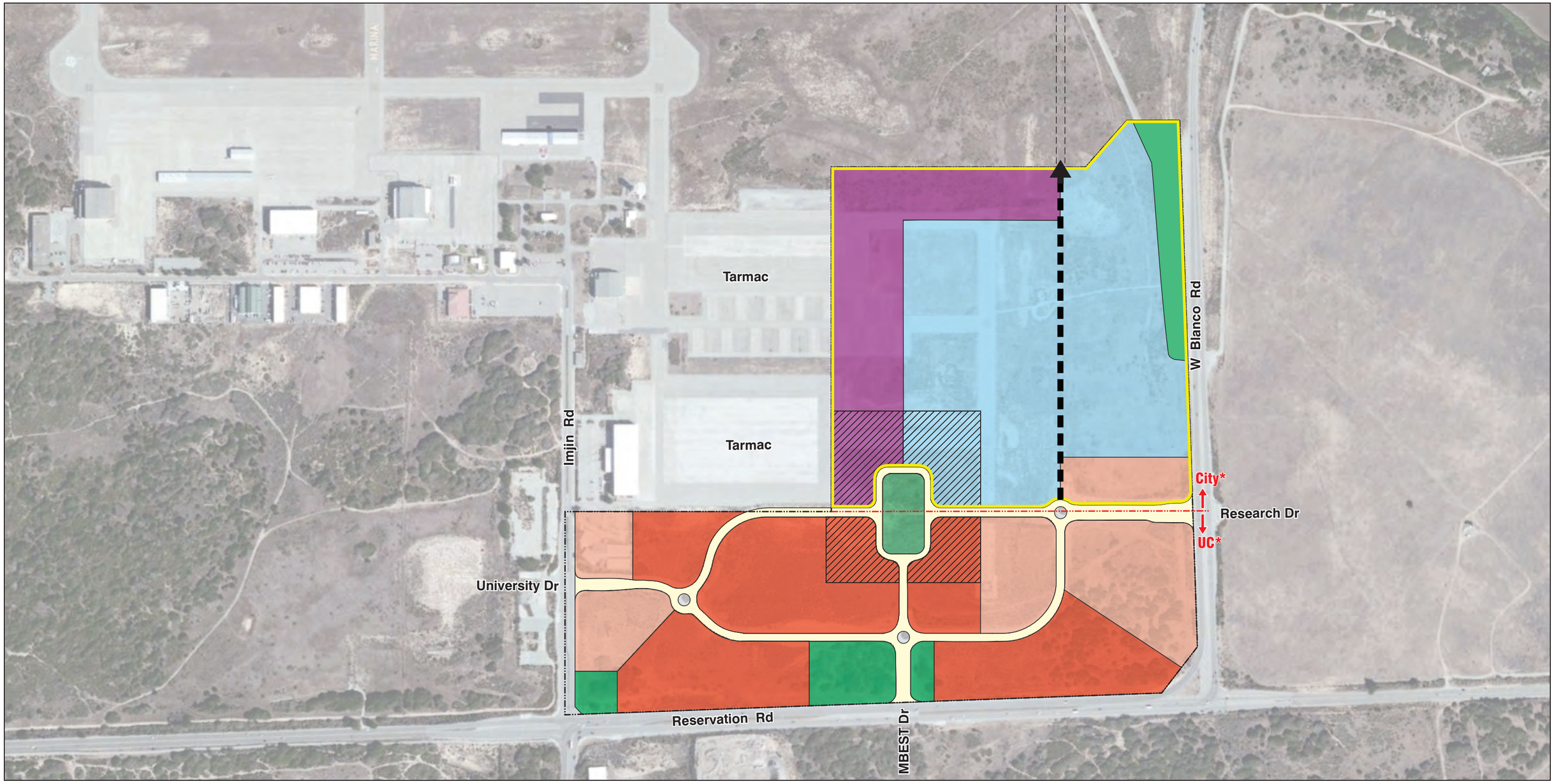

LSA

SOURCE: Google Earth

LEGEND - CITY*

- Commercial/Mixed Use - 3.55 ac
- Business Park - 44.20 ac
- Business Aviation Reserve - 19.10 ac
- Campus Core Overlay - 6.50 ac
- Research and Development Overlay Zone - 78.19 ac
- Possible Roadway Connection (for illustrative purposes only)
- ROW - 3.50 ac
- Open Space - 4.84 ac

LEGEND - UC*

- Commercial/Mixed Use - 19.01 ac
- Research & Development - 37.64 ac
- Campus Core Overlay - 4.50 ac
- ROW - 9.63 ac
- Open Space - 6.24 ac

FIGURE 2.3

Marina Municipal Airport Business and Industrial Park/
UC MBEST Center Specific Plan
Specific Plan Land Use Concept

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Table 2.2.1: Permitted and Conditionally Permitted Uses within the Specific Plan

Use Types	Permitted Use	Conditionally Permitted Use	Accessory Use
Open Space			
Picnicking/lunch or break time gathering	●		
Informal gatherings/meetings, including small group lectures	●		
Non-motorized outdoor recreation activities that do not materially alter the landscape, nor degrade the environmental quality, nor involve commercial recreational use	●		
Community festivals and special events, not exceeding 1,200 people per acre		●	
Concerts, not exceeding 1,200 people per acre		●	
Research and Development			
Primary research and development and/or controlled production or testing of high-technology electronic, biological, medical, dental, industrial, or scientific products, or processes, which may include information technology	●		
Light industrial manufacturing, processing, assembly, packaging or treatment of specialized goods in a setting that tests the feasibility of prototype production for goods or manufacturing systems	●		
Production, assembly, testing and repair of components, devices, equipment, systems, and parts	●		
Light industry	●		
Wholesale	●		
Warehousing and distribution facilities provided they are conducted wholly within a completely enclosed building and do not occupy more than 50 percent of the area of any building	●		
Educationally related uses that meet the teaching and public service mission of the University of California, including education or training facilities, publishing services, conference facilities, and executive/management and administrative uses that support educationally related activities	●		
Offices, administrative and executive			●
Employee recreational and dining facilities, and meeting and public assembly facilities			●
Commercial uses for the convenience of employees, located internal to the buildings with primary customer access from interior areas, such as children's daycare centers, cafeterias, business support services, and other similar incidental services			●
Open storage of materials, goods, parts, and equipment, including company-owned or operated trucks and other motor vehicles provided adequate screening is provided			●
Print, photocopy, and lithographic establishments		●	
Warehouse and distribution occupying more than 50 percent of the area of any building		●	
Sales of goods manufactured, processed, or assembled on the premises		●	
Places of worship		●	
Commercial/Mixed-Use			
Any permitted land use under "Research and Development"	●		
Hotel/conference/bed-and-breakfast inn	●		
Serviced apartments	●		
Retail shops	●		
Professional, medical, or government offices	●		
Financial services	●		
Restaurants, coffee house, delicatessens	●		
Laundromats, shoe repair	●		
Travel agency	●		
Athletic clubs	●		

Table 2.2.1: Permitted and Conditionally Permitted Uses within the Specific Plan

Use Types	Permitted Use	Conditionally Permitted Use	Accessory Use
Social halls, clubs	●		
Photocopying	●		
Communications/data processing services	●		
Art galleries, museums, or theaters	●		
Educationally related uses that meet the teaching and public service mission of the University of California, including education or training facilities, conference facilities, and executive/management and administrative uses that support educationally related activities	●		
Places of worship		●	
Business Park			
Manufacturing, fabrication, assembly, or processing of materials that are generally already in processed form and which do not in their maintenance, assembly, manufacture, or plant operations create a hazard to aircraft in flight, including physical (e.g., tall objects), visual (e.g., large quantities of smoke or dust), and electronic forms of interference with the safety of aircraft operations	●		
Warehousing, indoor storage (e.g., mini-warehouses), and wholesale sale to retailers from the premises of finished goods and foodstuffs typical of electronic and pharmaceutical businesses	●		
Primary research, development and/or controlled production or testing of high-technology electronic, biological, industrial or scientific products, or processes, which may include information technology	●		
Nurseries and greenhouses	●		
Trade schools conducted within an enclosed building	●		
Service establishments, such as janitorial, pest control, delivery, laboratory, etc.	●		
Furniture manufacturing, finished paper products, and other light manufacturing of similar character		●	
Public and quasi-public uses and buildings including public utility buildings, etc.		●	
Carpentry shops, paint, plumbing shops, and other uses of a similar nature		●	
Propane distributorship and sales and service of appliances, and related equipment, provided all equipment is stored within a building or screened by adequate fencing and landscaping		●	
Prototype production including machine shops		●	
Commercial recreation		●	
Contract service establishments including contractors' offices with related storage of equipment and vehicles, when conducted within a completely enclosed building		●	
Open storage of materials, goods, parts, and equipment, including company-owned or operated trucks and other motor vehicles provided adequate screening is provided			●
General office			●
Business support services			●
Commercial recreation (e.g., theaters) associated with aviation related uses		●	
Auditoriums, associated with aviation related uses		●	
Places of worship		●	
Educationally related uses, including education or training facilities, conference facilities, and executive/management and administrative uses that support educationally related activities		●	
Business Aviation Reserve			
Air freight operations		●	
Aircraft sales and leasing	●		
Aviation-related manufacturing, assemblage, and research	●		
Airport-serving transportation services and public parking	●		
Aviation-based services, supplies, and retail	●		

Table 2.2.1: Permitted and Conditionally Permitted Uses within the Specific Plan

Use Types	Permitted Use	Conditionally Permitted Use	Accessory Use
Aircraft service, repair, and maintenance	●		
Primary research, development and/or controlled production or testing of high-technology electronic, biological, industrial or scientific products, or processes, which may include information technology	●		
Warehousing and distribution, light-impact manufacturing, assemblage, and processing	●		
Automobile rental	●		
Restaurants and convenience consumer sales and services			●
General office or business support services			●
Contract service establishments		●	
Commercial recreation (e.g., theaters) associated with aviation-related uses		●	
Auditoriums, associated with aviation-related uses		●	
Temporary storage		●	
Transportation services		●	
Places of worship		●	
Educationally related uses, including education or training facilities, conference facilities, and executive/management and administrative uses that support educationally related activities		●	

Source: Marina Municipal Airport Business and Industrial Park/University of California Monterey Bay Education Science and Technology Center Specific Plan, June 2020.

Table 2.2.2: Estimated Land Use Intensity

Land Use Designations	City Owned[1]			UC MBEST Owned		
	Gross Acreage	FAR	Allowable Building Square Footage	Gross Acreage	FAR	Allowable Building Square Footage
Business Park	41.00	0.3	517,101			
Business Park/Overlay	3.20	0.4	55,757			
Business Park Subtotals	***44.20***		***572,858***			
Business Aviation Reserve	16.19	0.3	189,878			
Business Aviation Reserve/Overlay	2.91	0.4	50,704			
Business Aviation Reserve Subtotals	***19.10***		***240,582***			
Research and Development				33.14	0.3	433,074
Research and Development/Overlay				4.50	0.4	78,408
Research and Development Subtotals				***37.64***		***511,482***
Commercial/Mixed Use	3.55	0.3	45,738	19.01	0.3	248,423
Open Space	4.84			6.24		
Rights-of-Way	3.50			9.63		
Totals	***75.19***		***859,178***	***72.52***		***759,905***

Source: Marina Municipal Airport Business and Industrial Park/University of California Monterey Bay Education Science and Technology Center Specific Plan, June 2020.

[1] Section 2.2.8 of the Specific Plan establishes a Research and Development Overlay Zone, allowing the City to consider and approve all land uses listed in Table 2.2.1 for the City's portion of the Specific Plan.

City = City of Marina
FAR = floor-to-area ratio
UC MBEST = University of California Monterey Bay Education Science and Technology

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3.0 COMPARATIVE EVALUATION OF POTENTIAL ENVIRONMENTAL IMPACTS

The following discussion begins with the key topics and related environmental effects for the Proposed Project: Air Quality, Greenhouse Gas Emission, and Circulation and Traffic. The Addendum summarizes the remaining topic areas in the sequence they are addressed in the FEA/EIR and compares the Original Project (FEA/EIR) and the Proposed Project.

3.1 KEY TOPICS ANALYZED WITH PROPOSED PROJECT

3.1.1 Air Quality

3.1.1.1 Conclusion

The Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with the Original Project. Therefore, the Proposed Project will not result in additional impacts to air quality beyond those identified in the FEA/EIR.

3.1.1.2 Analysis

Original Project Analysis. As described in the FEA/EIR, air quality impacts from implementation of the Original Project would occur both during construction and operation of the airport, airport business park, and UC Technology Center. The Proposed Project does not include any improvements to or aircraft operations at the Airport. Therefore, air quality impacts associated with construction and operation of airport improvements and/or aircraft operations are not discussed further in this analysis.

As described in the FEA/EIR, implementation of the business park and UC Technology Center would primarily affect air quality by creating new vehicle trips and redistributing vehicle trips over the roadway network. New vehicle trips would affect air quality not only near the project, but also within the entire Northern Central Coast Air Basin. Projected emissions for the business park and UC Technology Center would exceed the threshold of significance recommended by the MBARD for reactive organic gas (ROG), nitrogen oxides (NO_x), and particulate matter less than 10 microns in size (PM_{10}). Thereby, implementation of the business park and UC Technology Center would result in increased regional ozone levels, representing a significant impact. As described in the FEA/EIR, the Original Project would be required to implement program level mitigation ensuring the City of Marina continues to enforce the intent and requirements of its trip reduction ordinance (Ordinance No. 93-05) including the provisions of Section 18.10.060, Responsibilities of Commercial Developers and Developments. Although implementation of program level mitigation would reduce impacts by up to 15 percent, overall impacts associated with the Original Project would not be reduced to a level of less than significant.

As specified in the 1991 Air Quality Management Plan (AQMP) for the Monterey Bay Region, for commercial, industrial or institutional projects intended to meet the needs of the population, consistency with the AQMP is determined by consistency with population forecasts in the AQMP.

As described in the FEA/EIR, population forecasts for the business park and UC Technology Center would not exceed those used in the AQMP; therefore, they are consistent with the AQMP[1].

Additionally, as described in the FEA/EIR, research and industrial land uses associated with the business park and UC Technology Center could contain sources of toxic air contaminants (TACs) (also known as Hazardous Air Pollutants). The number of any such sources, their location or strength is not predictable. Users of TACs are subject to Regulation X of the MBARD. Any sources of TACs associated with future land uses within the business park or UC Technology Center would be required to obtain permits from the MBARD adhering to Regulation X, Rule 1000 (Permit Guidelines and Requirements for Sources Emitting Toxic Air Contaminants). This regulation requires a TAC analysis, risk evaluation and established permit conditions relating to the potential for public health risks resulting from the emissions of TACs.

Proposed Project Analysis. Because the FEA/EIR analyzed the business park and UC Technology Center at a program level, an *Air Quality and Greenhouse Gas Analysis* (September 2019) was prepared for the Proposed Project (see Appendix B). The Air Quality and Greenhouse Gas Analysis evaluates potential air quality and greenhouse gas (GHG) emissions impacts associated with buildout of the Specific Plan area and assumes full build out by the year 2040. As described in the Air Quality Analysis, MBARD prepares a new AQMP every 3 years, which includes updates to the previous plan and 20-year horizon. The MBARD approved the 2012-2015 AQMP on March 15, 2017. This AQMP is the seventh update to the original 1991 AQMP and shows that the region continues to make progress toward meeting the State ozone standard. Currently the North Central Coast Air Basin is in nonattainment for State ozone and PM_{10} criteria pollutants (MBARD 2008).

Consistency with Applicable Air Quality Plans. The Proposed Project includes buildout of the Specific Plan area and therefore, emissions of criteria pollutants associated with future development allowed for under the Proposed Project could contribute emissions of NO_X, ROG, carbon monoxide (CO), PM_{10}, and particulate matter less than 2.5 microns in size ($PM_{2.5}$), which could affect attainment of the ambient air quality standards (AAQS). Future development allowed under the Specific Plan would be required to comply with California Air Resources Board (CARB) motor vehicle standards, MBARD regulations for stationary sources and architectural coatings, Title 24 energy efficiency standards, and the proposed Specific Plan policies. The Specific Plan would permit a range of industrial, research and development, educational, office, business park, and commercial uses that have been accounted for in regional employment forecasts. Buildout of the Specific Plan area would not include residential units and therefore would not directly increase population projections within the City or County. As such, employment would be within growth forecast assumptions used in the AQMP. Therefore, the Specific Plan would be consistent with the AQMP because the population is not anticipated to directly increase with buildout of the Specific Plan and employment projections associated with the project have been included in regional air quality modeling established for the AQMP. The Proposed Project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP; and

[1] The Association of Monterey Bay Area Governments, however, makes formal consistency determinations.

because the socioeconomic data has been accounted for, the project would not exceed the AQMP's assumptions.

Criteria Pollutant Analysis.

Construction Emissions. During construction of the Proposed Project, short-term degradation of air quality may occur due to the release of particulate emissions generated by demolition, grading, paving, building, and other activities. Emissions from construction equipment are also anticipated and would include CO, NO_X, ROG, directly-emitted particulate matter ($PM_{2.5}$ and PM_{10}), and TACs such as diesel exhaust particulate matter. These emissions would be temporary in nature and limited to the immediate area surrounding the construction site. As shown in Table K in the Air Quality Analysis, and consistent with the Original Project, construction emissions associated with buildout of the Specific Plan would not exceed the MBARD thresholds for NO_X, ROG, PM_{10}, $PM_{2.5}$, or CO emissions.

Operational Air Quality Impacts. Long-term operation emissions associated with the Specific Plan were calculated using the California Emissions Estimator Model (CalEEMod). Trip generation rates used in CalEEMod were based on the *Traffic Impact Study* (LSA, September 2019), which estimates that buildout of the Specific Plan would typically generate approximately 25,317 net new average daily trips.

As shown in Table 3.1 (Table L in the Air Quality Analysis), buildout of the Specific Plan area would not exceed the significance criteria for NO_x, ROG, $PM_{2.5}$, or CO emissions. However, consistent with the Original Project, buildout of the Specific Plan would exceed the significant criteria for PM_{10} emissions. This is primarily due to vehicle trips associated with the project. As described in the FEA/EIR, and consistent with the Original Project, the Proposed Project would be required to implement program level mitigation ensuring the City of Marina continues to enforce the intent and requirements of its trip reduction ordinance (Ordinance No. 93-05) including the provisions of Section 18.10.060, Responsibilities of Commercial Developers and Developments. Consistent with the Original Project, it is assumed that implementation of program level mitigation would reduce impacts by up to 15 percent; however, overall impacts associated with the Proposed Project would not be reduced to a level of insignificance.

Table 3.1: Operational Emissions in Pounds Per Day

Source	Pollutant Emissions (lbs/day)				
	NO_x	ROG	PM_{10}	$PM_{2.5}$	CO
Area Sources	<0.1	41.1	<0.1	<0.1	0.2
Energy Sources	6.2	0.7	0.5	0.5	5.2
Mobile Sources	119.6	21.6	107.7	29.1	213.5
Total Project Emissions	**125.8**	**63.4**	**108.2**	**29.6**	**218.9**
MBARD Thresholds	137.0	137.0	82.0	55.0	550.0
Exceeds?	**No**	**No**	**Yes**	**No**	**No**

Source: *Air Quality and Greenhouse Gas Analysis* (LSA, September 2019a).
CO = carbon monoxide
lbs/day = pounds per day
MBARD = Monterey Bay Air Resources District
NO_x = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
ROG = reactive organic gases

Long-Term Microscale (CO Hot Spot) Analysis. Vehicular trips associated with buildout of the Specific Plan would contribute to congestion at intersections and along roadway segments in the project vicinity. Localized air quality impacts would occur when emissions from vehicular traffic increase as a result of the Specific Plan. As described in the Traffic Impact Study, the Specific Plan would generate 817 a.m. peak-hour trips and 1,546 p.m. peak-hour trips. Based on the results of the study area intersection level of service (LOS) evaluation, the Proposed Project would not result in significant traffic delays. Therefore, it is assumed that the addition of traffic associated with buildout of the Specific Plan would not create any significant adverse impacts to nearby intersections. Therefore, given the extremely low level of CO concentrations in the Specific Plan area, and lack of traffic impacts at any intersections, vehicles associated with buildout of the Specific Plan are not expected to contribute significantly to result in the CO concentrations exceeding the State or federal CO standards.

Health Risk on Nearby Sensitive Receptors. Construction associated with buildout of the Specific Plan may expose surrounding sensitive receptors to airborne particulates, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). The closest sensitive receptors to the Proposed Project include the single-family residences located across Reservation Road, along Landrum Court, located approximately 1,000 feet southwest of the Specific Plan area. Due to the distance of the nearest sensitive receptors, construction associated with buildout of the Specific Plan would not be expected to expose sensitive receptors to substantial pollutant concentrations. In addition, once buildout of the Specific Plan is complete, the Proposed Project would not be a source of substantial pollutant emissions and sensitive receptors would not be exposed to substantial pollutant concentrations during construction and operation.

Odors. During construction associated with buildout of the Specific Plan area, objectionable odors may emanate from the operation of diesel-powered construction equipment. These odors, however, would be temporary and limited to the Specific Plan area. Further, due to rapid dispersion of emissions that would occur with distance from the source, because odors during construction would be temporary, and because the closest residences are located approximately 1,000 feet of the Specific Plan area, construction associated with buildout of the Specific Plan area would not result in other emissions (such as those leading to odors) affecting sensitive receptors. In addition,

once buildout of the Specific Plan area is complete, the Proposed Project would not include any activities or operations that would generate objectionable odors, and once operational, the Proposed Project would not be a source of odors. Therefore, buildout of the Specific Plan area would not result in other emissions (such as those leading to odors) affecting a substantial number of people during construction or operation.

Based on the analysis presented above and consistent with the Original Project, even with implementation of mitigation as specified in the FEA/EIR, buildout of the Specific Plan would exceed the significance criteria for PM_{10} emissions. No additional feasible mitigation measures have been identified that could be implemented besides the City's trip reduction ordinance to reduce potential PM_{10} emissions. Therefore, no new significant environmental impacts would occur to related air quality with implementation of the Proposed Project and no new mitigation measures are required.

3.1.1.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.1.2 Greenhouse Gas Emissions

3.1.2.1 Conclusion

As described above under the air quality, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with the Original Project. An analysis of GHG was not required at the time the FEA/EIR was certified; therefore, greenhouse gas (GHG) emissions were not calculated or disclosed for the Original Project. However, GHG emissions is now a topic that requires analysis under CEQA. Therefore, this Addendum analyzes whether GHG emissions associated with the Proposed Project would be considered significant and if any new mitigation measures would be required.

3.1.2.2 Analysis

An *Air Quality and Greenhouse Gas Analysis* (September 2019) was prepared for the Proposed Project (see Appendix B). The *Air Quality and Greenhouse Gas Analysis* evaluates potential air quality and GHG emissions impacts associated with buildout of the Specific Plan area and assumes full buildout by the year 2040. As described in the GHG Analysis, GHG emissions associated with buildout of the Specific Plan area would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be long-term GHG emissions associated with vehicular trips. Recognizing that the field of global climate change analysis is rapidly evolving, the approaches advocated most recently indicate that for determining a project's contribution to GHG emissions, lead agencies should calculate, or estimate, emissions from vehicular traffic, energy consumption, water conveyance and treatment, waste generation, construction activities, and any other significant source of emissions within the project area. The CalEEMod results were used to quantify GHG emissions generated by buildout of the Specific Plan area.

Construction GHG Emissions. Construction activities associated with buildout of the Specific Plan area would produce combustion emissions from various sources. During construction, GHGs would

be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

The MBARD does not have an adopted threshold of significance for construction-related GHG emissions. However, lead agencies are required to quantify and disclose GHG emissions that would occur during construction. Using CalEEMod, it is estimated that with buildout of the Specific Plan area, construction activities would emit approximately 47,512.0 metric tons (MT) of carbon dioxide equivalent (CO_2e). When considered over the 20-year construction period, construction emissions would be approximately 2,375.6 MT CO_2e per year. As discussed above, the MBARD does not have an adopted threshold of significance for construction-related GHG emissions. However, the State emitted approximately 429.4 million metric tons (MMT) of CO_2e emissions in 2016. Therefore, construction-related GHG emissions associated with buildout of the Specific Plan area would be a minimal fraction of GHG emissions in California.

Operational GHG Emissions. Long-term operation of the proposed Specific Plan would generate GHG emissions from mobile sources (e.g., cars, trucks, and buses), area sources (e.g., maintenance activities and landscaping), indirect emissions from sources associated with energy consumption, waste sources (land filling and waste disposal), and water sources (water supply and conveyance, treatment, and distribution). Mobile-source GHG emissions include vehicle trips generated by buildout of the Specific Plan area. Buildout of the Specific Plan area would generate minimal area-source emissions associated with activities such as landscaping and maintenance on the project site. Energy source emissions are typically generated at off-site utility providers as a result of increased electricity demand generated by a project. Buildout of the Specific Plan area would generate waste source emissions associated with energy generated by land filling and other methods of disposal related to transporting and managing waste. In addition, buildout of the Specific Plan area would generate water source emissions associated water supply and conveyance, water treatment, water distribution, and wastewater treatment.

Following guidance from the MBARD, GHG emissions were estimated using CalEEMod. Table 3.2 (Table M in the GHG Analysis) shows the calculated GHG emissions for buildout of the Specific Plan area. Motor vehicle emissions are the largest source of GHG emissions for the Proposed Project at approximately 74 percent of the total. Energy use is the next largest category at 20 percent. Water and waste are about 4 percent and 2 percent of the total emissions respectively.

Table 3.2: GHG Emissions (Metric Tons Per Year)

Emissions Source	Operational Emissions				
	CO_2	CH_4	N_2O	CO_2e	Percent of Total
Area Source Emissions	<0.1	<0.1	0.0	<0.1	0
Energy Source Emissions	4,354.1	0.3	0.1	4,385.2	20
Mobile Source Emissions	16,615.8	0.6	0.0	16,631.0	74
Waste Source Emissions	168.3	9.9	0.0	416.9	2
Water Source Emissions	517.9	13.6	0.3	957.0	4

Total Operational Emissions	**22,390.1**	**100**

Source: *Air Quality and Greenhouse Gas Analysis* (LSA, September 2019a).
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
N_2O = nitrous oxide

According to MBARD, a proposed stationary source project would not have a significant GHG impact, if operation of a stationary source would:

- Emit less than the significance level of 10,000 MT CO_2e per year, or
- In accordance with the *State CEQA Guidelines* Section 15064.4(b)(3), the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions [such as, sources subject to the Cap-and-Trade requirements pursuant to Title 17, Article 5 (California Cap on Greenhouse Gas Emissions and Market-based Compliance Mechanisms)].

Stationary source projects include equipment, processes, and operations that require an MBARD permit to operate. The Specific Plan would permit a range of industrial, research and development, educational, office, business park, and commercial uses. As such, the Specific Plan is not considered a stationary source. The MBARD has not established a threshold of significance for project-related GHG emissions and the City of Marina does not have an adopted Climate Action Plan or GHG Reduction Plan. Therefore, the Specific Plan has been evaluated according to the goals of Assembly Bill (AB) 32, the AB 32 Scoping Plan, Executive Order (EO) B-30-15, Senate Bill (SB) 32, and AB 197 in the GHG Analysis. As described in the GHG analysis, the Specific Plan would comply with existing State regulations adopted to achieve the overall GHG emissions reduction goals identified in AB 32, the AB 32 Scoping Plan, EO B-30-15, SB 32, and AB 197 and would not generate GHG emissions that would have a significant impact on the environment.

Because the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with the Original Project, it is reasonably assumed that GHG emissions generated by the Original Project would be comparable to those estimated to be generated by the Proposed Project. Therefore, no new significant environmental impacts would occur to related GHG emissions with implementation of the Proposed Project and no new mitigation measures are required.

3.1.2.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.1.3 Circulation and Traffic

3.1.3.1 Conclusion

The Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with the Original Project. Therefore, the

Proposed Project will not result in additional impacts related to circulation and traffic beyond those identified in the FEA/EIR.

3.1.3.2 Analysis

Original Project Analysis. As described in the FEA/EIR, predicted traffic volumes and LOS analysis for the existing plus program level conditions (i.e., airport and related industrial/commercial and UC Technology Center) indicated that most of the key roadway segments within the project area were forecasted to be operating at an acceptable LOS D or better under the existing plus program level conditions. However, the overall program is expected to have a significant impact on Reservation Road. Segments of Reservation Road are forecast to experience increases of 15,000 vehicles per day (vpd). As a result, several segments are forecasted to operate at either LOS E or LOS F. Additionally, the existing deficiency on Blanco Road is expected to worsen to LOS F under existing plus program level conditions. As described in the FEA/EIR, several mitigation improvements would be required to achieve an acceptable LOS (LOS D or better) under the existing plus program conditions including the following:

- Widening of Reservation Road from four lanes to six lanes from Del Monte Boulevard to Blanco Road; and

- Widening of Blanco Road from two lanes to four lanes from Reservation Road to north of Northside Road.

With implementation of the above mitigation, under the existing plus program conditions all of the analysis locations are forecasted to be operating at an acceptable LOS, including the locations on Blanco Road and Reservation Road noted above.

As described in the FEA/EIR, the cumulative conditions scenario incorporated program-level developments, Fort Ord use, and regional growth expected for year 2015, and reflected the completion of several transportation improvements identified in the Marina General Plan and the Fort Ord Reuse Planning Baseline and Assumptions document. The network changes to key roadways assumed in the cumulative conditions analysis included: (1) widening Del Monte Boulevard north of Beach Road to four lanes; (2) widening Reservation Road between Imjin Road/ Airport Drive and Blanco Road to six lanes; (3) widening Blanco Road from Reservation Road to Northside Road to six lanes, and widening north of Northside Road to four lanes; (4) adding a new eastern segment to Imjin Road, adding a new connector, and widening Imjin Road from 12th Street to Reservation Road to six lanes; (5) extending Crescent Avenue to the north to intersect with Northside Road and California Avenue; and (6) extending California Avenue to the north to intersect with Crescent Avenue and Northside Road, to the south to intersect with 12th Street, and widening California Avenue to four lanes. As described in the cumulative conditions analysis presented in the FEA/EIR, while the forecasted growth in development assumed for this scenario will result in increased traffic volumes, most of the roadways are forecasted to operate at LOS D or better without mitigation. However, unacceptable service levels (LOS E or F) are predicted on State Route 1 (SR-1), Del Monte Boulevard and Blanco Road. Mitigation including the widening of the following major regional facilities be would be required to achieve acceptable LOS on SR-1, Del Monte Boulevard, and Blanco Road:

- Widening of State Route 1 between the northern and southern interchanges of Del Monte Boulevard from four to six lanes;

- Widening of State Route 1 south of southern Del Monte Boulevard interchange from six to eight lanes;

- Widening of Del Monte Boulevard from Reservation Road south to State Route 1 from four to six lanes;

- Widening of Blanco Road north of Northside Road from four to six lanes; and

- Widening of Reservation Road from Del Monte Boulevard to Imjin Road from four to six lanes (this improvement was not required to mitigate a deficiency under the cumulative scenario, but was included because it was identified as a necessary measure to mitigate the project impacts under the existing plus project conditions).

With implementation of the above mitigation, under the cumulative conditions analysis all of the study locations are forecasted to operate at an acceptable LOS of D or better.

Proposed Project Analysis. Because the FEA/EIR analyzed the business park and UC Technology Center at a program level, an *Traffic Impact Study* (September 2019) was prepared for the Proposed Project (see Appendix C). The *Traffic Impact Study* examines traffic operations in the vicinity of the Proposed Project under the following scenarios: existing conditions; existing with project conditions; general plan buildout (2040) without project conditions; and general plan buildout (2040) with project conditions. Traffic conditions were examined for the weekday daily, a.m. (between 7:00 a.m. and 9:00 a.m.), and p.m. (between 4:00 p.m. and 6:00 p.m.) peak-hour conditions. As described in the *Traffic Impact Study*, under the existing conditions scenario all study intersections and roadway segments are currently operating at a satisfactory LOS. Under the existing with project conditions scenario all study intersections and roadway segments are currently operating at a satisfactory LOS with the exception of one roadway segment, Reservation Road between Imjin Road and MBEST Drive, which is forecast to operate at an unsatisfactory LOS. Under the general plan buildout without project conditions all study intersections and roadway segments are forecasted to operate at a satisfactory LOS. Under the general plan buildout with project conditions, all study intersections and roadway segments are forecast to operate at a satisfactory LOS with the exception of one roadway segment (i.e., Reservation Road between Imjin Road and MBEST Drive), which is forecast to exceed LOS D and operate at an unsatisfactory LOS. Therefore, consistent with the Original Project, the Proposed Project would have a significant direct impact on the LOS along Reservation Road between Imjin Road and MBEST Drive. Consistent with the Original Project, the City would require mitigation to improve the LOS to D or better at this roadway segment. While the Proposed Project still acknowledges the mitigation measures identified in the FEA/EIR required for full buildout of the Original Project area, the *Traffic Impact Study* recommends proposed improvements to address traffic-related impacts specifically resulting from development of the Specific Plan area. As described in the Traffic Impact Study and consistent with the program level mitigation identified in the FEA/EIR, proposed improvements recommend for Reservation Road between Imjin Road and MBEST Drive include the widening of Reservation Road from five to six lanes. With implementation

of the recommended roadway improvements, all roadway segments are forecasted to operate at a satisfactory LOS.

Therefore, no new significant environmental impacts would occur to related circulation and traffic with implementation of the Proposed Project and no new mitigation measures are required.

3.1.3.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2 OTHER TOPICS EVALUATED IN THE FEA/EIR

3.2.1 Noise

3.2.1.1 Conclusion

As described above under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional noise impacts beyond those identified in the FEA/EIR.

3.2.1.2 Analysis

As described in the FEA/EIR, the Original Project consisted of three components capable of producing significant noise impacts: (1) noise from civilian aircraft operations at the new Marina Municipal Airport; (2) surface traffic noise associated with the airport, business park and UC Technology Center; and (3) short-term construction noise resulting from development of the project. The Proposed Project does not include any improvements or aircraft operations at the new Marina Municipal Airport. Therefore, noise impacts associated with aircraft operations are not discussed further in this analysis.

Surface traffic noise levels were projected for the Original Project in the FEA/EIR and included surface traffic associated with the airport, business park and UC Technology Center. As described in the FEA/EIR, at most the Original Project would add a total of 1.8 decibels (dB) to existing noise levels along Reservation Road from Del Monte Boulevard to Blanco Road, and 1.5 dB on Blanco Road between Reservation Road and Copper Road. Noise level increases of less than 3 dB are considered barely discernible and land uses along Reservation Road and Blanco Road are primarily compatible with noise levels of up to a Community Noise Equivalent Level (CNEL)/day-night average noise level (L_{dn}) of 70 dB. The land use designations, permitted uses, and land use intensity (maximum buildout square footage) for the Proposed Project are consistent with this portion of the Original Project. However, as mentioned above, the Proposed Project would not include any surface traffic associated with the airport. Therefore, surface traffic and surface traffic noise generated by the Proposed Project would be less than that generated by the Original Project. Thus, as described in the FEA/EIR and consistent with this portion of the Original Project, surface traffic noise levels generated by the Proposed Project would be less than significant and would not exceed noise standard thresholds.

As described in the FEA/EIR, and consistent with this portion of the Original Project, construction of the Proposed Project would involve the use of heavy trucks transporting materials to the construction sites. The level of construction-related noise would be dependent on the intensity of construction activities occurring at one point in time but would be short-term in nature. Assuming minimal noise absorption by the atmosphere, exterior locations within approximately 1,900 feet of construction sites could experience occasional noise levels in excess of 60 dBA. As described in the FEA/EA, the following noise-reducing construction measures would be implemented to minimize construction noise impacts:

- Restrict construction within 1,000 feet of noise sensitive uses to the daytime period between 8:00 a.m. and 8:00 p.m. In addition, no construction within 1,000 feet of noise sensitive uses shall be permitted on weekends or on legal holidays.

- All construction equipment shall have sound-control devices (i.e., mufflers) that are or more effective than those provided on original equipment. No equipment with unmuffled exhaust systems shall be permitted.

- All equipment shall comply with any and all federal, state, and local standards for noise control.

- Pile-driving or blasting activities shall not be performed within 3,000 feet of any occupied dwelling between the hours of 8:00 p.m. and 8:00 a.m. or on weekends or legal holidays. Any necessary changes to this requirement must receive prior approval from the appropriate local jurisdiction.

- At the discretion of the local jurisdiction, the contractor shall implement appropriate additional noise mitigation measures, including changing the location of stationary construction equipment, shutting down idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction activity, installing acoustic barriers around stationary noise sources, or rerouting heavy trucks to avoid noise sensitive uses.

With implementation of the measures above, construction noise impacts associated with the Original and Proposed Project would be reduced to less than significant levels. No new significant environmental impacts would occur to related compatible land uses with implementation of the Proposed Project and no new mitigation measures are required.

3.2.1.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.2 Compatible Land Use

3.2.2.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are

consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional impacts related to compatible land uses beyond those identified in the FEA/EIR.

3.2.2.2 Analysis

The Proposed Project includes development of the approximately 150-acre Specific Plan area, which is part of the former Fritzsche Army Airfield site. Land uses surrounding the Specific Plan area include a mix of aeronautical, public facility, commercial, and undeveloped land uses. Many of the properties in the general vicinity are undeveloped. Farther north and across the Salinas River is agricultural land, to the west is undeveloped UC land and habitat preserve land, to the east is undeveloped UC land, and to the south is undeveloped UC land, habitat preserve land, and former military dwelling units used now for faculty and student housing. The closest sensitive receptors to the Proposed Project include the single-family residences located across Reservation Road, along Landrum Court, located approximately 1,000 feet southwest of the Specific Plan area.

The Proposed Project consists of only the portion of the Original Project area which was designated in the FEA/EIR for the development of approximately 876,000 sf (City portion) of proposed business park/commercial/industrial development. The MBEST science and technology uses (760,000 sf) were analyzed in the FEA/FEIR at a general plan (programmatic) level, pending subsequent, specific development planning. The Proposed Project does not involve extension of the runway, construction of airport hangars, capital improvements (roads, utilities, fencing, parking) in support of development on currently undeveloped portions of the airport; or the growth of annual aircraft operations or a based aircraft fleet. Land use designations within the Specific Plan are consistent with the policies outlined in the City of Marina General Plan, the Marina Municipal Airport Master Plan Update, the Draft Marina Municipal Airport Comprehensive Land Use Plan, the Fort Ord Base Reuse Plan, and the UC MBEST Center Master Plan. Furthermore, all land use designations within the Specific Plan area (including both aviation and non-aviation-related uses) would be compatible with existing and future Airport operations. Permitted, conditionally permitted, and accessory use categories have been established for each of the land use designations within the Specific Plan area (refer to Table 2.2.1 in Section 2.2.2 of this Addendum). In addition to identifying permitted uses, due to the Specific Plans close proximity to the Airport, expressly prohibited uses have also been identified (refer to Section 2.3.2 of the Specific Plan). The development of individual sites within the Specific Plan area will conform to the site development standards (requirements) specified in Section 2 of the Specific Plan. The Specific Plan's development standards including those for building height and site lighting are consistent with the FAA restrictions imposed on the Airport.

As described in the FEA/EIR and consistent with this portion of the Original Project, development of the Proposed Project would not result in significant impacts on noise sensitive land uses within the project vicinity. Furthermore, development within the Specific Plan would be compatible with existing and future Airport operations. Therefore, consistent with this portion of the Original Project, implementation of the Proposed Project would result in less than significant impacts related to compatible land uses. No new significant environmental impacts would occur to related compatible land uses with implementation of the Proposed Project and no new mitigation measures are required.

3.2.2.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.3 Social Impacts

3.2.3.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional impacts related to social impacts beyond those identified in the FEA/EIR.

3.2.3.2 Analysis

The City-owned portion of the Specific Plan area is largely undeveloped, with the exception of one-half of the Research Drive right-of-way improvements and various paved areas associated with Airport taxiway and tarmac areas. In addition, an unimproved road that provides access to Airport facilities (e.g., radar) and agricultural land north of the Specific Plan area parallels the eastern border of the City-owned Business Park-designated land before intersecting West Blanco Road. On the UC-owned portion of the Specific Plan area, a small portion of the northwest corner of the UC MBEST Central North Campus is developed with the UC MBEST Center Headquarters complex. The UC MBEST Central North Campus also includes roads that provide circulation and connectivity through the Specific Plan area. Development of the Specific Plan has been designed to integrate existing development and infrastructure and would not require the removal or relocation of UC MBEST Center Headquarters complex.

Therefore, consistent with this portion of the Original Project as described in the FEA/EIR, the Proposed Project components will not involve the need to relocate any residence or business; significantly alter surface transportation patterns; divide or disrupt established communities; or disrupt orderly, planned development. Implementation of the Original Project and the Proposed Project would result in less than significant impacts associated with social impacts. No mitigation measures were identified in the FEA/EIR for social impacts and no new mitigation measures are required for the Proposed Project.

Refer to Section 3.2.4 below for a discussion of impacts to population, employment and housing.

3.2.3.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.4 Induced Socioeconomic Impacts

3.2.4.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are

consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional impacts related to induced socioeconomic impacts beyond those identified in the FEA/EIR.

3.2.4.2 Analysis

As described in the FEA/EIR, 3,922 new households are anticipated from the combined development of the UC Technology Center and the business park/commercial/industrial area. Development of the UC Technology Center and the business park/commercial/industrial area is anticipated to increase the population by 11,896 (8,535 and 3,361, respectively) and employ approximately 5,177 employees (3,714 and 1,463, respectively). The UC Technology Center and business park/ commercial, industrial area would result in 8,128 indirect jobs with a total impact of 13,305 new jobs[1]. The increase in employment expected from the direct project employment would result in an increase in 3,922 households. The direct and indirect employment generated by the UC Technology Center and the business park/commercial/industrial area would increase the population of school age children by 5,060. Of those, 2,554 would be primary age, 1,177 would be middle school age, and 1,278 would be high school age. In addition, 51 could be expected to require the special services offered by Monterey County Office of Education. Enrollment at Monterey Peninsula College could be expected to increase by 952.

As described in the FEA/EIR, employment and population growth associated with the Original Project is not, in and of itself, considered a significant environmental impact. However, growth can result in significant environmental impacts due to the increased demand for housing and community services, such as schools. The need for new housing units to accommodate households supported by the Original Project was identified as a significant impact. The land use designations, permitted uses, and land use intensity (maximum buildout square footage) for the Proposed Project are consistent with this portion of the Original Project. Therefore, it is assumed that the need for new housing generated by implementation of the Proposed Project would be the same as that identified in the FEA/EIR for the Original Project. The FEA/EIR stated that the City shall work with other jurisdictions in Monterey County to ensure that sufficient housing would be available to accommodate the housing needs expected to result from development of the Proposed Project. Implementation of this measure would ensure that potential housing-related impacts associated with the Original and Proposed Project would be reduced to less than significant levels. Since that time, the City has adopted a new Housing Element (May 2016) as a part of its General Plan. This Housing Element contains the following policy:

> *Ensure that adequate vacant land or property suitable for residential development of redevelopment is available to meet the City's construction need as adopted by the Association of Monterey Bay Area Governments (AMBAG) in the Regional Housing Needs Plan 2014-2023 for Monterey and Santa Cruz Counties. (June 2014)*

[1] Based on the 1994 Association of Monterey Bay Area Government forecast showing that for every direct job in Monterey County there were 1.57 indirect jobs.

The AMBAG Regional Housing Needs Allocation Plan (RHNA): 2014–2023 listed 9 factors in determining the housing location among its member agencies. Factor No. 9 is listed below:

> *The region currently has two major universities, the University of California, Santa Cruz (UCSC) and the California State University, Monterey Bay (CSUMB). Both universities place housing demands on their surrounding jurisdictions. UCSC has made efforts to meet some of that demand as there is a binding agreement between the University and the City. AMBAG is currently working with Housing and Community Development Department (HCD) to find a way to account for not just the housing need that is generated by these universities but also for the housing stock that the UCSC builds that helps to meet this need. However, no such agreement currently exists between CSUMB and its surrounding jurisdictions. CSUMB is planning for growth which has generated housing pressure on the surrounding jurisdictions. The City of Marina is actively working to meet some of this demand with plans for housing development in areas close to the campus. Not only will housing be in demand in the City of Marina, but Marina is a closer commute than the Salinas Valley is to those coastal cities that have severe restrictions on new development. For these reason, housing allocation that was removed from the coastal cities on the Monterey Peninsula was placed in the City of Marina.*

Adequate housing is a dynamic mix of land and unit availability, market and local commutes between residences, jobs, schools and shopping needs. It is reactive to forces creating its demand. However, as noted by the intervening Housing Element and RHNA, the appropriate agencies (e.g., AMBAG and the City of Marina) have been working together to address these needs as anticipated and called for in the FEA/FEIR.

No new significant environmental impacts would occur related to the need for housing with implementation of the Proposed Project and no new mitigation measures are required.

As described in the FEA/EIR, the need for additional classes generated by implementation of the Original Project would result in significant impacts to the Monterey Peninsula Unified School District (MPUSD) and Monterey County Office of Education. As previously stated, the land use designations, permitted uses, and land use intensity (maximum buildout square footage) for the Proposed Project are consistent with this portion of the Original Project. Therefore, it is assumed that the need for additional classes generated by implementation of the Proposed Project would be the same as that identified in the FEA/EIR for the Original Project. However, based on a decline in MPUSD student enrollment over the past several years[1], it is anticipated that the MPUSD and Monterey County Office of Education would be able to accommodate the projected need for additional classes resulting from implementation of the Proposed Project. Furthermore, as described in the FEA/EIR, the City, UC, and MPUSD would pursue the development of a school facilities mitigation agreement to offset the capital improvement costs to provide additional school facilities if required by the Proposed Project. Therefore, with implementation of this measure, impacts to the MPUSD and Monterey County Office of Education associated with the Proposed Project would be less than significant. No new significant environmental impacts would occur to the MPUSD and Monterey

[1] Per MPUSD Annual Budget Reports available at https://www.mpusd.net.

County Office of Education with implementation of the Proposed Project and no new mitigation measures are required.

3.2.4.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.5 Water Quality and Hydrology

3.2.5.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional impacts related to water quality and hydrology beyond those identified in the FEA/EIR.

3.2.5.2 Analysis

The Proposed Project does not involve extension of the runway, construction of airport hangars, capital improvements (roads, utilities, fencing, parking) in support of development on currently undeveloped portions of the airport; or the growth of aircraft operations. Therefore, water quality and hydrologic impacts associated with aircraft operations are not discussed further in this analysis, and mitigation measures specific to aircraft operations are not applicable to the Proposed Project.

Hydrologic Impacts. As described in the FEA/EIR, and consistent with this portion of the Original Project, development the Proposed Project would result in new building development, streets, and parking lots in currently undeveloped areas thereby increasing the total impervious surfaces within the project area. Collectively, these areas have the potential to increase surface water runoff, restrict the rate of percolation, or alter surface or ground water quality. Development of the Proposed Project could result in significant impacts if increased runoff volumes exceeded the capacity of storm drain facilities, cause downstream or offsite drainage problems, or significant altered inflows to the Salinas River.

Because the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project, it is assumed that the total new impervious surfaces and projected site runoff would not exceed those identified for the Original Project. As described in the FEA/EIR, the Proposed Project would require a properly engineered storm drainage system. As specified in the Specific Plan, all property owners shall be responsible for retaining storm water runoff generated on their site pursuant to the development standards provided in Section 4.4.2 of the Specific Plan. Plans for retaining storm water runoff would be submitted as part of the site plan package pursuant to Section 5.4.3 of the Specific Plan.

Furthermore, the Proposed Project would be required to implement the following mitigation measures identified in the FEA/EIR:

- Prior to the start of construction, the Marina Public Works department will require a hydrologic design analysis of the project site to assess the adequacy of both on- and off-site drainage facilities and determine future requirements. It will be necessary to take into account not only the hydrologic impacts from storm water runoff, but also the possibility of water quality hazards from the chemical contamination of runoff. This information will be used to develop a storm water pollution prevention plan incorporating best management practices (BMPs) as a requirement of obtaining required water quality permits.

- Site development plans, including grading plans and storm water collection and outfall system design will take into account the potential for soil erosion and sedimentation.

- On-site drainage and detention and retention facilities will be constructed to reduce surface runoff and promote infiltration. These facilities would consist of any one, or a combination of the following: vegetation drainage swales, gravel-lined drainage channels, French drains, and retention or detention basins.

- A storm drain infrastructure system will be required to safely convey runoff from individual development, parking lots, and access roads to the on-site drainage facilities via a system of culverts, gutters, and swales (storm drain infrastructure systems have already been installed on the UC's central north campus within the Specific Plan area).

- After construction, accumulated debris and sediments in catch basins will be removed through periodical cleaning and maintenance.

With implementation of the Specific Plan development standards and mitigation measures identified above, the Proposed Project would result in less than significant hydrologic impacts.

Water Quality Impacts. As described in the FEA/EIR, and consistent with this portion of the Original Project, development of the Proposed Project could result in significant water quality impacts if established water quality standards were exceeded, increased erosion or sedimentation were to occur, or groundwater resources were to be degraded. Additionally, non-aviation industrial and research activities could present a potential for groundwater contamination from industrial chemicals involved in spills or upsets. Consistent with this portion of the Original Project, the Proposed Project would be required to implement the following mitigation measures identified in the FEA/EIR:

- The hydraulic design analysis (referenced in the mitigation measures under the Hydrologic Impacts above) will include an evaluation of the need for waste treatment of surface runoff and provide for special drainage system features such as settlement ponds and oil and sand separators. This will be accomplished as near as possible to the time of construction to ensure that the latest available technical criteria area used. This information will also be used for developing the storm water pollution plan if required and obtaining any necessary water quality permits.

- After construction, accumulated pollutants in local catch basins will be removed along with debris through periodic cleaning and maintenance.

- Pollutants such as fuels, oil, bitumens, sewage, and other toxic or hazardous chemicals and materials will not be discharged into storm drains or drainage channels, nor will they be stored or dumped in any location where they might enter the groundwater or surface drainage systems.

With implementation of the mitigation measures identified above, the Proposed Project would result in less than significant water quality impacts.

Construction Impacts. As described in the FEA/EIR, construction activities associated with the Proposed Project represent a short-term potential for water quality impacts. The potential for this impact would arise from temporary on-site fuel storage, and the fueling and maintenance of construction equipment. Possible ground or surface water contamination could result from the spillage or leaking of stored fuel onto ground surfaces (paved or unpaved), and from construction on-site vehicle fueling and maintenance. Sources of contamination include fuel, waste oil, hydraulic fluids and solvents. Consistent with this portion of the Original Project, the Proposed Project would be required to implement the following mitigation measures identified in the FEA/EIR:

- Pollutants such as fuels, oil, bitumens, sewage, and other toxic or hazardous chemicals and materials will not be discharged into storm drains or drainage channels, nor will they be stored or dumped in any location where they might enter the groundwater or surface drainage systems.

- Construction-related fuel spills, and related surface contamination must be monitored and cleaned up as quickly as possible.

- Grading activities will be limited to periods of dry weather.

- Land is to be graded in increments as part of construction phasing.

- A comprehensive construction erosion control plan will be required, including construction of temporary silt basins in areas to be padded for buildings or pavings, use of silt fences or baled hay to prevent silt intrusion into existing drainage channels, hydroseeding or hydromulching of graded, but unpaved, surfaces, and provisions for maintenance throughout the rainy season, especially during and after severe storms.

- Water from aggregate washing or other operations containing sediments will be treated by filtration or settlement, or other appropriate means.

- Construction impact mitigation requirements will be made a part of all construction contracts and enforced by inspectors.

With implementation of the mitigation measures identified above, the Proposed Project would result in less than significant construction impacts.

Therefore, consistent with this portion of the Original Project, the Proposed Project would result in less than significant impacts related to water quality and hydrology. No new significant

environmental impacts would occur related to water quality and hydrology with implementation of the Proposed Project and no new mitigation measures are required.

3.2.5.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.6 U.S. Department of Transportation Act Section 4(f)

3.2.6.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional impacts related to the U.S. Department of Transportation Act Section 4(f) beyond those identified in the FEA/EIR.

3.2.6.2 Analysis

Consistent with this portion of the Original Project as described in the FEA/EIR, the Proposed Project will not involve the use of any Section 4(f) lands. Therefore, implementation of the Original Project and the Proposed Project would not result in impacts related to U.S. Department of Transportation Act Section 4(f). No mitigation measures were identified in the FEA/EIR related to Section 4(f) and no new mitigation measures are required for the Proposed Project.

3.2.6.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.7 Historic, Architectural, Archaeological and Cultural Resources

3.2.7.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional impacts related to historic, architectural, archaeological, and cultural resources beyond those identified in the FEA/EIR.

3.2.7.2 Analysis

The boundaries of the Specific Plan area are within the Original Project area which was studied in the FEA/EIR. One potentially historic site was identified in the FEA/EIR within the Original Project area; however, this potentially historic site is located outside of the Specific Plan area. No additional historic, architectural, archaeological or cultural resources sites were identified within the Specific Plan area. Therefore, the Proposed Project will not result in impacts to historic, architectural, archaeological and cultural resources and no mitigation measures are required for the Proposed Project.

3.2.7.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.8 Biotic Communities

3.2.8.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional impacts related to biotic communities beyond those identified in the FEA/EIR.

3.2.8.2 Analysis

The boundaries of the Specific Plan area are within the Original Project area, which was studied in the FEA/EIR. Based on the mapping used in the FEA/EIR (refer to Figure III-12 from the FEA/EIR), the Specific Plan area is comprised of the Airport Industrial/Commercial/FORA Polygon 1f and the UC Technology Center (Phase 1)/FORA Polygon 7c. Consistent with this portion of the Original Project, under the Proposed Project the entirety of Polygon 1f is proposed for the development of airport-related commercial, office, or industrial facilities, and therefore, there is little to no opportunity for habitat or species preservation/restoration in Polygon 1f. The core area of the UC Technology Center is proposed in Polygon 7c as well as open space including protected habitat areas along the periphery of the polygon to preserve viable plant communities on the site (particularly clusters of Coast Live Oak Woodland). Annual grasslands and coastal sage scrub would be removed for development in Polygon 1f and 7c and maritime chaparral, perennial grassland, and ruderal habitat would be removed in Polygon 7c. Loss of annual grassland and ruderal habitats is not considered significant unless these habitats to be removed are occupied by special-status species. Similarly, coastal sage scrub is recognized as a sensitive habitat when it contains special-status species. As described in the 1955 FEA/EIR, within the Original Project area, special-status wildlife species found in the coastal sage scrub habitat include California horned lizard and California horned lark. Loss of coastal sage scrub would be considered a potentially significant impact if special status species are occupying the area of scrub to be removed by the project. The CDFW identifies maritime chaparral as a special native biological community because of the high diversity of component species and limited distribution. Special native biological communities, such as maritime chaparral, are recognized as important by state and federal agencies. Due to the status and limited distribution of maritime chaparral, removal of this habitat is consisted a potential significant impact. Coast live oak woodland found within Polygon 7c will be placed in protected habitat areas with limited development in these areas. Although individual oak trees may be removed for construction of facilities as designated in the General Plan, no removal of large areas of oak woodland habitat is expected with development of the Original or Proposed Project and there would be no adverse impacts to this habitat. One area of perennial grassland consisting of one native grass species, Nodding needle grass (*Nassella cernua*), was identified in Polygon 7c. Perennial grasslands are considered "high priority" habitats in the California Natural Diversity Database (CNDDB) because of their limited distribution in California. Although the perennial grassland habitat in Polygon 7c does not meet the description of a native grassland habitat considered sensitive by the California

Department of Fish and Wildlife (CDFW), this area of grassland is considered to be a sensitive habitat. Therefore, removal of the majority of this habitat for the development of Polygon 7c would result in a potentially significant impact. As described in the FEA/EIR, the City of Marina and the UC shall commit to the development of an agreement that implements the Habitat Management Plan (HMP) for the former Fort Ord land. The Implementation Agreement shall include consideration of elements such as establishment of a species/resource "balance sheet", phasing of development tied to habitat protection, establishment of habitat preservation/restoration credit system and other elements. Furthermore, prior to any activities that may affect the locations of previously identified sensitive biological resources in the project area, systematic, seasonally-time surveys for these species should be conducted to document the presence/absence of the species on the site. Consistent with this portion of the Original Project, implementation of these measures would reduce potential impacts to sensitive biological resources resulting from implementation of the Proposed Project to less than significant levels.

Implementation of the mitigation measures described above would ensure that potential impacts to sensitive biological resources associated with the Original and Proposed Project would remain at less than significant levels. No new significant environmental impacts would occur related to biotic communities with implementation of the Proposed Project and no new mitigation measures are required.

3.2.8.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.9 Endangered and Threatened Species of Flora and Fauna

3.2.9.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional impacts to endangered and threatened species of flora and fauna beyond those identified in the FEA/EIR.

3.2.9.2 Analysis

The boundaries of the Specific Plan area are within the Original Project area, which was studied in the FEA/EIR. However, due to the age of the FEA/EIR, an updated literature review was conducted in April 2020 for the Proposed Project (refer to Appendix D). The CDFW CNDDB Rarefind 5.0 (2016) program and the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants of California were queried for records and information of potentially occurring special-status species documented within a 1-mile-radius of the project site. United States Fish and Wildlife Service (USFWS) Critical Habitat maps were also reviewed to determine if any designated critical habitat for federally listed species occurs within or adjacent to the Proposed Project site. No additional species (or species not previously evaluated in the FEA/EIR) were identified. Critical habitat for Monterey spineflower (*Chorizanthe pungens* var. *pungens*) was designated adjacent to

the Proposed Project site in 2002; however, there is no designated critical habitat within the Proposed Project site itself.

Based on the mapping used in the FEA/EIR (refer to Figure III-12 from the FEA/EIR), the Specific Plan area is comprised of the Airport Industrial/Commercial/FORA Polygon 1f and the UC Technology Center (Phase 1)/FORA Polygon 7c. As described in the FEA/EIR and consistent with this portion of the Original Project, development of the Proposed Project within Polygons 1f and 7c has the potential to result in impacts to the following special-status species: Monterey gilia (*Gilia tenuiflora* ssp. *arenaria*), Monterey spineflower, sandmat manzanita (*Arctostaphylos pumila*), Seaside bird's beak (*Cordylanthus rigidus* ssp. *littoralis*), coast wallflower (*Erysimum ammophilum*), Monterey ceanothus (*Ceanothus rigidus*), Kellogg's horkelia (*Horkelia cuneata* var. *sericea*), California black legless lizard (*Anniella pulchra*), California horned lark (*Eremophila alpestris actia*), California horned lizard (*Phrynosoma blainvillii*), Monterey dusky-footed woodrat (*Neotoma fuscipes Luciana*), and burrowing owl (*Athene cunicularia*).

Following approval of the FEA/EIR, in 1997 an HMP was prepared for Fort Ord that allowed the U.S. Army to transfer former Fort Ord property to new entities and established the Fort Ord Habitat Reserve System. FORA, along with 12 active participating agencies, has prepared a Draft Multi-Species Habitat Conservation Plan (MSHCP) for the entire former Fort Ord area (28,000 acres/ 45 square miles), which provides the framework for ensuring conservation and mitigation of eight State and federally listed plant and animal species and the natural communities that support them on former Fort Ord land. If approved, the HCP would serve as the basis for issuance of a base-wide California Endangered Species Act Section 2081(b) Incidental Take Permit by the CDFW, as well as the basis for issuance of a base-wide Federal Endangered Species Act Section 10(a)(1)(B) Incidental Take Permit by the USFWS. The Draft MSHCP was published in the National Register of Historic Places (National Register) on November 1, 2019 and Public Review has been completed. The Specific Plan area is within the boundaries of the Draft MSHCP; therefore, if the MSHCP is approved, project-related impacts to species covered under the MSHCP (i.e., sand gilia, Monterey spineflower, and Seaside bird's beak) would be less than significant through compliance with the MSHCP.

Additionally, the UC has obtained a 2081(b) Incidental Take Permit (Permit No. 2081-2000-05-3 [April 2001]) and USFWS concurrence allowing take of the following species within the UC's portion of the Specific Plan: Monterey gilia and Seaside birds-beak.

As described in the FEA/EIR and consistent with this portion of the Original Project, with implementation of the following mitigation measures and/or compliance with the finalized MSHCP, where applicable, the Proposed Project would result in less than significant impacts related to endangered and threatened species of flora and fauna. The following mitigation measures from the FEA/EIR remain fundamentally the same but have been updated to be consistent with the draft MSHCP and current regulatory guidance (additions are shown in red text and deletions are shown in ~~strikethrough~~):

a) **Avoidance.** Once locations of special status species have been identified and mapped on a project site, the project design shall be reviewed to assess the feasibility of avoiding these species and/or their habitat.

b) **Species-Specific Mitigation.** Where avoidance of special status species is infeasible, the following species-specific measures ~~should~~ shall be employed unless alternative measures are required for compliance with the finalized MSHCP and the associated permitting process:

a. Special Status Plants: Salvage plants that are within the footprint of development by removal and transplant, collection of seed for propagation, or collection of cuttings for propagation. Salvage operations should be appropriately timed to coincide with the morphology of the particular species. For State and/or federally listed plant species located within the development footprint, a Special Status Plant Mitigation and Monitoring Plan will be prepared and approved by the United States Fish and Wildlife Service and/or the California Department of Fish and Wildlife, as appropriate, prior to any vegetation or ground disturbance within occupied or suitable habitats.

b. Black Legless Lizard: Where black legless lizard are known to occur within the developable area, pre-excavation surveys could be conducted within three days prior to initiation of grading. The entire area could be raked in an effort to locate lizards, the lizards can be caught and relocated. Since the legless lizards only occur near the surface when conditions are moist, this raking exercise needs to be appropriately timed to coincide with the species' movement to the surface (between November and April).

c. California Horned Lark: Avoid occupied nests of the California horned lark and establish a 50-foot buffer area around the nest until the young have fledged. Once the young are gone, construction could proceed.

d. Burrowing Owl: If nesting burrowing owls are found within the direct and indirect impact areas (as determined by a qualified biologist), avoidance measures should be implemented, including no direct disturbance of active dens during the breeding season and maintaining approximately 6–7 acres of undisturbed, contiguous foraging habitat (or about a 300-foot radius) around the nest site throughout the breeding season or until the nest site is no longer active and no burrowing owls are present. ~~Avoid occupied burrows during the breeding season and establish a 100-foot buffer around the nest. Burrowing owls could then be trapped during the nonbreeding season and relocated to suitable habitat in the habitat preserve areas. Suitable habitat in these areas could be created by digging burrows to be used for alternative nest sites.~~ If non-breeding burrowing owls are found within the direct and indirect impact areas (as determined by a qualified biologist), passive relocation techniques (e.g., burrow exclusion and creation of alternative burrow habitat) may be employed outside of the nesting season to avoid direct and indirect impacts to occupied sites. Burrow exclusion is a technique of installing one-way doors in burrow openings during the non-breeding season to allow owls to leave the burrow and

temporarily exclude burrowing owls from re-entering, or permanently exclude burrowing owls and close burrows after verifying burrows are empty during site monitoring and scoping. If a previously occupied burrow is directly impacted during construction (following burrow exclusion and confirmation that no owls are present), an artificial burrow in suitable habitat should be constructed at least 300 feet from the impacted areas such that at least 6–7 acres of suitable foraging habitat are contiguous with the new burrow. ~~Artificial burrows could be provided, if necessary, and relocated owls could be monitored for a minimum of 2 years to determine the success of the relocation effort.~~

Implementation of the revised mitigation measures described above and/or compliance with the applicable provisions of the MSHCP, if finalized and adopted, would ensure that potential impacts to endangered and threatened species of flora and fauna associated with the Original and Proposed Project would remain at less than significant levels. No new significant environmental impacts would occur to endangered and threatened species with implementation of the Proposed Project and no new mitigation measures are required.

3.2.9.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.10 Wetlands

3.2.10.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional impacts to wetlands beyond those identified in the FEA/EIR.

3.2.10.2 Analysis

The boundaries of the Specific Plan area are within the Original Project area which was studied in the FEA/EIR. One wetland area within a narrow strip of riparian habitat along the Salinas River was identified in the FEA/EIR within the Original Project area. However, this riparian habitat is located outside of the Specific Plan area. No other wetlands have been delineated within the Specific Plan area. Therefore, the Proposed Project will not result in impacts to wetlands and no mitigation measures are required.

3.2.10.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.11 Floodplains

3.2.11.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional impacts to floodplains beyond those identified in the FEA/EIR.

3.2.11.2 Analysis

The boundaries of the Specific Plan area are within the Original Project area which was studied in the FEA/EIR. As described in the FEA/EIR, there are no floodplains capable of affecting development within the Original Project area. Therefore, consistent with this portion of the Original Project, the Proposed Project will not result in impacts associated with floodplains and no mitigation measures are required.

3.2.11.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.12 Coastal Zone Management Program

3.2.12.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional impacts to lands under the Coastal Zone Management Program beyond those identified in the FEA/EIR.

3.2.12.2 Analysis

The boundaries of the Specific Plan area are within the Original Project area which was studied in the FEA/EIR. As described in the FEA/EIR, and consistent with this portion of the Original Project, no development under the Proposed Project is located within the Coastal Zone as defined by the California Coastal Act of 1976. Furthermore, no development under the Proposed Project is anticipated to be of a nature that would conflict with the Coastal Commission's consistency determination for the adjacent airfield (May 1994). Therefore, implementation of the Original and Proposed Project would not result in impacts related to lands under the Coastal Zone Management Program. No mitigation measures were identified in the FEA/EIR related to the Coastal Zone Management Program and no new mitigation measures are required for the Proposed Project.

3.2.12.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.13 Coastal Barriers

3.2.13.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional impacts related to coastal barriers beyond those identified in the FEA/EIR.

3.2.13.2 Analysis

The boundaries of the Specific Plan area are within the Original Project area which was studied in the FEA/EIR. As described in the FEA/EIR, and consistent with this portion of the Original Project, the Proposed Project is not located within the boundary defined by the Coastal Barriers Resource Act of 1982. Therefore, implementation of the Original and Proposed Project would not result in impacts related to coastal barriers. No mitigation measures were identified in the FEA/EIR related to coastal barriers and no new mitigation measures are required for the Proposed Project.

3.2.13.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.14 Wild and Scenic Rivers

3.2.14.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional impacts related to wild and scenic rivers beyond those identified in the FEA/EIR.

3.2.14.2 Analysis

The boundaries of the Specific Plan area are within the Original Project area, which was studied in the FEA/EIR. As described in the FEA/EIR, and consistent with this portion of the Original Project, the Proposed Project does not contain any resources protected under the Wild and Scenic Rivers Act of 1986. Therefore, implementation of the Original and Proposed Project would not result in impacts to wild and scenic rivers. No mitigation measures were identified in the FEA/EIR for wild and scenic rivers and no new mitigation measures are required for the Proposed Project.

3.2.14.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.15 Farmland

3.2.15.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional impacts related to farmland beyond those identified in the FEA/EIR.

3.2.15.2 Analysis

The boundaries of the Specific Plan area are within the Original Project area which was studied in the FEA/EIR. As described in the FEA/EIR, and consistent with this portion of the Original Project, land within the Specific Plan area is not currently being farmed and has not been farmed in over 50 years. Furthermore, the Specific Plan area does not contain any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as mapped pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. Therefore, implementation of the Original and Proposed Project would not result in impacts to farmland. No mitigation measures were identified in the FEA/EIR for farmland and no new mitigation measures are required for the Proposed Project.

3.2.15.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.16 Energy Supply and Natural Resources

3.2.16.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional impacts related to energy supply and natural resources beyond those identified in the FEA/EIR.

3.2.16.2 Analysis

As described in the FEA/EIR, and consistent with this portion of the Original Project, implementation of the Proposed Project would result in an incremental increase in the consumption of natural resources as a result of project construction (e.g., water, petroleum, sand, gravel, cement, lumber, and other building materials). Additional consumption of petroleum products would result from surface vehicle trips to and from development within the Specific Plan area. As described in the FEA/EIR and consistent with this portion of the Original Project, while implementation of the Proposed Project would result in a slight increase in the use of energy and natural resources, this impact would be less than significant. Therefore, implementation of the Original and Proposed Project would not result in impacts related to energy supply and natural resources. No mitigation measures were identified in the FEA/EIR for energy supply and natural resources and no new mitigation measures are required for the Proposed Project.

3.2.16.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.17 Light Emissions

3.2.17.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional impacts related to light emissions beyond those identified in the FEA/EIR.

3.2.17.2 Analysis

As described in the FEA/EIR and consistent with this portion of the Original Project, because the Proposed Project is directly adjacent to the airport runway, lighting associated with build out of the Proposed Project could impact aviation safety. Lighting from the Proposed Project could impact a pilots vision or make it difficult for a pilot to distinguish distinct airport facility lighting (i.e., runway end lights) from lighting of surrounding facilities. Additionally, glare from lighting associated with the Proposed Project could impact adjacent properties if appropriate shielding measures are not undertaken. As described in the FEA/EIR, and consistent with this portion of the Original Project, the Proposed Project would be required to implement mitigation measures to ensure that all project lighting does not create glare or interfere with aircraft air or ground operations. These mitigation measures are incorporated into the Specific Plan as Site Lighting Development Standards and apply to all illumination of on-site areas within the Specific Plan area (Section 2.4.15 in the Specific Plan). Compliance with the Site Lighting Development Standards would ensure that potential impacts associated with light emissions related to development of the Proposed Project would be less than significant. No new significant environmental impacts would occur to related to light emissions with implementation of the Proposed Project and no new mitigation measures are required.

3.2.17.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.18 Solid Waste

3.2.18.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional impacts related solid waste beyond those identified in the FEA/EIR.

3.2.18.2 Analysis

As described in the FEA/EIR and consistent with this portion of the Original Project, development of the Proposed Project would result in an increase in solid waste generation. However, the entire

reuse of former Fort Ord (including this portion of the Original Project area) is expected to generate only a two percent increase in solid waste. As described in the FEA/EIR, and consistent with this portion of the Original Project, the Proposed Project would be required to implement recycling and solid waste management mitigation measures including promoting recycling for all developed facilities and cooperating in the preparation and implementation of an interim solid waste management program. These mitigation measures are incorporated into the Specific Plan as development standards for recycling and waste enclosures (Section 2.4.11 of the Specific Plan). Furthermore, the Specific Plan would be required to comply with the California Integrated Waste Management Act (AB 939) and subsequent legislation including AB 341 which established goals for recycling, composting, and source reduction of solid waste by 2020 (i.e., a 75 percent solid waste reduction for all commercial uses). Compliance with current legislation including AB 341 satisfies the intent of the FEA/EIR's original mitigation measure requiring the preparation and implementation of an interim solid waste management program. Therefore, compliance with AB 341 and the Specific Plan development standards would ensure that impacts associated with the increase in solid waste generation from implementation of the Proposed Project would be less than significant. No new significant environmental impacts would occur to related to light emissions with implementation of the Proposed Project and no new mitigation measures are required.

3.2.18.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.19 Construction Impacts

3.2.19.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional construction impacts beyond those identified in the FEA/EIR.

3.2.19.2 Analysis

As described in the FEA/EIR, construction of the Original and Proposed Project would result in impacts related to traffic, noise, erosion, siltation, and solid waste. Construction noise and traffic are addressed in Sections 3.2.1 and 3.1.3, respectively. The maximum buildout square footage (land use intensity) for both the City-owned and UC-owned portions of the Specific Plan are consistent with land use intensities identified for the Original Project. Consistent with this portion of the Original Project, development of the Proposed Project would require grading and exposed soils could result in erosion and siltation. As described in the FEA/EIR and consistent with this portion of the Original Project, the Proposed Project would be required to implement mitigation measures consisting of limiting grading activities during windy periods to control wind erosion and dust generation; use of sprinkler irrigation or water trucks to moisten site soils during construction; maintain vegetation cover on idle or undeveloped land; mulch bare or exposed soils to stabilize against wind erosion and dust generation; limit grading operations to dry weather; and direct stormwater into a settlement area prior to discharge into off-site drainage systems during construction. With implementation of

these measures, the Original and Proposed Project would result in less than significant impacts associated with erosion and siltation.

Consistent with this portion of the Original Project, construction of the Proposed Project would generate a short-term increase in solid waste (e.g., building materials and associated packaging). Compliance with standard building permit requirements including the appropriate disposal and recycling of construction building materials would ensure that construction-related solid waste impacts would be less than significant. Additionally, the intent of the Specific Plan is to encourage and promote sustainable site planning and building for all development in the Specific Plan area. Incorporation of Leadership in Energy and Environmental Design (LEED) design concepts minimizes the impact of development on surrounding ecosystems, conserves water and energy, and reduces waste sent to landfills. Therefore, construction of the Proposed Project would result in less than significant impacts related to solid waste.

Consistent with this portion of the Original Project, with implementation of mitigation measures described above, development of the Proposed Project would result in less than significant construction-related impacts and no new mitigation measures are required for the Proposed Project.

3.2.19.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.20 Public Services and Utilities

3.2.20.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional impacts to public services and utilities beyond those identified in the FEA/EIR.

3.2.20.2 Analysis

As described in the FEA/EIR, development of the Original and Proposed Project have the potential to result in impacts to public services and utilities. When the FEA/EIR was certified in 1995, the Original Project area did not have sufficient police or fire protection service, water distribution infrastructure, wastewater collection and storm drainage systems, gas and electric utility corridors, and telephone infrastructure to support the development of the Original Project. Since certification of the FEA/EIR, development within the project area including development of a small portion of the northwest corner of the UC MBEST Central North Campus with the UC MBEST Center Headquarters complex has occurred. Development of the UC MBEST Center Headquarters complex within the UC (southern) portion of the Specific Plan area included the installation of roads that provide circulation and connectivity through the Specific Plan area as well as installation of water mains, recycled water lines, sanitary sewer main line, storm drainage system, gas, and electrical conduit facilities. Currently, there are no roads, water, sanitary sewer or storm drain facilities within the City-owned portion of the Specific Plan area. The Specific Plan provides proposed water, sanitary sewer, storm

drain and electrical facilities for the UC-owned portion of the Specific Plan area. Such facilities within the City-owned portion of the Specific Plan area would be identified and defined as part of subsequent development proposals and approvals and would be consistent with the Specific Plan standards.

Water Facilities. As described in the Specific Plan, four existing water wells are located on the UC-owned and Fort Ord Natural Reserve land between 2,000 feet and 6,000 feet south and east, respectively, of the Specific Plan area. These existing wells were the principal sources of potable water for the former Fort Ord, and this system will remain in place for the foreseeable future. The Marina Coast Water District (MCWD) will be the potable water purveyor for the Specific Plan; the Specific Plan is within MCWD's Ord Community service area. Since certification of the FEA/EIR, water mains and reclaimed water lines have been installed on the UC's portion of the Specific Plan. However, new facilities would need to be constructed within the City's portion of the Specific Plan in order to provide potable water service and fire protection to each development lot (refer to Figure 4.2-1 in the Specific Plan). MCWD will also be the reclaimed water purveyor for the Specific Plan. New facilities would need to be constructed within the City's portion of the Specific Plan in order to provide reclaimed water service for public landscape areas and to each development lot (refer to Figure 4.2-2 in the Specific Plan).

A Water Supply Assessment and Written Verification of Supply (WSA) was prepared for the Specific Plan in April 2020 (see Appendix F) and adopted by the City of Marina City Council on April 20, 2020. As described in the WSA, the projected water demand for the Specific Plan is 309.2 acre-feet per year (afy), of which 145.2 afy is for the City's portion of the Specific Plan and 164.0 afy is for the UC's portion of the Specific Plan. Both the City and UC have allocations of Salinas Valley Groundwater for use within MCWD's Ord Community service area. The City has an existing allocation of 1,340 afy and has previously sub-allocated 1,263.7 afy to other projects, leaving 76.3 afy available to the City's portion of the Specific Plan. The UC has an existing allocation of 230 afy and is currently using 2 afy, leaving 228 afy available for the UC's portion of the Specific Plan. FORA has also formally allocated the recycled water supply from the Phase 1 Recycled Water Project, which includes 345 afy to the City and 60 afy to the UC, within the Ord Community service area.

The WSA concludes that the UC has sufficient existing water supply within the Ord Community service area to achieve the complete buildout of the UC's portion of the Specific Plan. The available supply is sufficient to meet the existing and projected demands over the 20-year projection during normal, single-dry and multiple-dry water years. However, the City does not have sufficient existing water supply within the Ord Community service area to achieve the complete buildout of the City's portion of the Specific Plan. Currently, the City can authorize up to 76.3 afy from the existing Salinas Valley groundwater allocation and up to 18.1 afy of recycled water supply for initial development. Water would be allocated to projects within the City's portion of the Specific Plan as they occur, up to the amount of water supply available at the time of development. However, the City would be unable to accept development project applications once the 76.3 afy cap is reached. Later phases of development or subsequent development must be deferred until the MCWD is able to develop additional sources of supply for the Ord Community service area. All development project applications will require written and conclusive evidence indicating an immediate and available supply of water prior to being accepted and reviewed by the City.

Sanitary Sewer System. An existing sanitary sewer line connects the Airport facilities to the regional treatment facility, which is located at the U.S. Army Reserve outparcel. The existing main lines (including stubs for future connection to the north of Research Drive) flows west from the Specific Plan area toward Reservation Road Lift Station west of Imjin Road. From there, wastewater flows continue through the MCWD system to the Monterey Regional Water Pollution Control Agency Regional Wastewater Treatment Plant located at the north end of the City. Since certification of the FEA/EIR, sanitary sewer lines have been installed on the UC's portion of the Specific Plan. It is anticipated that the existing sanitary sewer mains within the Specific Plan area will be maintained and a new collection system will be extended to the north to serve the City's portion of the Specific Plan (refer to Figure 4.3-1 in the Specific Plan) as development proposals for this area are received and approved.

Storm Water Facilities. Since certification of the FEA/EIR, stormwater facilities have been installed on the UC's portion of the Specific Plan. The existing on-site public roadway storm drain system is above ground and would need to be retrofitted to include underground infiltration chambers at select locations within a roadway and/or right-of-way easement within the City's portion of the Specific Plan. Individual lots within the Specific Plan would be required to retain and infiltrate stormwater runoff on site (refer to Figure 4.4-1 in the Specific Plan).

Utilities. The Salinas-Del Monte 60-kilovolt (kV) electric utility line is an overhead transmission line that enters former Fort Ord land southeast of West Blanco Road. The line is located along the centerline of a 30-foot-wide utility easement. The easement also accommodates a section of line that is part of a system tie-in between the Fort Ord substation, which is located on Gigling Road between Sixth Street and Seventh Street, and the North Salinas substation, which is located on Boronda Road south of Madison Lane. The former Fort Ord area is served by a single electrical substation located near the CSUMB campus. In addition, there are two 6-inch existing electric conduit facilities and a small 12 kV cable for streetlights within the Specific Plan area that connect to the existing three-phase 12 kV primary conductor overhead electric lines along Imjin Road. An existing underground electrical line runs from West Blanco Road on University Drive and then connects to the overhead electrical lines along Imjin Road. Furthermore, a 16-inch high-pressure gas line parallels SR-1, and a 10-inch east-west transmission main crosses the former Fort Ord along Intergarrison Road south of the UC MBEST campus. Additionally, a 4-inch gas line is located adjacent to Imjin Road. In addition, there are existing 4-inch plastic natural gas mains that connect to the existing natural gas distribution system in Imjin Road.

The Specific Plan area's telephone service is currently served by a 300-pair copper cable located in a four-conduit underground bank running parallel to Imjin Road. There is a 12-duct bank of existing conduits located under University Drive. Comcast has existing facilities at the southeast corner of Reservation Road and Imjin Parkway, and AT&T has existing background wire installed in Imjin Parkway. A high-speed fiber-optic service line has been installed in Imjin Parkway, running to within 200 feet of Neeson Road. The existing UC MBEST Center Headquarters complex on UC-owned property is currently serviced by this high-speed fiber-optic line.

All new utility connections and services for electricity, gas, telephone, television, and other line-carried forms of communication within the Specific Plan area would be located underground. Gas and electric service will be provided by Pacific Gas and Electric Company (PG&E), which will develop

its own electrical and gas infrastructure plan for the Specific Plan area. UC and the Airport shall coordinate with PG&E as development proceeds to ensure that service is provided in a cost-effective manner. All roadways will include underground electrical and gas service. A new 21 kV distribution system will be extended to the northeast from Imjin Road in a new underground joint trench system (PG&E is currently converting the existing electrical system from 12 kV to 21 kV). Additionally, in order to provide more reliable electric service to the existing customers on Imjin Road, PG&E will require a back-tie to a separate existing PG&E electric system approximately 2,400 feet north of Research Drive along West Blanco Road. The details for this back-tie connection or other potential options are to be coordinated with PG&E. Refer to Figure 4.5-1 in the Specific Plan for the proposed electrical service facilities.

The two existing gas supply routes (the existing 16-inch high-pressure gas line and the 10-inch transmission main) provide a framework from which the existing 4-inch service line to the Specific Plan area can be expanded. The roadway network provides an opportunity to loop the natural gas distribution lines as part of a joint trench utility system in order to provide even pressure distribution throughout the Specific Plan area. Since certification of the FEA/EIR, gas supply lines have been installed underground within the UC's portion of the Specific Plan. Future improvements would be required on the City's portion of the Specific Plan as development proposals for this area are received and approved. Refer to Figure 4.5-2 in the Specific Plan for the proposed natural gas service facilities.

Fire and Police Services. As described in the Specific Plan, the City of Marina Fire Department and City of Marina Police Department will provide fire and police services to the Specific Plan area. Both the Fire Department and the Police Department are headquartered at City Hall, located at 211 Hillcrest Avenue. Marina Fire Station No. 2 and the Marina Police Field Office East are located at 3260 Imjin Road, just northeast of the Specific Plan boundary. Although Fire Station No. 2 and Police Field Office East are closest in proximity to the Specific Plan area, fire, police, and emergency services will be responded to first by the departments' headquarters at City Hall, with secondary assistance provided by the station and office at 3260 Imjin Road. As specified in the Specific Plan, applicable City fire protection standards and requirements would be incorporated into all site development plans, including fire alarm systems and related Building and Fire Code requirements. Fire flows and hydrants would meet the requirements of the Marina Fire Department. Similarly, development plans for the Specific Plan would incorporate appropriate security requirements of the Marina Police Department. Developments that handle hazardous materials are required to submit an emergency plan to the Marina Fire Department and County of Monterey Health Department. Land use types (i.e., research and development, commercial and mixed-use, business park, and business aviation reserve) within the Specific Plan area would result in a nominal increase in the need for fire and police services. Both the Fire Department and Police Department would be able to provide service to the Proposed Project, as currently planned, without the need for additional personnel or equipment.

Mitigation. As described in the FEA/EIR, and consistent with this portion of the Original Project, the Proposed Project would be required to implement mitigation measures including obtaining a service agreement with the City of Marina to provide police and fire protection to the project area; upgrading and installing new water supply lines (City-owned portion of the Specific Plan only);

preparation and implementation of a wastewater master plan and implementation of wastewater-reducing measures; construction of on-site drainage facilities and implementation of BMPs; and implementation of BMPs to reduce potential energy consumption. These mitigation measures are incorporated into the Specific Plan as development requirements (refer to Chapter 4 in the Specific Plan). Compliance and implementation of the water, sewer, drainage, and utility infrastructure improvements detailed in Chapter 4 of the Specific Plan would be required for all future development within the Specific Plan area. Therefore, compliance and implementation of these development requirements would ensure that potential impacts associated with public services and utilities would be less than significant. No new significant environmental impacts would occur to related public services and utilities with implementation of the Proposed Project and no new mitigation measures are required.

3.2.20.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.21 Airport Safety

3.2.21.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional impacts related to airport safety beyond those identified in the FEA/EIR.

3.2.21.2 Analysis

As described in the FEA/EIR and consistent with this portion of the Original Project, given the Specific Plan area is located directly adjacent to the Airport, development within the Specific Plan area has the potential to result in airport safety related impacts. As discussed above under Section 3.2.2, Compatible Land Use, the Specific Plan is consistent with the policies outlined in the City of Marina General Plan, the Marina Municipal Airport Master Plan Update, the Draft Marina Municipal Airport Comprehensive Land Use Plan, the Fort Ord Base Reuse Plan, and the UC MBEST Center Master Plan. Furthermore, all land use designations within the Specific Plan area (including both aviation and non-aviation-related uses) would be compatible with existing and future Airport operations. Permitted, conditionally permitted, and accessory use categories have been established for each of the land use designations within the Specific Plan area (refer to Table 2.2.1 in Section 2.2.2 of this Addendum). In addition to identifying permitted uses, due to the Specific Plans close proximity to the Airport, expressly prohibited uses have also been identified (refer to Section 2.3.2 of the Specific Plan). The development of individual sites within the Specific Plan area will conform to the site development standards (requirements) specified in Section 2 of the Specific Plan. The Specific Plan's development standards including those for building height and site lighting are consistent with the FAA restrictions imposed on the Airport. Therefore, compliance and implementation of the Specific Plan's development standards would ensure that potential impacts related to airport safety would be less than significant. No new significant environmental impacts would occur to related airport safety with implementation of the Proposed Project and no new mitigation measures are required.

3.2.21.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.2.22 Hazardous Materials

3.2.22.1 Conclusion

As described under previous resource topics, the Proposed Project's geographic location, land use designations, permitted uses, and land use intensity (maximum buildout square footage) are consistent with this portion of the Original Project. Therefore, the Proposed Project will not result in additional impacts related to hazardous materials beyond those identified in the FEA/EIR.

3.2.22.2 Analysis

As described in the FEA/EIR, several areas within the 1,395-acre former Fritzsche Army Airfield site are known or suspected to contain hazardous materials. Many of these sites have undergone investigation and will be remediated by the Army where required. There are no known hazardous material sites within the Specific Plan area and the Specific Plan area would not be adversely affected by any of the known hazardous materials sites within the larger 1,395-acre former airfield. As part of the permitting process through the City, each development and land use application would be required to provide documentation showing that the development site is not located within a known hazardous material site. Furthermore, all development with the Specific Plan area would be required to comply with the hazardous materials policies provided in the City of Marina General Plan. Any developments that would potentially handle hazardous materials would be required to submit an emergency plan to the Marina Fire Department and County of Monterey Health Department as specified in Section 4.6.1 of the Specific Plan.

As stated in the FEA/EIR, because the Specific Plan area was part of the former Fritzsche Army Airfield site, development of the Specific Plan area has the potential to discover unknown hazardous material sites. In the unlikely event that unknown buried hazardous materials are discovered during development of the Specific Plan, standard regulatory requirements including the investigation and proper handling/disposal of hazardous materials would be followed pursuant to Chapters 8.12 (Hazardous Material Storage and Registration), 15.56 (Digging and Excavation at the Marina Municipal Airport) and 15.58 (Digging, Trenching and Excavation at the Marina Municipal Airport) of the City of Marina Municipal Code. Therefore, consistent with this portion of the Original Project, implementation of the Proposed Project would result in less than significant impacts related to hazardous materials. No new significant environmental impacts would occur to related hazardous materials with implementation of the Proposed Project and no new mitigation measures are required.

3.2.22.3 Findings

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3.3 MITIGATION MEASURES

The FEA/EIR identified mitigation measures that reduce or eliminate potential environmental impacts associated with implementation of the Original Project. As discussed in analysis above, the mitigation measures identified in the FEA/EIR for the approximately 876,000 sf of proposed business park/commercial/industrial development remain applicable to the Proposed Project. Furthermore, some of these mitigation measures have been incorporated into the development standards or guidelines for the Specific Plan. Based on the analysis provided above, no new mitigation measures are required for the Proposed Project.

4.0 CONCLUSION

On the basis of the evaluation presented in Section 3.0, the Proposed Project would not trigger any of the conditions listed in Section 1.2 of this Addendum, requiring preparation of a subsequent or supplemental EIR. Thus this Addendum satisfies the requirements of *State CEQA Guidelines* sections 15162 and 15164. The Proposed Project does not introduce any new significant environmental impacts, substantially increase the severity of previously identified significant environmental impacts, or show that mitigation measures or alternatives previously found not to be feasible would in fact be feasible.

The Proposed Project will result in similar or reduced impacts to those of the Original Project for all resource topics. The Proposed Project will not result in new significant impacts or impacts that would be substantially more severe than those identified in the FEA/EIR. The mitigation measures identified in the FEA/EIR for the approximately 876,000 square feet of proposed business park/commercial/industrial development remain applicable to the Proposed Project and no new mitigation is required. The analyses and conclusions of the FEA/EIR remain current and valid. Therefore, no further environmental review is required beyond this Addendum.

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APPENDIX A

MARINA MUNICIPAL AIRPORT BUSINESS AND INDUSTRIAL PARK/UC MBEST CENTER SPECIFIC PLAN

Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan has been submitted under separate cover.

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APPENDIX B

AIR QUALITY AND GREENHOUSE GAS ANALYSIS

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AIR QUALITY AND GREENHOUSE GAS ANALYSIS

MARINA MUNICIPAL AIRPORT BUSINESS AND INDUSTRIAL

PARK/UC MBEST CENTER SPECIFIC PLAN

CITY OF MARINA, CALIFORNIA

UNIVERSITY OF CALIFORNIA

LSA

September 2019

AIR QUALITY AND GREENHOUSE GAS ANALYSIS

MARINA MUNICIPAL AIRPORT BUSINESS AND INDUSTRIAL PARK/UC MBEST CENTER SPECIFIC PLAN

CITY OF MARINA, CALIFORNIA

UNIVERSITY OF CALIFORNIA

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September 2019

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LIST OF ABBREVIATIONS AND ACRONYMS

°C	Celsius
°F	Fahrenheit
µg/m^3	micrograms per cubic meter
AAQS	ambient air quality standards
AB	Assembly Bill
Airport	Marina Municipal Airport
AMBAG	Association of Monterey Bay Area Governments
AQMD	Air Quality Management Plan
CAAQS	California ambient air quality standards
CalEEMod	California Emission Estimator Model
CalEPA	California Environmental Protection Agency
CARB	California Air Resources Board
CAT	Climate Action Team
CCAA	California Clean Air Act
CEQA	California Environmental Quality Act
CH_4	methane
City	City of Marina
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2 equivalents
GHG	greenhouse gas
GWP	global warming potential

HFC	hydrofluorocarbon
IPCC	Intergovernmental Panel on Climate Change
lbs/day	pounds per day
LEED	Leadership in Energy and Environmental Design
MBARD	Monterey Bay Air Resources District
MMT	million metric ton
MPO	Metropolitan Planning Organization
N_2O	nitrous oxide
NAAQS	national ambient air quality standards
NCCAB	North Central Coast Air Basin
ND	no data
NO_2	nitrogen dioxide
NO_x	nitrogen oxides
O_3	ozone
OPR	Governor's Office of Planning and Research
Pb	lead
PFC	perfluorocarbons
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
$PM_{2.5}$	particulate matter less than 2.5 microns in size
ppm	parts per million
project	Marina Municipal Airport Business and Industrial Park/University of California Monterey Bay Education Science and Technology Center Specific Plan
ROC	reactive organic compound

ROG	reactive organic gas
SB	Senate Bill
SCS	Sustainable Communities Strategy
SF_6	sulfur hexafluoride
SO_2	sulfur dioxide
Specific Plan	Marina Municipal Airport Business and Industrial Park/University of California Monterey Bay Education Science and Technology Center Specific Plan
TAC	toxic air contaminant
UC	University of California
UC MBEST	University of California Monterey Bay Education Science and Technology
UNFCCC	United Nations Framework Convention on Climate Change
USEPA	United States Environmental Protection Agency
VOC	volatile organic compounds

INTRODUCTION

This air quality and greenhouse gas (GHG) impact analysis has been prepared to evaluate the potential air quality and GHG emissions impacts associated with buildout of the proposed Marina Municipal Airport Business and Industrial Park/University of California Monterey Bay Education Science and Technology (UC MBEST) Center Specific Plan (Specific Plan or project) in the City of Marina (City), California. This report provides a project-specific air quality and GHG emissions impact analysis by examining the impacts of the proposed uses on regional air quality and nearby sensitive uses. This air quality and GHG impact analysis follows the guidelines identified by the Monterey Bay Air Resources District (MBARD) in its California Environmental Quality Act (CEQA) Air Quality Guidelines[1] and draft Guidelines for Implementing CEQA[2].

PROJECT DESCRIPTION

The proposed project represents a collaborative effort between the City and the University of California (UC) to create an integrated development and implementation plan for the lands on and directly adjacent to the southern portion of the Marina Municipal Airport (Airport). The Specific Plan would guide the development of these lands in a way that encourages the creation of a cohesive collection of buildings and activities reflective of: (a) the City's General Plan goals and policies; (b) UC's mission and values; (c) the unique land use types and standards for property next to a General Aviation Airport, (d) the prospect of generating revenue to support the viability of the Airport; and (e) the potential for economic development and employment growth that takes advantage of research, manufacturing, and aviation activities. Moreover, the Specific Plan would prescribe and adopt policies and standards that provide for a mix of industrial, manufacturing, research, and commercial land uses. Those land uses would include both aviation and non-aviation-related uses, all of which would be compatible with existing and future Airport operations. Table A describes estimated build out of the Specific Plan area.

The Specific Plan area is approximately 150 acres. The Specific Plan area is part of the former Fritzsche Army Airfield site that was divided between lands deeded to the City and to UC. Approximately 75 acres of the Specific Plan area is owned by the City and is referred to as the Marina Municipal Airport Business and Industrial Park, while another approximately 75 acres is owned by UC and is referred to as the UC MBEST Central North Campus. The City-owned portion of the Specific Plan area is within the southeastern portion of the Marina Municipal Airport, while the UC MBEST Central North Campus is adjacent to the southern boundary of the Airport. The Specific Plan area is bounded on the north and west by the Airport and its associated uses, on the east by West Blanco Road, on the south by Reservation Road, and on the west by Imjin Road. Figure 1 shows the site's regional and local context. Figure 2 depicts the project plan area and Figure 3 shows the land use concept.

---

1 Monterey Bay Air Resources District (MBARD). 2008. *CEQA Air Quality Guidelines.* Website: https://www.mbard.org/files/f665829d1/CEQA_full+%281%29.pdf (accessed September 2019).

2 MBARD. 2016. *Guidelines for Implementing the California Environmental Quality Act*. Website: https://www.mbard.org/files/50d38962a/Attachment_Guidelines-for-Implementing-CEQA.pdf (accessed September 2019).

Table A: Estimated Land Use Intensity

Land Use Designations	City Owned			UC MBEST Owned		
	Gross Acreage	FAR	Allowable Building Square Footage	Gross Acreage	FAR	Allowable Building Square Footage
Business Park	41.00	0.3	517,101			
Business Park/Overlay	3.20	0.4	55,757			
Business Park Subtotals	***44.20***		***572,858***			
Business Aviation Reserve	16.19	0.3	189,878			
Business Aviation Reserve/Overlay	2.91	0.4	50,704			
Business Aviation Reserve Subtotals	***19.10***		***240,582***			
Research and Development				33.14	0.3	433,074
Research and Development/Overlay				4.50	0.4	78,408
Research and Development Subtotals				***37.64***		***511,482***
Commercial/Mixed Use	3.55	0.3	45,738	19.01	0.3	248,423
Open Space	4.84			6.24		
Rights-of-Way	3.50			9.63		
Totals	***75.19***		***859,178***	***72.52***		***759,905***

City = City of Marina
FAR = floor-to-area ratio
UC MBEST = University of California Monterey Bay Education Science and Technology

The Specific Plan encourages and promotes sustainable site planning and building concepts for all development in the Specific Plan area. Incorporation of Leadership in Energy and Environmental Design (LEED) design concepts in building development minimizes the impact of the development on surrounding ecosystems, conserves water and energy, lowers operating costs and increases asset value, reduces harmful greenhouse gas emissions, reduces waste sent to landfills, and creates a healthier and safer environment for occupants. Developers and applicants are encouraged to employ a sustainability approach for projects associated with the Specific Plan through the use of LEED design concepts as identified in the LEED v4 for Building Design and Construction. In addition, projects constructed on property ground-leased from UC shall be subject to UC's Sustainable Practices Policy.

Existing Sensitive Land Uses in the Project Area

For the purposes of this analysis, sensitive receptors are areas of population that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include residences, schools, day care centers, hospitals, parks, and similar uses which are sensitive to air quality. Impacts on sensitive receptors are of particular concern because they are the population most vulnerable to the effects of air pollution. Land uses surrounding the Specific Plan area include a mix of aeronautical, public facility, commercial, and undeveloped land uses. Many of the properties in the general vicinity are undeveloped. Farther north and across the Salinas River is agricultural land, to the west is undeveloped UC land and habitat preserve land, to the east is undeveloped UC land, and to the south is undeveloped UC land, habitat preserve land, and former military dwelling units used now for faculty and student housing. The closest sensitive receptors include the single-family residences located across Reservation Road, along Landrum Court, located approximately 1,000 feet southwest of the Specific Plan area.

LSA

LEGEND

- City Limit
- Specific Plan Area

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MILE

SOURCE: ESRI

FIGURE 1

Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan

Project Location

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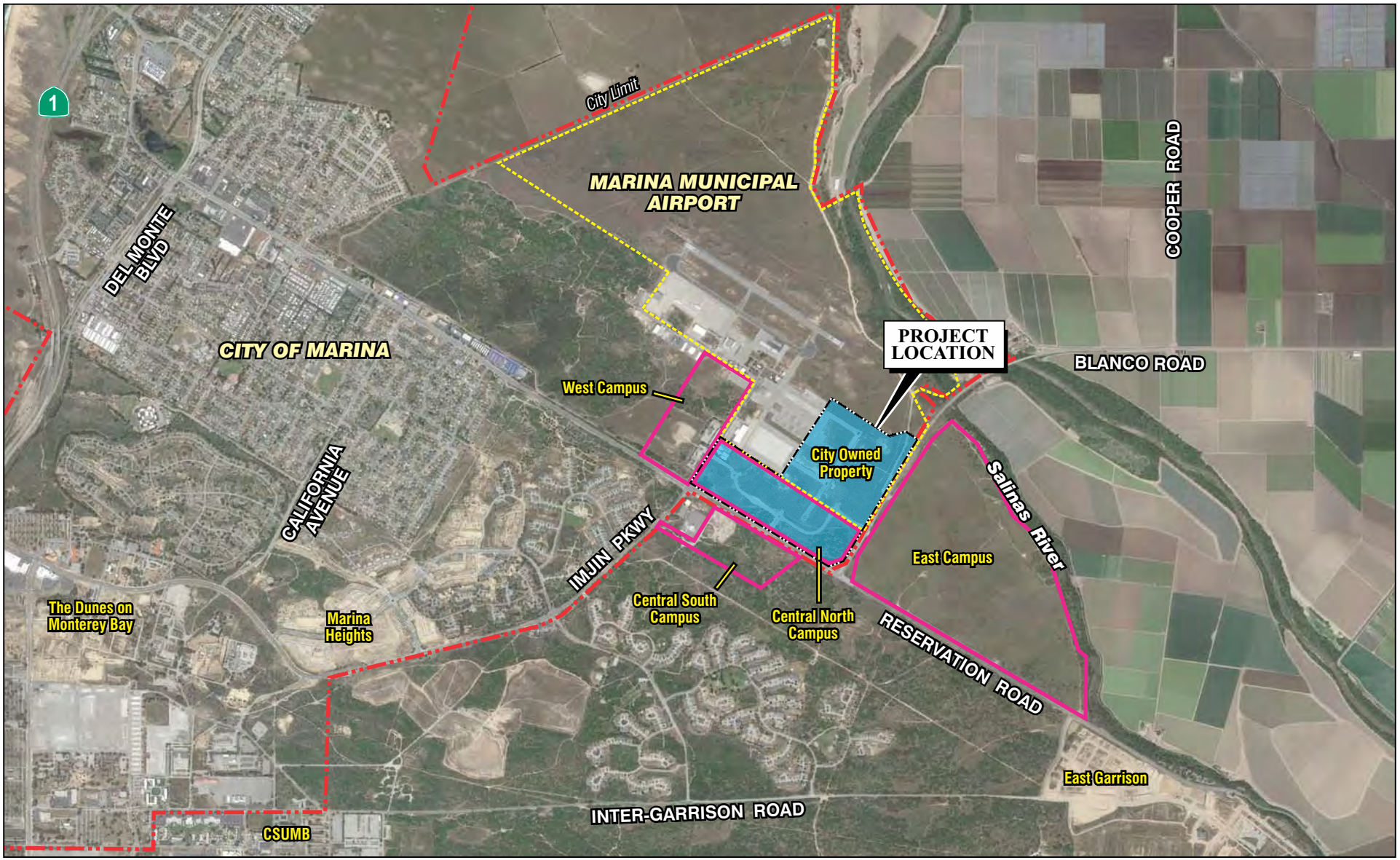

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MILES

SOURCE: Google Earth

LEGEND

- Marina City Limit
- Specific Plan Area
- Marina Municipal Airport
- UC MBEST Campus Locations

FIGURE 2

Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan

Project Plan Area

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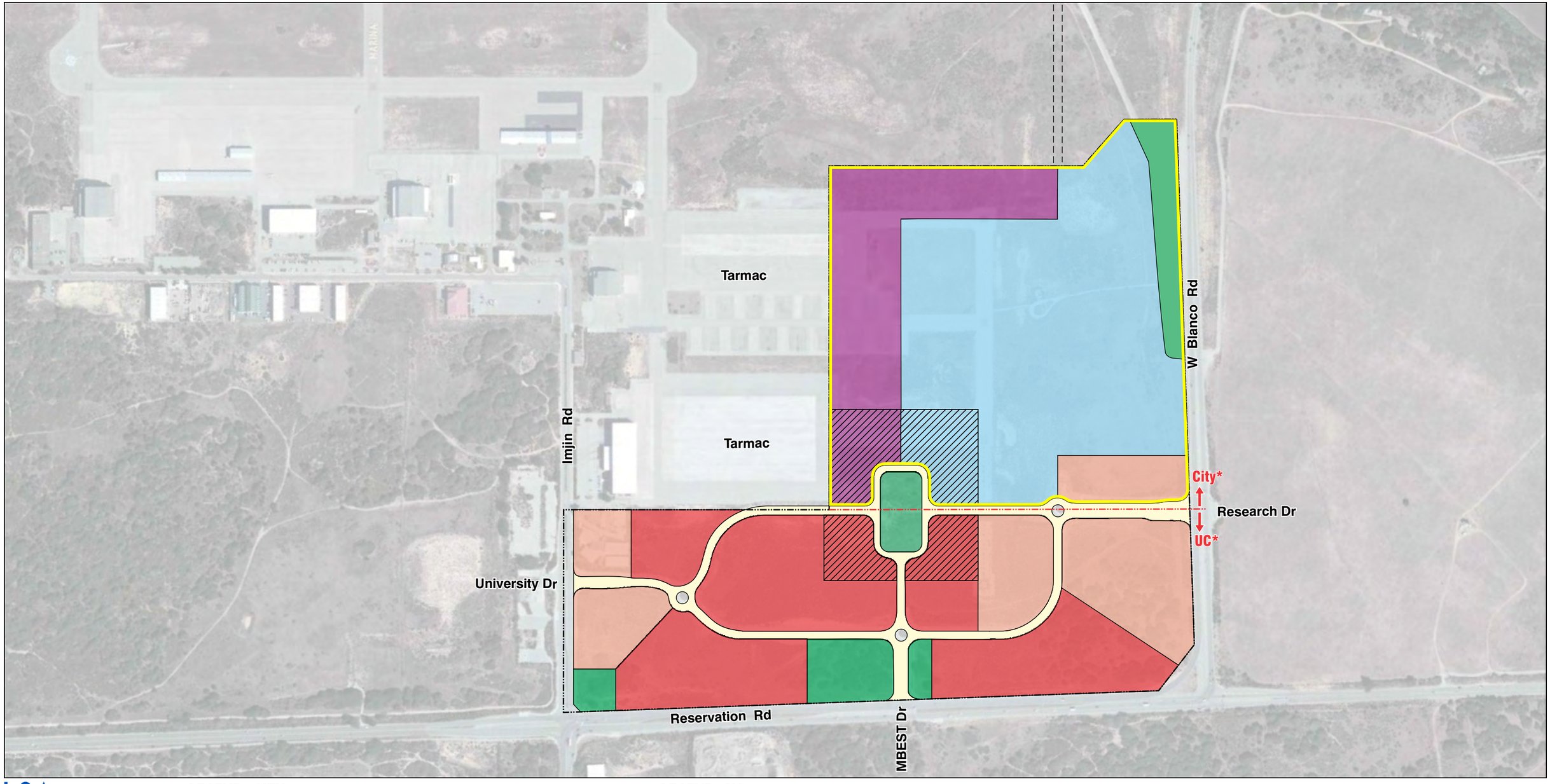

LSA

LEGEND - CITY*

- Commercial/Mixed Use - 3.55 ac
- Business Park - 44.20 ac
- Business Aviation Reserve - 19.10 ac
- Campus Core Overlay - 6.50 ac
- Research and Development Overlay Zone - 78.19 ac
- ROW - 3.50 ac
- Open Space - 4.84 ac

LEGEND - UC*

- Commercial/Mixed Use - 19.01 ac
- Research & Development - 37.64 ac
- Campus Core Overlay - 4.50 ac
- ROW - 9.63 ac
- Open Space - 6.24 ac

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FEET

SOURCE: Google Earth

FIGURE 3

Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan

Land Use Concept

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BACKGROUND

This section provides background information on air pollutants and their health effects. It also provides regulatory background information, including information from the California Air Resources Board's (CARB) Air Quality and Land Use Handbook[3] (CARB Handbook); a description of the general health risks of toxics, and the significance criteria for project evaluation.

AIR POLLUTANTS AND HEALTH EFFECTS

Both State and federal governments have established health-based Ambient Air Quality Standards for six criteria air pollutants:[4] carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and suspended particulate matter (PM). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Long-term exposure to elevated levels of criteria pollutants may result in adverse health effects. However, emission thresholds established by an air district are used to manage total regional emissions within an air basin based on the air basin's attainment status for criteria pollutants. These emission thresholds were established for individual projects that would contribute to regional emissions and pollutant concentrations and could adversely affect or delay the projected attainment target year for certain criteria pollutants.

Because of the conservative nature of the thresholds and the basin-wide context of individual project emissions, there is no known direct correlation between a single project and localized air quality-related health effects. One individual project that generates emissions exceeding a threshold does not necessarily result in adverse health effects for residents in the project vicinity. This condition is especially true when the criteria pollutants exceeding thresholds are those with regional effects, such as ozone precursors like nitrogen oxides (NO_x) and reactive organic gases (ROG).

Occupants of facilities such as schools, daycare centers, parks and playgrounds, hospitals, and nursing and convalescent homes are considered to be more sensitive than the general public to air pollutants because these population groups have increased susceptibility to respiratory disease. Persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality. Residential areas are considered more sensitive to air quality conditions, compared to commercial and industrial areas, because people generally spend longer periods of time at their residences, with greater associated exposure to ambient air quality conditions. Recreational uses are also considered sensitive compared to commercial and industrial uses due to greater exposure to ambient air quality conditions associated with exercise.

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3 California Air Resources Board (CARB), 2005. *Air Quality and Land Use Handbook: A Community Health Perspective.* April.

4 United States Environmental Protection Agency (USEPA), 2014. Criteria pollutants are defined as those pollutants for which the federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health.

Ozone

Rather than being directly emitted, ozone (smog) is formed by photochemical reactions between NO_x and ROG. Ozone is a pungent, colorless gas. Elevated ozone concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, elderly, and young children. Ozone levels peak during the summer and early fall months.

Carbon Monoxide

CO is formed by the incomplete combustion of fossil fuels, almost entirely from automobiles. It is a colorless, odorless gas that can cause dizziness, fatigue, and impairments to central nervous system functions. CO passes through the lungs into the bloodstream, where it interferes with the transfer of oxygen to body tissues.

Particulate Matter

Particulate matter is the term used for a mixture of solid particles and liquid droplets found in the air. Coarse particles are those that are 10 microns or less in diameter, or PM_{10}. Fine, suspended particulate matter with an aerodynamic diameter of 2.5 microns or less, or $PM_{2.5}$, is not readily filtered out by the lungs. Nitrates, sulfates, dust, and combustion particulates are major components of PM_{10} and $PM_{2.5}$. These small particles can be directly emitted into the atmosphere as byproducts of fuel combustion; through abrasion, such as tire or brake lining wear; or through fugitive dust (wind or mechanical erosion of soil). They can also be formed in the atmosphere through chemical reactions. Particulates may transport carcinogens and other toxic compounds that adhere to the particle surfaces and can enter the human body through the lungs.

Nitrogen Dioxide

NO_2 is a reddish brown gas that is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of NO_2. Aside from its contribution to ozone formation, NO_2 also contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition. NO_2 may be visible as a coloring component on high pollution days, especially in conjunction with high ozone levels. NO_2 decreases lung function and may reduce resistance to infection.

Sulfur Dioxide

SO_2 is a colorless, irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous SO_2 levels in the region. SO_2 irritates the respiratory tract, can injure lung tissue when combined with fine particulate matter, and reduces visibility and the level of sunlight.

Lead

Leaded gasoline (phased out in the United States beginning in 1973), paint (on older houses and cars), smelters (metal refineries), and the manufacture of lead storage batteries have been the primary sources of lead released into the atmosphere. Lead has multiple adverse neurotoxic health effects, and children are at special risk. Some lead-containing chemicals cause cancer in animals.

Lead levels in the air have decreased substantially since leaded gasoline was eliminated. Ambient lead concentrations are only monitored on an as-warranted, site-specific basis in California. On October 15, 2008, the United States Environmental Protection Agency (USEPA) strengthened the national ambient air quality standard for lead by lowering it from 1.5 to 0.15 micrograms per cubic meter ($\mu g/m^3$). The USEPA revised the monitoring requirements for lead in December 2010. These requirements focus on airports and large urban areas, resulting in an increase in 76 monitors nationally.

Volatile Organic Compounds

ROGs (also known as volatile organic compounds [VOCs] and reactive organic compounds [ROCs]) are formed from the combustion of fuels and the evaporation of organic solvents. ROGs are not defined as criteria pollutants, however, because ROGs accumulate in the atmosphere more quickly during the winter, when sunlight is limited and photochemical reactions are slower, they are a prime component of the photochemical smog reaction. There are no attainment designations for ROGs.

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated by the USEPA and the CARB. Some examples of TACs include benzene, butadiene, formaldehyde, and hydrogen sulfide. The identification, regulation, and monitoring of TACs is relatively recent compared to that for criteria pollutants.

TACs do not have ambient air quality standards, but are regulated by the USEPA, CARB, and the MBARD. In 1998, the CARB identified particulate matter from diesel-fueled engines as a TAC. The CARB has completed a risk management process that identified potential cancer risks for a range of activities using diesel-fueled engines.[5] High-volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic (e.g., distribution centers and truck stops) were identified as posing the highest risk to adjacent receptors. Other facilities associated with increased risk include warehouse distribution centers, large retail or industrial facilities, high-volume transit centers, and schools with a high volume of bus traffic. Health risks from TACs are a function of both concentration and duration of exposure.

Unlike TACs emitted from industrial and other stationary sources noted above, most diesel particulate matter is emitted from mobile sources—primarily “off-road” sources such as construction and mining equipment, agricultural equipment, and truck-mounted refrigeration units, as well as “on-road” sources such as trucks and buses traveling on freeways and local roadways.

Although not specifically monitored, recent studies indicate that exposure to diesel particulate matter may contribute significantly to a cancer risk (a risk of approximately 500 to 700 in 1,000,000)

[5] CARB, 2000. Stationary Source Division and Mobile Source Control Division. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.* October.

that is greater than all other measured TACs combined.[6] The technology for reducing diesel particulate matter emissions from heavy-duty trucks is well established, and both State and federal agencies are moving aggressively to regulate engines and emission control systems to reduce and remediate diesel emissions. The CARB anticipates that by 2020, average statewide diesel particulate matter concentrations will decrease by 85 percent from levels in 2000 with full implementation of the CARB's Diesel Risk Reduction Plan,[7] meaning that the statewide health risk from diesel particulate matter is expected to decrease from 540 cancer cases in 1,000,000 to 21.5 cancer cases in 1,000,000.

Table B summarizes the sources and health effects of air pollutants discussed in this section. Table C presents a summary of State and federal ambient air quality standards (AAQS).

Table B: Sources and Health Effects of Air Pollutants

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	● Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust ● Natural events, such as decomposition of organic matter	● Reduced tolerance for exercise ● Impairment of mental function ● Impairment of fetal development ● Death at high levels of exposure ● Aggravation of some heart diseases (angina)
Nitrogen Dioxide (NO_2)	● Motor vehicle exhaust ● High temperature stationary combustion ● Atmospheric reactions	● Aggravation of respiratory illness ● Reduced visibility ● Reduced plant growth ● Formation of acid rain
Ozone (O_3)	● Atmospheric reaction of organic gases with nitrogen oxides in sunlight	● Aggravation of respiratory and cardiovascular diseases ● Irritation of eyes ● Impairment of cardiopulmonary function ● Plant leaf injury
Lead (Pb)	● Contaminated soil	● Impairment of blood functions and nerve construction ● Behavioral and hearing problems in children
Suspended Particulate Matter ($PM_{2.5}$ and PM_{10})	● Stationary combustion of solid fuels ● Construction activities ● Industrial processes ● Atmospheric chemical reactions	● Reduced lung function ● Aggravation of the effects of gaseous pollutants ● Aggravation of respiratory and cardiorespiratory diseases ● Increased cough and chest discomfort ● Soiling ● Reduced visibility
Sulfur Dioxide (SO_2)	● Combustion of sulfur-containing fossil fuels ● Smelting of sulfur-bearing metal ores Industrial processes	● Aggravation of respiratory diseases (asthma, emphysema) ● Reduced lung function ● Irritation of eyes ● Reduced visibility ● Plant injury ● Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board (2015).

6 CARB, 2000. Stationary Source Division and Mobile Source Control Division. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.* October.

7 Ibid.

Table C: Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]		Federal Standards[b]		
		Concentration[c]	Method[d]	Primary[c,e]	Secondary[c,f]	Method[g]
Ozone (O_3)[h]	1-Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.07 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM_{10})[i]	24-Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		–		
Fine Particulate Matter ($PM_{2.5}$)[i]	24-Hour	-		35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³		
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m³)	–	Non-Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m³)		35 ppm (40 mg/m³)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m³)		–	–	
Nitrogen Dioxide (NO_2)[j]	Annual Arithmetic Mean	0.03 ppm (57 µg/m³)	Gas Phase Chemi-luminescence	53 ppb (100 µg/m³)	Same as Primary Standard	Gas Phase Chemi-luminescence
	1-Hour	0.18 ppm (339 µg/m³)		100 ppb (188 µg/m³)	-	
Lead (Pb)[l,m]	30-Day Average	1.5 µg/m³	Atomic Absorption	–	–	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m³ (for certain areas)[l]	Same as Primary Standard	
	Rolling 3-Month Average[i]	–		0.15 µg/m³		
Sulfur Dioxide (SO_2)[k]	24-Hour	0.04 ppm (105 µg/m³)	Ultraviolet Fluorescence	0.14 ppm (for certain areas)	–	Ultraviolet Fluorescence; Spectro-photometry (Pararosaniline Method)
	3-Hour	–		–	0.5 ppm (1300 µg/m³)	
	1-Hour	0.25 ppm (655 µg/m³)		75 ppb (196 µg/m³)[k]	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[k]	–	
Visibility-Reducing Particles[l]	8-Hour	See footnote n	Beta Attenuation and Transmittance through Filter Tape.	No Federal Standards		
Sulfates	24-Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[j]	24-Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Table notes are provided on the following page.

[a] California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact USEPA for further clarification and current national policies.

[c] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d] Any equivalent measurement method which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.

[e] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[f] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[g] Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.

[h] On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[i] On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24- hour PM2.5 standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[j] To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[k] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[l] The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[m] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[n] In 1989, the CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

°C = degrees Celsius
CARB = California Air Resources Board
USEPA = United States Environmental Protection Agency
ppb = parts per billion
ppm = parts per million
mg/m³ = milligrams per cubic meter
µg/m³ = micrograms per cubic meter

Source: California Air Resources Board, 2016. https://www.arb.ca.gov/research/aaqs/aaqs2.pdf

GREENHOUSE GASES AND GLOBAL CLIMATE CHANGE

Global climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans in recent decades. The Earth's average near-surface atmospheric temperature rose 0.6 ± 0.2° Celsius (°C) or 1.1 ± 0.4° Fahrenheit (°F) in the 20th century. The prevailing scientific opinion on climate change is that most of the warming observed over the last 50 years is attributable to human activities. The increased amounts of carbon dioxide (CO_2) and other GHGs are the primary causes of the human-induced component of warming. GHGs are released by the burning of fossil fuels, land clearing, agriculture, and other activities, and lead to an increase in the greenhouse effect.[8]

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur Hexafluoride (SF_6)

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, and enhancing the natural greenhouse effect, which is believed to be causing global warming. While manmade GHGs include naturally-occurring GHGs such as CO_2, methane, and N_2O, some gases, like HFCs, PFCs, and SF_6 are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. For the purposes of this air quality analysis, the term "GHGs" will refer collectively to the six gases listed above only.

[8] The temperature on Earth is regulated by a system commonly known as the "greenhouse effect." Just as the glass in a greenhouse lets heat from sunlight in and reduces the heat escaping, greenhouse gases like carbon dioxide, methane, and nitrous oxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, although an excess of greenhouse gas results in global warming, the naturally occurring greenhouse effect is necessary to keep our planet at a comfortable temperature.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to carbon dioxide, the most abundant GHG; the definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalents" (CO_2e). Table D shows the GWP for each type of GHG. For example, sulfur hexafluoride is 22,800 times more potent at contributing to global warming than carbon dioxide.

Table D: Global Warming Potential of Greenhouse Gases

Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100-Year Time Horizon)
Carbon Dioxide	50-200	1
Methane	12	25
Nitrous Oxide	114	298
HFC-23	270	14,800
HFC-134a	14	1,430
HFC-152a	1.4	124
PFC: Tetrafluoromethane (CF_4)	50,000	7,390
PFC: Hexafluoromethane (C_2F_6)	10,000	12,200
Sulfur Hexafluoride (SF_6)	3,200	22,800

Source: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC* (Intergovernmental Panel on Climate Change, 2007).

The following discussion summarizes the characteristics of the six GHGs and black carbon.

Carbon Dioxide

In the atmosphere, carbon generally exists in its oxidized form, as CO_2. Natural sources of CO_2 include the respiration (breathing) of humans, animals and plants, volcanic out gassing, decomposition of organic matter and evaporation from the oceans. Human caused sources of CO_2 include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. Natural sources release approximately 150 billion tons of CO_2 each year, far outweighing the 7 billion tons of man-made emissions of CO_2 each year. Nevertheless, natural removal processes, such as photosynthesis by land- and ocean-dwelling plant species, cannot keep pace with this extra input of man-made CO_2, and consequently, the gas is building up in the atmosphere.

In 2016, CO_2 emissions accounted for approximately 83 percent of California's overall GHG emissions.[9] The transportation sector accounted for California's largest portion of CO_2 emissions,

[9] California Air Resources Board. 2018. *California Greenhouse Gas Emission Inventory – 2018 Edition*. July 11. Website: www.arb.ca.gov/cc/inventory/data/data.htm (accessed September 2019).

approximately 39 percent, with gasoline consumption making up the greatest portion of these emissions. Industrial sources were California's second largest category of GHG emissions.

Methane

Methane is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Decomposition occurring in landfills accounts for the majority of human-generated CH_4 emissions in California and in the United States as a whole. Agricultural processes such as intestinal fermentation, manure management, and rice cultivation are also significant sources of CH_4 in California. Methane accounted for approximately 9.0 percent of GHG emissions in California in 2016.[10]

Total annual emissions of methane in California are approximately 38.9 million tons, with manmade emissions accounting for the majority. As with CO_2, the major removal process of atmospheric methane—a chemical breakdown in the atmosphere—cannot keep pace with source emissions, and methane concentrations in the atmosphere are increasing.

Nitrous Oxide

Nitrous oxide is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. Nitrous oxide is a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion emit N_2O, and the quantity emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N_2O emissions in California. Nitrous oxide emissions accounted for approximately 3 percent of GHG emissions in California in 2016.[11]

Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride

HFCs are primarily used as substitutes for ozone-depleting substances regulated under the Montreal Protocol.[12] PFCs and SF_6 are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in California; however, the rapid growth in the semiconductor industry leads to greater use of PFCs. HFCs, PFCs, and SF_6 accounted for about 6 percent of man-made GHG emissions (CO_2e) in California in 2016.[13]

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10 California Air Resources Board. 2018. *California Greenhouse Gas Emission Inventory – 2018 Edition*. July 11. Website: www.arb.ca.gov/cc/inventory/data/data.htm (accessed September 2019).

11 Ibid.

12 The Montreal Protocol is an international treaty that was approved on January 1, 1989, and was designated to protect the ozone layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for ozone depletion.

13 Ibid.

Black Carbon

Black carbon is the most strongly light-absorbing component of PM formed by burning fossil fuels such as coal, diesel, and biomass. Black carbon is emitted directly into the atmosphere in the form of $PM_{2.5}$ and is the most effective form of PM, by mass, at absorbing solar energy. Per unit of mass in the atmosphere, black carbon can absorb one million times more energy than CO_2.[14] Black carbon contributes to climate change both directly, such as absorbing sunlight, and indirectly, such as affecting cloud formation. However, because black carbon is short-lived in the atmosphere, it can be difficult to quantify its effect on global-warming.

Most U.S. emissions of black carbon come from mobile sources (52 percent), particularly from diesel fueled vehicles. The other major source of black carbon is open biomass burning, including wildfires, although residential heating and industry also contribute. The CARB estimates that the annual black carbon emissions in California have decreased approximately 70 percent between 1990 and 2010 and are expected to continue to decline significantly due to controls on mobile diesel emissions.

AIR QUALITY REGULATORY SETTING

The USEPA and the CARB regulate direct emissions from motor vehicles. The MBARD is the regional agency primarily responsible for regulating air pollution emissions from stationary sources (e.g., factories) and indirect sources (e.g., traffic associated with new development), as well as monitoring ambient pollutant concentrations.

Federal Clean Air Act

The 1970 Federal Clean Air Act authorized the establishment of national health-based air quality standards and also set deadlines for their attainment. The Federal Clean Air Act Amendments of 1990 changed deadlines for attaining national standards as well as the remedial actions required of areas of the nation that exceed the standards. Under the Clean Air Act, State and local agencies in areas that exceed the national standards are required to develop State Implementation Plans to demonstrate how they will achieve the national standards by specified dates.

California Clean Air Act

In 1988, the California Clean Air Act (CCAA) required that all air districts in the State endeavor to achieve and maintain California ambient air quality standards (CAAQS) for carbon monoxide, ozone, sulfur dioxide, and nitrogen dioxide by the earliest practical date. The California Clean Air Act provides districts with authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources. Each nonattainment district is required to adopt a plan to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. A Clean Air Plan shows how a district would reduce emissions to achieve air quality standards. Generally, the State standards for these pollutants are more stringent than the national standards.

[14] U.S. Environmental Protection Agency, 2015. *Black Carbon*. September. Website: www3.epa.gov/black carbon/basic.html (accessed September 2019).

California Air Resources Board

The CARB is the State's "clean air agency." The CARB's goals are to attain and maintain healthy air quality, protect the public from exposure to toxic air contaminants, and oversee compliance with air pollution rules and regulations.

Assembly Bill 2588 Air Toxics "Hot Spots" Information and Assessment Act

Under Assembly Bill (AB) 2588, stationary sources of air pollutants are required to report the types and quantities of certain substances their facilities routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, identify facilities having localized impacts, determine health risks, and notify nearby residents of significant risks.

The California Air Resources Board Handbook

The CARB has developed an Air Quality and Land Use Handbook[15] which is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. According to the CARB Handbook, recent air pollution studies have shown an association between respiratory and other non-cancer health effects and proximity to high traffic roadways. Other studies have shown that diesel exhaust and other cancer-causing chemicals emitted from cars and trucks are responsible for much of the overall cancer risk from airborne toxics in California. The CARB Handbook recommends that county and city planning agencies strongly consider proximity to these sources when finding new locations for "sensitive" land uses such as homes, medical facilities, daycare centers, schools, and playgrounds.

Land use designations with air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners, and large gasoline service stations. Key recommendations in the CARB Handbook include taking steps to avoid siting new, sensitive land uses:

- Within 500 feet of a freeway, urban roads with 100,000 vehicles/day or rural roads with 50,000 vehicles/day;
- Within 1,000 feet of a major service and maintenance rail yard;
- Immediately downwind of ports (in the most heavily impacted zones) and petroleum refineries;
- Within 300 feet of any dry cleaning operation (for operations with two or more machines, provide 500 feet); and
- Within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater).

[15] CARB. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective.* April.

The CARB Handbook specifically states that its recommendations are advisory and acknowledges land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

The recommendations are generalized and do not consider site-specific meteorology, freeway truck percentages, or other factors that influence risk for a particular project site. The purpose of this guidance is to further examine project sites for actual health risk associated with the location of new sensitive land uses.

Monterey Bay Air Resources District

MBARD and the Association of Monterey Bay Area Governments (AMBAG) are responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the North Central Coast Air Basin (NCCAB). The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. Every 3 years, MBARD prepares a new AQMP, updating the previous plan and 20-year horizon.

MBARD approved the 2012–2015 AQMP on March 15, 2017. This AQMP is the seventh update to the original 1991 AQMP and shows that the region continues to make progress toward meeting the State ozone standard.

AMBAG is responsible under the CAA for determining the conformity of projects, plans, and programs with the MBARD AQMP. As indicated in the CEQA Air Quality Handbook, there are two main indicators of consistency:

- Whether the project would result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP; and

- Whether the project would exceed the AQMP's assumptions for 2020 or increments based on the year of project build out and phase.

GLOBAL CLIMAGE CHANGE REGULATION

This section describes regulations related to Global Climate Change at the federal, State, and local level.

Federal Regulations

The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the USEPA has the authority to regulate CO_2 emissions under the federal Clean Air Act. While there currently are no adopted federal regulations for the control or reduction of GHG emissions, the USEPA commenced several actions in 2009 to implement a regulatory approach to global climate change.

This includes the 2009 USEPA final rule for mandatory reporting of GHGs from large GHG emission sources in the United States. Additionally, the USEPA Administrator signed an endangerment finding

action in 2009 under the Clean Air Act, finding that six GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6) constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to global climate change, leading to national GHG emission standards.

State Regulations

The CARB is the lead agency for implementing climate change regulations in the State. Since its formation, the CARB has worked with the public, the business sector, and local governments to find solutions to California's air pollution problems. Key efforts by the State are described below.

Assembly Bill 1493 (2002)

In a response to the transportation sector's significant contribution to California's CO_2 emissions, AB 1493 was enacted on July 22, 2002. AB 1493 requires the CARB to set GHG emission standards for passenger vehicles and light duty trucks (and other vehicles whose primary use is noncommercial personal transportation in the State) manufactured in 2009 and all subsequent model years. These standards (starting in model years 2009 to 2016) were approved by the CARB in 2004, but the needed waiver of CAA Preemption was not granted by the USEPA until June 30, 2009. The CARB responded by amending its original regulation, now referred to as Low Emission Vehicle III, to take effect for model years starting in 2017 to 2025.

Executive Order S-3-05 (2005)

Governor Arnold Schwarzenegger signed Executive Order S-3-05 on June 1, 2005, which proclaimed that California is vulnerable to the impacts of climate change. To combat those concerns, the executive order established California's GHG emissions reduction targets, which established the following goals:

- GHG emissions should be reduced to 2000 levels by 2010;
- GHG emissions should be reduced to 1990 levels by 2020; and
- GHG emissions should be reduced to 80 percent below 1990 levels by 2050.

The Secretary of the California Environmental Protection Agency (CalEPA) is required to coordinate efforts of various State agencies in order to collectively and efficiently reduce GHGs. A biannual progress report must be submitted to the Governor and State Legislature disclosing the progress made toward greenhouse emission reduction targets. In addition, another biannual report must be submitted illustrating the impacts of global warming on California's water supply, public health, agriculture, the coastline, and forestry, and report possible mitigation and adaptation plans to address these impacts.

The Secretary of CalEPA leads this Climate Action Team (CAT) made up of representatives from State agencies as well as numerous other boards and departments. The CAT members work to coordinate statewide efforts to implement global warming emission reduction programs and the State's Climate Adaptation Strategy. The CAT is also responsible for reporting on the progress made toward meeting the statewide GHG targets that were established in the executive order and further defined

under AB 32, the "Global Warming Solutions Act of 2006." The first CAT Report to the Governor and the Legislature was released in March 2006, which it laid out 46 specific emission reduction strategies for reducing GHG emissions and reaching the targets established in the Executive Order. The CAT Report to the Governor and Legislature; the most recent was released in December 2010.

Assembly Bill 32 (2006), California Global Warming Solutions Act

California's major initiative for reducing GHG emissions is AB 32, passed by the State legislature on August 31, 2006. This effort aims at reducing GHG emissions to 1990 levels by 2020. The CARB has established the level of GHG emissions in 1990 at 427 million metric tons (MMT) of CO_2e. The emissions target of 427 MMT requires the reduction of 169 MMT from the State's projected business-as-usual 2020 emissions of 596 MMT. AB 32 requires the CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change. The Scoping Plan was approved by the CARB on December 11, 2008, and contains the main strategies California will implement to achieve the reduction of approximately 169 MMT of CO_2e, or approximately 30 percent, from the State's projected 2020 emissions level of 596 MMT of CO_2e under a business-as-usual scenario (this is a reduction of 42 MMT CO_2e, or almost 10 percent from 2002–2004 average emissions). The Scoping Plan also includes CARB-recommended GHG reductions for each emissions sector of the State's GHG inventory. The Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards:

- Improved emissions standards for light-duty vehicles (estimated reductions of 31.7 MMT CO_2e);
- The Low-Carbon Fuel Standard (15.0 MMT CO_2e);
- Energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO_2e); and
- A renewable portfolio standard for electricity production (21.3 MMT CO_2e).

The Scoping Plan identifies 18 emission reduction measures that address cap-and-trade programs, vehicle gas standards, energy efficiency, low carbon fuel standards, renewable energy, regional transportation-related GHG targets, vehicle efficiency measures, goods movement, solar roof programs, industrial emissions, high speed rail, green building strategies, recycling, sustainable forests, water, and air. The measures would result in a total reduction of 174 MMT CO_2e by 2020.

On August 24, 2011, the CARB unanimously reapproved its Scoping Plan, which provides the overall roadmap and rule measures to carry out AB 32. The CARB also approved a more robust CEQA equivalent document supporting the supplemental analysis of the cap-and-trade program. The cap-and-trade took effect on January 1, 2012, with an enforceable compliance obligation that began January 1, 2013.

CARB has not yet determined what amount of GHG reductions it recommends from local government operations and local land use decisions; however, the Scoping Plan states that land use planning and urban growth decisions will play an important role in the State's GHG reductions

because local governments have primary authority to plan, zone, approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions (meanwhile, CARB is also developing an additional protocol for community emissions). CARB further acknowledges that decisions on how land is used will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emission sectors. The Scoping Plan states that the ultimate GHG reduction assignment to local government operations is to be determined. With regard to land use planning, the Scoping Plan expects an approximately 5.0 MMT CO_2e reduction due to implementation of Senate Bill 375 (SB).

In addition to reducing GHG emissions to 1990 levels by 2020, AB 32 directed the CARB and the CAT to identify a list of "discrete early action GHG reduction measures" that could be adopted and made enforceable by January 1, 2010. On January 18, 2007, Governor Schwarzenegger signed Executive Order S-1-07, further solidifying California's dedication to reducing GHGs by setting a new Low Carbon Fuel Standard. The Executive Order sets a target to reduce the carbon intensity of California transportation fuels by at least 10 percent by 2020 and directs the CARB to consider the Low Carbon Fuel Standard as a discrete early action measure. In 2011, U.S. District Court Judge Lawrence O'Neil issued an injunction preventing implementation of the Low Carbon Fuel Standard, ruling that it is unconstitutional. In 2012, the Ninth Circuit Court of Appeal stayed the District Court's injunction, allowing implementation of the Low Carbon Fuel Standard. The Ninth Circuit decided to uphold the Low Carbon Fuel Standard.

In June 2007, the CARB approved a list of 37 early action measures, including three discrete early action measures (Low Carbon Fuel Standard, Restrictions on GWP Refrigerants, and Landfill CH_4 Capture).[16] Discrete early action measures are measures that were required to be adopted as regulations and made effective no later than January 1, 2010, the date established by Health and Safety Code Section 38560.5. The CARB adopted additional early action measures in October 2007 that tripled the number of discrete early action measures. These measures relate to truck efficiency, port electrification, reduction of PFCs from the semiconductor industry, reduction of propellants in consumer products, proper tire inflation, and SF_6 reductions from the non-electricity sector. The combination of early action measures is estimated to reduce statewide GHG emissions by nearly 16 MMT.[17]

The CARB approved the First Update to the Climate Change Scoping Plan on May 22, 2014. The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update defines CARB climate change priorities until 2020, and also sets the groundwork to reach long-term goals set forth in Executive Orders S-3-05 and B-16-2012. The Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals as defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land

16 California Air Resources Board. 2007. *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration*. October.

17 California Air Resources Board. 2007. "ARB approves tripling of early action measures required under AB 32" News Release 07-46. October 25.

use. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,[18] to reflect the 2030 target set by Executive Order B-30-15 and codified by SB Bill 32.

Senate Bill 97 (2007)

SB 97, signed by the Governor in August 2007 (Chapter 185, Statutes of 2007; Public Resources Code, Sections 21083.05 and 21097), acknowledges climate change is a prominent environmental issue that requires analysis under CEQA. This bill directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Resources Agency guidelines for mitigating GHG emissions or the effects of GHG emissions, as required by CEQA.

The California Natural Resources Agency adopted the amendments to the CEQA Guidelines in November 2018, which went into effect in December 2018. The amendments do not identify a threshold of significance for GHG emissions, nor do they prescribe assessment methodologies or specific mitigation measures. The amendments encourage lead agencies to consider many factors in performing a CEQA analysis, but preserve the discretion granted by CEQA to lead agencies in making their own determinations based on substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs when they perform individual project analyses.

Senate Bill 375 (2008)

SB 375, the Sustainable Communities and Climate Protection Act, which establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions, was adopted by the State on September 30, 2008. On September 23, 2010, the CARB adopted the vehicular GHG emissions reduction targets that had been developed in consultation with the Metropolitan Planning Organization (MPOs); the targets require a 6 to 15 percent reduction by 2020 and between 13 to 19 percent reduction by 2035 for each MPO. SB 375 recognizes the importance of achieving significant GHG reductions by working with cities and counties to change land use patterns and improve transportation alternatives. Through the SB 375 process, MPOs such as the AMBAG will work with local jurisdictions in the development of Sustainable Communities Strategy (SCS) designed to integrate development patterns and the transportation network in a way that reduces GHG emissions while meeting housing needs and other regional planning objectives. Pursuant to SB 375, the AMBAG reduction targets for per capita vehicular emissions are 3 percent by 2020 and 6 percent by 2035 as shown in Table E.

[18] California Air Resources Board. 2017. *California's 2017 Climate Change Scoping Plan*. November.

Table E: Senate Bill 375 Regional Greenhouse Gas Emissions Reduction Targets

Metropolitan Planning Organization	By 2020 (percent)	By 2035 (percent)
San Francisco Bay Area	10	19
San Diego	15	19
Sacramento	7	19
Central Valley/San Joaquin	6-13	13-16
Los Angeles/Southern California	8	19
Monterey Bay Area	3	6

Source: California Air Resources Board (2018).

Executive Order B-30-15 (2015)

Governor Jerry Brown signed Executive Order B-30-15 on April 29, 2015, which added the immediate target of:

- GHG emissions should be reduced to 40 percent below 1990 levels by 2030.

All State agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. CARB was directed to update the AB 32 Scoping Plan to reflect the 2030 target, and therefore, is moving forward with the update process. The mid-term target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue reducing emissions.

Senate Bill 350 (2015) Clean Energy and Pollution Reduction Act

SB 350 signed by Governor Jerry Brown on October 7, 2015, updates and enhances AB 32 by introducing the following set of objectives in clean energy, clean air, and pollution reduction for 2030:

- Raise California's renewable portfolio standard from 33 percent to 50 percent; and

- Increasing energy efficiency in buildings by 50 percent by the year 2030.

The 50 percent renewable energy standard will be implemented by the California Public Utilities Commission for the private utilities and by the California Energy Commission for municipal utilities. Each utility must submit a procurement plan showing it will purchase clean energy to displace other non-renewable resources. The 50 percent increase in energy efficiency in buildings must be achieved through the use of existing energy efficiency retrofit funding and regulatory tools already available to state energy agencies under existing law. The addition made by this legislation requires state energy agencies to plan for, and implement those programs in a manner that achieves the energy efficiency target.

Senate Bill 32, California Global Warming Solutions Act of 2016, and Assembly Bill 197

In summer 2016 the Legislature passed, and the Governor signed, SB 32, and AB 197. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Governor Brown's April 2015 Executive Order B-30-15. SB 32 builds on AB 32 and keeps us on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an Intergovernmental Panel on Climate Change (IPCC) analysis of the emissions trajectory that would stabilize atmospheric GHG concentrations at 450 parts per million CO_2e and reduce the likelihood of catastrophic impacts from climate change.

The companion bill to SB 32, AB 197, provides additional direction to CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 meant to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100, which raises California's RPS requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. The bill also establishes a State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Executive Order B-55-18

Executive Order B-55-18, signed September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Executive Order B-55-18 directs CARB to work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO_2e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

SETTING

ATTAINMENT STATUS

The CARB is required to designate areas of the state as attainment, nonattainment, or unclassified for all State standards. An *attainment* designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A *nonattainment* designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. An *unclassified* designation signifies that data do not support either an attainment or nonattainment status. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The USEPA designates areas for O_3, CO, and NO_2 as either does not meet the primary standards, or cannot be classified, or better than national standards. For SO_2, areas are designated as does not meet the primary standards, does not meet the secondary standards, cannot be classified, or better than national standards.

Table F provides a summary of the attainment status for the NCCAB with respect to national ambient air quality standards (NAAQS) and CAAQS.

Table F: Attainment Status of Criteria Pollutants in the North Central Coast Air Basin

Pollutant	Federal	State
O_3 1-Hour	Maintenance[1]	Nonattainment[2]
O_3 8-Hour	Attainment	
CO	Unclassified/Attainment	Attainment
NO_2	Unclassified/Attainment	Attainment
SO_2	Unclassified	Attainment[3]
PM_{10}	Unclassified/Attainment	Nonattainment
$PM_{2.5}$	Unclassified/Attainment	Attainment

Source: Monterey Bay Air Resources District (2008).
Notes:
[1] The Federal 1 hour standard was revoked in the NCCAB on June 15, 2005.
[2] In November 2006, CARB issued new designations to reflect the addition of an 8-hour average to the State AAQS for ozone. The NCCAB was redesignated from nonattainment-transitional to nonattainment.
[3] San Benito County and Santa Cruz County are designated Unclassified.
CO = carbon monoxide
NO_2 = nitrogen dioxide
O_3 = ozone
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SO_2 = sulfur dioxide

EXISTING CLIMATE AND AIR QUALITY

Air quality in the planning area is not only affected by various emission sources (e.g., mobile and industry), but also by atmospheric conditions (e.g., wind speed, wind direction, temperature, and rainfall). The NCCAB consists of Santa Cruz, San Benito, and Monterey Counties. It covers an area of 5,159 square miles along the coast, and has a population of over 750,000. The Santa Cruz Mountains dominate the northwest portion of NCCAB, and the Diablo Range marks the northeastern boundary.

The Santa Clara Valley extends into the northeastern tip of the NCCAB. Further south, the Santa Clara Valley becomes the San Benito Valley, which runs northwest-southeast, with the Gabilan Range as its western boundary. To the west of the Gabilan Range is the Salinas Valley, which extends from Salinas at the northwest end to south of King City.

The major sources of air pollution in Monterey County are vehicle traffic and agricultural operations. On the Monterey Peninsula, the major source of air pollution in the area is vehicle traffic; the limited agricultural operations in the area have a minimal effect on air quality.

Air quality is a function of topography, meteorology, and emissions. The semipermanent high pressure cell over the Pacific Ocean is the basic controlling factor of the climate in the region. Monterey Bay is an inlet 25 miles wide, which allows marine air at low levels to penetrate the interior.

In the summer, a high-pressure system over the Pacific Ocean is dominant and causes persistent west and northwest winds over the entire California coast. The onshore wind brings fog and relatively cool air into the coastal valleys. The northwest-southeast orientation of the mountain ridges tends to restrict and channel the summer onshore air. In the fall, the surface winds become weak. The airflow is occasionally reversed in a weak offshore movement and the relatively stationary air mass is held in place. During the winter, the Pacific high-pressure system moves south and has less influence on the NCCAB. Air frequently flows in a southeasterly direction out of the Salinas and San Benito Valleys, especially during night and morning hours.

The annual average temperature varies little throughout the NCCAB, ranging from the low to middle 60s°F. With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station closest to the site monitoring temperature is the Salinas Station.[19] The annual average maximum temperature recorded at this station is 68.4°F, and the annual average minimum is 47.3°F. January is typically the coldest month in this area of the NCCAB.

The majority of annual rainfall in the NCCAB occurs between November and April. The climatological station closest to the site that monitors precipitation is the Salinas Station. Average rainfall measured at this station varied from 2.7 inches in February to 0.65 inch or less between May and October, with an average annual total of 14.54 inches. Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

AIR QUALITY MONITORING RESULTS

Air quality monitoring stations are located throughout the nation and are maintained by the local air pollution control district and State air quality regulating agencies. The MBARD, together with the CARB, maintains ambient air quality monitoring stations in the NCCAB. The air quality monitoring station closest to and within the project area is the 867 East Laurel Drive ambient air quality monitoring station in Salinas. The air quality trends from this station are used to represent the ambient air quality in the project area. Ambient air quality in the project area from 2016 to 2018 is

[19] Western Regional Climatic Center. Website: http://www.wrcc.dri.edu (accessed September 2019).

shown in Table G. PM_{10} and SO_2 is not monitored at the Salinas station; therefore Table G includes PM_{10} data from the 415 Pearl Street ambient air quality monitoring station in King City and SO_2 data from the 158b Jackson Street ambient air quality monitoring station in San Jose.

Pollutant monitoring results for the years 2016 to 2018 at the 867 East Laurel Drive, Salinas ambient air quality monitoring station indicate that air quality in the project vicinity has generally been good. As indicated in the monitoring results, no violations of the federal PM_{10} standard occurred during between 2016 and 2016; however the State PM_{10} standard was exceeded unknown number of times between 2016 and 2016. The federal $PM_{2.5}$ standard was exceeded once in 2016 and five times in 2018. The O_3, CO, SO_2, and NO_2 standards were also not exceeded in this area during the 3-year period.

Table G: Ambient Air Quality at the 867 East Laurel Drive, Salinas Monitoring Station

Pollutant	Standard	2016	2017	2018
Carbon Monoxide (CO)				
Maximum 1-hour concentration (ppm)		4.2	2.7	3.5
Number of days exceeded:	State: > 20 ppm	0	0	0
	Federal: > 35 ppm	0	0	0
Maximum 8-hour concentration (ppm)		0.9	0.9	1.2
Number of days exceeded:	State: > 9 ppm	0	0	0
	Federal: > 9 ppm	0	0	0
Ozone (O_3)				
Maximum 1-hour concentration (ppm)		0.066	0.082	0.089
Number of days exceeded:	State: > 0.09 ppm	0	0	0
Maximum 8-hour concentration (ppm)		0.059	0.070	0.052
Number of days exceeded:	State: > 0.07 ppm	0	0	0
	Federal: > 0.08 ppm	0	0	0
Coarse Particulates (PM_{10})[1]				
Maximum 24-hour concentration (µg/m³)		71.4	95.3	78.9
Number of days exceeded:	State: > 50 µg/m³	ND	ND	ND
	Federal: > 150 µg/m³	0	0	0
Annual arithmetic average concentration (µg/m³)		26.0	29.3	28.5
Exceeded for the year:	State: > 20 µg/m³	Yes	Yes	Yes
	Federal: > 50 µg/m³	No	No	No
Fine Particulates ($PM_{2.5}$)				
Maximum 24-hour concentration (µg/m³)		28.7	42.6	64.0
Number of days exceeded:	Federal: > 35 µg/m³	0	1	5
Annual arithmetic average concentration (µg/m³)		5.3	5.6	8.5
Exceeded for the year:	State: > 12 µg/m³	No	No	No
	Federal: > 12 µg/m³	No	No	No
Nitrogen Dioxide (NO_2)				
Maximum 1-hour concentration (ppm)		0.033	0.034	0.047
Number of days exceeded:	State: > 0.250 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.004	0.004	0.005
Exceeded for the year:	Federal: > 0.053 ppm	No	No	No
Sulfur Dioxide (SO_2)[2]				
Maximum 1-hour concentration (ppm)		0.002	0.004	0.007
Number of days exceeded:	State: > 0.25 ppm	0	0	0
Maximum 24-hour concentration (ppm)		0.001	0.001	0.001
Number of days exceeded:	State: > 0.04 ppm	0	0	0
	Federal: > 0.14 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.0002	0.0002	0.0002
Exceeded for the year:	Federal: > 0.030 ppm	No	No	0

Source: CARB, 2019 and USEPA, 2019.
[1] Data taken at the 2415 Pearl Street, King City ambient air quality monitoring station.
[2] Data taken at the 158b Jackson Street, San Jose ambient air quality monitoring station.
ppm = parts per million
µg/m³ = micrograms per cubic meter;
ND = No data. There was insufficient (or no) data to determine the value.

GREENHOUSE GAS EMISSIONS INVENTORY

An emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs is a well-recognized and useful tool for addressing climate change. This section summarizes the latest information on global, United States, and California GHG emission inventories.

Global Emissions

Worldwide emissions of GHGs in 2016 totaled approximately 26 billion metric tons of CO_2e.[20] Global estimates are based on country inventories developed as part of the programs of the United Nations Framework Convention on Climate Change (UNFCCC).

United States Emissions

In 2015, the United States emitted about 6.6 billion metric tons of CO_2e or about 21 metric tons per year per person. The total 2015 CO_2e emissions represent a 3.5 percent increase since 1990 but a 10 percent decrease since 2005. Of the six major sectors nationwide – residential, commercial, agricultural, industry, transportation, and electricity generation – electricity generation accounts for the highest amount of GHG emissions (approximately 29 percent), with transportation second at 27 percent; these emissions are generated entirely from direct fossil fuel combustion.[21]

State of California Emissions

According to CARB emission inventory estimates, the State emitted approximately 429.4 million metric tons of CO_2e (million metric tons CO_2e) emissions in 2016. This is a decrease of 12 million metric tons CO_2e since 2015.[22]

The CARB estimates that transportation was the source of approximately 39 percent of the State's GHG emissions in 2016, followed by industrial sources at 21 percent and electricity generation at 16 percent. The remaining sources of GHG emissions were residential and commercial activities at 9 percent, agriculture at 8 percent, high-GWP gases at 5 percent, and recycling and waste at 2 percent.[23]

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20 United Nations Framework Convention on Climate Change (UNFCCC). 2016. GHG data from UNFCCC. Website: https://unfccc.int/process/transparency-and-reporting/greenhouse-gas-data/ghg-data-unfccc, (accessed September 2019).

21 U.S. Environmental Protection Agency. 2017. Inventory of U.S. Greenhouse Gas Emissions and Sinks. 1990-2015. Available online at: www.epa.gov/sites/production/files/2017-02/documents/2017_complete_report.pdf (accessed September 2019).

22 California Air Resources Board. 2018. op. cit.

23 Ibid.

METHODOLOGY

The methodology used to estimate air quality and GHG emissions during construction and operation associated with the Specific Plan is described in this section.

CONSTRUCTION EMISSIONS

Construction activities can generate a substantial amount of air pollution. Construction activities are considered temporary; however, short term impacts can contribute to exceedances of air quality standards. Construction activities include demolition, site preparation, earthmoving, and general construction. The emissions generated from these common construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel and gasoline powered equipment, portable auxiliary equipment, and worker commute trips. The California Emission Estimator Model version 2016.3.2 (CalEEMod) computer program was used to calculate emissions from on-site construction equipment and emissions from worker and vehicle trips to project sites associated with buildout of the Specific Plan.

OPERATIONAL EMISSIONS

The air quality analysis includes estimating emissions associated with long-term operation of the Specific Plan. Criteria pollutants with regional impacts would be emitted by mobile (indirect) sources associated with the proposed project. In addition, localized air quality impacts, (i.e., higher carbon monoxide concentrations or "hot spots") near intersections or roadway segments in the project vicinity would potentially occur due to vehicle trips associated with buildout of the Specific Plan.

Consistent with the MBARD guidance for estimating emissions associated with land use development projects, the CalEEMod computer program was used to calculate the long-term operational emissions associated with buildout of the Specific Plan. This analysis was conducted using the land use codes "Office Park", "Research & Development", "Strip Mall", "City Park", and "Other Asphalt Surfaces". Trip generation rates used in CalEEMod were based on the Traffic Impact Analysis[24], which estimates buildout of the Specific Plan would typically generate approximately 25,317 net new average daily trips.

GREENHOUSE GAS ANALYSIS

GHG emissions associated with buildout of the Specific Plan would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be long-term GHG emissions associated with vehicular trips. Recognizing that the field of global climate change analysis is rapidly evolving, the approaches advocated most recently indicate that for determining a project's contribution to GHG emissions, lead agencies should calculate, or estimate, emissions from vehicular traffic, energy consumption, water conveyance and treatment, waste generation, construction activities, and any other significant source of emissions within the project

[24] LSA, 2019. *Traffic Impact Study for the Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan.* September.

area. The CalEEMod results were used to quantify GHG emissions generated by buildout of the Specific Plan.

THRESHOLDS OF SIGNIFICANCE

The State CEQA Guidelines indicate that a project would normally have a significant adverse air quality impact if project-generated pollutant emissions would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project is nonattainment under applicable federal or state ambient air quality standards;
- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in other emissions (such as those leading to odors) affecting a substantial number of people.

The State CEQA Guidelines indicate that a project would normally have a significant adverse greenhouse gas emission impact if the project would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reduction the emissions of greenhouse gases.

REGIONAL EMISSIONS THRESHOLDS

The MBARD has established daily emissions thresholds for construction and operation of a proposed project. The emissions thresholds were established based on the attainment status of the NCCAB with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emissions thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

Table H lists the significance thresholds for construction and operational emissions established for the MBARD.

Table H: Regional Thresholds for Construction and Operational Emissions

Emissions Source	Pollutant Emissions Threshold (lbs/day)				
	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
Construction	137	137	550	82	55
Operations	137	137	550	82	55

Source: MBARD (2016).
CO = carbon monoxide
lbs/day = pounds per day
NO_x = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
ROG = reactive organic gases

Projects with construction- or operation-related emissions that exceed any of their respective emission thresholds would be considered significant under MBARD guidelines. These thresholds, which MBARD developed, apply as both project and cumulative thresholds. If a project exceeds these standards, it is considered to have a project-specific and cumulative impact.

LOCAL MICROSCALE CONCENTRATION STANDARDS

The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO standards. Because ambient CO levels are below the standards throughout the NCCAB, a project would be considered to have a significant CO impact if project emissions result in an exceedance of one or more of the 1-hour or 8-hour standards. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20 ppm
- California State 8-hour CO standard of 9 ppm

GLOBAL CLIMATE CHANGE

Global climate change is a cumulative impact; a project contributes to this impact through its incremental contribution of GHG emissions combined with the cumulative increase of all other sources of GHGs. If annual emissions of GHGs exceed these threshold levels, the proposed project would result in a cumulatively considerable contribution of GHG emissions and must implement mitigation measures.

According to the MBARD, a proposed stationary source project would not have a significant GHG impact, if operation of the project would:

- Emit less than the significance level of 10,000 metric tons per year CO_2e, or
- In accordance with the State CEQA Guidelines Section 15064.4(b)(3), the project complies with regulations or requirements adopted to implement a Statewide, regional, or local plan for the reduction or mitigation of GHG emissions [such as, sources subject to the Cap-and-Trade requirements pursuant to Title 17, Article 5 (California Cap on Greenhouse Gas Emissions and Market-based Compliance Mechanisms)].

Stationary source projects include equipment, processes, and operations that require an MBARD permit to operate.

The MBARD does not have a specific numeric threshold for project construction or operation. Project GHG emissions include direct and indirect sources emissions. Direct emissions occur as a result of onsite equipment, and also offsite sources directly related to the project such as emissions from worker commute trips and haul truck trips. Indirect emissions occur as a result of a project's actions but are produced from sources not owned or controlled by the project such as offsite emissions from electricity generation, water conveyance, and waste disposal.

IMPACTS ANALYSIS

This section identifies the air quality and GHG emissions impacts associated with buildout of the Specific Plan. The results of the impact analyses are then compared to applicable thresholds of significance.

AIR QUALITY IMPACTS

Consistency with Applicable Air Quality Plans

As discussed above, the MBARD and AMBAG are responsible for formulating and implementing the AQMP for the NCCAB. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. Every 3 years, MBUAPCD prepares a new AQMP, updating the previous plan and 20-year horizon.

MBARD approved the 2012–2015 AQMP on March 15, 2017. This AQMP is the seventh update to the original 1991 AQMP and shows that the region continues to make progress toward meeting the State ozone standard.

AMBAG is responsible under the CAA for determining the conformity of projects, plans, and programs with the MBARD AQMP. As indicated in the CEQA Air Quality Handbook, there are two main indicators of consistency:

- Whether the project would result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP; and

- Whether the project would exceed the AQMP's assumptions for 2020 or increments based on the year of project build out and phase.

In addition, an AQMP describes air pollution control strategies to be taken by counties or regions classified as nonattainment areas. The AQMP's main purpose is to bring the area into compliance with the requirements of federal and State air quality standards. The AQMP uses assumptions and projections by local planning agencies to determine control strategies for regional compliance status.

A project is not consistent if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast.

The proposed project includes buildout of the Specific Plan and therefore, emissions of criteria pollutants associated with future development allowed for under the project could contribute emissions of NO_x, ROG, CO, PM_{10}, and $PM_{2.5}$ which could affect attainment of the AAQS. Future development allowed under the Specific Plan would be required to comply with CARB motor vehicle

standards, MBARD regulations for stationary sources and architectural coatings, Title 24 energy efficiency standards, and the proposed Specific Plan policies.

The proposed Specific Plan would permit a range of industrial, research and development, educational, office, business park, and commercial uses that have been accounted for in regional employment forecasts. Buildout of the Specific Plan would not include residential units and therefore would not increase population projections within the City or County. As such, project population and employment would be within growth forecast assumptions used in the AQMP.

As described above, the proposed Specific Plan would be consistent with the AQMP because the population is not anticipated to increase with buildout of the Specific Plan and employment projections associated with the project have been included in the regional air quality modeling established for the AQMP. The project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP; and because the socioeconomic data has been accounted for the project would not exceed the AQMP's assumptions.

Criteria Pollutant Analysis

The following sections describe the construction- and operation-related air quality impacts and CO impacts associated with buildout of the Specific Plan.

Construction Emissions

During construction, short-term degradation of air quality may occur due to the release of particulate emissions generated by demolition, grading, paving, building, and other activities. Emissions from construction equipment are also anticipated and would include CO, NO_x, ROG, directly-emitted particulate matter ($PM_{2.5}$ and PM_{10}), and TACs such as diesel exhaust particulate matter.

Project construction activities would include grading, paving, and building activities. Construction-related effects on air quality from the proposed Specific Plan would be greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO_2, NO_x, ROGs and some soot particulate ($PM_{2.5}$ and PM_{10}) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles idle in traffic.

These emissions would be temporary in nature and limited to the immediate area surrounding the construction site.

Construction emissions were estimated for the Specific Plan using CalEEMod. Table I lists the tentative construction schedule for the buildout of the Specific Plan based on an estimated start date in January 2020 with buildout in 2040. Table J lists the potential construction equipment to be used during construction under each phase of construction. Construction-related emissions are presented in Table K. CalEEMod output sheets are included in Attachment A.

Table I: Tentative Construction Schedule

Phase Number	Phase Name	Phase Start Date	Phase End Date	Number of Days/Week	Number of Days
1	Demolition	1/6/2020	12/18/2020	5	250
2	Site Preparation	12/19/2020	7/16/2021	5	150
3	Grading	7/17/2021	1/27/2023	5	400
4	Building Construction	1/28/2023	12/9/2039	5	4,400
5	Paving	8/2/2038	1/6/2040	5	375
6	Architectural Coating	1/28/2024	12/7/2040	5	4,400

Source: Compiled by LSA (September 2019).

Table J: Diesel Construction Equipment Utilized by Construction Phase

Construction Phase	Off-Road Equipment Type	Off-Road Equipment Unit Amount	Hours Used per Day	Horsepower	Load Factor
Demolition	Air Compressors	1	6	78	0.48
	Excavators	5	8	158	0.38
	Concrete/Industrial Saws	1	8	81	0.73
	Rubber Tired Dozers	3	8	247	0.40
	Graders	1	8	187	0.41
	Tractors/Loaders/Backhoes	2	8	97	0.37
	Scrapers	2	8	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
	Rubber Tired Dozers	3	8	247	0.40
Grading	Excavators	2	8	158	0.38
	Graders	1	8	187	0.41
	Rubber Tired Dozers	1	8	247	0.40
	Scrapers	2	8	367	0.48
	Tractors/Loaders/Backhoes	2	8	97	0.37
Building Construction	Cranes	1	7	231	0.29
	Forklifts	3	8	89	0.20
	Generator Sets	1	8	84	0.74
	Tractors/Loaders/Backhoes	3	7	97	0.37
	Welders	1	8	46	0.45
Architectural Coating	Air Compressors	1	6	78	0.48
Paving	Pavers	2	8	130	0.42
	Rollers	2	8	80	0.38
	Paving Equipment	2	8	132	0.36

Source: Compiled by LSA using CalEEMod defaults (September 2019).

Table K: Construction Emissions in Pounds Per Day

Project Construction	Maximum Pollutant Emissions (lbs/day)				
	NO_x	ROG	PM_{10}	$PM_{2.5}$	CO
Maximum (lbs/day)	86.1	12.0	20.4	12.0	64.3
MBARD Thresholds	137.0	137.0	82.0	55.0	550.0
Exceeds?	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (September 2019).
CO = carbon monoxide
lbs/day = pounds per day
MBARD = Monterey Bay Air Resources District
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
ROG = reactive organic gases

As shown in Table K, construction emissions associated with buildout of the Specific Plan would not exceed the MBARD thresholds for NO_x, ROG, PM_{10}, $PM_{2.5}$, or CO emissions.

Operational Air Quality Impacts

Long-term air pollutant emission impacts are those associated with mobile sources (e.g., vehicle trips), energy sources (e.g., electricity and natural gas), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment) related to the proposed Specific Plan.

PM_{10} emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways. Entrainment of PM_{10} occurs when vehicle tires pulverize small rocks and pavement and the vehicle wakes generate airborne dust. The contribution of tire and brake wear is small compared to the other PM emission processes. Gasoline-powered engines have small rates of particulate matter emissions compared with diesel-powered vehicles.

Energy source emissions result from activities in buildings for which electricity and natural gas are used. The quantity of emissions is the product of usage intensity (i.e., the amount of electricity or natural gas) and the emission factor of the fuel source. The primary sources of energy demand for the proposed Specific Plan would include building mechanical systems, such as heating and air conditioning, lighting, and plug-in electronics, such as refrigerators or computers. Greater building or appliance efficiency reduces the amount of energy for a given activity and thus lowers the resultant emissions. The emission factor is determined by the fuel source, with cleaner energy sources, like renewable energy, producing fewer emissions than conventional sources. Projects associated with the Specific Plan would comply with the 2019 California Building Standards Code (California Code of Regulations, Title 24), which will take effect on January 1, 2020.

Typically, area source emissions consist of direct sources of air emissions located at the project site, including architectural coatings and the use of landscape maintenance equipment. Area source emissions associated with buildout of the Specific Plan would include emissions from the use of architectural coatings, consumer products, and landscaping equipment.

Long-term operation emissions associated with the proposed Specific Plan were calculated using CalEEMod. Trip generation rates used in CalEEMod were based on the Traffic Impact Study[25], which estimates that buildout of the Specific Plan would typically generate approximately 25,317 net new average daily trips. Model results are shown in Table L below. CalEEMod output sheets are included in Appendix A.

The primary emissions associated with the Specific Plan are regional in nature, meaning that air pollutants are rapidly dispersed on release or, in the case of vehicle emissions associated with the project; emissions are released in other areas of the NCCAB. The annual emissions associated with operational trip generation, energy, and area sources are identified in Table L for NO_x, ROG, CO, PM_{10}, and $PM_{2.5}$.

[25] LSA, 2019. op. cit.

Table L: Operational Emissions in Pounds Per Day

Source	Pollutant Emissions (lbs/day)				
	NO_x	ROG	PM_{10}	$PM_{2.5}$	CO
Area Sources	<0.1	41.1	<0.1	<0.1	0.2
Energy Sources	6.2	0.7	0.5	0.5	5.2
Mobile Sources	119.6	21.6	107.7	29.1	213.5
Total Project Emissions	**125.8**	**63.4**	**108.2**	**29.6**	**218.9**
MBARD Thresholds	137.0	137.0	82.0	55.0	550.0
Exceeds?	**No**	**No**	**Yes**	**No**	**No**

Source: Compiled by LSA (September 2019).
CO = carbon monoxide
lbs/day = pounds per day
MBARD = Monterey Bay Air Resources District
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
ROG = reactive organic gases

The results shown in Table L indicate buildout of the Specific Plan would not exceed the significance criteria for NO_x, ROG, $PM_{2.5}$, or CO emissions; however buildout of the Specific Plan would exceed the significant criteria for PM_{10} emissions. This is primarily due to vehicle trips associated with the project.

Long-Term Microscale (CO Hot Spot) Analysis

Vehicular trips associated with buildout of the proposed Specific Plan would contribute to congestion at intersections and along roadway segments in the project vicinity. Localized air quality impacts would occur when emissions from vehicular traffic increase as a result of the Specific Plan. The primary mobile-source pollutant of local concern is CO, a direct function of vehicle idling time and, thus, of traffic flow conditions. CO transport is extremely limited; under normal meteorological conditions, CO disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels, affecting local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

An assessment of project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate Specific Plan area are not available. Ambient CO levels monitored at the Salinas station, the closest station to the Specific Plan area, showed a highest recorded 1-hour concentration of 4.2 ppm (the State standard is 20 ppm) and a highest 8-hour concentration of 1.2 ppm (the State standard is 9 ppm) during the past 3 years (Table G). The highest CO concentrations would normally occur during peak traffic hours; hence, CO impacts calculated under peak traffic conditions represent a worst-case analysis.

As described in the Traffic Impact Study[26], the proposed Specific Plan would generate 817 AM peak hour trips and 1,546 PM peak-hour trips. Based on the results of the study area intersection LOS evaluation, the project would not result in significant traffic delays. Therefore, it is assumed that the addition of traffic associated with buildout of the Specific Plan would not create any significant adverse impacts to nearby intersections.

Therefore, given the extremely low level of CO concentrations in the Specific Plan area, and lack of traffic impacts at any intersections, vehicles associated with buildout of the Specific Plan are not expected to contribute significantly to result in the CO concentrations exceeding the State or federal CO standards.

Health Risk on Nearby Sensitive Receptors

Sensitive receptors are defined as people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling units. The general land uses immediately surrounding the Specific Plan area include a mix of aeronautical, public facility, commercial, and undeveloped land uses. Many of the properties in the general vicinity are undeveloped. Farther north and across the Salinas River is agricultural land, to the west is undeveloped UC land and habitat preserve land, to the east is undeveloped UC land, and to the south is undeveloped UC land, habitat preserve land, and former military dwelling units used now for faculty and student housing. The closest sensitive receptors include the single-family residences located across Reservation Road, along Landrum Court, located approximately 1,000 feet southwest of the Specific Plan area.

Construction associated with buildout of the Specific Plan may expose surrounding sensitive receptors to airborne particulates, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). However, due to the distance of the nearest sensitive receptors, construction associated with buildout of the Specific Plan would not be expected to expose sensitive receptors to substantial pollutant concentrations. In addition, once buildout of the Specific Plan is complete, the project would not be a source of substantial pollutant emissions and sensitive receptors would not be exposed to substantial pollutant concentrations during construction and operation.

Odors

Odor complaints are most commonly associated with agricultural land uses, wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, and landfills. During construction associated with buildout of the Specific Plan, objectionable odors may emanate from the operation of diesel-powered construction equipment. These odors, however, would be temporary and limited to the Specific Plan area.

The closest sensitive receptors include the single-family residences located across Reservation Road, along Landrum Court, located approximately 1,000 feet southwest of the Specific Plan area. Odors emanating from construction equipment may be detectable at these residences; however, due to

[26] LSA, 2019. op. cit.

rapid dispersion of emissions that would occur with distance from the source, because odors during construction would be temporary, and because the closest residences are located approximately 1,000 feet of the Specific Plan area, construction associated with buildout of the Specific Plan would not result in other emissions (such as those leading to odors) affecting a substantial number of people. In addition, once buildout of the Specific Plan is complete, the project would not include any activities or operations that would generate objectionable odors and once operational, the project would not be a source of odors. Therefore, buildout of the Specific Plan would not result in other emissions (such as those leading to odors) affecting a substantial number of people during construction or operation.

GREENHOUSE GAS EMISSIONS IMPACTS

Generation of Greenhouse Gas Emissions

This section describes the construction- and operational-related GHG emissions and contribution to global climate change associated with buildout of the Specific Plan.

Construction Greenhouse Gas Emissions

Construction activities associated with buildout of the Specific Plan would produce combustion emissions from various sources. During construction, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

The MBARD does not have an adopted threshold of significance for construction-related GHG emissions. However, lead agencies are required to quantify and disclose GHG emissions that would occur during construction. Using CalEEMod, it is estimated that with buildout of the Specific Plan, construction activities would emit approximately 47,512.0 metric tons of CO_2e. When considered over the 20-year construction period, construction emissions would be approximately 2,375.6 metric tons of CO_2e per year. As discussed above, the MBARD does not have an adopted threshold of significance for construction-related GHG emissions. However, as identified above, the State emitted approximately 429.4 million metric tons of CO_2e emissions in 2016. Therefore construction-related GHG emissions associated with buildout of the Specific Plan would be a minimal fraction of GHG emissions in California.

Operational Greenhouse Gas Emissions

Long-term operation of the proposed Specific Plan would generate GHG emissions from mobile sources (e.g., cars, trucks, and buses), area sources (e.g., maintenance activities and landscaping), indirect emissions from sources associated with energy consumption, waste sources (land filling and waste disposal), and water sources (water supply and conveyance, treatment, and distribution). Mobile-source GHG emissions include vehicle trips generated by buildout of the Specific Plan. Buildout of the Specific Plan would generate minimal area-source emissions associated with activities such as landscaping and maintenance on the project site. Energy source emissions are typically generated at off-site utility providers as a result of increased electricity demand generated by a project. Buildout of the Specific Plan would generate waste source emissions associated with

energy generated by land filling and other methods of disposal related to transporting and managing waste. In addition, buildout of the Specific Plan would generate water source emissions associated water supply and conveyance, water treatment, water distribution, and wastewater treatment.

Following guidance from the MBARD, GHG emissions were estimated using CalEEMod. Table M shows the calculated GHG emissions for buildout of the Specific Plan. Motor vehicle emissions are the largest source of GHG emissions for the project at approximately 74 percent of the total. Energy use is the next largest category at 20 percent. Water and waste are about 4 percent and 2 percent of the total emissions respectively. Additional calculation details are included in Appendix A.

Table M: GHG Emissions (Metric Tons Per Year)

Emissions Source	Operational Emissions				
	CO_2	CH_4	N_2O	CO_2e	Percent of Total
Area Source Emissions	<0.1	<0.1	0.0	<0.1	0
Energy Source Emissions	4,354.1	0.3	0.1	4,385.2	20
Mobile Source Emissions	16,615.8	0.6	0.0	16,631.0	74
Waste Source Emissions	168.3	9.9	0.0	416.9	2
Water Source Emissions	517.9	13.6	0.3	957.0	4
Total Operational Emissions				**22,390.1**	**100**

Source: LSA (September 2019).

As discussed above, according to MBARD, a proposed stationary source project would not have a significant GHG impact, if operation of a stationary source would:

- Emit less than the significance level of 10,000 metric tons per year CO_2e, or
- In accordance with the State CEQA Guidelines Section 15064.4(b)(3), the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions [such as, sources subject to the Cap-and-Trade requirements pursuant to Title 17, Article 5 (California Cap on Greenhouse Gas Emissions and Market-based Compliance Mechanisms)].

Stationary source projects include equipment, processes, and operations that require an MBARD permit to operate. The proposed project includes a Specific Plan that would permit a range of industrial, research and development, educational, office, business park, and commercial uses. As such, the proposed Specific Plan is not considered a stationary source. The MBARD has not established a threshold of significance for project-related GHG emissions and the City of Marina does not have an adopted Climate Action Plan or GHG Reduction Plan. Therefore, this analysis evaluates the Specific Plan according to the goals of AB 32, the AB 32 Scoping Plan, Executive Order B-30-15, SB 32, and AB 197.

AB 32 is aimed at reducing GHG emissions to 1990 levels by 2020. AB 32 requires the CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to

reduce GHGs that contribute to global climate change. The AB 32 Scoping Plan has a range of GHG reduction actions, which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 implementation fee to fund the program.

Executive Order Executive Order B-30-15 added the immediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,[27] to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Executive Order B-30-15. SB 32 builds on AB 32 and keeps us on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels. The companion bill to SB 32, AB 197, provides additional direction to the CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 intended to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

As identified above, the AB 32 Scoping Plan contains GHG reduction measures that work towards reducing GHG emissions, consistent with the targets set by AB 32, Executive Order B-30-15 and codified by SB 32 and AB 197. The measures applicable to the proposed Specific Plan include energy efficiency measures, water conservation and efficiency measures, and transportation and motor vehicle measures, as discussed below.

Energy efficient measures are intended to maximize energy efficiency building and appliance standards, pursue additional efficiency efforts including new technologies and new policy and implementation mechanisms, and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. As outlined in Section 2.5.7 Sustainability Guidelines of the Specific Plan, the project encourages and promotes sustainable site planning and building concepts for all development in the Specific Plan area. Incorporation of LEED design concepts in building development minimizes the impact of the development on surrounding ecosystems, conserves water and energy, lowers operating costs and increases asset value, reduces harmful greenhouse gas emissions, reduces waste sent to landfills, and creates a healthier and safer environment for occupants. Developers and applicants are encouraged to employ a sustainability approach for projects associated with the Specific Plan through the use of LEED design concepts as identified in the LEED v4 for Building Design and Construction. In addition, projects constructed on property ground-leased from UC shall be subject to UC's Sustainable Practices Policy. Therefore, the proposed Specific Plan would comply with applicable energy measures.

Water conservation and efficiency measures are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. As identified above, the Specific Plan encourages and promotes sustainable site planning and building concepts for all development in the Specific Plan area, which includes design concepts for conserving water. Projects developed under the

[27] California Air Resources Board. 2017. *California's 2017 Climate Change Scoping Plan*. November.

Specific Plan would also be required to comply with the latest Title 24 standards of the California Code of Regulations, which includes a variety of different measures, including reduction of wastewater and water use. In addition, projects would be required to comply with the California Model Water Efficient Landscape Ordinance. Therefore, the proposed Specific Plan would not conflict with any of the water conservation and efficiency measures.

The goal of transportation and motor vehicle measures is to develop regional GHG emissions reduction targets for passenger vehicles. Specific regional emission targets for transportation emissions would not directly apply to the proposed project. However, vehicles traveling to the project site would comply with the Pavley II (LEV III) Advanced Clean Cars Program. The second phase of Pavley standards will reduce GHG emissions from new cars by 34 percent from 2016 levels by 2025, resulting in a 3 percent decrease in average vehicle emissions for all vehicles by 2020. Vehicles traveling to the project site would comply with the Pavley II (LEV III) Advanced Clean Cars Program. Therefore, the proposed project would not conflict with the identified transportation and motor vehicle measures.

The proposed Specific Plan would comply with existing State regulations adopted to achieve the overall GHG emissions reduction goals identified in AB 32, the AB 32 Scoping Plan, Executive Order B-30-15, SB 32, and AB 197 and would not generate GHG emissions that would have a significant impact on the environment.

Consistency with Greenhouse Gas Reduction Plans

As discussed above, the proposed Specific Plan would comply with existing State regulations adopted to achieve the overall GHG emissions reduction goals identified in AB 32, the AB 32 Scoping Plan, Executive Order B-30-15, AB 32, and AB 197 and would be consistent with applicable state plans and programs designed to reduce GHG emissions.

CONCLUSION

Based on the analysis presented above, construction emissions associated with the Specific Plan would not exceed the MBARD thresholds for NO_x, ROG, PM_{10}, $PM_{2.5}$, or CO emissions. In addition, buildout of the Specific Plan would not exceed the significance criteria for NO_x, ROG, $PM_{2.5}$, or CO emissions; however buildout of the Specific Plan would exceed the significant criteria for PM_{10} emissions. The proposed Specific Plan is not expected to produce significant emissions that would affect nearby sensitive receptors. The proposed Specific Plan would also not result in objectionable odors affecting a substantial number of people. Additionally, the proposed Specific Plan would comply with existing State regulations adopted to achieve the overall GHG emissions reduction goals identified in AB 32, the AB 32 Scoping Plan, Executive Order B-30-15, AB 32, and AB 197 and would be consistent with applicable state plans and programs designed to reduce GHG emissions.

APPENDIX A

CALEEMOD OUTPUT SHEETS

Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan

Monterey County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	572.86	1000sqft	44.20	572,858.00	0
Office Park	240.58	1000sqft	19.10	240,582.00	0
Research & Development	511.48	1000sqft	37.64	511,482.00	0
Strip Mall	294.16	1000sqft	22.56	294,161.00	0
City Park	11.08	Acre	11.08	482,644.80	0
Other Asphalt Surfaces	13.13	Acre	13.13	571,942.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	55
Climate Zone	4			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	328.8	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan - Monterey County, Annual

Project Characteristics - CO2 intensity based on 5-year average (PG&E 2015)

Land Use - Office park includes business park and business aviation reserve land uses, strip mall includes commercial/mixed use land uses, city park includes open space, and other asphalt surfaces includes rights-of-way

Construction Phase - Asssuming 2040 buildout

Vehicle Trips - Trip rates based on project trip generation

Mobile Land Use Mitigation -

Water Mitigation - The project would be required to comply with the the Water Efficient Landscape Ordinance, which will reduce outdoor water use by 20 percent.

Energy Mitigation - The project would be consistent with California's 2019 Building Energy Efficiency Standards, which will take effect on January 1, 2020.

Waste Mitigation - The project would be required to comply with the CalRecycle Waste Diversion and Recycling Mandate which will reduce solid waste production by 25 percent.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	220.00	4,400.00
tblConstructionPhase	NumDays	3,100.00	4,400.00
tblConstructionPhase	NumDays	200.00	250.00
tblConstructionPhase	NumDays	310.00	400.00
tblConstructionPhase	NumDays	220.00	375.00
tblConstructionPhase	NumDays	120.00	150.00
tblConstructionPhase	PhaseEndDate	12/28/2035	12/7/2040
tblConstructionPhase	PhaseEndDate	4/21/2034	12/9/2039
tblConstructionPhase	PhaseEndDate	10/9/2020	12/18/2020
tblConstructionPhase	PhaseEndDate	6/3/2022	1/27/2023
tblConstructionPhase	PhaseEndDate	2/23/2035	1/6/2040
tblConstructionPhase	PhaseEndDate	3/26/2021	7/16/2021
tblConstructionPhase	PhaseStartDate	2/24/2035	1/28/2024
tblConstructionPhase	PhaseStartDate	6/4/2022	1/28/2023
tblConstructionPhase	PhaseStartDate	3/27/2021	7/17/2021
tblConstructionPhase	PhaseStartDate	4/22/2034	8/2/2038

tblConstructionPhase	PhaseStartDate	10/10/2020	12/19/2020
tblLandUse	LandUseSquareFeet	572,860.00	572,858.00
tblLandUse	LandUseSquareFeet	240,580.00	240,582.00
tblLandUse	LandUseSquareFeet	511,480.00	511,482.00
tblLandUse	LandUseSquareFeet	294,160.00	294,161.00
tblLandUse	LotAcreage	13.15	44.20
tblLandUse	LotAcreage	5.52	19.10
tblLandUse	LotAcreage	11.74	37.64
tblLandUse	LotAcreage	6.75	22.56
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	328.8
tblTripsAndVMT	WorkerTripNumber	38.00	15.00
tblTripsAndVMT	WorkerTripNumber	38.00	20.00
tblTripsAndVMT	WorkerTripNumber	38.00	192.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	1.64	12.44
tblVehicleTrips	ST_TR	1.90	11.26
tblVehicleTrips	ST_TR	42.04	32.09
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	0.76	12.44
tblVehicleTrips	SU_TR	1.11	11.26
tblVehicleTrips	SU_TR	20.43	32.09
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.42	12.44
tblVehicleTrips	WD_TR	8.11	11.26
tblVehicleTrips	WD_TR	44.32	32.09

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	1.1434	10.9419	8.0759	0.0155	0.6973	0.5049	1.2022	0.2005	0.4676	0.6681	0.0000	1,368.0774	1,368.0774	0.3568	0.0000	1,376.9982
2021	0.5356	5.6480	3.4258	6.6000e-003	2.1849	0.2634	2.4483	0.9612	0.2424	1.2036	0.0000	580.7281	580.7281	0.1827	0.0000	585.2956
2022	0.4810	5.0581	3.8539	8.2700e-003	1.3338	0.2127	1.5465	0.4931	0.1957	0.6888	0.0000	727.2748	727.2748	0.2300	0.0000	733.0238
2023	0.7571	7.0593	6.6312	0.0269	1.8544	0.1125	1.9670	0.4345	0.1056	0.5400	0.0000	2,493.4533	2,493.4533	0.1602	0.0000	2,497.4582
2024	1.4614	7.2594	7.3418	0.0303	1.5627	0.1040	1.6667	0.4243	0.0982	0.5225	0.0000	2,799.8257	2,799.8257	0.1579	0.0000	2,803.7728
2025	1.4635	6.9700	6.9949	0.0298	1.5720	0.0912	1.6632	0.4267	0.0861	0.5128	0.0000	2,755.2034	2,755.2034	0.1536	0.0000	2,759.0424
2026	1.4315	6.8509	6.6606	0.0293	1.5720	0.0905	1.6625	0.4267	0.0854	0.5122	0.0000	2,708.6148	2,708.6148	0.1500	0.0000	2,712.3650
2027	1.4018	6.7427	6.3744	0.0289	1.5720	0.0897	1.6617	0.4267	0.0847	0.5114	0.0000	2,670.9248	2,670.9248	0.1470	0.0000	2,674.5990
2028	1.3674	6.6250	6.1075	0.0284	1.5660	0.0885	1.6545	0.4251	0.0835	0.5086	0.0000	2,627.7228	2,627.7228	0.1436	0.0000	2,631.3133
2029	1.3426	6.5659	5.8998	0.0282	1.5721	0.0880	1.6601	0.4267	0.0831	0.5099	0.0000	2,608.5635	2,608.5635	0.1416	0.0000	2,612.1034
2030	1.3004	5.8621	5.7030	0.0284	1.5721	0.0337	1.6058	0.4267	0.0330	0.4597	0.0000	2,623.5969	2,623.5969	0.0813	0.0000	2,625.6296
2031	1.2697	5.7956	5.5064	0.0282	1.5721	0.0331	1.6052	0.4267	0.0324	0.4591	0.0000	2,601.7540	2,601.7540	0.0791	0.0000	2,603.7318
2032	1.2473	5.7596	5.3580	0.0281	1.5781	0.0326	1.6107	0.4284	0.0319	0.4603	0.0000	2,593.2388	2,593.2388	0.0775	0.0000	2,595.1751

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2033	1.2147	5.6656	5.1751	0.0277	1.5661	0.0318	1.5979	0.4251	0.0312	0.4563	0.0000	2,557.9702	2,557.9702	0.0753	0.0000	2,559.8514
2034	1.1957	5.6232	5.0448	0.0275	1.5661	0.0314	1.5974	0.4251	0.0308	0.4559	0.0000	2,544.9029	2,544.9029	0.0738	0.0000	2,546.7471
2035	1.1696	5.4963	4.9449	0.0275	1.5721	0.0222	1.5943	0.4268	0.0216	0.4483	0.0000	2,543.6673	2,543.6673	0.0717	0.0000	2,545.4601
2036	1.1741	5.5173	4.9639	0.0276	1.5781	0.0222	1.6004	0.4284	0.0217	0.4501	0.0000	2,553.4132	2,553.4132	0.0720	0.0000	2,555.2128
2037	1.1696	5.4963	4.9449	0.0275	1.5721	0.0222	1.5943	0.4268	0.0216	0.4483	0.0000	2,543.6673	2,543.6673	0.0717	0.0000	2,545.4601
2038	1.2386	5.7652	5.8242	0.0291	1.5787	0.0325	1.6112	0.4285	0.0319	0.4604	0.0000	2,680.1890	2,680.1890	0.0769	0.0000	2,682.1106
2039	1.3026	5.8021	6.7496	0.0297	1.5027	0.0453	1.5480	0.4078	0.0448	0.4526	0.0000	2,719.2731	2,719.2731	0.0797	0.0000	2,721.2648
2040	0.6755	0.1149	0.4727	1.6300e-003	0.1872	1.7700e-003	0.1890	0.0498	1.7200e-003	0.0515	0.0000	145.3494	145.3494	2.4100e-003	0.0000	145.4097
Maximum	**1.4635**	**10.9419**	**8.0759**	**0.0303**	**2.1849**	**0.5049**	**2.4483**	**0.9612**	**0.4676**	**1.2036**	**0.0000**	**2,799.8257**	**2,799.8257**	**0.3568**	**0.0000**	**2,803.7728**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	1.1434	10.9419	8.0759	0.0155	0.6973	0.5049	1.2022	0.2005	0.4676	0.6681	0.0000	1,368.0761	1,368.0761	0.3568	0.0000	1,376.9968
2021	0.5356	5.6480	3.4258	6.6000e-003	2.1849	0.2634	2.4483	0.9612	0.2424	1.2036	0.0000	580.7274	580.7274	0.1827	0.0000	585.2949
2022	0.4810	5.0581	3.8539	8.2700e-003	1.3338	0.2127	1.5465	0.4931	0.1957	0.6888	0.0000	727.2739	727.2739	0.2300	0.0000	733.0230

Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan - Monterey County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.7571	7.0593	6.6312	0.0269	1.8544	0.1125	1.9670	0.4345	0.1056	0.5400	0.0000	2,493.4529	2,493.4529	0.1602	0.0000	2,497.4578
2024	1.4614	7.2594	7.3418	0.0303	1.5627	0.1040	1.6667	0.4243	0.0982	0.5225	0.0000	2,799.8253	2,799.8253	0.1579	0.0000	2,803.7724
2025	1.4635	6.9699	6.9949	0.0298	1.5720	0.0912	1.6632	0.4267	0.0861	0.5128	0.0000	2,755.2030	2,755.2030	0.1536	0.0000	2,759.0420
2026	1.4315	6.8509	6.6606	0.0293	1.5720	0.0905	1.6625	0.4267	0.0854	0.5122	0.0000	2,708.6144	2,708.6144	0.1500	0.0000	2,712.3646
2027	1.4018	6.7426	6.3744	0.0289	1.5720	0.0897	1.6617	0.4267	0.0847	0.5114	0.0000	2,670.9244	2,670.9244	0.1470	0.0000	2,674.5986
2028	1.3674	6.6250	6.1075	0.0284	1.5660	0.0885	1.6545	0.4251	0.0835	0.5086	0.0000	2,627.7224	2,627.7224	0.1436	0.0000	2,631.3129
2029	1.3426	6.5659	5.8998	0.0282	1.5721	0.0880	1.6601	0.4267	0.0831	0.5099	0.0000	2,608.5631	2,608.5631	0.1416	0.0000	2,612.1030
2030	1.3004	5.8621	5.7030	0.0284	1.5721	0.0337	1.6058	0.4267	0.0330	0.4597	0.0000	2,623.5965	2,623.5965	0.0813	0.0000	2,625.6292
2031	1.2697	5.7956	5.5064	0.0282	1.5721	0.0331	1.6052	0.4267	0.0324	0.4591	0.0000	2,601.7536	2,601.7536	0.0791	0.0000	2,603.7314
2032	1.2473	5.7596	5.3580	0.0281	1.5781	0.0326	1.6107	0.4284	0.0319	0.4603	0.0000	2,593.2383	2,593.2383	0.0775	0.0000	2,595.1747
2033	1.2147	5.6656	5.1751	0.0277	1.5661	0.0318	1.5979	0.4251	0.0312	0.4563	0.0000	2,557.9697	2,557.9697	0.0753	0.0000	2,559.8509
2034	1.1957	5.6232	5.0448	0.0275	1.5661	0.0314	1.5974	0.4251	0.0308	0.4559	0.0000	2,544.9025	2,544.9025	0.0738	0.0000	2,546.7466
2035	1.1696	5.4963	4.9449	0.0275	1.5721	0.0222	1.5943	0.4268	0.0216	0.4483	0.0000	2,543.6669	2,543.6669	0.0717	0.0000	2,545.4596
2036	1.1741	5.5173	4.9639	0.0276	1.5781	0.0222	1.6004	0.4284	0.0217	0.4501	0.0000	2,553.4127	2,553.4127	0.0720	0.0000	2,555.2124
2037	1.1696	5.4963	4.9449	0.0275	1.5721	0.0222	1.5943	0.4268	0.0216	0.4483	0.0000	2,543.6669	2,543.6669	0.0717	0.0000	2,545.4596
2038	1.2386	5.7652	5.8242	0.0291	1.5787	0.0325	1.6112	0.4285	0.0319	0.4604	0.0000	2,680.1884	2,680.1884	0.0769	0.0000	2,682.1100
2039	1.3026	5.8021	6.7496	0.0297	1.5027	0.0453	1.5480	0.4078	0.0448	0.4526	0.0000	2,719.2723	2,719.2723	0.0797	0.0000	2,721.2640
2040	0.6755	0.1149	0.4727	1.6300e-003	0.1872	1.7700e-003	0.1890	0.0498	1.7200e-003	0.0515	0.0000	145.3493	145.3493	2.4100e-003	0.0000	145.4097

Maximum	1.4635	10.9419	8.0759	0.0303	2.1849	0.5049	2.4483	0.9612	0.4676	1.2036	0.0000	2,799.8253	2,799.8253	0.3568	0.0000	2,803.7724

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-6-2020	4-5-2020	3.0933	3.0933
2	4-6-2020	7-5-2020	3.0841	3.0841
3	7-6-2020	10-5-2020	3.1186	3.1186
4	10-6-2020	1-5-2021	2.8120	2.8120
5	1-6-2021	4-5-2021	1.4315	1.4315
6	4-6-2021	7-5-2021	1.4468	1.4468
7	7-6-2021	10-5-2021	1.6426	1.6426
8	10-6-2021	1-5-2022	1.6533	1.6533
9	1-6-2022	4-5-2022	1.3700	1.3700
10	4-6-2022	7-5-2022	1.3845	1.3845
11	7-6-2022	10-5-2022	1.3998	1.3998
12	10-6-2022	1-5-2023	1.3921	1.3921
13	1-6-2023	4-5-2023	1.8138	1.8138
14	4-6-2023	7-5-2023	1.9916	1.9916
15	7-6-2023	10-5-2023	2.0156	2.0156
16	10-6-2023	1-5-2024	2.0486	2.0486
17	1-6-2024	4-5-2024	2.1377	2.1377
18	4-6-2024	7-5-2024	2.1603	2.1603
19	7-6-2024	10-5-2024	2.1863	2.1863
20	10-6-2024	1-5-2025	2.2209	2.2209
21	1-6-2025	4-5-2025	2.0919	2.0919

22	**4-6-2025**	**7-5-2025**	2.0798	2.0798
23	**7-6-2025**	**10-5-2025**	2.1047	2.1047
24	**10-6-2025**	**1-5-2026**	2.1383	2.1383
25	**1-6-2026**	**4-5-2026**	2.0534	2.0534
26	**4-6-2026**	**7-5-2026**	2.0438	2.0438
27	**7-6-2026**	**10-5-2026**	2.0682	2.0682
28	**10-6-2026**	**1-5-2027**	2.0990	2.0990
29	**1-6-2027**	**4-5-2027**	2.0182	2.0182
30	**4-6-2027**	**7-5-2027**	2.0109	2.0109
31	**7-6-2027**	**10-5-2027**	2.0348	2.0348
32	**10-6-2027**	**1-5-2028**	2.0630	2.0630
33	**1-6-2028**	**4-5-2028**	2.0092	2.0092
34	**4-6-2028**	**7-5-2028**	1.9820	1.9820
35	**7-6-2028**	**10-5-2028**	2.0053	2.0053
36	**10-6-2028**	**1-5-2029**	2.0312	2.0312
37	**1-6-2029**	**4-5-2029**	1.9576	1.9576
38	**4-6-2029**	**7-5-2029**	1.9546	1.9546
39	**7-6-2029**	**10-5-2029**	1.9775	1.9775
40	**10-6-2029**	**1-5-2030**	1.9923	1.9923
41	**1-6-2030**	**4-5-2030**	1.7727	1.7727
42	**4-6-2030**	**7-5-2030**	1.7699	1.7699
43	**7-6-2030**	**10-5-2030**	1.7906	1.7906
44	**10-6-2030**	**1-5-2031**	1.8121	1.8121
45	**1-6-2031**	**4-5-2031**	1.7476	1.7476
46	**4-6-2031**	**7-5-2031**	1.7467	1.7467
47	**7-6-2031**	**10-5-2031**	1.7671	1.7671
48	**10-6-2031**	**1-5-2032**	1.7864	1.7864

49	**1-6-2032**	**4-5-2032**	1.7446	1.7446
50	**4-6-2032**	**7-5-2032**	1.7264	1.7264
51	**7-6-2032**	**10-5-2032**	1.7464	1.7464
52	**10-6-2032**	**1-5-2033**	1.7638	1.7638
53	**1-6-2033**	**4-5-2033**	1.7064	1.7064
54	**4-6-2033**	**7-5-2033**	1.7089	1.7089
55	**7-6-2033**	**10-5-2033**	1.7286	1.7286
56	**10-6-2033**	**1-5-2034**	1.7444	1.7444
57	**1-6-2034**	**4-5-2034**	1.6904	1.6904
58	**4-6-2034**	**7-5-2034**	1.6941	1.6941
59	**7-6-2034**	**10-5-2034**	1.7136	1.7136
60	**10-6-2034**	**1-5-2035**	1.7264	1.7264
61	**1-6-2035**	**4-5-2035**	1.6457	1.6457
62	**4-6-2035**	**7-5-2035**	1.6500	1.6500
63	**7-6-2035**	**10-5-2035**	1.6690	1.6690
64	**10-6-2035**	**1-5-2036**	1.6831	1.6831
65	**1-6-2036**	**4-5-2036**	1.6640	1.6640
66	**4-6-2036**	**7-5-2036**	1.6500	1.6500
67	**7-6-2036**	**10-5-2036**	1.6690	1.6690
68	**10-6-2036**	**1-5-2037**	1.6831	1.6831
69	**1-6-2037**	**4-5-2037**	1.6457	1.6457
70	**4-6-2037**	**7-5-2037**	1.6500	1.6500
71	**7-6-2037**	**10-5-2037**	1.6690	1.6690
72	**10-6-2037**	**1-5-2038**	1.6831	1.6831
73	**1-6-2038**	**4-5-2038**	1.6457	1.6457
74	**4-6-2038**	**7-5-2038**	1.6500	1.6500
75	**7-6-2038**	**10-5-2038**	1.8115	1.8115

76	**10-6-2038**	**1-5-2039**	1.8850	1.8850
77	**1-6-2039**	**4-5-2039**	1.8432	1.8432
78	**4-6-2039**	**7-5-2039**	1.8496	1.8496
79	**7-6-2039**	**10-5-2039**	1.8708	1.8708
80	**10-6-2039**	**1-5-2040**	1.4515	1.4515
81	**1-6-2040**	**4-5-2040**	0.2094	0.2094
82	**4-6-2040**	**7-5-2040**	0.2059	0.2059
83	**7-6-2040**	**9-30-2040**	0.1969	0.1969
		Highest	3.1186	3.1186

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	7.5043	1.9000e-004	0.0208	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0408	0.0408	1.1000e-004	0.0000	0.0434
Energy	0.1692	1.5377	1.2917	9.2300e-003		0.1169	0.1169		0.1169	0.1169	0.0000	5,144.8572	5,144.8572	0.3382	0.0940	5,181.3325
Mobile	3.6970	22.1411	38.9414	0.1917	20.3364	0.0857	20.4221	5.4552	0.0797	5.5349	0.0000	17,727.2592	17,727.2592	0.6394	0.0000	17,743.2441
Waste						0.0000	0.0000		0.0000	0.0000	224.3436	0.0000	224.3436	13.2583	0.0000	555.8017
Water						0.0000	0.0000		0.0000	0.0000	132.5666	397.3280	529.8946	13.6509	0.3288	969.1349
Total	**11.3705**	**23.6790**	**40.2539**	**0.2009**	**20.3364**	**0.2027**	**20.5390**	**5.4552**	**0.1966**	**5.6518**	**356.9102**	**23,269.4852**	**23,626.3954**	**27.8870**	**0.4228**	**24,449.5566**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	7.5043	1.9000e-004	0.0208	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0408	0.0408	1.1000e-004	0.0000	0.0434
Energy	0.1240	1.1276	0.9471	6.7700e-003		0.0857	0.0857		0.0857	0.0857	0.0000	4,354.0589	4,354.0589	0.2993	0.0796	4,385.2495
Mobile	3.5783	21.6601	36.8192	0.1796	18.8998	0.0806	18.9804	5.0698	0.0749	5.1447	0.0000	16,615.7812	16,615.7812	0.6081	0.0000	16,630.9837
Waste						0.0000	0.0000		0.0000	0.0000	168.2577	0.0000	168.2577	9.9437	0.0000	416.8513
Water						0.0000	0.0000		0.0000	0.0000	132.5666	385.3047	517.8713	13.6498	0.3285	957.0197
Total	**11.2067**	**22.7878**	**37.7872**	**0.1864**	**18.8998**	**0.1663**	**19.0662**	**5.0698**	**0.1606**	**5.2304**	**300.8243**	**21,355.1856**	**21,656.0099**	**24.5011**	**0.4081**	**22,390.1476**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.44**	**3.76**	**6.13**	**7.22**	**7.06**	**17.94**	**7.17**	**7.06**	**18.31**	**7.46**	**15.71**	**8.23**	**8.34**	**12.14**	**3.47**	**8.42**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/6/2020	12/18/2020	5	250	
2	Site Preparation	Site Preparation	12/19/2020	7/16/2021	5	150	
3	Grading	Grading	7/17/2021	1/27/2023	5	400	
4	Building Construction	Building Construction	1/28/2023	12/9/2039	5	4400	
5	Paving	Paving	8/2/2038	1/6/2040	5	375	
6	Architectural Coating	Architectural Coating	1/28/2024	12/7/2040	5	4400	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1000

Acres of Paving: 13.13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2,428,625; Non-Residential Outdoor: 809,542; Striped Parking Area: 34,317 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Demolition	Graders	1	8.00	187	0.41
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Demolition	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	15	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	15	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	961.00	438.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	15	192.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	192.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0006	10.6353	6.9429	0.0130		0.4929	0.4929		0.4566	0.4566	0.0000	1,137.9519	1,137.9519	0.3427	0.0000	1,146.5196
Total	**1.0006**	**10.6353**	**6.9429**	**0.0130**		**0.4929**	**0.4929**		**0.4566**	**0.4566**	**0.0000**	**1,137.9519**	**1,137.9519**	**0.3427**	**0.0000**	**1,146.5196**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1242	0.1154	1.0333	2.3800e-003	0.6154	2.0100e-003	0.6174	0.1557	1.8600e-003	0.1575	0.0000	214.4695	214.4695	9.2300e-003	0.0000	214.7003
Total	**0.1242**	**0.1154**	**1.0333**	**2.3800e-003**	**0.6154**	**2.0100e-003**	**0.6174**	**0.1557**	**1.8600e-003**	**0.1575**	**0.0000**	**214.4695**	**214.4695**	**9.2300e-003**	**0.0000**	**214.7003**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0006	10.6353	6.9429	0.0130		0.4929	0.4929		0.4566	0.4566	0.0000	1,137.9506	1,137.9506	0.3427	0.0000	1,146.5182
Total	**1.0006**	**10.6353**	**6.9429**	**0.0130**		**0.4929**	**0.4929**		**0.4566**	**0.4566**	**0.0000**	**1,137.9506**	**1,137.9506**	**0.3427**	**0.0000**	**1,146.5182**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1242	0.1154	1.0333	2.3800e-003	0.6154	2.0100e-003	0.6174	0.1557	1.8600e-003	0.1575	0.0000	214.4695	214.4695	9.2300e-003	0.0000	214.7003
Total	**0.1242**	**0.1154**	**1.0333**	**2.3800e-003**	**0.6154**	**2.0100e-003**	**0.6174**	**0.1557**	**1.8600e-003**	**0.1575**	**0.0000**	**214.4695**	**214.4695**	**9.2300e-003**	**0.0000**	**214.7003**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0813	0.0000	0.0813	0.0447	0.0000	0.0447	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0183	0.1909	0.0968	1.7000e-004		9.8900e-003	9.8900e-003		9.1000e-003	9.1000e-003	0.0000	15.0438	15.0438	4.8700e-003	0.0000	15.1654
Total	**0.0183**	**0.1909**	**0.0968**	**1.7000e-004**	**0.0813**	**9.8900e-003**	**0.0912**	**0.0447**	**9.1000e-003**	**0.0538**	**0.0000**	**15.0438**	**15.0438**	**4.8700e-003**	**0.0000**	**15.1654**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	3.3000e-004	2.9500e-003	1.0000e-005	6.4000e-004	1.0000e-005	6.5000e-004	1.7000e-004	1.0000e-005	1.8000e-004	0.0000	0.6122	0.6122	3.0000e-005	0.0000	0.6129
Total	**3.5000e-004**	**3.3000e-004**	**2.9500e-003**	**1.0000e-005**	**6.4000e-004**	**1.0000e-005**	**6.5000e-004**	**1.7000e-004**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**0.6122**	**0.6122**	**3.0000e-005**	**0.0000**	**0.6129**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0813	0.0000	0.0813	0.0447	0.0000	0.0447	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0183	0.1909	0.0968	1.7000e-004		9.8900e-003	9.8900e-003		9.1000e-003	9.1000e-003	0.0000	15.0438	15.0438	4.8700e-003	0.0000	15.1654
Total	**0.0183**	**0.1909**	**0.0968**	**1.7000e-004**	**0.0813**	**9.8900e-003**	**0.0912**	**0.0447**	**9.1000e-003**	**0.0538**	**0.0000**	**15.0438**	**15.0438**	**4.8700e-003**	**0.0000**	**15.1654**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	3.3000e-004	2.9500e-003	1.0000e-005	6.4000e-004	1.0000e-005	6.5000e-004	1.7000e-004	1.0000e-005	1.8000e-004	0.0000	0.6122	0.6122	3.0000e-005	0.0000	0.6129
Total	**3.5000e-004**	**3.3000e-004**	**2.9500e-003**	**1.0000e-005**	**6.4000e-004**	**1.0000e-005**	**6.5000e-004**	**1.7000e-004**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**0.6122**	**0.6122**	**3.0000e-005**	**0.0000**	**0.6129**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2737	0.0000	1.2737	0.7001	0.0000	0.7001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2741	2.8551	1.4914	2.6800e-003		0.1441	0.1441		0.1326	0.1326	0.0000	235.7218	235.7218	0.0762	0.0000	237.6277
Total	**0.2741**	**2.8551**	**1.4914**	**2.6800e-003**	**1.2737**	**0.1441**	**1.4178**	**0.7001**	**0.1326**	**0.8327**	**0.0000**	**235.7218**	**235.7218**	**0.0762**	**0.0000**	**237.6277**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1200e-003	4.6100e-003	0.0420	1.0000e-004	0.0101	9.0000e-005	0.0102	2.6800e-003	8.0000e-005	2.7600e-003	0.0000	9.2702	9.2702	3.7000e-004	0.0000	9.2794
Total	**5.1200e-003**	**4.6100e-003**	**0.0420**	**1.0000e-004**	**0.0101**	**9.0000e-005**	**0.0102**	**2.6800e-003**	**8.0000e-005**	**2.7600e-003**	**0.0000**	**9.2702**	**9.2702**	**3.7000e-004**	**0.0000**	**9.2794**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2737	0.0000	1.2737	0.7001	0.0000	0.7001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2741	2.8550	1.4914	2.6800e-003		0.1441	0.1441		0.1326	0.1326	0.0000	235.7215	235.7215	0.0762	0.0000	237.6275
Total	**0.2741**	**2.8550**	**1.4914**	**2.6800e-003**	**1.2737**	**0.1441**	**1.4178**	**0.7001**	**0.1326**	**0.8327**	**0.0000**	**235.7215**	**235.7215**	**0.0762**	**0.0000**	**237.6275**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1200e-003	4.6100e-003	0.0420	1.0000e-004	0.0101	9.0000e-005	0.0102	2.6800e-003	8.0000e-005	2.7600e-003	0.0000	9.2702	9.2702	3.7000e-004	0.0000	9.2794
Total	**5.1200e-003**	**4.6100e-003**	**0.0420**	**1.0000e-004**	**0.0101**	**9.0000e-005**	**0.0102**	**2.6800e-003**	**8.0000e-005**	**2.7600e-003**	**0.0000**	**9.2702**	**9.2702**	**3.7000e-004**	**0.0000**	**9.2794**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8916	0.0000	0.8916	0.2559	0.0000	0.2559	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2515	2.7840	1.8527	3.7200e-003		0.1191	0.1191		0.1096	0.1096	0.0000	326.9699	326.9699	0.1058	0.0000	329.6136
Total	**0.2515**	**2.7840**	**1.8527**	**3.7200e-003**	**0.8916**	**0.1191**	**1.0107**	**0.2559**	**0.1096**	**0.3655**	**0.0000**	**326.9699**	**326.9699**	**0.1058**	**0.0000**	**329.6136**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8400e-003	4.3500e-003	0.0397	1.0000e-004	9.5300e-003	8.0000e-005	9.6200e-003	2.5400e-003	8.0000e-005	2.6100e-003	0.0000	8.7662	8.7662	3.5000e-004	0.0000	8.7749
Total	**4.8400e-003**	**4.3500e-003**	**0.0397**	**1.0000e-004**	**9.5300e-003**	**8.0000e-005**	**9.6200e-003**	**2.5400e-003**	**8.0000e-005**	**2.6100e-003**	**0.0000**	**8.7662**	**8.7662**	**3.5000e-004**	**0.0000**	**8.7749**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8916	0.0000	0.8916	0.2559	0.0000	0.2559	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2515	2.7840	1.8527	3.7200e-003		0.1191	0.1191		0.1096	0.1096	0.0000	326.9695	326.9695	0.1058	0.0000	329.6132
Total	**0.2515**	**2.7840**	**1.8527**	**3.7200e-003**	**0.8916**	**0.1191**	**1.0107**	**0.2559**	**0.1096**	**0.3655**	**0.0000**	**326.9695**	**326.9695**	**0.1058**	**0.0000**	**329.6132**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8400e-003	4.3500e-003	0.0397	1.0000e-004	9.5300e-003	8.0000e-005	9.6200e-003	2.5400e-003	8.0000e-005	2.6100e-003	0.0000	8.7662	8.7662	3.5000e-004	0.0000	8.7749
Total	**4.8400e-003**	**4.3500e-003**	**0.0397**	**1.0000e-004**	**9.5300e-003**	**8.0000e-005**	**9.6200e-003**	**2.5400e-003**	**8.0000e-005**	**2.6100e-003**	**0.0000**	**8.7662**	**8.7662**	**3.5000e-004**	**0.0000**	**8.7749**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3131	0.0000	1.3131	0.4876	0.0000	0.4876	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4712	5.0497	3.7754	8.0700e-003		0.2125	0.2125		0.1955	0.1955	0.0000	708.9498	708.9498	0.2293	0.0000	714.6820
Total	**0.4712**	**5.0497**	**3.7754**	**8.0700e-003**	**1.3131**	**0.2125**	**1.5257**	**0.4876**	**0.1955**	**0.6831**	**0.0000**	**708.9498**	**708.9498**	**0.2293**	**0.0000**	**714.6820**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7300e-003	8.4500e-003	0.0785	2.0000e-004	0.0207	1.7000e-004	0.0208	5.4900e-003	1.6000e-004	5.6500e-003	0.0000	18.3250	18.3250	6.7000e-004	0.0000	18.3418
Total	**9.7300e-003**	**8.4500e-003**	**0.0785**	**2.0000e-004**	**0.0207**	**1.7000e-004**	**0.0208**	**5.4900e-003**	**1.6000e-004**	**5.6500e-003**	**0.0000**	**18.3250**	**18.3250**	**6.7000e-004**	**0.0000**	**18.3418**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3131	0.0000	1.3131	0.4876	0.0000	0.4876	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4712	5.0497	3.7754	8.0700e-003		0.2125	0.2125		0.1955	0.1955	0.0000	708.9490	708.9490	0.2293	0.0000	714.6812
Total	**0.4712**	**5.0497**	**3.7754**	**8.0700e-003**	**1.3131**	**0.2125**	**1.5257**	**0.4876**	**0.1955**	**0.6831**	**0.0000**	**708.9490**	**708.9490**	**0.2293**	**0.0000**	**714.6812**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7300e-003	8.4500e-003	0.0785	2.0000e-004	0.0207	1.7000e-004	0.0208	5.4900e-003	1.6000e-004	5.6500e-003	0.0000	18.3250	18.3250	6.7000e-004	0.0000	18.3418
Total	**9.7300e-003**	**8.4500e-003**	**0.0785**	**2.0000e-004**	**0.0207**	**1.7000e-004**	**0.0208**	**5.4900e-003**	**1.6000e-004**	**5.6500e-003**	**0.0000**	**18.3250**	**18.3250**	**6.7000e-004**	**0.0000**	**18.3418**

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5905	0.0000	0.5905	0.0904	0.0000	0.0904	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0332	0.3452	0.2805	6.2000e-004		0.0142	0.0142		0.0131	0.0131	0.0000	54.5352	54.5352	0.0176	0.0000	54.9762
Total	**0.0332**	**0.3452**	**0.2805**	**6.2000e-004**	**0.5905**	**0.0142**	**0.6047**	**0.0904**	**0.0131**	**0.1035**	**0.0000**	**54.5352**	**54.5352**	**0.0176**	**0.0000**	**54.9762**

3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	5.8000e-004	5.4900e-003	2.0000e-005	1.5900e-003	1.0000e-005	1.6000e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.3574	1.3574	5.0000e-005	0.0000	1.3585
Total	**6.9000e-004**	**5.8000e-004**	**5.4900e-003**	**2.0000e-005**	**1.5900e-003**	**1.0000e-005**	**1.6000e-003**	**4.2000e-004**	**1.0000e-005**	**4.3000e-004**	**0.0000**	**1.3574**	**1.3574**	**5.0000e-005**	**0.0000**	**1.3585**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5905	0.0000	0.5905	0.0904	0.0000	0.0904	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0332	0.3452	0.2805	6.2000e-004		0.0142	0.0142		0.0131	0.0131	0.0000	54.5351	54.5351	0.0176	0.0000	54.9761
Total	**0.0332**	**0.3452**	**0.2805**	**6.2000e-004**	**0.5905**	**0.0142**	**0.6047**	**0.0904**	**0.0131**	**0.1035**	**0.0000**	**54.5351**	**54.5351**	**0.0176**	**0.0000**	**54.9761**

3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	5.8000e-004	5.4900e-003	2.0000e-005	1.5900e-003	1.0000e-005	1.6000e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.3574	1.3574	5.0000e-005	0.0000	1.3585
Total	**6.9000e-004**	**5.8000e-004**	**5.4900e-003**	**2.0000e-005**	**1.5900e-003**	**1.0000e-005**	**1.6000e-003**	**4.2000e-004**	**1.0000e-005**	**4.3000e-004**	**0.0000**	**1.3574**	**1.3574**	**5.0000e-005**	**0.0000**	**1.3585**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1887	1.7262	1.9493	3.2300e-003		0.0840	0.0840		0.0790	0.0790	0.0000	278.1657	278.1657	0.0662	0.0000	279.8200
Total	**0.1887**	**1.7262**	**1.9493**	**3.2300e-003**		**0.0840**	**0.0840**		**0.0790**	**0.0790**	**0.0000**	**278.1657**	**278.1657**	**0.0662**	**0.0000**	**279.8200**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1341	4.6513	1.2292	0.0144	0.3461	6.9300e-003	0.3530	0.1000	6.6200e-003	0.1066	0.0000	1,376.7242	1,376.7242	0.0497	0.0000	1,377.9671
Worker	0.4004	0.3361	3.1667	8.6600e-003	0.9163	7.3800e-003	0.9237	0.2437	6.8000e-003	0.2505	0.0000	782.6708	782.6708	0.0266	0.0000	783.3364
Total	**0.5345**	**4.9874**	**4.3959**	**0.0231**	**1.2624**	**0.0143**	**1.2767**	**0.3437**	**0.0134**	**0.3571**	**0.0000**	**2,159.3950**	**2,159.3950**	**0.0764**	**0.0000**	**2,161.3036**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1887	1.7262	1.9493	3.2300e-003		0.0840	0.0840		0.0790	0.0790	0.0000	278.1654	278.1654	0.0662	0.0000	279.8197
Total	**0.1887**	**1.7262**	**1.9493**	**3.2300e-003**		**0.0840**	**0.0840**		**0.0790**	**0.0790**	**0.0000**	**278.1654**	**278.1654**	**0.0662**	**0.0000**	**279.8197**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1341	4.6513	1.2292	0.0144	0.3461	6.9300e-003	0.3530	0.1000	6.6200e-003	0.1066	0.0000	1,376.7242	1,376.7242	0.0497	0.0000	1,377.9671
Worker	0.4004	0.3361	3.1667	8.6600e-003	0.9163	7.3800e-003	0.9237	0.2437	6.8000e-003	0.2505	0.0000	782.6708	782.6708	0.0266	0.0000	783.3364
Total	**0.5345**	**4.9874**	**4.3959**	**0.0231**	**1.2624**	**0.0143**	**1.2767**	**0.3437**	**0.0134**	**0.3571**	**0.0000**	**2,159.3950**	**2,159.3950**	**0.0764**	**0.0000**	**2,161.3036**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1385	4.9600	1.2505	0.0156	0.3778	7.0300e-003	0.3848	0.1092	6.7200e-003	0.1159	0.0000	1,492.0598	1,492.0598	0.0535	0.0000	1,493.3974
Worker	0.4074	0.3299	3.1695	9.0900e-003	1.0003	7.8100e-003	1.0081	0.2660	7.2000e-003	0.2732	0.0000	821.5414	821.5414	0.0260	0.0000	822.1919
Total	**0.5459**	**5.2899**	**4.4200**	**0.0247**	**1.3781**	**0.0148**	**1.3930**	**0.3752**	**0.0139**	**0.3891**	**0.0000**	**2,313.6013**	**2,313.6013**	**0.0795**	**0.0000**	**2,315.5893**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1385	4.9600	1.2505	0.0156	0.3778	7.0300e-003	0.3848	0.1092	6.7200e-003	0.1159	0.0000	1,492.0598	1,492.0598	0.0535	0.0000	1,493.3974
Worker	0.4074	0.3299	3.1695	9.0900e-003	1.0003	7.8100e-003	1.0081	0.2660	7.2000e-003	0.2732	0.0000	821.5414	821.5414	0.0260	0.0000	822.1919
Total	**0.5459**	**5.2899**	**4.4200**	**0.0247**	**1.3781**	**0.0148**	**1.3930**	**0.3752**	**0.0139**	**0.3891**	**0.0000**	**2,313.6013**	**2,313.6013**	**0.0795**	**0.0000**	**2,315.5893**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1311	4.8363	1.1724	0.0155	0.3764	6.5000e-003	0.3829	0.1088	6.2200e-003	0.1150	0.0000	1,476.2019	1,476.2019	0.0525	0.0000	1,477.5151
Worker	0.3808	0.2974	2.9066	8.7000e-003	0.9965	7.6200e-003	1.0041	0.2650	7.0100e-003	0.2720	0.0000	785.9918	785.9918	0.0234	0.0000	786.5768
Total	**0.5119**	**5.1338**	**4.0790**	**0.0242**	**1.3729**	**0.0141**	**1.3870**	**0.3738**	**0.0132**	**0.3870**	**0.0000**	**2,262.1938**	**2,262.1938**	**0.0759**	**0.0000**	**2,264.0919**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1311	4.8363	1.1724	0.0155	0.3764	6.5000e-003	0.3829	0.1088	6.2200e-003	0.1150	0.0000	1,476.2019	1,476.2019	0.0525	0.0000	1,477.5151
Worker	0.3808	0.2974	2.9066	8.7000e-003	0.9965	7.6200e-003	1.0041	0.2650	7.0100e-003	0.2720	0.0000	785.9918	785.9918	0.0234	0.0000	786.5768
Total	**0.5119**	**5.1338**	**4.0790**	**0.0242**	**1.3729**	**0.0141**	**1.3870**	**0.3738**	**0.0132**	**0.3870**	**0.0000**	**2,262.1938**	**2,262.1938**	**0.0759**	**0.0000**	**2,264.0919**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1261	4.7503	1.1204	0.0154	0.3764	6.1500e-003	0.3826	0.1088	5.8800e-003	0.1147	0.0000	1,468.5766	1,468.5766	0.0519	0.0000	1,469.8732
Worker	0.3583	0.2699	2.6714	8.3300e-003	0.9965	7.3000e-003	1.0038	0.2650	6.7300e-003	0.2717	0.0000	753.5168	753.5168	0.0210	0.0000	754.0416
Total	**0.4843**	**5.0202**	**3.7917**	**0.0237**	**1.3729**	**0.0135**	**1.3864**	**0.3738**	**0.0126**	**0.3864**	**0.0000**	**2,222.0934**	**2,222.0934**	**0.0729**	**0.0000**	**2,223.9147**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1261	4.7503	1.1204	0.0154	0.3764	6.1500e-003	0.3826	0.1088	5.8800e-003	0.1147	0.0000	1,468.5766	1,468.5766	0.0519	0.0000	1,469.8732
Worker	0.3583	0.2699	2.6714	8.3300e-003	0.9965	7.3000e-003	1.0038	0.2650	6.7300e-003	0.2717	0.0000	753.5168	753.5168	0.0210	0.0000	754.0416
Total	**0.4843**	**5.0202**	**3.7917**	**0.0237**	**1.3729**	**0.0135**	**1.3864**	**0.3738**	**0.0126**	**0.3864**	**0.0000**	**2,222.0934**	**2,222.0934**	**0.0729**	**0.0000**	**2,223.9147**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1217	4.6716	1.0735	0.0153	0.3764	5.8400e-003	0.3823	0.1088	5.5800e-003	0.1144	0.0000	1,461.9319	1,461.9319	0.0512	0.0000	1,463.2123
Worker	0.3372	0.2453	2.4719	8.0500e-003	0.9965	6.8800e-003	1.0034	0.2650	6.3300e-003	0.2713	0.0000	727.6413	727.6413	0.0190	0.0000	728.1161
Total	**0.4589**	**4.9169**	**3.5454**	**0.0233**	**1.3729**	**0.0127**	**1.3857**	**0.3738**	**0.0119**	**0.3857**	**0.0000**	**2,189.5732**	**2,189.5732**	**0.0702**	**0.0000**	**2,191.3284**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1217	4.6716	1.0735	0.0153	0.3764	5.8400e-003	0.3823	0.1088	5.5800e-003	0.1144	0.0000	1,461.9319	1,461.9319	0.0512	0.0000	1,463.2123
Worker	0.3372	0.2453	2.4719	8.0500e-003	0.9965	6.8800e-003	1.0034	0.2650	6.3300e-003	0.2713	0.0000	727.6413	727.6413	0.0190	0.0000	728.1161
Total	**0.4589**	**4.9169**	**3.5454**	**0.0233**	**1.3729**	**0.0127**	**1.3857**	**0.3738**	**0.0119**	**0.3857**	**0.0000**	**2,189.5732**	**2,189.5732**	**0.0702**	**0.0000**	**2,191.3284**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1778	1.6211	2.0910	3.5000e-003		0.0686	0.0686		0.0645	0.0645	0.0000	301.4953	301.4953	0.0709	0.0000	303.2671
Total	**0.1778**	**1.6211**	**2.0910**	**3.5000e-003**		**0.0686**	**0.0686**		**0.0645**	**0.0645**	**0.0000**	**301.4953**	**301.4953**	**0.0709**	**0.0000**	**303.2671**

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1176	4.5880	1.0361	0.0152	0.3750	5.5400e-003	0.3806	0.1084	5.2900e-003	0.1137	0.0000	1,450.8077	1,450.8077	0.0503	0.0000	1,452.0650
Worker	0.3148	0.2225	2.2881	7.7600e-003	0.9927	6.3800e-003	0.9991	0.2640	5.8700e-003	0.2698	0.0000	701.9781	701.9781	0.0172	0.0000	702.4081
Total	**0.4323**	**4.8106**	**3.3241**	**0.0229**	**1.3677**	**0.0119**	**1.3796**	**0.3724**	**0.0112**	**0.3835**	**0.0000**	**2,152.7857**	**2,152.7857**	**0.0675**	**0.0000**	**2,154.4732**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1778	1.6211	2.0910	3.5000e-003		0.0686	0.0686		0.0645	0.0645	0.0000	301.4949	301.4949	0.0709	0.0000	303.2667
Total	**0.1778**	**1.6211**	**2.0910**	**3.5000e-003**		**0.0686**	**0.0686**		**0.0645**	**0.0645**	**0.0000**	**301.4949**	**301.4949**	**0.0709**	**0.0000**	**303.2667**

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1176	4.5880	1.0361	0.0152	0.3750	5.5400e-003	0.3806	0.1084	5.2900e-003	0.1137	0.0000	1,450.8077	1,450.8077	0.0503	0.0000	1,452.0650
Worker	0.3148	0.2225	2.2881	7.7600e-003	0.9927	6.3800e-003	0.9991	0.2640	5.8700e-003	0.2698	0.0000	701.9781	701.9781	0.0172	0.0000	702.4081
Total	**0.4323**	**4.8106**	**3.3241**	**0.0229**	**1.3677**	**0.0119**	**1.3796**	**0.3724**	**0.0112**	**0.3835**	**0.0000**	**2,152.7857**	**2,152.7857**	**0.0675**	**0.0000**	**2,154.4732**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1150	4.5457	1.0119	0.0152	0.3765	5.3000e-003	0.3818	0.1088	5.0700e-003	0.1139	0.0000	1,451.5945	1,451.5945	0.0499	0.0000	1,452.8424
Worker	0.2934	0.2029	2.1277	7.5600e-003	0.9965	5.9600e-003	1.0024	0.2650	5.4800e-003	0.2705	0.0000	684.2805	684.2805	0.0156	0.0000	684.6705
Total	**0.4084**	**4.7486**	**3.1396**	**0.0227**	**1.3730**	**0.0113**	**1.3842**	**0.3738**	**0.0106**	**0.3843**	**0.0000**	**2,135.8750**	**2,135.8750**	**0.0655**	**0.0000**	**2,137.5129**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1150	4.5457	1.0119	0.0152	0.3765	5.3000e-003	0.3818	0.1088	5.0700e-003	0.1139	0.0000	1,451.5945	1,451.5945	0.0499	0.0000	1,452.8424
Worker	0.2934	0.2029	2.1277	7.5600e-003	0.9965	5.9600e-003	1.0024	0.2650	5.4800e-003	0.2705	0.0000	684.2805	684.2805	0.0156	0.0000	684.6705
Total	**0.4084**	**4.7486**	**3.1396**	**0.0227**	**1.3730**	**0.0113**	**1.3842**	**0.3738**	**0.0106**	**0.3843**	**0.0000**	**2,135.8750**	**2,135.8750**	**0.0655**	**0.0000**	**2,137.5129**

3.5 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0336**	**343.0336**	**0.0138**	**0.0000**	**343.3777**

3.5 Building Construction - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1126	4.4944	0.9909	0.0151	0.3765	5.0900e-003	0.3816	0.1088	4.8700e-003	0.1137	0.0000	1,447.9244	1,447.9244	0.0493	0.0000	1,449.1569
Worker	0.2710	0.1838	1.9745	7.3600e-003	0.9965	5.5400e-003	1.0020	0.2650	5.1000e-003	0.2701	0.0000	666.2146	666.2146	0.0141	0.0000	666.5667
Total	**0.3836**	**4.6782**	**2.9654**	**0.0225**	**1.3730**	**0.0106**	**1.3836**	**0.3738**	**9.9700e-003**	**0.3838**	**0.0000**	**2,114.1391**	**2,114.1391**	**0.0634**	**0.0000**	**2,115.7236**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0332**	**343.0332**	**0.0138**	**0.0000**	**343.3773**

3.5 Building Construction - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1126	4.4944	0.9909	0.0151	0.3765	5.0900e-003	0.3816	0.1088	4.8700e-003	0.1137	0.0000	1,447.9244	1,447.9244	0.0493	0.0000	1,449.1569
Worker	0.2710	0.1838	1.9745	7.3600e-003	0.9965	5.5400e-003	1.0020	0.2650	5.1000e-003	0.2701	0.0000	666.2146	666.2146	0.0141	0.0000	666.5667
Total	**0.3836**	**4.6782**	**2.9654**	**0.0225**	**1.3730**	**0.0106**	**1.3836**	**0.3738**	**9.9700e-003**	**0.3838**	**0.0000**	**2,114.1391**	**2,114.1391**	**0.0634**	**0.0000**	**2,115.7236**

3.5 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0336**	**343.0336**	**0.0138**	**0.0000**	**343.3777**

3.5 Building Construction - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1106	4.4503	0.9732	0.0151	0.3765	4.9100e-003	0.3814	0.1088	4.6900e-003	0.1135	0.0000	1,445.2378	1,445.2378	0.0489	0.0000	1,446.4594
Worker	0.2471	0.1652	1.8254	7.1800e-003	0.9965	5.1600e-003	1.0016	0.2650	4.7400e-003	0.2697	0.0000	650.2483	650.2483	0.0126	0.0000	650.5637
Total	**0.3577**	**4.6154**	**2.7986**	**0.0223**	**1.3730**	**0.0101**	**1.3830**	**0.3738**	**9.4300e-003**	**0.3832**	**0.0000**	**2,095.4861**	**2,095.4861**	**0.0615**	**0.0000**	**2,097.0231**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0332**	**343.0332**	**0.0138**	**0.0000**	**343.3773**

3.5 Building Construction - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1106	4.4503	0.9732	0.0151	0.3765	4.9100e-003	0.3814	0.1088	4.6900e-003	0.1135	0.0000	1,445.2378	1,445.2378	0.0489	0.0000	1,446.4594
Worker	0.2471	0.1652	1.8254	7.1800e-003	0.9965	5.1600e-003	1.0016	0.2650	4.7400e-003	0.2697	0.0000	650.2483	650.2483	0.0126	0.0000	650.5637
Total	**0.3577**	**4.6154**	**2.7986**	**0.0223**	**1.3730**	**0.0101**	**1.3830**	**0.3738**	**9.4300e-003**	**0.3832**	**0.0000**	**2,095.4861**	**2,095.4861**	**0.0615**	**0.0000**	**2,097.0231**

3.5 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1715	1.0394	2.1166	4.0600e-003		0.0194	0.0194		0.0194	0.0194	0.0000	344.3479	344.3479	0.0138	0.0000	344.6933
Total	**0.1715**	**1.0394**	**2.1166**	**4.0600e-003**		**0.0194**	**0.0194**		**0.0194**	**0.0194**	**0.0000**	**344.3479**	**344.3479**	**0.0138**	**0.0000**	**344.6933**

3.5 Building Construction - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1093	4.4284	0.9637	0.0152	0.3780	4.7600e-003	0.3827	0.1092	4.5500e-003	0.1138	0.0000	1,449.1675	1,449.1675	0.0486	0.0000	1,450.3830
Worker	0.2267	0.1497	1.7021	7.0500e-003	1.0003	4.8200e-003	1.0051	0.2660	4.4300e-003	0.2704	0.0000	638.6739	638.6739	0.0114	0.0000	638.9586
Total	**0.3360**	**4.5781**	**2.6659**	**0.0222**	**1.3783**	**9.5800e-003**	**1.3878**	**0.3752**	**8.9800e-003**	**0.3842**	**0.0000**	**2,087.8414**	**2,087.8414**	**0.0600**	**0.0000**	**2,089.3416**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1715	1.0394	2.1166	4.0600e-003		0.0194	0.0194		0.0194	0.0194	0.0000	344.3475	344.3475	0.0138	0.0000	344.6929
Total	**0.1715**	**1.0394**	**2.1166**	**4.0600e-003**		**0.0194**	**0.0194**		**0.0194**	**0.0194**	**0.0000**	**344.3475**	**344.3475**	**0.0138**	**0.0000**	**344.6929**

3.5 Building Construction - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1093	4.4284	0.9637	0.0152	0.3780	4.7600e-003	0.3827	0.1092	4.5500e-003	0.1138	0.0000	1,449.1675	1,449.1675	0.0486	0.0000	1,450.3830
Worker	0.2267	0.1497	1.7021	7.0500e-003	1.0003	4.8200e-003	1.0051	0.2660	4.4300e-003	0.2704	0.0000	638.6739	638.6739	0.0114	0.0000	638.9586
Total	**0.3360**	**4.5781**	**2.6659**	**0.0222**	**1.3783**	**9.5800e-003**	**1.3878**	**0.3752**	**8.9800e-003**	**0.3842**	**0.0000**	**2,087.8414**	**2,087.8414**	**0.0600**	**0.0000**	**2,089.3416**

3.5 Building Construction - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0315	2.1004	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.7193	341.7193	0.0137	0.0000	342.0621
Total	**0.1702**	**1.0315**	**2.1004**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.7193**	**341.7193**	**0.0137**	**0.0000**	**342.0621**

3.5 Building Construction - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1072	4.3607	0.9462	0.0150	0.3751	4.5800e-003	0.3797	0.1084	4.3700e-003	0.1128	0.0000	1,437.2451	1,437.2451	0.0479	0.0000	1,438.4433
Worker	0.2068	0.1351	1.5793	6.8600e-003	0.9927	4.4700e-003	0.9971	0.2640	4.1100e-003	0.2681	0.0000	621.6190	621.6190	0.0102	0.0000	621.8747
Total	**0.3140**	**4.4958**	**2.5254**	**0.0219**	**1.3677**	**9.0500e-003**	**1.3768**	**0.3724**	**8.4800e-003**	**0.3809**	**0.0000**	**2,058.8641**	**2,058.8641**	**0.0582**	**0.0000**	**2,060.3179**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0315	2.1004	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.7189	341.7189	0.0137	0.0000	342.0617
Total	**0.1702**	**1.0315**	**2.1004**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.7189**	**341.7189**	**0.0137**	**0.0000**	**342.0617**

3.5 Building Construction - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1072	4.3607	0.9462	0.0150	0.3751	4.5800e-003	0.3797	0.1084	4.3700e-003	0.1128	0.0000	1,437.2451	1,437.2451	0.0479	0.0000	1,438.4433
Worker	0.2068	0.1351	1.5793	6.8600e-003	0.9927	4.4700e-003	0.9971	0.2640	4.1100e-003	0.2681	0.0000	621.6190	621.6190	0.0102	0.0000	621.8747
Total	**0.3140**	**4.4958**	**2.5254**	**0.0219**	**1.3677**	**9.0500e-003**	**1.3768**	**0.3724**	**8.4800e-003**	**0.3809**	**0.0000**	**2,058.8641**	**2,058.8641**	**0.0582**	**0.0000**	**2,060.3179**

3.5 Building Construction - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0315	2.1004	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.7193	341.7193	0.0137	0.0000	342.0621
Total	**0.1702**	**1.0315**	**2.1004**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.7193**	**341.7193**	**0.0137**	**0.0000**	**342.0621**

3.5 Building Construction - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1061	4.3314	0.9364	0.0150	0.3751	4.4400e-003	0.3795	0.1084	4.2500e-003	0.1127	0.0000	1,436.9266	1,436.9266	0.0476	0.0000	1,438.1173
Worker	0.1919	0.1242	1.4788	6.7500e-003	0.9927	4.1800e-003	0.9969	0.2640	3.8400e-003	0.2678	0.0000	610.9932	610.9932	9.2400e-003	0.0000	611.2242
Total	**0.2979**	**4.4555**	**2.4152**	**0.0218**	**1.3678**	**8.6200e-003**	**1.3764**	**0.3724**	**8.0900e-003**	**0.3805**	**0.0000**	**2,047.9198**	**2,047.9198**	**0.0569**	**0.0000**	**2,049.3415**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0315	2.1004	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.7189	341.7189	0.0137	0.0000	342.0617
Total	**0.1702**	**1.0315**	**2.1004**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.7189**	**341.7189**	**0.0137**	**0.0000**	**342.0617**

3.5 Building Construction - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1061	4.3314	0.9364	0.0150	0.3751	4.4400e-003	0.3795	0.1084	4.2500e-003	0.1127	0.0000	1,436.9266	1,436.9266	0.0476	0.0000	1,438.1173
Worker	0.1919	0.1242	1.4788	6.7500e-003	0.9927	4.1800e-003	0.9969	0.2640	3.8400e-003	0.2678	0.0000	610.9932	610.9932	9.2400e-003	0.0000	611.2242
Total	**0.2979**	**4.4555**	**2.4152**	**0.0218**	**1.3678**	**8.6200e-003**	**1.3764**	**0.3724**	**8.0900e-003**	**0.3805**	**0.0000**	**2,047.9198**	**2,047.9198**	**0.0569**	**0.0000**	**2,049.3415**

3.5 Building Construction - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1588	0.9346	2.1034	4.0400e-003		0.0118	0.0118		0.0118	0.0118	0.0000	343.0336	343.0336	0.0128	0.0000	343.3530
Total	**0.1588**	**0.9346**	**2.1034**	**4.0400e-003**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**343.0336**	**343.0336**	**0.0128**	**0.0000**	**343.3530**

3.5 Building Construction - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1054	4.3237	0.9316	0.0151	0.3765	4.3500e-003	0.3809	0.1088	4.1600e-003	0.1130	0.0000	1,442.4668	1,442.4668	0.0476	0.0000	1,443.6570
Worker	0.1794	0.1160	1.3967	6.6700e-003	0.9965	3.9300e-003	1.0004	0.2650	3.6100e-003	0.2686	0.0000	604.1439	604.1439	8.4100e-003	0.0000	604.3542
Total	**0.2848**	**4.4397**	**2.3283**	**0.0218**	**1.3730**	**8.2800e-003**	**1.3813**	**0.3738**	**7.7700e-003**	**0.3816**	**0.0000**	**2,046.6107**	**2,046.6107**	**0.0560**	**0.0000**	**2,048.0112**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1588	0.9346	2.1034	4.0400e-003		0.0118	0.0118		0.0118	0.0118	0.0000	343.0332	343.0332	0.0128	0.0000	343.3526
Total	**0.1588**	**0.9346**	**2.1034**	**4.0400e-003**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**343.0332**	**343.0332**	**0.0128**	**0.0000**	**343.3526**

3.5 Building Construction - 2035

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1054	4.3237	0.9316	0.0151	0.3765	4.3500e-003	0.3809	0.1088	4.1600e-003	0.1130	0.0000	1,442.4668	1,442.4668	0.0476	0.0000	1,443.6570
Worker	0.1794	0.1160	1.3967	6.6700e-003	0.9965	3.9300e-003	1.0004	0.2650	3.6100e-003	0.2686	0.0000	604.1439	604.1439	8.4100e-003	0.0000	604.3542
Total	**0.2848**	**4.4397**	**2.3283**	**0.0218**	**1.3730**	**8.2800e-003**	**1.3813**	**0.3738**	**7.7700e-003**	**0.3816**	**0.0000**	**2,046.6107**	**2,046.6107**	**0.0560**	**0.0000**	**2,048.0112**

3.5 Building Construction - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1594	0.9381	2.1114	4.0600e-003		0.0118	0.0118		0.0118	0.0118	0.0000	344.3479	344.3479	0.0128	0.0000	344.6686
Total	**0.1594**	**0.9381**	**2.1114**	**4.0600e-003**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**344.3479**	**344.3479**	**0.0128**	**0.0000**	**344.6686**

3.5 Building Construction - 2036

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1058	4.3403	0.9352	0.0151	0.3780	4.3700e-003	0.3823	0.1093	4.1700e-003	0.1134	0.0000	1,447.9935	1,447.9935	0.0478	0.0000	1,449.1882
Worker	0.1801	0.1164	1.4021	6.6900e-003	1.0003	3.9400e-003	1.0043	0.2660	3.6300e-003	0.2696	0.0000	606.4586	606.4586	8.4500e-003	0.0000	606.6698
Total	**0.2859**	**4.4567**	**2.3373**	**0.0218**	**1.3783**	**8.3100e-003**	**1.3866**	**0.3753**	**7.8000e-003**	**0.3831**	**0.0000**	**2,054.4521**	**2,054.4521**	**0.0562**	**0.0000**	**2,055.8580**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1594	0.9381	2.1114	4.0600e-003		0.0118	0.0118		0.0118	0.0118	0.0000	344.3475	344.3475	0.0128	0.0000	344.6682
Total	**0.1594**	**0.9381**	**2.1114**	**4.0600e-003**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**344.3475**	**344.3475**	**0.0128**	**0.0000**	**344.6682**

3.5 Building Construction - 2036

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1058	4.3403	0.9352	0.0151	0.3780	4.3700e-003	0.3823	0.1093	4.1700e-003	0.1134	0.0000	1,447.9935	1,447.9935	0.0478	0.0000	1,449.1882
Worker	0.1801	0.1164	1.4021	6.6900e-003	1.0003	3.9400e-003	1.0043	0.2660	3.6300e-003	0.2696	0.0000	606.4586	606.4586	8.4500e-003	0.0000	606.6698
Total	**0.2859**	**4.4567**	**2.3373**	**0.0218**	**1.3783**	**8.3100e-003**	**1.3866**	**0.3753**	**7.8000e-003**	**0.3831**	**0.0000**	**2,054.4521**	**2,054.4521**	**0.0562**	**0.0000**	**2,055.8580**

3.5 Building Construction - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1588	0.9346	2.1034	4.0400e-003		0.0118	0.0118		0.0118	0.0118	0.0000	343.0336	343.0336	0.0128	0.0000	343.3530
Total	**0.1588**	**0.9346**	**2.1034**	**4.0400e-003**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**343.0336**	**343.0336**	**0.0128**	**0.0000**	**343.3530**

3.5 Building Construction - 2037

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1054	4.3237	0.9316	0.0151	0.3765	4.3500e-003	0.3809	0.1088	4.1600e-003	0.1130	0.0000	1,442.4668	1,442.4668	0.0476	0.0000	1,443.6570
Worker	0.1794	0.1160	1.3967	6.6700e-003	0.9965	3.9300e-003	1.0004	0.2650	3.6100e-003	0.2686	0.0000	604.1439	604.1439	8.4100e-003	0.0000	604.3542
Total	**0.2848**	**4.4397**	**2.3283**	**0.0218**	**1.3730**	**8.2800e-003**	**1.3813**	**0.3738**	**7.7700e-003**	**0.3816**	**0.0000**	**2,046.6107**	**2,046.6107**	**0.0560**	**0.0000**	**2,048.0112**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1588	0.9346	2.1034	4.0400e-003		0.0118	0.0118		0.0118	0.0118	0.0000	343.0332	343.0332	0.0128	0.0000	343.3526
Total	**0.1588**	**0.9346**	**2.1034**	**4.0400e-003**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**343.0332**	**343.0332**	**0.0128**	**0.0000**	**343.3526**

3.5 Building Construction - 2037

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1054	4.3237	0.9316	0.0151	0.3765	4.3500e-003	0.3809	0.1088	4.1600e-003	0.1130	0.0000	1,442.4668	1,442.4668	0.0476	0.0000	1,443.6570
Worker	0.1794	0.1160	1.3967	6.6700e-003	0.9965	3.9300e-003	1.0004	0.2650	3.6100e-003	0.2686	0.0000	604.1439	604.1439	8.4100e-003	0.0000	604.3542
Total	**0.2848**	**4.4397**	**2.3283**	**0.0218**	**1.3730**	**8.2800e-003**	**1.3813**	**0.3738**	**7.7700e-003**	**0.3816**	**0.0000**	**2,046.6107**	**2,046.6107**	**0.0560**	**0.0000**	**2,048.0112**

3.5 Building Construction - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1588	0.9346	2.1034	4.0400e-003		0.0118	0.0118		0.0118	0.0118	0.0000	343.0336	343.0336	0.0128	0.0000	343.3530
Total	**0.1588**	**0.9346**	**2.1034**	**4.0400e-003**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**343.0336**	**343.0336**	**0.0128**	**0.0000**	**343.3530**

3.5 Building Construction - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1054	4.3237	0.9316	0.0151	0.3765	4.3500e-003	0.3809	0.1088	4.1600e-003	0.1130	0.0000	1,442.4668	1,442.4668	0.0476	0.0000	1,443.6570
Worker	0.1794	0.1160	1.3967	6.6700e-003	0.9965	3.9300e-003	1.0004	0.2650	3.6100e-003	0.2686	0.0000	604.1439	604.1439	8.4100e-003	0.0000	604.3542
Total	**0.2848**	**4.4397**	**2.3283**	**0.0218**	**1.3730**	**8.2800e-003**	**1.3813**	**0.3738**	**7.7700e-003**	**0.3816**	**0.0000**	**2,046.6107**	**2,046.6107**	**0.0560**	**0.0000**	**2,048.0112**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1588	0.9346	2.1034	4.0400e-003		0.0118	0.0118		0.0118	0.0118	0.0000	343.0332	343.0332	0.0128	0.0000	343.3526
Total	**0.1588**	**0.9346**	**2.1034**	**4.0400e-003**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**343.0332**	**343.0332**	**0.0128**	**0.0000**	**343.3526**

3.5 Building Construction - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1054	4.3237	0.9316	0.0151	0.3765	4.3500e-003	0.3809	0.1088	4.1600e-003	0.1130	0.0000	1,442.4668	1,442.4668	0.0476	0.0000	1,443.6570
Worker	0.1794	0.1160	1.3967	6.6700e-003	0.9965	3.9300e-003	1.0004	0.2650	3.6100e-003	0.2686	0.0000	604.1439	604.1439	8.4100e-003	0.0000	604.3542
Total	**0.2848**	**4.4397**	**2.3283**	**0.0218**	**1.3730**	**8.2800e-003**	**1.3813**	**0.3738**	**7.7700e-003**	**0.3816**	**0.0000**	**2,046.6107**	**2,046.6107**	**0.0560**	**0.0000**	**2,048.0112**

3.5 Building Construction - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1491	0.8773	1.9744	3.7900e-003		0.0111	0.0111		0.0111	0.0111	0.0000	322.0048	322.0048	0.0120	0.0000	322.3046
Total	**0.1491**	**0.8773**	**1.9744**	**3.7900e-003**		**0.0111**	**0.0111**		**0.0111**	**0.0111**	**0.0000**	**322.0048**	**322.0048**	**0.0120**	**0.0000**	**322.3046**

3.5 Building Construction - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0990	4.0587	0.8745	0.0142	0.3535	4.0800e-003	0.3575	0.1022	3.9000e-003	0.1061	0.0000	1,354.0397	1,354.0397	0.0447	0.0000	1,355.1569
Worker	0.1684	0.1088	1.3111	6.2600e-003	0.9354	3.6900e-003	0.9391	0.2487	3.3900e-003	0.2521	0.0000	567.1082	567.1082	7.9000e-003	0.0000	567.3057
Total	**0.2674**	**4.1675**	**2.1856**	**0.0204**	**1.2889**	**7.7700e-003**	**1.2966**	**0.3509**	**7.2900e-003**	**0.3582**	**0.0000**	**1,921.1480**	**1,921.1480**	**0.0526**	**0.0000**	**1,922.4626**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1491	0.8773	1.9744	3.7900e-003		0.0111	0.0111		0.0111	0.0111	0.0000	322.0044	322.0044	0.0120	0.0000	322.3042
Total	**0.1491**	**0.8773**	**1.9744**	**3.7900e-003**		**0.0111**	**0.0111**		**0.0111**	**0.0111**	**0.0000**	**322.0044**	**322.0044**	**0.0120**	**0.0000**	**322.3042**

3.5 Building Construction - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0990	4.0587	0.8745	0.0142	0.3535	4.0800e-003	0.3575	0.1022	3.9000e-003	0.1061	0.0000	1,354.0397	1,354.0397	0.0447	0.0000	1,355.1569
Worker	0.1684	0.1088	1.3111	6.2600e-003	0.9354	3.6900e-003	0.9391	0.2487	3.3900e-003	0.2521	0.0000	567.1082	567.1082	7.9000e-003	0.0000	567.3057
Total	**0.2674**	**4.1675**	**2.1856**	**0.0204**	**1.2889**	**7.7700e-003**	**1.2966**	**0.3509**	**7.2900e-003**	**0.3582**	**0.0000**	**1,921.1480**	**1,921.1480**	**0.0526**	**0.0000**	**1,922.4626**

3.6 Paving - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0627	0.2682	0.8701	1.5400e-003		0.0103	0.0103		0.0103	0.0103	0.0000	132.5473	132.5473	5.1000e-003	0.0000	132.6749
Paving	5.0500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0678**	**0.2682**	**0.8701**	**1.5400e-003**		**0.0103**	**0.0103**		**0.0103**	**0.0103**	**0.0000**	**132.5473**	**132.5473**	**5.1000e-003**	**0.0000**	**132.6749**

3.6 Paving - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1800e-003	7.6000e-004	9.1900e-003	4.0000e-005	6.5600e-003	3.0000e-005	6.5800e-003	1.7400e-003	2.0000e-005	1.7700e-003	0.0000	3.9743	3.9743	6.0000e-005	0.0000	3.9757
Total	**1.1800e-003**	**7.6000e-004**	**9.1900e-003**	**4.0000e-005**	**6.5600e-003**	**3.0000e-005**	**6.5800e-003**	**1.7400e-003**	**2.0000e-005**	**1.7700e-003**	**0.0000**	**3.9743**	**3.9743**	**6.0000e-005**	**0.0000**	**3.9757**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0627	0.2682	0.8701	1.5400e-003		0.0103	0.0103		0.0103	0.0103	0.0000	132.5472	132.5472	5.1000e-003	0.0000	132.6747
Paving	5.0500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0678**	**0.2682**	**0.8701**	**1.5400e-003**		**0.0103**	**0.0103**		**0.0103**	**0.0103**	**0.0000**	**132.5472**	**132.5472**	**5.1000e-003**	**0.0000**	**132.6747**

3.6 Paving - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1800e-003	7.6000e-004	9.1900e-003	4.0000e-005	6.5600e-003	3.0000e-005	6.5800e-003	1.7400e-003	2.0000e-005	1.7700e-003	0.0000	3.9743	3.9743	6.0000e-005	0.0000	3.9757
Total	**1.1800e-003**	**7.6000e-004**	**9.1900e-003**	**4.0000e-005**	**6.5600e-003**	**3.0000e-005**	**6.5800e-003**	**1.7400e-003**	**2.0000e-005**	**1.7700e-003**	**0.0000**	**3.9743**	**3.9743**	**6.0000e-005**	**0.0000**	**3.9757**

3.6 Paving - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1483	0.6339	2.0566	3.6500e-003		0.0244	0.0244		0.0244	0.0244	0.0000	313.2937	313.2937	0.0121	0.0000	313.5951
Paving	0.0119					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1602**	**0.6339**	**2.0566**	**3.6500e-003**		**0.0244**	**0.0244**		**0.0244**	**0.0244**	**0.0000**	**313.2937**	**313.2937**	**0.0121**	**0.0000**	**313.5951**

3.6 Paving - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7900e-003	1.8000e-003	0.0217	1.0000e-004	0.0155	6.0000e-005	0.0156	4.1200e-003	6.0000e-005	4.1800e-003	0.0000	9.3938	9.3938	1.3000e-004	0.0000	9.3971
Total	**2.7900e-003**	**1.8000e-003**	**0.0217**	**1.0000e-004**	**0.0155**	**6.0000e-005**	**0.0156**	**4.1200e-003**	**6.0000e-005**	**4.1800e-003**	**0.0000**	**9.3938**	**9.3938**	**1.3000e-004**	**0.0000**	**9.3971**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1483	0.6339	2.0566	3.6500e-003		0.0244	0.0244		0.0244	0.0244	0.0000	313.2933	313.2933	0.0121	0.0000	313.5947
Paving	0.0119					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1602**	**0.6339**	**2.0566**	**3.6500e-003**		**0.0244**	**0.0244**		**0.0244**	**0.0244**	**0.0000**	**313.2933**	**313.2933**	**0.0121**	**0.0000**	**313.5947**

3.6 Paving - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7900e-003	1.8000e-003	0.0217	1.0000e-004	0.0155	6.0000e-005	0.0156	4.1200e-003	6.0000e-005	4.1800e-003	0.0000	9.3938	9.3938	1.3000e-004	0.0000	9.3971
Total	**2.7900e-003**	**1.8000e-003**	**0.0217**	**1.0000e-004**	**0.0155**	**6.0000e-005**	**0.0156**	**4.1200e-003**	**6.0000e-005**	**4.1800e-003**	**0.0000**	**9.3938**	**9.3938**	**1.3000e-004**	**0.0000**	**9.3971**

3.6 Paving - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.5300e-003	9.1400e-003	0.0395	7.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	6.0249	6.0249	2.0000e-004	0.0000	6.0299
Paving	2.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.7600e-003**	**9.1400e-003**	**0.0395**	**7.0000e-005**		**2.9000e-004**	**2.9000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**6.0249**	**6.0249**	**2.0000e-004**	**0.0000**	**6.0299**

3.6 Paving - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.4000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.1720	0.1720	0.0000	0.0000	0.1720
Total	**4.0000e-005**	**3.0000e-005**	**3.4000e-004**	**0.0000**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.1720**	**0.1720**	**0.0000**	**0.0000**	**0.1720**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.5300e-003	9.1400e-003	0.0395	7.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	6.0249	6.0249	2.0000e-004	0.0000	6.0299
Paving	2.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.7600e-003**	**9.1400e-003**	**0.0395**	**7.0000e-005**		**2.9000e-004**	**2.9000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**6.0249**	**6.0249**	**2.0000e-004**	**0.0000**	**6.0299**

3.6 Paving - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.4000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.1720	0.1720	0.0000	0.0000	0.1720
Total	**4.0000e-005**	**3.0000e-005**	**3.4000e-004**	**0.0000**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.1720**	**0.1720**	**0.0000**	**0.0000**	**0.1720**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6257					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0219	0.1475	0.2190	3.6000e-004		7.3700e-003	7.3700e-003		7.3700e-003	7.3700e-003	0.0000	30.8944	30.8944	1.7400e-003	0.0000	30.9379
Total	**0.6476**	**0.1475**	**0.2190**	**3.6000e-004**		**7.3700e-003**	**7.3700e-003**		**7.3700e-003**	**7.3700e-003**	**0.0000**	**30.8944**	**30.8944**	**1.7400e-003**	**0.0000**	**30.9379**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0752	0.0609	0.5849	1.6800e-003	0.1846	1.4400e-003	0.1860	0.0491	1.3300e-003	0.0504	0.0000	151.6078	151.6078	4.8000e-003	0.0000	151.7278
Total	**0.0752**	**0.0609**	**0.5849**	**1.6800e-003**	**0.1846**	**1.4400e-003**	**0.1860**	**0.0491**	**1.3300e-003**	**0.0504**	**0.0000**	**151.6078**	**151.6078**	**4.8000e-003**	**0.0000**	**151.7278**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6257					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0219	0.1475	0.2190	3.6000e-004		7.3700e-003	7.3700e-003		7.3700e-003	7.3700e-003	0.0000	30.8943	30.8943	1.7400e-003	0.0000	30.9378
Total	**0.6476**	**0.1475**	**0.2190**	**3.6000e-004**		**7.3700e-003**	**7.3700e-003**		**7.3700e-003**	**7.3700e-003**	**0.0000**	**30.8943**	**30.8943**	**1.7400e-003**	**0.0000**	**30.9378**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0752	0.0609	0.5849	1.6800e-003	0.1846	1.4400e-003	0.1860	0.0491	1.3300e-003	0.0504	0.0000	151.6078	151.6078	4.8000e-003	0.0000	151.7278
Total	**0.0752**	**0.0609**	**0.5849**	**1.6800e-003**	**0.1846**	**1.4400e-003**	**0.1860**	**0.0491**	**1.3300e-003**	**0.0504**	**0.0000**	**151.6078**	**151.6078**	**4.8000e-003**	**0.0000**	**151.7278**

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	**0.6971**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3200**	**33.3200**	**1.8200e-003**	**0.0000**	**33.3654**

3.7 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0761	0.0594	0.5807	1.7400e-003	0.1991	1.5200e-003	0.2006	0.0529	1.4000e-003	0.0543	0.0000	157.0348	157.0348	4.6700e-003	0.0000	157.1517
Total	**0.0761**	**0.0594**	**0.5807**	**1.7400e-003**	**0.1991**	**1.5200e-003**	**0.2006**	**0.0529**	**1.4000e-003**	**0.0543**	**0.0000**	**157.0348**	**157.0348**	**4.6700e-003**	**0.0000**	**157.1517**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	**0.6971**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3199**	**33.3199**	**1.8200e-003**	**0.0000**	**33.3654**

3.7 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0761	0.0594	0.5807	1.7400e-003	0.1991	1.5200e-003	0.2006	0.0529	1.4000e-003	0.0543	0.0000	157.0348	157.0348	4.6700e-003	0.0000	157.1517
Total	**0.0761**	**0.0594**	**0.5807**	**1.7400e-003**	**0.1991**	**1.5200e-003**	**0.2006**	**0.0529**	**1.4000e-003**	**0.0543**	**0.0000**	**157.0348**	**157.0348**	**4.6700e-003**	**0.0000**	**157.1517**

3.7 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	**0.6971**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3200**	**33.3200**	**1.8200e-003**	**0.0000**	**33.3654**

3.7 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0716	0.0539	0.5337	1.6700e-003	0.1991	1.4600e-003	0.2006	0.0529	1.3400e-003	0.0543	0.0000	150.5465	150.5465	4.1900e-003	0.0000	150.6514
Total	**0.0716**	**0.0539**	**0.5337**	**1.6700e-003**	**0.1991**	**1.4600e-003**	**0.2006**	**0.0529**	**1.3400e-003**	**0.0543**	**0.0000**	**150.5465**	**150.5465**	**4.1900e-003**	**0.0000**	**150.6514**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	**0.6971**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3199**	**33.3199**	**1.8200e-003**	**0.0000**	**33.3654**

3.7 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0716	0.0539	0.5337	1.6700e-003	0.1991	1.4600e-003	0.2006	0.0529	1.3400e-003	0.0543	0.0000	150.5465	150.5465	4.1900e-003	0.0000	150.6514
Total	**0.0716**	**0.0539**	**0.5337**	**1.6700e-003**	**0.1991**	**1.4600e-003**	**0.2006**	**0.0529**	**1.3400e-003**	**0.0543**	**0.0000**	**150.5465**	**150.5465**	**4.1900e-003**	**0.0000**	**150.6514**

3.7 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	**0.6971**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3200**	**33.3200**	**1.8200e-003**	**0.0000**	**33.3654**

3.7 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0674	0.0490	0.4939	1.6100e-003	0.1991	1.3700e-003	0.2005	0.0529	1.2600e-003	0.0542	0.0000	145.3768	145.3768	3.7900e-003	0.0000	145.4717
Total	**0.0674**	**0.0490**	**0.4939**	**1.6100e-003**	**0.1991**	**1.3700e-003**	**0.2005**	**0.0529**	**1.2600e-003**	**0.0542**	**0.0000**	**145.3768**	**145.3768**	**3.7900e-003**	**0.0000**	**145.4717**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	**0.6971**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3199**	**33.3199**	**1.8200e-003**	**0.0000**	**33.3654**

3.7 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0674	0.0490	0.4939	1.6100e-003	0.1991	1.3700e-003	0.2005	0.0529	1.2600e-003	0.0542	0.0000	145.3768	145.3768	3.7900e-003	0.0000	145.4717
Total	**0.0674**	**0.0490**	**0.4939**	**1.6100e-003**	**0.1991**	**1.3700e-003**	**0.2005**	**0.0529**	**1.2600e-003**	**0.0542**	**0.0000**	**145.3768**	**145.3768**	**3.7900e-003**	**0.0000**	**145.4717**

3.7 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6722					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2376
Total	**0.6944**	**0.1489**	**0.2352**	**3.9000e-004**		**6.7000e-003**	**6.7000e-003**		**6.7000e-003**	**6.7000e-003**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2376**

3.7 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0629	0.0445	0.4571	1.5500e-003	0.1983	1.2700e-003	0.1996	0.0527	1.1700e-003	0.0539	0.0000	140.2495	140.2495	3.4400e-003	0.0000	140.3354
Total	**0.0629**	**0.0445**	**0.4571**	**1.5500e-003**	**0.1983**	**1.2700e-003**	**0.1996**	**0.0527**	**1.1700e-003**	**0.0539**	**0.0000**	**140.2495**	**140.2495**	**3.4400e-003**	**0.0000**	**140.3354**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6722					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2375
Total	**0.6944**	**0.1489**	**0.2352**	**3.9000e-004**		**6.7000e-003**	**6.7000e-003**		**6.7000e-003**	**6.7000e-003**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2375**

3.7 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0629	0.0445	0.4571	1.5500e-003	0.1983	1.2700e-003	0.1996	0.0527	1.1700e-003	0.0539	0.0000	140.2495	140.2495	3.4400e-003	0.0000	140.3354
Total	**0.0629**	**0.0445**	**0.4571**	**1.5500e-003**	**0.1983**	**1.2700e-003**	**0.1996**	**0.0527**	**1.1700e-003**	**0.0539**	**0.0000**	**140.2495**	**140.2495**	**3.4400e-003**	**0.0000**	**140.3354**

3.7 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	**0.6971**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3200**	**33.3200**	**1.8200e-003**	**0.0000**	**33.3654**

3.7 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0586	0.0405	0.4251	1.5100e-003	0.1991	1.1900e-003	0.2003	0.0529	1.0900e-003	0.0540	0.0000	136.7137	136.7137	3.1200e-003	0.0000	136.7916
Total	**0.0586**	**0.0405**	**0.4251**	**1.5100e-003**	**0.1991**	**1.1900e-003**	**0.2003**	**0.0529**	**1.0900e-003**	**0.0540**	**0.0000**	**136.7137**	**136.7137**	**3.1200e-003**	**0.0000**	**136.7916**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	**0.6971**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3199**	**33.3199**	**1.8200e-003**	**0.0000**	**33.3654**

3.7 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0586	0.0405	0.4251	1.5100e-003	0.1991	1.1900e-003	0.2003	0.0529	1.0900e-003	0.0540	0.0000	136.7137	136.7137	3.1200e-003	0.0000	136.7916
Total	**0.0586**	**0.0405**	**0.4251**	**1.5100e-003**	**0.1991**	**1.1900e-003**	**0.2003**	**0.0529**	**1.0900e-003**	**0.0540**	**0.0000**	**136.7137**	**136.7137**	**3.1200e-003**	**0.0000**	**136.7916**

3.7 Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3200	33.3200	1.3500e-003	0.0000	33.3537
Total	**0.6919**	**0.1117**	**0.2346**	**3.9000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**33.3200**	**33.3200**	**1.3500e-003**	**0.0000**	**33.3537**

3.7 Architectural Coating - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0541	0.0367	0.3945	1.4700e-003	0.1991	1.1100e-003	0.2002	0.0529	1.0200e-003	0.0540	0.0000	133.1043	133.1043	2.8100e-003	0.0000	133.1746
Total	**0.0541**	**0.0367**	**0.3945**	**1.4700e-003**	**0.1991**	**1.1100e-003**	**0.2002**	**0.0529**	**1.0200e-003**	**0.0540**	**0.0000**	**133.1043**	**133.1043**	**2.8100e-003**	**0.0000**	**133.1746**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3199	33.3199	1.3500e-003	0.0000	33.3536
Total	**0.6919**	**0.1117**	**0.2346**	**3.9000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**33.3199**	**33.3199**	**1.3500e-003**	**0.0000**	**33.3536**

3.7 Architectural Coating - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0541	0.0367	0.3945	1.4700e-003	0.1991	1.1100e-003	0.2002	0.0529	1.0200e-003	0.0540	0.0000	133.1043	133.1043	2.8100e-003	0.0000	133.1746
Total	**0.0541**	**0.0367**	**0.3945**	**1.4700e-003**	**0.1991**	**1.1100e-003**	**0.2002**	**0.0529**	**1.0200e-003**	**0.0540**	**0.0000**	**133.1043**	**133.1043**	**2.8100e-003**	**0.0000**	**133.1746**

3.7 Architectural Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3200	33.3200	1.3500e-003	0.0000	33.3537
Total	**0.6919**	**0.1117**	**0.2346**	**3.9000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**33.3200**	**33.3200**	**1.3500e-003**	**0.0000**	**33.3537**

3.7 Architectural Coating - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0494	0.0330	0.3647	1.4400e-003	0.1991	1.0300e-003	0.2001	0.0529	9.5000e-004	0.0539	0.0000	129.9143	129.9143	2.5200e-003	0.0000	129.9774
Total	**0.0494**	**0.0330**	**0.3647**	**1.4400e-003**	**0.1991**	**1.0300e-003**	**0.2001**	**0.0529**	**9.5000e-004**	**0.0539**	**0.0000**	**129.9143**	**129.9143**	**2.5200e-003**	**0.0000**	**129.9774**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3199	33.3199	1.3500e-003	0.0000	33.3536
Total	**0.6919**	**0.1117**	**0.2346**	**3.9000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**33.3199**	**33.3199**	**1.3500e-003**	**0.0000**	**33.3536**

3.7 Architectural Coating - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0494	0.0330	0.3647	1.4400e-003	0.1991	1.0300e-003	0.2001	0.0529	9.5000e-004	0.0539	0.0000	129.9143	129.9143	2.5200e-003	0.0000	129.9774
Total	**0.0494**	**0.0330**	**0.3647**	**1.4400e-003**	**0.1991**	**1.0300e-003**	**0.2001**	**0.0529**	**9.5000e-004**	**0.0539**	**0.0000**	**129.9143**	**129.9143**	**2.5200e-003**	**0.0000**	**129.9774**

3.7 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6774					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1122	0.2355	3.9000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	33.4476	33.4476	1.3500e-003	0.0000	33.4815
Total	**0.6945**	**0.1122**	**0.2355**	**3.9000e-004**		**2.6600e-003**	**2.6600e-003**		**2.6600e-003**	**2.6600e-003**	**0.0000**	**33.4476**	**33.4476**	**1.3500e-003**	**0.0000**	**33.4815**

3.7 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0453	0.0299	0.3401	1.4100e-003	0.1999	9.6000e-004	0.2008	0.0531	8.9000e-004	0.0540	0.0000	127.6019	127.6019	2.2800e-003	0.0000	127.6588
Total	**0.0453**	**0.0299**	**0.3401**	**1.4100e-003**	**0.1999**	**9.6000e-004**	**0.2008**	**0.0531**	**8.9000e-004**	**0.0540**	**0.0000**	**127.6019**	**127.6019**	**2.2800e-003**	**0.0000**	**127.6588**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6774					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1122	0.2355	3.9000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	33.4476	33.4476	1.3500e-003	0.0000	33.4814
Total	**0.6945**	**0.1122**	**0.2355**	**3.9000e-004**		**2.6600e-003**	**2.6600e-003**		**2.6600e-003**	**2.6600e-003**	**0.0000**	**33.4476**	**33.4476**	**1.3500e-003**	**0.0000**	**33.4814**

3.7 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0453	0.0299	0.3401	1.4100e-003	0.1999	9.6000e-004	0.2008	0.0531	8.9000e-004	0.0540	0.0000	127.6019	127.6019	2.2800e-003	0.0000	127.6588
Total	**0.0453**	**0.0299**	**0.3401**	**1.4100e-003**	**0.1999**	**9.6000e-004**	**0.2008**	**0.0531**	**8.9000e-004**	**0.0540**	**0.0000**	**127.6019**	**127.6019**	**2.2800e-003**	**0.0000**	**127.6588**

3.7 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6722					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1113	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2259
Total	**0.6892**	**0.1113**	**0.2337**	**3.9000e-004**		**2.6400e-003**	**2.6400e-003**		**2.6400e-003**	**2.6400e-003**	**0.0000**	**33.1923**	**33.1923**	**1.3400e-003**	**0.0000**	**33.2259**

3.7 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0413	0.0270	0.3155	1.3700e-003	0.1983	8.9000e-004	0.1992	0.0527	8.2000e-004	0.0536	0.0000	124.1944	124.1944	2.0400e-003	0.0000	124.2455
Total	**0.0413**	**0.0270**	**0.3155**	**1.3700e-003**	**0.1983**	**8.9000e-004**	**0.1992**	**0.0527**	**8.2000e-004**	**0.0536**	**0.0000**	**124.1944**	**124.1944**	**2.0400e-003**	**0.0000**	**124.2455**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6722					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1113	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2258
Total	**0.6892**	**0.1113**	**0.2337**	**3.9000e-004**		**2.6400e-003**	**2.6400e-003**		**2.6400e-003**	**2.6400e-003**	**0.0000**	**33.1923**	**33.1923**	**1.3400e-003**	**0.0000**	**33.2258**

3.7 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0413	0.0270	0.3155	1.3700e-003	0.1983	8.9000e-004	0.1992	0.0527	8.2000e-004	0.0536	0.0000	124.1944	124.1944	2.0400e-003	0.0000	124.2455
Total	**0.0413**	**0.0270**	**0.3155**	**1.3700e-003**	**0.1983**	**8.9000e-004**	**0.1992**	**0.0527**	**8.2000e-004**	**0.0536**	**0.0000**	**124.1944**	**124.1944**	**2.0400e-003**	**0.0000**	**124.2455**

3.7 Architectural Coating - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6722					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1113	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2259
Total	**0.6892**	**0.1113**	**0.2337**	**3.9000e-004**		**2.6400e-003**	**2.6400e-003**		**2.6400e-003**	**2.6400e-003**	**0.0000**	**33.1923**	**33.1923**	**1.3400e-003**	**0.0000**	**33.2259**

3.7 Architectural Coating - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0383	0.0248	0.2955	1.3500e-003	0.1983	8.3000e-004	0.1992	0.0527	7.7000e-004	0.0535	0.0000	122.0715	122.0715	1.8500e-003	0.0000	122.1176
Total	**0.0383**	**0.0248**	**0.2955**	**1.3500e-003**	**0.1983**	**8.3000e-004**	**0.1992**	**0.0527**	**7.7000e-004**	**0.0535**	**0.0000**	**122.0715**	**122.0715**	**1.8500e-003**	**0.0000**	**122.1176**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6722					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1113	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2258
Total	**0.6892**	**0.1113**	**0.2337**	**3.9000e-004**		**2.6400e-003**	**2.6400e-003**		**2.6400e-003**	**2.6400e-003**	**0.0000**	**33.1923**	**33.1923**	**1.3400e-003**	**0.0000**	**33.2258**

3.7 Architectural Coating - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0383	0.0248	0.2955	1.3500e-003	0.1983	8.3000e-004	0.1992	0.0527	7.7000e-004	0.0535	0.0000	122.0715	122.0715	1.8500e-003	0.0000	122.1176
Total	**0.0383**	**0.0248**	**0.2955**	**1.3500e-003**	**0.1983**	**8.3000e-004**	**0.1992**	**0.0527**	**7.7000e-004**	**0.0535**	**0.0000**	**122.0715**	**122.0715**	**1.8500e-003**	**0.0000**	**122.1176**

3.7 Architectural Coating - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0154	0.0989	0.2342	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.3200	33.3200	1.2300e-003	0.0000	33.3507
Total	**0.6902**	**0.0989**	**0.2342**	**3.9000e-004**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**33.3200**	**33.3200**	**1.2300e-003**	**0.0000**	**33.3507**

3.7 Architectural Coating - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0358	0.0232	0.2791	1.3300e-003	0.1991	7.8000e-004	0.1999	0.0529	7.2000e-004	0.0537	0.0000	120.7030	120.7030	1.6800e-003	0.0000	120.7451
Total	**0.0358**	**0.0232**	**0.2791**	**1.3300e-003**	**0.1991**	**7.8000e-004**	**0.1999**	**0.0529**	**7.2000e-004**	**0.0537**	**0.0000**	**120.7030**	**120.7030**	**1.6800e-003**	**0.0000**	**120.7451**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0154	0.0989	0.2342	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.3199	33.3199	1.2300e-003	0.0000	33.3507
Total	**0.6902**	**0.0989**	**0.2342**	**3.9000e-004**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**33.3199**	**33.3199**	**1.2300e-003**	**0.0000**	**33.3507**

3.7 Architectural Coating - 2035

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0358	0.0232	0.2791	1.3300e-003	0.1991	7.8000e-004	0.1999	0.0529	7.2000e-004	0.0537	0.0000	120.7030	120.7030	1.6800e-003	0.0000	120.7451
Total	**0.0358**	**0.0232**	**0.2791**	**1.3300e-003**	**0.1991**	**7.8000e-004**	**0.1999**	**0.0529**	**7.2000e-004**	**0.0537**	**0.0000**	**120.7030**	**120.7030**	**1.6800e-003**	**0.0000**	**120.7451**

3.7 Architectural Coating - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6774					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0154	0.0993	0.2351	3.9000e-004		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003	0.0000	33.4476	33.4476	1.2400e-003	0.0000	33.4785
Total	**0.6928**	**0.0993**	**0.2351**	**3.9000e-004**		**1.3000e-003**	**1.3000e-003**		**1.3000e-003**	**1.3000e-003**	**0.0000**	**33.4476**	**33.4476**	**1.2400e-003**	**0.0000**	**33.4785**

3.7 Architectural Coating - 2036

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0360	0.0233	0.2801	1.3400e-003	0.1999	7.9000e-004	0.2006	0.0531	7.2000e-004	0.0539	0.0000	121.1655	121.1655	1.6900e-003	0.0000	121.2077
Total	**0.0360**	**0.0233**	**0.2801**	**1.3400e-003**	**0.1999**	**7.9000e-004**	**0.2006**	**0.0531**	**7.2000e-004**	**0.0539**	**0.0000**	**121.1655**	**121.1655**	**1.6900e-003**	**0.0000**	**121.2077**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6774					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0154	0.0993	0.2351	3.9000e-004		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003	0.0000	33.4476	33.4476	1.2400e-003	0.0000	33.4785
Total	**0.6928**	**0.0993**	**0.2351**	**3.9000e-004**		**1.3000e-003**	**1.3000e-003**		**1.3000e-003**	**1.3000e-003**	**0.0000**	**33.4476**	**33.4476**	**1.2400e-003**	**0.0000**	**33.4785**

3.7 Architectural Coating - 2036

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0360	0.0233	0.2801	1.3400e-003	0.1999	7.9000e-004	0.2006	0.0531	7.2000e-004	0.0539	0.0000	121.1655	121.1655	1.6900e-003	0.0000	121.2077
Total	**0.0360**	**0.0233**	**0.2801**	**1.3400e-003**	**0.1999**	**7.9000e-004**	**0.2006**	**0.0531**	**7.2000e-004**	**0.0539**	**0.0000**	**121.1655**	**121.1655**	**1.6900e-003**	**0.0000**	**121.2077**

3.7 Architectural Coating - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0154	0.0989	0.2342	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.3200	33.3200	1.2300e-003	0.0000	33.3507
Total	**0.6902**	**0.0989**	**0.2342**	**3.9000e-004**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**33.3200**	**33.3200**	**1.2300e-003**	**0.0000**	**33.3507**

3.7 Architectural Coating - 2037

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0358	0.0232	0.2791	1.3300e-003	0.1991	7.8000e-004	0.1999	0.0529	7.2000e-004	0.0537	0.0000	120.7030	120.7030	1.6800e-003	0.0000	120.7451
Total	**0.0358**	**0.0232**	**0.2791**	**1.3300e-003**	**0.1991**	**7.8000e-004**	**0.1999**	**0.0529**	**7.2000e-004**	**0.0537**	**0.0000**	**120.7030**	**120.7030**	**1.6800e-003**	**0.0000**	**120.7451**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0154	0.0989	0.2342	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.3199	33.3199	1.2300e-003	0.0000	33.3507
Total	**0.6902**	**0.0989**	**0.2342**	**3.9000e-004**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**33.3199**	**33.3199**	**1.2300e-003**	**0.0000**	**33.3507**

3.7 Architectural Coating - 2037

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0358	0.0232	0.2791	1.3300e-003	0.1991	7.8000e-004	0.1999	0.0529	7.2000e-004	0.0537	0.0000	120.7030	120.7030	1.6800e-003	0.0000	120.7451
Total	**0.0358**	**0.0232**	**0.2791**	**1.3300e-003**	**0.1991**	**7.8000e-004**	**0.1999**	**0.0529**	**7.2000e-004**	**0.0537**	**0.0000**	**120.7030**	**120.7030**	**1.6800e-003**	**0.0000**	**120.7451**

3.7 Architectural Coating - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0154	0.0989	0.2342	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.3200	33.3200	1.2300e-003	0.0000	33.3507
Total	**0.6902**	**0.0989**	**0.2342**	**3.9000e-004**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**33.3200**	**33.3200**	**1.2300e-003**	**0.0000**	**33.3507**

3.7 Architectural Coating - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0358	0.0232	0.2791	1.3300e-003	0.1991	7.8000e-004	0.1999	0.0529	7.2000e-004	0.0537	0.0000	120.7030	120.7030	1.6800e-003	0.0000	120.7451
Total	**0.0358**	**0.0232**	**0.2791**	**1.3300e-003**	**0.1991**	**7.8000e-004**	**0.1999**	**0.0529**	**7.2000e-004**	**0.0537**	**0.0000**	**120.7030**	**120.7030**	**1.6800e-003**	**0.0000**	**120.7451**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0154	0.0989	0.2342	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.3199	33.3199	1.2300e-003	0.0000	33.3507
Total	**0.6902**	**0.0989**	**0.2342**	**3.9000e-004**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**33.3199**	**33.3199**	**1.2300e-003**	**0.0000**	**33.3507**

3.7 Architectural Coating - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0358	0.0232	0.2791	1.3300e-003	0.1991	7.8000e-004	0.1999	0.0529	7.2000e-004	0.0537	0.0000	120.7030	120.7030	1.6800e-003	0.0000	120.7451
Total	**0.0358**	**0.0232**	**0.2791**	**1.3300e-003**	**0.1991**	**7.8000e-004**	**0.1999**	**0.0529**	**7.2000e-004**	**0.0537**	**0.0000**	**120.7030**	**120.7030**	**1.6800e-003**	**0.0000**	**120.7451**

3.7 Architectural Coating - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6722					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0153	0.0985	0.2333	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.1923	33.1923	1.2300e-003	0.0000	33.2230
Total	**0.6875**	**0.0985**	**0.2333**	**3.9000e-004**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**33.1923**	**33.1923**	**1.2300e-003**	**0.0000**	**33.2230**

3.7 Architectural Coating - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0357	0.0231	0.2780	1.3300e-003	0.1983	7.8000e-004	0.1991	0.0527	7.2000e-004	0.0535	0.0000	120.2406	120.2406	1.6700e-003	0.0000	120.2825
Total	**0.0357**	**0.0231**	**0.2780**	**1.3300e-003**	**0.1983**	**7.8000e-004**	**0.1991**	**0.0527**	**7.2000e-004**	**0.0535**	**0.0000**	**120.2406**	**120.2406**	**1.6700e-003**	**0.0000**	**120.2825**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6722					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0153	0.0985	0.2333	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.1923	33.1923	1.2300e-003	0.0000	33.2229
Total	**0.6875**	**0.0985**	**0.2333**	**3.9000e-004**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**33.1923**	**33.1923**	**1.2300e-003**	**0.0000**	**33.2229**

3.7 Architectural Coating - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0357	0.0231	0.2780	1.3300e-003	0.1983	7.8000e-004	0.1991	0.0527	7.2000e-004	0.0535	0.0000	120.2406	120.2406	1.6700e-003	0.0000	120.2825
Total	**0.0357**	**0.0231**	**0.2780**	**1.3300e-003**	**0.1983**	**7.8000e-004**	**0.1991**	**0.0527**	**7.2000e-004**	**0.0535**	**0.0000**	**120.2406**	**120.2406**	**1.6700e-003**	**0.0000**	**120.2825**

3.7 Architectural Coating - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6334					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0141	0.0891	0.2196	3.6000e-004		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	31.2774	31.2774	1.1000e-003	0.0000	31.3049
Total	**0.6475**	**0.0891**	**0.2196**	**3.6000e-004**		**9.1000e-004**	**9.1000e-004**		**9.1000e-004**	**9.1000e-004**	**0.0000**	**31.2774**	**31.2774**	**1.1000e-003**	**0.0000**	**31.3049**

3.7 Architectural Coating - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0252	0.0166	0.2132	1.1900e-003	0.1869	5.7000e-004	0.1875	0.0497	5.2000e-004	0.0502	0.0000	107.8751	107.8751	1.1100e-003	0.0000	107.9028
Total	**0.0252**	**0.0166**	**0.2132**	**1.1900e-003**	**0.1869**	**5.7000e-004**	**0.1875**	**0.0497**	**5.2000e-004**	**0.0502**	**0.0000**	**107.8751**	**107.8751**	**1.1100e-003**	**0.0000**	**107.9028**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6334					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0141	0.0891	0.2196	3.6000e-004		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	31.2773	31.2773	1.1000e-003	0.0000	31.3048
Total	**0.6475**	**0.0891**	**0.2196**	**3.6000e-004**		**9.1000e-004**	**9.1000e-004**		**9.1000e-004**	**9.1000e-004**	**0.0000**	**31.2773**	**31.2773**	**1.1000e-003**	**0.0000**	**31.3048**

3.7 Architectural Coating - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0252	0.0166	0.2132	1.1900e-003	0.1869	5.7000e-004	0.1875	0.0497	5.2000e-004	0.0502	0.0000	107.8751	107.8751	1.1100e-003	0.0000	107.9028
Total	**0.0252**	**0.0166**	**0.2132**	**1.1900e-003**	**0.1869**	**5.7000e-004**	**0.1875**	**0.0497**	**5.2000e-004**	**0.0502**	**0.0000**	**107.8751**	**107.8751**	**1.1100e-003**	**0.0000**	**107.9028**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Increase Transit Accessibility

Improve Pedestrian Network

Expand Transit Network

Increase Transit Frequency

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.5783	21.6601	36.8192	0.1796	18.8998	0.0806	18.9804	5.0698	0.0749	5.1447	0.0000	16,615.7812	16,615.7812	0.6081	0.0000	16,630.9837
Unmitigated	3.6970	22.1411	38.9414	0.1917	20.3364	0.0857	20.4221	5.4552	0.0797	5.5349	0.0000	17,727.2592	17,727.2592	0.6394	0.0000	17,743.2441

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Office Park	7,126.38	7,126.38	7126.38	17,860,467	16,598,839
Office Park	2,992.82	2,992.82	2992.82	7,500,735	6,970,898
Other Asphalt Surfaces	0.00	0.00	0.00		
Research & Development	5,759.26	5,759.26	5759.26	14,434,142	13,414,543
Strip Mall	9,439.59	9,439.59	9439.59	14,537,287	13,510,402
Total	25,318.05	25,318.05	25,318.05	54,332,632	50,494,682

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Office Park	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Office Park	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.577209	0.024156	0.214776	0.103225	0.009844	0.003830	0.021383	0.030701	0.004268	0.001869	0.007043	0.001207	0.000491
Office Park	0.577209	0.024156	0.214776	0.103225	0.009844	0.003830	0.021383	0.030701	0.004268	0.001869	0.007043	0.001207	0.000491
Other Asphalt Surfaces	0.577209	0.024156	0.214776	0.103225	0.009844	0.003830	0.021383	0.030701	0.004268	0.001869	0.007043	0.001207	0.000491
Research & Development	0.577209	0.024156	0.214776	0.103225	0.009844	0.003830	0.021383	0.030701	0.004268	0.001869	0.007043	0.001207	0.000491
Strip Mall	0.577209	0.024156	0.214776	0.103225	0.009844	0.003830	0.021383	0.030701	0.004268	0.001869	0.007043	0.001207	0.000491

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,126.5881	3,126.5881	0.2758	0.0571	3,150.4844
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,470.8394	3,470.8394	0.3061	0.0633	3,497.3668
NaturalGas Mitigated	0.1240	1.1276	0.9471	6.7700e-003		0.0857	0.0857		0.0857	0.0857	0.0000	1,227.4708	1,227.4708	0.0235	0.0225	1,234.7651
NaturalGas Unmitigated	0.1692	1.5377	1.2917	9.2300e-003		0.1169	0.1169		0.1169	0.1169	0.0000	1,674.0178	1,674.0178	0.0321	0.0307	1,683.9657

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Office Park	1.20988e+007	0.0652	0.5931	0.4982	3.5600e-003		0.0451	0.0451		0.0451	0.0451	0.0000	645.6360	645.6360	0.0124	0.0118	649.4727
Office Park	5.08109e+006	0.0274	0.2491	0.2092	1.4900e-003		0.0189	0.0189		0.0189	0.0189	0.0000	271.1464	271.1464	5.2000e-003	4.9700e-003	272.7577
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	1.34929e+007	0.0728	0.6614	0.5556	3.9700e-003		0.0503	0.0503		0.0503	0.0503	0.0000	720.0323	720.0323	0.0138	0.0132	724.3111
Strip Mall	697162	3.7600e-003	0.0342	0.0287	2.1000e-004		2.6000e-003	2.6000e-003		2.6000e-003	2.6000e-003	0.0000	37.2032	37.2032	7.1000e-004	6.8000e-004	37.4243
Total		**0.1692**	**1.5377**	**1.2917**	**9.2300e-003**		**0.1169**	**0.1169**		**0.1169**	**0.1169**	**0.0000**	**1,674.0178**	**1,674.0178**	**0.0321**	**0.0307**	**1,683.9657**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Office Park	3.56254e+006	0.0192	0.1746	0.1467	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	190.1106	190.1106	3.6400e-003	3.4900e-003	191.2403
Office Park	8.48288e+006	0.0457	0.4158	0.3493	2.4900e-003		0.0316	0.0316		0.0316	0.0316	0.0000	452.6789	452.6789	8.6800e-003	8.3000e-003	455.3689
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	1.04685e+007	0.0565	0.5132	0.4311	3.0800e-003		0.0390	0.0390		0.0390	0.0390	0.0000	558.6391	558.6391	0.0107	0.0102	561.9589
Strip Mall	488013	2.6300e-003	0.0239	0.0201	1.4000e-004		1.8200e-003	1.8200e-003		1.8200e-003	1.8200e-003	0.0000	26.0422	26.0422	5.0000e-004	4.8000e-004	26.1970
Total		**0.1240**	**1.1275**	**0.9471**	**6.7600e-003**		**0.0857**	**0.0857**		**0.0857**	**0.0857**	**0.0000**	**1,227.4708**	**1,227.4708**	**0.0235**	**0.0225**	**1,234.7651**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Office Park	1.11994e+007	1,670.2877	0.1473	0.0305	1,683.0537
Office Park	4.70338e+006	701.4673	0.0619	0.0128	706.8286
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Research & Development	4.22484e+006	630.0978	0.0556	0.0115	634.9136
Strip Mall	3.14458e+006	468.9865	0.0414	8.5600e-003	472.5709
Total		**3,470.8394**	**0.3061**	**0.0633**	**3,497.3668**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Office Park	4.1599e+006	620.4129	0.0547	0.0113	625.1546
Office Park	9.90529e+006	1,477.2862	0.1303	0.0270	1,488.5770
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Research & Development	3.99774e+006	596.2281	0.0526	0.0109	600.7851
Strip Mall	2.90102e+006	432.6609	0.0382	7.9000e-003	435.9677
Total		**3,126.5881**	**0.2758**	**0.0571**	**3,150.4844**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	7.5043	1.9000e-004	0.0208	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0408	0.0408	1.1000e-004	0.0000	0.0434
Unmitigated	7.5043	1.9000e-004	0.0208	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0408	0.0408	1.1000e-004	0.0000	0.0434

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.1376					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.3648					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.9100e-003	1.9000e-004	0.0208	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0408	0.0408	1.1000e-004	0.0000	0.0434
Total	**7.5044**	**1.9000e-004**	**0.0208**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0408**	**0.0408**	**1.1000e-004**	**0.0000**	**0.0434**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.1376					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.3648					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.9100e-003	1.9000e-004	0.0208	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0408	0.0408	1.1000e-004	0.0000	0.0434
Total	**7.5044**	**1.9000e-004**	**0.0208**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0408**	**0.0408**	**1.1000e-004**	**0.0000**	**0.0434**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	517.8713	13.6498	0.3285	957.0197
Unmitigated	529.8946	13.6509	0.3288	969.1349

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 13.2016	6.8912	6.1000e-004	1.3000e-004	6.9438
Office Park	144.576 / 88.6109	208.7946	4.7254	0.1142	360.9636
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	251.492 / 0	282.7412	8.2128	0.1972	546.8263
Strip Mall	21.7892 / 13.3547	31.4677	0.7122	0.0172	54.4012
Total		**529.8946**	**13.6509**	**0.3288**	**969.1349**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 10.5613	5.5129	4.9000e-004	1.0000e-004	5.5551
Office Park	144.576 / 70.8887	199.5438	4.7246	0.1140	351.6420
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	251.492 / 0	282.7412	8.2128	0.1972	546.8263
Strip Mall	21.7892 / 10.6837	30.0735	0.7120	0.0172	52.9964
Total		**517.8713**	**13.6499**	**0.3285**	**957.0197**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	168.2577	9.9437	0.0000	416.8513
Unmitigated	224.3436	13.2583	0.0000	555.8017

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.95	0.1928	0.0114	0.0000	0.4778
Office Park	756.5	153.5627	9.0753	0.0000	380.4450
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Research & Development	38.87	7.8903	0.4663	0.0000	19.5478
Strip Mall	308.87	62.6978	3.7053	0.0000	155.3312
Total		**224.3436**	**13.2583**	**0.0000**	**555.8017**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.7125	0.1446	8.5500e-003	0.0000	0.3583
Office Park	567.375	115.1720	6.8065	0.0000	285.3338
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Research & Development	29.1525	5.9177	0.3497	0.0000	14.6608
Strip Mall	231.653	47.0234	2.7790	0.0000	116.4984
Total		**168.2577**	**9.9438**	**0.0000**	**416.8513**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan

Monterey County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	572.86	1000sqft	44.20	572,858.00	0
Office Park	240.58	1000sqft	19.10	240,582.00	0
Research & Development	511.48	1000sqft	37.64	511,482.00	0
Strip Mall	294.16	1000sqft	22.56	294,161.00	0
City Park	11.08	Acre	11.08	482,644.80	0
Other Asphalt Surfaces	13.13	Acre	13.13	571,942.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	55
Climate Zone	4			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	328.8	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity based on 5-year average (PG&E 2015)

Land Use - Office park includes business park and business aviation reserve land uses, strip mall includes commercial/mixed use land uses, city park includes open space, and other asphalt surfaces includes rights-of-way

Construction Phase - Asssuming 2040 buildout

Vehicle Trips - Trip rates based on project trip generation

Mobile Land Use Mitigation -

Water Mitigation - The project would be required to comply with the the Water Efficient Landscape Ordinance, which will reduce outdoor water use by 20 percent.

Energy Mitigation - The project would be consistent with California's 2019 Building Energy Efficiency Standards, which will take effect on January 1, 2020.

Waste Mitigation - The project would be required to comply with the CalRecycle Waste Diversion and Recycling Mandate which will reduce solid waste production by 25 percent.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	220.00	4,400.00
tblConstructionPhase	NumDays	3,100.00	4,400.00
tblConstructionPhase	NumDays	200.00	250.00
tblConstructionPhase	NumDays	310.00	400.00
tblConstructionPhase	NumDays	220.00	375.00
tblConstructionPhase	NumDays	120.00	150.00
tblConstructionPhase	PhaseEndDate	12/28/2035	12/7/2040
tblConstructionPhase	PhaseEndDate	4/21/2034	12/9/2039
tblConstructionPhase	PhaseEndDate	10/9/2020	12/18/2020
tblConstructionPhase	PhaseEndDate	6/3/2022	1/27/2023
tblConstructionPhase	PhaseEndDate	2/23/2035	1/6/2040
tblConstructionPhase	PhaseEndDate	3/26/2021	7/16/2021
tblConstructionPhase	PhaseStartDate	2/24/2035	1/28/2024
tblConstructionPhase	PhaseStartDate	6/4/2022	1/28/2023
tblConstructionPhase	PhaseStartDate	3/27/2021	7/17/2021
tblConstructionPhase	PhaseStartDate	4/22/2034	8/2/2038

tblConstructionPhase	PhaseStartDate	10/10/2020	12/19/2020
tblLandUse	LandUseSquareFeet	572,860.00	572,858.00
tblLandUse	LandUseSquareFeet	240,580.00	240,582.00
tblLandUse	LandUseSquareFeet	511,480.00	511,482.00
tblLandUse	LandUseSquareFeet	294,160.00	294,161.00
tblLandUse	LotAcreage	13.15	44.20
tblLandUse	LotAcreage	5.52	19.10
tblLandUse	LotAcreage	11.74	37.64
tblLandUse	LotAcreage	6.75	22.56
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	328.8
tblTripsAndVMT	WorkerTripNumber	38.00	15.00
tblTripsAndVMT	WorkerTripNumber	38.00	20.00
tblTripsAndVMT	WorkerTripNumber	38.00	192.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	1.64	12.44
tblVehicleTrips	ST_TR	1.90	11.26
tblVehicleTrips	ST_TR	42.04	32.09
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	0.76	12.44
tblVehicleTrips	SU_TR	1.11	11.26
tblVehicleTrips	SU_TR	20.43	32.09
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.42	12.44
tblVehicleTrips	WD_TR	8.11	11.26
tblVehicleTrips	WD_TR	44.32	32.09

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	9.0069	85.8895	64.2651	0.1240	18.2141	3.9597	20.4128	9.9699	3.6677	11.9927	0.0000	12,043.2194	12,043.2194	3.1079	0.0000	12,120.9169
2021	4.2726	46.4633	31.5785	0.0637	18.2141	2.0457	20.2598	9.9699	1.8820	11.8519	0.0000	6,178.0494	6,178.0494	1.9495	0.0000	6,226.7878
2022	3.7003	38.9004	29.6810	0.0637	8.8376	1.6362	10.4739	3.6401	1.5053	5.1454	0.0000	6,176.3967	6,176.3967	1.9502	0.0000	6,225.1527
2023	6.0273	55.2525	53.9008	0.2252	10.8578	1.4258	11.6760	3.6401	1.3117	4.9518	0.0000	22,996.0142	22,996.0142	1.9496	0.0000	23,028.6322
2024	11.6145	54.8558	57.8347	0.2390	12.4353	0.7987	13.2340	3.3654	0.7543	4.1197	0.0000	24,357.2384	24,357.2384	1.3302	0.0000	24,390.4937
2025	11.2151	52.7797	54.8068	0.2346	12.4355	0.6983	13.1339	3.3655	0.6593	4.0248	0.0000	23,921.2761	23,921.2761	1.2931	0.0000	23,953.6046
2026	10.9652	51.9212	52.1548	0.2305	12.4357	0.6928	13.1285	3.3655	0.6542	4.0197	0.0000	23,506.3527	23,506.3527	1.2621	0.0000	23,537.9037
2027	10.7347	51.1401	49.8965	0.2271	12.4358	0.6866	13.1224	3.3656	0.6483	4.0138	0.0000	23,171.3520	23,171.3520	1.2356	0.0000	23,202.2414
2028	10.5095	50.4744	47.9692	0.2242	12.4360	0.6801	13.1160	3.3656	0.6422	4.0078	0.0000	22,877.0179	22,877.0179	1.2113	0.0000	22,907.3009
2029	10.2774	49.8637	46.1400	0.2215	12.4361	0.6741	13.1102	3.3657	0.6366	4.0023	0.0000	22,616.9278	22,616.9278	1.1889	0.0000	22,646.6506
2030	9.9528	44.5052	44.5779	0.2233	12.4362	0.2580	12.6942	3.3657	0.2523	3.6179	0.0000	22,732.9204	22,732.9204	0.6791	0.0000	22,749.8985
2031	9.7166	44.0290	43.0216	0.2213	12.4363	0.2531	12.6894	3.3657	0.2477	3.6134	0.0000	22,539.0682	22,539.0682	0.6600	0.0000	22,555.5677
2032	9.5071	43.6132	41.6816	0.2197	12.4364	0.2487	12.6850	3.3658	0.2435	3.6093	0.0000	22,375.6795	22,375.6795	0.6430	0.0000	22,391.7539

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2033	9.3287	43.2526	40.5482	0.2183	12.4364	0.2446	12.6811	3.3658	0.2398	3.6055	0.0000	22,237.9477	22,237.9477	0.6288	0.0000	22,253.6681
2034	9.1795	42.9476	39.5066	0.2171	12.4365	0.2409	12.6774	3.3658	0.2364	3.6022	0.0000	22,121.6790	22,121.6790	0.6158	0.0000	22,137.0743
2035	8.9425	41.8271	38.5570	0.2161	12.4366	0.1696	12.6061	3.3658	0.1652	3.5310	0.0000	22,023.9696	22,023.9696	0.5956	0.0000	22,038.8601
2036	8.9425	41.8271	38.5570	0.2161	12.4366	0.1696	12.6061	3.3658	0.1652	3.5310	0.0000	22,023.9696	22,023.9696	0.5956	0.0000	22,038.8601
2037	8.9425	41.8271	38.5570	0.2161	12.4366	0.1696	12.6061	3.3658	0.1652	3.5310	0.0000	22,023.9696	22,023.9696	0.5956	0.0000	22,038.8601
2038	10.1962	46.7154	54.5587	0.2450	12.5598	0.3574	12.9172	3.3985	0.3530	3.7515	0.0000	24,765.1062	24,765.1062	0.6991	0.0000	24,782.5823
2039	10.1962	46.7154	54.5587	0.2450	12.5598	0.3574	12.9172	3.3985	0.3530	3.7515	0.0000	24,765.1062	24,765.1062	0.6991	0.0000	24,782.5823
2040	6.6089	4.5123	19.6655	0.0422	1.7005	0.1288	1.8293	0.4510	0.1284	0.5795	0.0000	4,049.9590	4,049.9590	0.1108	0.0000	4,052.7292
Maximum	**11.6145**	**85.8895**	**64.2651**	**0.2450**	**18.2141**	**3.9597**	**20.4128**	**9.9699**	**3.6677**	**11.9927**	**0.0000**	**24,765.1062**	**24,765.1062**	**3.1079**	**0.0000**	**24,782.5823**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	9.0069	85.8895	64.2651	0.1240	18.2141	3.9597	20.4128	9.9699	3.6677	11.9927	0.0000	12,043.2194	12,043.2194	3.1079	0.0000	12,120.9169
2021	4.2726	46.4633	31.5785	0.0637	18.2141	2.0457	20.2598	9.9699	1.8820	11.8519	0.0000	6,178.0494	6,178.0494	1.9495	0.0000	6,226.7878
2022	3.7003	38.9004	29.6810	0.0637	8.8376	1.6362	10.4739	3.6401	1.5053	5.1454	0.0000	6,176.3967	6,176.3967	1.9502	0.0000	6,225.1527

Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan - Monterey County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	6.0273	55.2525	53.9008	0.2252	10.8578	1.4258	11.6760	3.6401	1.3117	4.9518	0.0000	22,996.0142	22,996.0142	1.9496	0.0000	23,028.6322
2024	11.6145	54.8558	57.8347	0.2390	12.4353	0.7987	13.2340	3.3654	0.7543	4.1197	0.0000	24,357.2384	24,357.2384	1.3302	0.0000	24,390.4937
2025	11.2151	52.7797	54.8068	0.2346	12.4355	0.6983	13.1339	3.3655	0.6593	4.0248	0.0000	23,921.2761	23,921.2761	1.2931	0.0000	23,953.6046
2026	10.9652	51.9212	52.1548	0.2305	12.4357	0.6928	13.1285	3.3655	0.6542	4.0197	0.0000	23,506.3527	23,506.3527	1.2621	0.0000	23,537.9037
2027	10.7347	51.1401	49.8965	0.2271	12.4358	0.6866	13.1224	3.3656	0.6483	4.0138	0.0000	23,171.3520	23,171.3520	1.2356	0.0000	23,202.2414
2028	10.5095	50.4744	47.9692	0.2242	12.4360	0.6801	13.1160	3.3656	0.6422	4.0078	0.0000	22,877.0179	22,877.0179	1.2113	0.0000	22,907.3009
2029	10.2774	49.8637	46.1400	0.2215	12.4361	0.6741	13.1102	3.3657	0.6366	4.0023	0.0000	22,616.9278	22,616.9278	1.1889	0.0000	22,646.6506
2030	9.9528	44.5052	44.5779	0.2233	12.4362	0.2580	12.6942	3.3657	0.2523	3.6179	0.0000	22,732.9204	22,732.9204	0.6791	0.0000	22,749.8985
2031	9.7166	44.0290	43.0216	0.2213	12.4363	0.2531	12.6894	3.3657	0.2477	3.6134	0.0000	22,539.0682	22,539.0682	0.6600	0.0000	22,555.5677
2032	9.5071	43.6132	41.6816	0.2197	12.4364	0.2487	12.6850	3.3658	0.2435	3.6093	0.0000	22,375.6795	22,375.6795	0.6430	0.0000	22,391.7539
2033	9.3287	43.2526	40.5482	0.2183	12.4364	0.2446	12.6811	3.3658	0.2398	3.6055	0.0000	22,237.9477	22,237.9477	0.6288	0.0000	22,253.6681
2034	9.1795	42.9476	39.5066	0.2171	12.4365	0.2409	12.6774	3.3658	0.2364	3.6022	0.0000	22,121.6790	22,121.6790	0.6158	0.0000	22,137.0743
2035	8.9425	41.8271	38.5570	0.2161	12.4366	0.1696	12.6061	3.3658	0.1652	3.5310	0.0000	22,023.9696	22,023.9696	0.5956	0.0000	22,038.8601
2036	8.9425	41.8271	38.5570	0.2161	12.4366	0.1696	12.6061	3.3658	0.1652	3.5310	0.0000	22,023.9696	22,023.9696	0.5956	0.0000	22,038.8601
2037	8.9425	41.8271	38.5570	0.2161	12.4366	0.1696	12.6061	3.3658	0.1652	3.5310	0.0000	22,023.9696	22,023.9696	0.5956	0.0000	22,038.8601
2038	10.1962	46.7154	54.5587	0.2450	12.5598	0.3574	12.9172	3.3985	0.3530	3.7515	0.0000	24,765.1062	24,765.1062	0.6991	0.0000	24,782.5823
2039	10.1962	46.7154	54.5587	0.2450	12.5598	0.3574	12.9172	3.3985	0.3530	3.7515	0.0000	24,765.1062	24,765.1062	0.6991	0.0000	24,782.5823
2040	6.6089	4.5123	19.6655	0.0422	1.7005	0.1288	1.8293	0.4510	0.1284	0.5795	0.0000	4,049.9590	4,049.9590	0.1108	0.0000	4,052.7292

Maximum	**11.6145**	**85.8895**	**64.2651**	**0.2450**	**18.2141**	**3.9597**	**20.4128**	**9.9699**	**3.6677**	**11.9927**	**0.0000**	**24,765.1062**	**24,765.1062**	**3.1079**	**0.0000**	**24,782.5823**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	41.1245	1.5000e-003	0.1667	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3596	0.3596	9.3000e-004		0.3828
Energy	0.9269	8.4260	7.0778	0.0506		0.6404	0.6404		0.6404	0.6404		10,111.1715	10,111.1715	0.1938	0.1854	10,171.2571
Mobile	22.2809	119.8019	218.0311	1.1008	115.4554	0.4711	115.9264	30.8858	0.4378	31.3236		112,192.8853	112,192.8853	3.8221		112,288.4386
Total	**64.3322**	**128.2293**	**225.2756**	**1.1514**	**115.4554**	**1.1120**	**116.5674**	**30.8858**	**1.0788**	**31.9645**		**122,304.4164**	**122,304.4164**	**4.0169**	**0.1854**	**122,460.0785**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	41.1245	1.5000e-003	0.1667	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3596	0.3596	9.3000e-004		0.3828
Energy	0.6796	6.1783	5.1898	0.0371		0.4696	0.4696		0.4696	0.4696		7,413.9999	7,413.9999	0.1421	0.1359	7,458.0576
Mobile	21.6307	117.3377	205.4730	1.0316	107.2998	0.4425	107.7424	28.7041	0.4113	29.1153		105,161.6666	105,161.6666	3.6303		105,252.4250
Total	**63.4348**	**123.5176**	**210.8295**	**1.0687**	**107.2998**	**0.9127**	**108.2125**	**28.7041**	**0.8814**	**29.5855**		**112,576.0261**	**112,576.0261**	**3.7734**	**0.1359**	**112,710.8654**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.40**	**3.67**	**6.41**	**7.18**	**7.06**	**17.93**	**7.17**	**7.06**	**18.30**	**7.44**	**0.00**	**7.95**	**7.95**	**6.06**	**26.68**	**7.96**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/6/2020	12/18/2020	5	250	
2	Site Preparation	Site Preparation	12/19/2020	7/16/2021	5	150	
3	Grading	Grading	7/17/2021	1/27/2023	5	400	
4	Building Construction	Building Construction	1/28/2023	12/9/2039	5	4400	
5	Paving	Paving	8/2/2038	1/6/2040	5	375	
6	Architectural Coating	Architectural Coating	1/28/2024	12/7/2040	5	4400	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1000

Acres of Paving: 13.13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2,428,625; Non-Residential Outdoor: 809,542; Striped Parking Area: 34,317 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Demolition	Graders	1	8.00	187	0.41
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Demolition	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	15	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	15	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	961.00	438.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	15	192.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	192.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	8.0044	85.0824	55.5429	0.1038		3.9435	3.9435		3.6528	3.6528		10,035.0182	10,035.0182	3.0222		10,110.5722
Total	**8.0044**	**85.0824**	**55.5429**	**0.1038**		**3.9435**	**3.9435**		**3.6528**	**3.6528**		**10,035.0182**	**10,035.0182**	**3.0222**		**10,110.5722**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.0025	0.8072	8.7222	0.0202	5.1060	0.0161	5.1222	1.2902	0.0149	1.3051		2,008.2012	2,008.2012	0.0857		2,010.3447
Total	**1.0025**	**0.8072**	**8.7222**	**0.0202**	**5.1060**	**0.0161**	**5.1222**	**1.2902**	**0.0149**	**1.3051**		**2,008.2012**	**2,008.2012**	**0.0857**		**2,010.3447**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	8.0044	85.0824	55.5429	0.1038		3.9435	3.9435		3.6528	3.6528	0.0000	10,035.0182	10,035.0182	3.0222		10,110.5722
Total	**8.0044**	**85.0824**	**55.5429**	**0.1038**		**3.9435**	**3.9435**		**3.6528**	**3.6528**	**0.0000**	**10,035.0182**	**10,035.0182**	**3.0222**		**10,110.5722**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.0025	0.8072	8.7222	0.0202	5.1060	0.0161	5.1222	1.2902	0.0149	1.3051		2,008.2012	2,008.2012	0.0857		2,010.3447
Total	**1.0025**	**0.8072**	**8.7222**	**0.0202**	**5.1060**	**0.0161**	**5.1222**	**1.2902**	**0.0149**	**1.3051**		**2,008.2012**	**2,008.2012**	**0.0857**		**2,010.3447**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0795	0.0640	0.6916	1.6000e-003	0.1479	1.2800e-003	0.1491	0.0392	1.1800e-003	0.0404		159.2406	159.2406	6.8000e-003		159.4106
Total	**0.0795**	**0.0640**	**0.6916**	**1.6000e-003**	**0.1479**	**1.2800e-003**	**0.1491**	**0.0392**	**1.1800e-003**	**0.0404**		**159.2406**	**159.2406**	**6.8000e-003**		**159.4106**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0795	0.0640	0.6916	1.6000e-003	0.1479	1.2800e-003	0.1491	0.0392	1.1800e-003	0.0404		159.2406	159.2406	6.8000e-003		159.4106
Total	**0.0795**	**0.0640**	**0.6916**	**1.6000e-003**	**0.1479**	**1.2800e-003**	**0.1491**	**0.0392**	**1.1800e-003**	**0.0404**		**159.2406**	**159.2406**	**6.8000e-003**		**159.4106**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0733	0.0571	0.6300	1.5500e-003	0.1479	1.2300e-003	0.1491	0.0392	1.1400e-003	0.0404		153.9053	153.9053	6.0600e-003		154.0569
Total	**0.0733**	**0.0571**	**0.6300**	**1.5500e-003**	**0.1479**	**1.2300e-003**	**0.1491**	**0.0392**	**1.1400e-003**	**0.0404**		**153.9053**	**153.9053**	**6.0600e-003**		**154.0569**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0733	0.0571	0.6300	1.5500e-003	0.1479	1.2300e-003	0.1491	0.0392	1.1400e-003	0.0404		153.9053	153.9053	6.0600e-003		154.0569
Total	**0.0733**	**0.0571**	**0.6300**	**1.5500e-003**	**0.1479**	**1.2300e-003**	**0.1491**	**0.0392**	**1.1400e-003**	**0.0404**		**153.9053**	**153.9053**	**6.0600e-003**		**154.0569**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0815	0.0635	0.7000	1.7200e-003	0.1643	1.3700e-003	0.1657	0.0436	1.2700e-003	0.0448		171.0059	171.0059	6.7400e-003		171.1744
Total	**0.0815**	**0.0635**	**0.7000**	**1.7200e-003**	**0.1643**	**1.3700e-003**	**0.1657**	**0.0436**	**1.2700e-003**	**0.0448**		**171.0059**	**171.0059**	**6.7400e-003**		**171.1744**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0815	0.0635	0.7000	1.7200e-003	0.1643	1.3700e-003	0.1657	0.0436	1.2700e-003	0.0448		171.0059	171.0059	6.7400e-003		171.1744
Total	**0.0815**	**0.0635**	**0.7000**	**1.7200e-003**	**0.1643**	**1.3700e-003**	**0.1657**	**0.0436**	**1.2700e-003**	**0.0448**		**171.0059**	**171.0059**	**6.7400e-003**		**171.1744**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0755	0.0569	0.6395	1.6600e-003	0.1643	1.3200e-003	0.1656	0.0436	1.2200e-003	0.0448		164.9862	164.9862	6.0300e-003		165.1369
Total	**0.0755**	**0.0569**	**0.6395**	**1.6600e-003**	**0.1643**	**1.3200e-003**	**0.1656**	**0.0436**	**1.2200e-003**	**0.0448**		**164.9862**	**164.9862**	**6.0300e-003**		**165.1369**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0755	0.0569	0.6395	1.6600e-003	0.1643	1.3200e-003	0.1656	0.0436	1.2200e-003	0.0448		164.9862	164.9862	6.0300e-003		165.1369
Total	**0.0755**	**0.0569**	**0.6395**	**1.6600e-003**	**0.1643**	**1.3200e-003**	**0.1656**	**0.0436**	**1.2200e-003**	**0.0448**		**164.9862**	**164.9862**	**6.0300e-003**		**165.1369**

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**8.6733**	**1.4245**	**10.0978**	**3.5965**	**1.3105**	**4.9070**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0701	0.0510	0.5833	1.6000e-003	0.1643	1.2800e-003	0.1656	0.0436	1.1800e-003	0.0448		158.8715	158.8715	5.3800e-003		159.0061
Total	**0.0701**	**0.0510**	**0.5833**	**1.6000e-003**	**0.1643**	**1.2800e-003**	**0.1656**	**0.0436**	**1.1800e-003**	**0.0448**		**158.8715**	**158.8715**	**5.3800e-003**		**159.0061**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**8.6733**	**1.4245**	**10.0978**	**3.5965**	**1.3105**	**4.9070**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0701	0.0510	0.5833	1.6000e-003	0.1643	1.2800e-003	0.1656	0.0436	1.1800e-003	0.0448		158.8715	158.8715	5.3800e-003		159.0061
Total	**0.0701**	**0.0510**	**0.5833**	**1.6000e-003**	**0.1643**	**1.2800e-003**	**0.1656**	**0.0436**	**1.1800e-003**	**0.0448**		**158.8715**	**158.8715**	**5.3800e-003**		**159.0061**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0883	38.4170	9.6300	0.1216	2.9634	0.0570	3.0204	0.8530	0.0545	0.9074		12,807.0306	12,807.0306	0.4382		12,817.9850
Worker	3.3663	2.4507	28.0268	0.0767	7.8944	0.0615	7.9559	2.0940	0.0567	2.1507		7,633.7737	7,633.7737	0.2587		7,640.2411
Total	**4.4546**	**40.8676**	**37.6568**	**0.1983**	**10.8578**	**0.1185**	**10.9763**	**2.9469**	**0.1112**	**3.0581**		**20,440.8043**	**20,440.8043**	**0.6969**		**20,458.2261**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0883	38.4170	9.6300	0.1216	2.9634	0.0570	3.0204	0.8530	0.0545	0.9074		12,807.0306	12,807.0306	0.4382		12,817.9850
Worker	3.3663	2.4507	28.0268	0.0767	7.8944	0.0615	7.9559	2.0940	0.0567	2.1507		7,633.7737	7,633.7737	0.2587		7,640.2411
Total	**4.4546**	**40.8676**	**37.6568**	**0.1983**	**10.8578**	**0.1185**	**10.9763**	**2.9469**	**0.1112**	**3.0581**		**20,440.8043**	**20,440.8043**	**0.6969**		**20,458.2261**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0293	37.5486	8.9698	0.1207	2.9637	0.0529	3.0166	0.8531	0.0506	0.9037		12,713.6965	12,713.6965	0.4318		12,724.4903
Worker	3.1355	2.2042	25.7444	0.0737	7.8944	0.0596	7.9540	2.0940	0.0549	2.1489		7,339.9354	7,339.9354	0.2319		7,345.7336
Total	**4.1649**	**39.7528**	**34.7142**	**0.1944**	**10.8581**	**0.1126**	**10.9706**	**2.9470**	**0.1056**	**3.0526**		**20,053.6319**	**20,053.6319**	**0.6637**		**20,070.2239**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0293	37.5486	8.9698	0.1207	2.9637	0.0529	3.0166	0.8531	0.0506	0.9037		12,713.6965	12,713.6965	0.4318		12,724.4903
Worker	3.1355	2.2042	25.7444	0.0737	7.8944	0.0596	7.9540	2.0940	0.0549	2.1489		7,339.9354	7,339.9354	0.2319		7,345.7336
Total	**4.1649**	**39.7528**	**34.7142**	**0.1944**	**10.8581**	**0.1126**	**10.9706**	**2.9470**	**0.1056**	**3.0526**		**20,053.6319**	**20,053.6319**	**0.6637**		**20,070.2239**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9789	36.7710	8.4400	0.1198	2.9639	0.0492	3.0132	0.8531	0.0471	0.9002		12,625.9605	12,625.9605	0.4254		12,636.5950
Worker	2.9397	1.9950	23.7316	0.0707	7.8944	0.0584	7.9527	2.0940	0.0538	2.1477		7,049.0502	7,049.0502	0.2096		7,054.2898
Total	**3.9186**	**38.7659**	**32.1716**	**0.1906**	**10.8583**	**0.1076**	**10.9659**	**2.9471**	**0.1008**	**3.0479**		**19,675.0107**	**19,675.0107**	**0.6350**		**19,690.8849**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9789	36.7710	8.4400	0.1198	2.9639	0.0492	3.0132	0.8531	0.0471	0.9002		12,625.9605	12,625.9605	0.4254		12,636.5950
Worker	2.9397	1.9950	23.7316	0.0707	7.8944	0.0584	7.9527	2.0940	0.0538	2.1477		7,049.0502	7,049.0502	0.2096		7,054.2898
Total	**3.9186**	**38.7659**	**32.1716**	**0.1906**	**10.8583**	**0.1076**	**10.9659**	**2.9471**	**0.1008**	**3.0479**		**19,675.0107**	**19,675.0107**	**0.6350**		**19,690.8849**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9411	36.1337	8.0642	0.1192	2.9641	0.0466	3.0107	0.8532	0.0446	0.8978		12,560.5253	12,560.5253	0.4200		12,571.0245
Worker	2.7629	1.8106	21.8344	0.0678	7.8944	0.0560	7.9504	2.0940	0.0515	2.1455		6,757.7595	6,757.7595	0.1882		6,762.4639
Total	**3.7041**	**37.9443**	**29.8986**	**0.1870**	**10.8585**	**0.1026**	**10.9610**	**2.9472**	**0.0961**	**3.0432**		**19,318.2848**	**19,318.2848**	**0.6082**		**19,333.4883**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9411	36.1337	8.0642	0.1192	2.9641	0.0466	3.0107	0.8532	0.0446	0.8978		12,560.5253	12,560.5253	0.4200		12,571.0245
Worker	2.7629	1.8106	21.8344	0.0678	7.8944	0.0560	7.9504	2.0940	0.0515	2.1455		6,757.7595	6,757.7595	0.1882		6,762.4639
Total	**3.7041**	**37.9443**	**29.8986**	**0.1870**	**10.8585**	**0.1026**	**10.9610**	**2.9472**	**0.0961**	**3.0432**		**19,318.2848**	**19,318.2848**	**0.6082**		**19,333.4883**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9084	35.5509	7.7249	0.1186	2.9642	0.0443	3.0085	0.8533	0.0423	0.8956		12,503.6882	12,503.6882	0.4148		12,514.0574
Worker	2.5981	1.6454	20.2350	0.0655	7.8944	0.0527	7.9471	2.0940	0.0485	2.1425		6,525.9163	6,525.9163	0.1705		6,530.1776
Total	**3.5065**	**37.1962**	**27.9599**	**0.1841**	**10.8586**	**0.0970**	**10.9556**	**2.9472**	**0.0908**	**3.0380**		**19,029.6045**	**19,029.6045**	**0.5852**		**19,044.2350**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9084	35.5509	7.7249	0.1186	2.9642	0.0443	3.0085	0.8533	0.0423	0.8956		12,503.6882	12,503.6882	0.4148		12,514.0574
Worker	2.5981	1.6454	20.2350	0.0655	7.8944	0.0527	7.9471	2.0940	0.0485	2.1425		6,525.9163	6,525.9163	0.1705		6,530.1776
Total	**3.5065**	**37.1962**	**27.9599**	**0.1841**	**10.8586**	**0.0970**	**10.9556**	**2.9472**	**0.0908**	**3.0380**		**19,029.6045**	**19,029.6045**	**0.5852**		**19,044.2350**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8815	35.0610	7.4841	0.1182	2.9643	0.0422	3.0065	0.8533	0.0403	0.8936		12,456.1083	12,456.1083	0.4089		12,466.3312
Worker	2.4328	1.4988	18.8293	0.0634	7.8944	0.0491	7.9434	2.0940	0.0451	2.1391		6,320.2522	6,320.2522	0.1551		6,324.1299
Total	**3.3143**	**36.5598**	**26.3135**	**0.1816**	**10.8587**	**0.0912**	**10.9499**	**2.9473**	**0.0854**	**3.0327**		**18,776.3604**	**18,776.3604**	**0.5640**		**18,790.4611**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8815	35.0610	7.4841	0.1182	2.9643	0.0422	3.0065	0.8533	0.0403	0.8936		12,456.1083	12,456.1083	0.4089		12,466.3312
Worker	2.4328	1.4988	18.8293	0.0634	7.8944	0.0491	7.9434	2.0940	0.0451	2.1391		6,320.2522	6,320.2522	0.1551		6,324.1299
Total	**3.3143**	**36.5598**	**26.3135**	**0.1816**	**10.8587**	**0.0912**	**10.9499**	**2.9473**	**0.0854**	**3.0327**		**18,776.3604**	**18,776.3604**	**0.5640**		**18,790.4611**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8591	34.6147	7.2813	0.1178	2.9645	0.0403	3.0047	0.8533	0.0385	0.8918		12,415.0380	12,415.0380	0.4043		12,425.1462
Worker	2.2580	1.3618	17.4738	0.0615	7.8944	0.0456	7.9400	2.0940	0.0420	2.1360		6,137.7040	6,137.7040	0.1403		6,141.2104
Total	**3.1171**	**35.9764**	**24.7551**	**0.1793**	**10.8588**	**0.0859**	**10.9447**	**2.9473**	**0.0805**	**3.0278**		**18,552.7420**	**18,552.7420**	**0.5446**		**18,566.3567**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8591	34.6147	7.2813	0.1178	2.9645	0.0403	3.0047	0.8533	0.0385	0.8918		12,415.0380	12,415.0380	0.4043		12,425.1462
Worker	2.2580	1.3618	17.4738	0.0615	7.8944	0.0456	7.9400	2.0940	0.0420	2.1360		6,137.7040	6,137.7040	0.1403		6,141.2104
Total	**3.1171**	**35.9764**	**24.7551**	**0.1793**	**10.8588**	**0.0859**	**10.9447**	**2.9473**	**0.0805**	**3.0278**		**18,552.7420**	**18,552.7420**	**0.5446**		**18,566.3567**

3.5 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

3.5 Building Construction - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8411	34.2340	7.1296	0.1175	2.9646	0.0387	3.0032	0.8534	0.0370	0.8903		12,383.8252	12,383.8252	0.3994		12,393.8099
Worker	2.0845	1.2339	16.2475	0.0599	7.8944	0.0425	7.9368	2.0940	0.0391	2.1330		5,976.1201	5,976.1201	0.1268		5,979.2894
Total	**2.9256**	**35.4678**	**23.3770**	**0.1774**	**10.8590**	**0.0811**	**10.9401**	**2.9473**	**0.0760**	**3.0233**		**18,359.9453**	**18,359.9453**	**0.5262**		**18,373.0993**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

3.5 Building Construction - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8411	34.2340	7.1296	0.1175	2.9646	0.0387	3.0032	0.8534	0.0370	0.8903		12,383.8252	12,383.8252	0.3994		12,393.8099
Worker	2.0845	1.2339	16.2475	0.0599	7.8944	0.0425	7.9368	2.0940	0.0391	2.1330		5,976.1201	5,976.1201	0.1268		5,979.2894
Total	**2.9256**	**35.4678**	**23.3770**	**0.1774**	**10.8590**	**0.0811**	**10.9401**	**2.9473**	**0.0760**	**3.0233**		**18,359.9453**	**18,359.9453**	**0.5262**		**18,373.0993**

3.5 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

3.5 Building Construction - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8261	33.9066	7.0021	0.1172	2.9647	0.0373	3.0019	0.8534	0.0356	0.8890		12,361.1956	12,361.1956	0.3959		12,371.0922
Worker	1.9002	1.1098	15.0566	0.0585	7.8944	0.0395	7.9339	2.0940	0.0363	2.1303		5,833.4099	5,833.4099	0.1138		5,836.2538
Total	**2.7262**	**35.0163**	**22.0587**	**0.1757**	**10.8590**	**0.0768**	**10.9358**	**2.9474**	**0.0720**	**3.0193**		**18,194.6055**	**18,194.6055**	**0.5096**		**18,207.3459**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

3.5 Building Construction - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8261	33.9066	7.0021	0.1172	2.9647	0.0373	3.0019	0.8534	0.0356	0.8890		12,361.1956	12,361.1956	0.3959		12,371.0922
Worker	1.9002	1.1098	15.0566	0.0585	7.8944	0.0395	7.9339	2.0940	0.0363	2.1303		5,833.4099	5,833.4099	0.1138		5,836.2538
Total	**2.7262**	**35.0163**	**22.0587**	**0.1757**	**10.8590**	**0.0768**	**10.9358**	**2.9474**	**0.0720**	**3.0193**		**18,194.6055**	**18,194.6055**	**0.5096**		**18,207.3459**

3.5 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

3.5 Building Construction - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8136	33.6193	6.9065	0.1171	2.9647	0.0361	3.0008	0.8534	0.0345	0.8879		12,348.0552	12,348.0552	0.3924		12,357.8663
Worker	1.7359	1.0027	14.0194	0.0572	7.8944	0.0368	7.9312	2.0940	0.0339	2.1278		5,708.1812	5,708.1812	0.1024		5,710.7421
Total	**2.5495**	**34.6220**	**20.9259**	**0.1743**	**10.8591**	**0.0729**	**10.9320**	**2.9474**	**0.0683**	**3.0157**		**18,056.2364**	**18,056.2364**	**0.4949**		**18,068.6083**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

3.5 Building Construction - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8136	33.6193	6.9065	0.1171	2.9647	0.0361	3.0008	0.8534	0.0345	0.8879		12,348.0552	12,348.0552	0.3924		12,357.8663
Worker	1.7359	1.0027	14.0194	0.0572	7.8944	0.0368	7.9312	2.0940	0.0339	2.1278		5,708.1812	5,708.1812	0.1024		5,710.7421
Total	**2.5495**	**34.6220**	**20.9259**	**0.1743**	**10.8591**	**0.0729**	**10.9320**	**2.9474**	**0.0683**	**3.0157**		**18,056.2364**	**18,056.2364**	**0.4949**		**18,068.6083**

3.5 Building Construction - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

3.5 Building Construction - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8040	33.3673	6.8316	0.1170	2.9648	0.0349	2.9998	0.8535	0.0334	0.8869		12,341.4312	12,341.4312	0.3899		12,351.1779
Worker	1.5952	0.9122	13.1372	0.0561	7.8944	0.0344	7.9288	2.0940	0.0316	2.1256		5,598.9058	5,598.9058	0.0928		5,601.2252
Total	**2.3992**	**34.2795**	**19.9688**	**0.1731**	**10.8592**	**0.0693**	**10.9285**	**2.9474**	**0.0650**	**3.0124**		**17,940.3370**	**17,940.3370**	**0.4827**		**17,952.4031**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

3.5 Building Construction - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8040	33.3673	6.8316	0.1170	2.9648	0.0349	2.9998	0.8535	0.0334	0.8869		12,341.4312	12,341.4312	0.3899		12,351.1779
Worker	1.5952	0.9122	13.1372	0.0561	7.8944	0.0344	7.9288	2.0940	0.0316	2.1256		5,598.9058	5,598.9058	0.0928		5,601.2252
Total	**2.3992**	**34.2795**	**19.9688**	**0.1731**	**10.8592**	**0.0693**	**10.9285**	**2.9474**	**0.0650**	**3.0124**		**17,940.3370**	**17,940.3370**	**0.4827**		**17,952.4031**

3.5 Building Construction - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

3.5 Building Construction - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7952	33.1505	6.7597	0.1170	2.9649	0.0339	2.9988	0.8535	0.0324	0.8859		12,339.5619	12,339.5619	0.3875		12,349.2481
Worker	1.4782	0.8387	12.3289	0.0551	7.8944	0.0321	7.9265	2.0940	0.0296	2.1235		5,503.5564	5,503.5564	0.0840		5,505.6553
Total	**2.2734**	**33.9892**	**19.0886**	**0.1721**	**10.8593**	**0.0661**	**10.9253**	**2.9474**	**0.0620**	**3.0094**		**17,843.1183**	**17,843.1183**	**0.4714**		**17,854.9034**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

3.5 Building Construction - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7952	33.1505	6.7597	0.1170	2.9649	0.0339	2.9988	0.8535	0.0324	0.8859		12,339.5619	12,339.5619	0.3875		12,349.2481
Worker	1.4782	0.8387	12.3289	0.0551	7.8944	0.0321	7.9265	2.0940	0.0296	2.1235		5,503.5564	5,503.5564	0.0840		5,505.6553
Total	**2.2734**	**33.9892**	**19.0886**	**0.1721**	**10.8593**	**0.0661**	**10.9253**	**2.9474**	**0.0620**	**3.0094**		**17,843.1183**	**17,843.1183**	**0.4714**		**17,854.9034**

3.5 Building Construction - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904		2,897.5468	2,897.5468	0.1079		2,900.2448
Total	**1.2168**	**7.1613**	**16.1178**	**0.0310**		**0.0904**	**0.0904**		**0.0904**	**0.0904**		**2,897.5468**	**2,897.5468**	**0.1079**		**2,900.2448**

3.5 Building Construction - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7876	32.9715	6.6986	0.1170	2.9649	0.0331	2.9980	0.8535	0.0317	0.8852		12,340.5310	12,340.5310	0.3858		12,350.1762
Worker	1.3747	0.7806	11.6240	0.0543	7.8944	0.0301	7.9245	2.0940	0.0277	2.1217		5,421.3100	5,421.3100	0.0763		5,423.2164
Total	**2.1622**	**33.7521**	**18.3226**	**0.1713**	**10.8593**	**0.0632**	**10.9225**	**2.9475**	**0.0593**	**3.0068**		**17,761.8410**	**17,761.8410**	**0.4621**		**17,773.3926**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904	0.0000	2,897.5468	2,897.5468	0.1079		2,900.2448
Total	**1.2168**	**7.1613**	**16.1178**	**0.0310**		**0.0904**	**0.0904**		**0.0904**	**0.0904**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1079**		**2,900.2448**

3.5 Building Construction - 2035

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7876	32.9715	6.6986	0.1170	2.9649	0.0331	2.9980	0.8535	0.0317	0.8852		12,340.5310	12,340.5310	0.3858		12,350.1762
Worker	1.3747	0.7806	11.6240	0.0543	7.8944	0.0301	7.9245	2.0940	0.0277	2.1217		5,421.3100	5,421.3100	0.0763		5,423.2164
Total	**2.1622**	**33.7521**	**18.3226**	**0.1713**	**10.8593**	**0.0632**	**10.9225**	**2.9475**	**0.0593**	**3.0068**		**17,761.8410**	**17,761.8410**	**0.4621**		**17,773.3926**

3.5 Building Construction - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904		2,897.5468	2,897.5468	0.1079		2,900.2448
Total	**1.2168**	**7.1613**	**16.1178**	**0.0310**		**0.0904**	**0.0904**		**0.0904**	**0.0904**		**2,897.5468**	**2,897.5468**	**0.1079**		**2,900.2448**

3.5 Building Construction - 2036

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7876	32.9715	6.6986	0.1170	2.9649	0.0331	2.9980	0.8535	0.0317	0.8852		12,340.5310	12,340.5310	0.3858		12,350.1762
Worker	1.3747	0.7806	11.6240	0.0543	7.8944	0.0301	7.9245	2.0940	0.0277	2.1217		5,421.3100	5,421.3100	0.0763		5,423.2164
Total	**2.1622**	**33.7521**	**18.3226**	**0.1713**	**10.8593**	**0.0632**	**10.9225**	**2.9475**	**0.0593**	**3.0068**		**17,761.8410**	**17,761.8410**	**0.4621**		**17,773.3926**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904	0.0000	2,897.5468	2,897.5468	0.1079		2,900.2448
Total	**1.2168**	**7.1613**	**16.1178**	**0.0310**		**0.0904**	**0.0904**		**0.0904**	**0.0904**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1079**		**2,900.2448**

3.5 Building Construction - 2036

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7876	32.9715	6.6986	0.1170	2.9649	0.0331	2.9980	0.8535	0.0317	0.8852		12,340.5310	12,340.5310	0.3858		12,350.1762
Worker	1.3747	0.7806	11.6240	0.0543	7.8944	0.0301	7.9245	2.0940	0.0277	2.1217		5,421.3100	5,421.3100	0.0763		5,423.2164
Total	**2.1622**	**33.7521**	**18.3226**	**0.1713**	**10.8593**	**0.0632**	**10.9225**	**2.9475**	**0.0593**	**3.0068**		**17,761.8410**	**17,761.8410**	**0.4621**		**17,773.3926**

3.5 Building Construction - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904		2,897.5468	2,897.5468	0.1079		2,900.2448
Total	**1.2168**	**7.1613**	**16.1178**	**0.0310**		**0.0904**	**0.0904**		**0.0904**	**0.0904**		**2,897.5468**	**2,897.5468**	**0.1079**		**2,900.2448**

3.5 Building Construction - 2037

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7876	32.9715	6.6986	0.1170	2.9649	0.0331	2.9980	0.8535	0.0317	0.8852		12,340.5310	12,340.5310	0.3858		12,350.1762
Worker	1.3747	0.7806	11.6240	0.0543	7.8944	0.0301	7.9245	2.0940	0.0277	2.1217		5,421.3100	5,421.3100	0.0763		5,423.2164
Total	**2.1622**	**33.7521**	**18.3226**	**0.1713**	**10.8593**	**0.0632**	**10.9225**	**2.9475**	**0.0593**	**3.0068**		**17,761.8410**	**17,761.8410**	**0.4621**		**17,773.3926**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904	0.0000	2,897.5468	2,897.5468	0.1079		2,900.2448
Total	**1.2168**	**7.1613**	**16.1178**	**0.0310**		**0.0904**	**0.0904**		**0.0904**	**0.0904**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1079**		**2,900.2448**

3.5 Building Construction - 2037

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7876	32.9715	6.6986	0.1170	2.9649	0.0331	2.9980	0.8535	0.0317	0.8852		12,340.5310	12,340.5310	0.3858		12,350.1762
Worker	1.3747	0.7806	11.6240	0.0543	7.8944	0.0301	7.9245	2.0940	0.0277	2.1217		5,421.3100	5,421.3100	0.0763		5,423.2164
Total	**2.1622**	**33.7521**	**18.3226**	**0.1713**	**10.8593**	**0.0632**	**10.9225**	**2.9475**	**0.0593**	**3.0068**		**17,761.8410**	**17,761.8410**	**0.4621**		**17,773.3926**

3.5 Building Construction - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904		2,897.5468	2,897.5468	0.1079		2,900.2448
Total	**1.2168**	**7.1613**	**16.1178**	**0.0310**		**0.0904**	**0.0904**		**0.0904**	**0.0904**		**2,897.5468**	**2,897.5468**	**0.1079**		**2,900.2448**

3.5 Building Construction - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7876	32.9715	6.6986	0.1170	2.9649	0.0331	2.9980	0.8535	0.0317	0.8852		12,340.5310	12,340.5310	0.3858		12,350.1762
Worker	1.3747	0.7806	11.6240	0.0543	7.8944	0.0301	7.9245	2.0940	0.0277	2.1217		5,421.3100	5,421.3100	0.0763		5,423.2164
Total	**2.1622**	**33.7521**	**18.3226**	**0.1713**	**10.8593**	**0.0632**	**10.9225**	**2.9475**	**0.0593**	**3.0068**		**17,761.8410**	**17,761.8410**	**0.4621**		**17,773.3926**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904	0.0000	2,897.5468	2,897.5468	0.1079		2,900.2448
Total	**1.2168**	**7.1613**	**16.1178**	**0.0310**		**0.0904**	**0.0904**		**0.0904**	**0.0904**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1079**		**2,900.2448**

3.5 Building Construction - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7876	32.9715	6.6986	0.1170	2.9649	0.0331	2.9980	0.8535	0.0317	0.8852		12,340.5310	12,340.5310	0.3858		12,350.1762
Worker	1.3747	0.7806	11.6240	0.0543	7.8944	0.0301	7.9245	2.0940	0.0277	2.1217		5,421.3100	5,421.3100	0.0763		5,423.2164
Total	**2.1622**	**33.7521**	**18.3226**	**0.1713**	**10.8593**	**0.0632**	**10.9225**	**2.9475**	**0.0593**	**3.0068**		**17,761.8410**	**17,761.8410**	**0.4621**		**17,773.3926**

3.5 Building Construction - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904		2,897.5468	2,897.5468	0.1079		2,900.2448
Total	**1.2168**	**7.1613**	**16.1178**	**0.0310**		**0.0904**	**0.0904**		**0.0904**	**0.0904**		**2,897.5468**	**2,897.5468**	**0.1079**		**2,900.2448**

3.5 Building Construction - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7876	32.9715	6.6986	0.1170	2.9649	0.0331	2.9980	0.8535	0.0317	0.8852		12,340.5310	12,340.5310	0.3858		12,350.1762
Worker	1.3747	0.7806	11.6240	0.0543	7.8944	0.0301	7.9245	2.0940	0.0277	2.1217		5,421.3100	5,421.3100	0.0763		5,423.2164
Total	**2.1622**	**33.7521**	**18.3226**	**0.1713**	**10.8593**	**0.0632**	**10.9225**	**2.9475**	**0.0593**	**3.0068**		**17,761.8410**	**17,761.8410**	**0.4621**		**17,773.3926**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904	0.0000	2,897.5468	2,897.5468	0.1079		2,900.2448
Total	**1.2168**	**7.1613**	**16.1178**	**0.0310**		**0.0904**	**0.0904**		**0.0904**	**0.0904**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1079**		**2,900.2448**

3.5 Building Construction - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7876	32.9715	6.6986	0.1170	2.9649	0.0331	2.9980	0.8535	0.0317	0.8852		12,340.5310	12,340.5310	0.3858		12,350.1762
Worker	1.3747	0.7806	11.6240	0.0543	7.8944	0.0301	7.9245	2.0940	0.0277	2.1217		5,421.3100	5,421.3100	0.0763		5,423.2164
Total	**2.1622**	**33.7521**	**18.3226**	**0.1713**	**10.8593**	**0.0632**	**10.9225**	**2.9475**	**0.0593**	**3.0068**		**17,761.8410**	**17,761.8410**	**0.4621**		**17,773.3926**

3.6 Paving - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1405	4.8761	15.8203	0.0281		0.1874	0.1874		0.1874	0.1874		2,656.5168	2,656.5168	0.1022		2,659.0727
Paving	0.0917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2322**	**4.8761**	**15.8203**	**0.0281**		**0.1874**	**0.1874**		**0.1874**	**0.1874**		**2,656.5168**	**2,656.5168**	**0.1022**		**2,659.0727**

3.6 Paving - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0215	0.0122	0.1814	8.5000e-004	0.1232	4.7000e-004	0.1237	0.0327	4.3000e-004	0.0331		84.6198	84.6198	1.1900e-003		84.6496
Total	**0.0215**	**0.0122**	**0.1814**	**8.5000e-004**	**0.1232**	**4.7000e-004**	**0.1237**	**0.0327**	**4.3000e-004**	**0.0331**		**84.6198**	**84.6198**	**1.1900e-003**		**84.6496**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1405	4.8761	15.8203	0.0281		0.1874	0.1874		0.1874	0.1874	0.0000	2,656.5168	2,656.5168	0.1022		2,659.0726
Paving	0.0917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2322**	**4.8761**	**15.8203**	**0.0281**		**0.1874**	**0.1874**		**0.1874**	**0.1874**	**0.0000**	**2,656.5168**	**2,656.5168**	**0.1022**		**2,659.0726**

3.6 Paving - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0215	0.0122	0.1814	8.5000e-004	0.1232	4.7000e-004	0.1237	0.0327	4.3000e-004	0.0331		84.6198	84.6198	1.1900e-003		84.6496
Total	**0.0215**	**0.0122**	**0.1814**	**8.5000e-004**	**0.1232**	**4.7000e-004**	**0.1237**	**0.0327**	**4.3000e-004**	**0.0331**		**84.6198**	**84.6198**	**1.1900e-003**		**84.6496**

3.6 Paving - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1405	4.8761	15.8203	0.0281		0.1874	0.1874		0.1874	0.1874		2,656.5168	2,656.5168	0.1022		2,659.0727
Paving	0.0917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2322**	**4.8761**	**15.8203**	**0.0281**		**0.1874**	**0.1874**		**0.1874**	**0.1874**		**2,656.5168**	**2,656.5168**	**0.1022**		**2,659.0727**

3.6 Paving - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0215	0.0122	0.1814	8.5000e-004	0.1232	4.7000e-004	0.1237	0.0327	4.3000e-004	0.0331		84.6198	84.6198	1.1900e-003		84.6496
Total	**0.0215**	**0.0122**	**0.1814**	**8.5000e-004**	**0.1232**	**4.7000e-004**	**0.1237**	**0.0327**	**4.3000e-004**	**0.0331**		**84.6198**	**84.6198**	**1.1900e-003**		**84.6496**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1405	4.8761	15.8203	0.0281		0.1874	0.1874		0.1874	0.1874	0.0000	2,656.5168	2,656.5168	0.1022		2,659.0726
Paving	0.0917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2322**	**4.8761**	**15.8203**	**0.0281**		**0.1874**	**0.1874**		**0.1874**	**0.1874**	**0.0000**	**2,656.5168**	**2,656.5168**	**0.1022**		**2,659.0726**

3.6 Paving - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0215	0.0122	0.1814	8.5000e-004	0.1232	4.7000e-004	0.1237	0.0327	4.3000e-004	0.0331		84.6198	84.6198	1.1900e-003		84.6496
Total	**0.0215**	**0.0122**	**0.1814**	**8.5000e-004**	**0.1232**	**4.7000e-004**	**0.1237**	**0.0327**	**4.3000e-004**	**0.0331**		**84.6198**	**84.6198**	**1.1900e-003**		**84.6496**

3.6 Paving - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0112	3.6566	15.8177	0.0281		0.1164	0.1164		0.1164	0.1164		2,656.5168	2,656.5168	0.0893		2,658.7489
Paving	0.0917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1029**	**3.6566**	**15.8177**	**0.0281**		**0.1164**	**0.1164**		**0.1164**	**0.1164**		**2,656.5168**	**2,656.5168**	**0.0893**		**2,658.7489**

3.6 Paving - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0160	9.3300e-003	0.1490	8.1000e-004	0.1232	3.6000e-004	0.1236	0.0327	3.3000e-004	0.0330		80.5793	80.5793	8.4000e-004		80.6003
Total	**0.0160**	**9.3300e-003**	**0.1490**	**8.1000e-004**	**0.1232**	**3.6000e-004**	**0.1236**	**0.0327**	**3.3000e-004**	**0.0330**		**80.5793**	**80.5793**	**8.4000e-004**		**80.6003**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0112	3.6566	15.8177	0.0281		0.1164	0.1164		0.1164	0.1164	0.0000	2,656.5168	2,656.5168	0.0893		2,658.7489
Paving	0.0917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1029**	**3.6566**	**15.8177**	**0.0281**		**0.1164**	**0.1164**		**0.1164**	**0.1164**	**0.0000**	**2,656.5168**	**2,656.5168**	**0.0893**		**2,658.7489**

3.6 Paving - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0160	9.3300e-003	0.1490	8.1000e-004	0.1232	3.6000e-004	0.1236	0.0327	3.3000e-004	0.0330		80.5793	80.5793	8.4000e-004		80.6003
Total	**0.0160**	**9.3300e-003**	**0.1490**	**8.1000e-004**	**0.1232**	**3.6000e-004**	**0.1236**	**0.0327**	**3.3000e-004**	**0.0330**		**80.5793**	**80.5793**	**8.4000e-004**		**80.6003**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**5.3517**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6265	0.4404	5.1435	0.0147	1.5772	0.0119	1.5892	0.4184	0.0110	0.4293		1,466.4595	1,466.4595	0.0463		1,467.6179
Total	**0.6265**	**0.4404**	**5.1435**	**0.0147**	**1.5772**	**0.0119**	**1.5892**	**0.4184**	**0.0110**	**0.4293**		**1,466.4595**	**1,466.4595**	**0.0463**		**1,467.6179**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**5.3517**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6265	0.4404	5.1435	0.0147	1.5772	0.0119	1.5892	0.4184	0.0110	0.4293		1,466.4595	1,466.4595	0.0463		1,467.6179
Total	**0.6265**	**0.4404**	**5.1435**	**0.0147**	**1.5772**	**0.0119**	**1.5892**	**0.4184**	**0.0110**	**0.4293**		**1,466.4595**	**1,466.4595**	**0.0463**		**1,467.6179**

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**5.3418**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5873	0.3986	4.7414	0.0141	1.5772	0.0117	1.5889	0.4184	0.0107	0.4291		1,408.3430	1,408.3430	0.0419		1,409.3899
Total	**0.5873**	**0.3986**	**4.7414**	**0.0141**	**1.5772**	**0.0117**	**1.5889**	**0.4184**	**0.0107**	**0.4291**		**1,408.3430**	**1,408.3430**	**0.0419**		**1,409.3899**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**5.3418**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5873	0.3986	4.7414	0.0141	1.5772	0.0117	1.5889	0.4184	0.0107	0.4291		1,408.3430	1,408.3430	0.0419		1,409.3899
Total	**0.5873**	**0.3986**	**4.7414**	**0.0141**	**1.5772**	**0.0117**	**1.5889**	**0.4184**	**0.0107**	**0.4291**		**1,408.3430**	**1,408.3430**	**0.0419**		**1,409.3899**

3.7 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**5.3418**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5520	0.3617	4.3623	0.0136	1.5772	0.0112	1.5884	0.4184	0.0103	0.4287		1,350.1455	1,350.1455	0.0376		1,351.0854
Total	**0.5520**	**0.3617**	**4.3623**	**0.0136**	**1.5772**	**0.0112**	**1.5884**	**0.4184**	**0.0103**	**0.4287**		**1,350.1455**	**1,350.1455**	**0.0376**		**1,351.0854**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**5.3418**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5520	0.3617	4.3623	0.0136	1.5772	0.0112	1.5884	0.4184	0.0103	0.4287		1,350.1455	1,350.1455	0.0376		1,351.0854
Total	**0.5520**	**0.3617**	**4.3623**	**0.0136**	**1.5772**	**0.0112**	**1.5884**	**0.4184**	**0.0103**	**0.4287**		**1,350.1455**	**1,350.1455**	**0.0376**		**1,351.0854**

3.7 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**5.3418**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5191	0.3287	4.0428	0.0131	1.5772	0.0105	1.5878	0.4184	9.6900e-003	0.4281		1,303.8251	1,303.8251	0.0341		1,304.6765
Total	**0.5191**	**0.3287**	**4.0428**	**0.0131**	**1.5772**	**0.0105**	**1.5878**	**0.4184**	**9.6900e-003**	**0.4281**		**1,303.8251**	**1,303.8251**	**0.0341**		**1,304.6765**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**5.3418**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5191	0.3287	4.0428	0.0131	1.5772	0.0105	1.5878	0.4184	9.6900e-003	0.4281		1,303.8251	1,303.8251	0.0341		1,304.6765
Total	**0.5191**	**0.3287**	**4.0428**	**0.0131**	**1.5772**	**0.0105**	**1.5878**	**0.4184**	**9.6900e-003**	**0.4281**		**1,303.8251**	**1,303.8251**	**0.0341**		**1,304.6765**

3.7 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**5.3418**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4861	0.2995	3.7620	0.0127	1.5772	9.8000e-003	1.5870	0.4184	9.0200e-003	0.4274		1,262.7351	1,262.7351	0.0310		1,263.5098
Total	**0.4861**	**0.2995**	**3.7620**	**0.0127**	**1.5772**	**9.8000e-003**	**1.5870**	**0.4184**	**9.0200e-003**	**0.4274**		**1,262.7351**	**1,262.7351**	**0.0310**		**1,263.5098**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**5.3418**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4861	0.2995	3.7620	0.0127	1.5772	9.8000e-003	1.5870	0.4184	9.0200e-003	0.4274		1,262.7351	1,262.7351	0.0310		1,263.5098
Total	**0.4861**	**0.2995**	**3.7620**	**0.0127**	**1.5772**	**9.8000e-003**	**1.5870**	**0.4184**	**9.0200e-003**	**0.4274**		**1,262.7351**	**1,262.7351**	**0.0310**		**1,263.5098**

3.7 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**5.3418**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4511	0.2721	3.4911	0.0123	1.5772	9.1200e-003	1.5864	0.4184	8.3900e-003	0.4267		1,226.2634	1,226.2634	0.0280		1,226.9640
Total	**0.4511**	**0.2721**	**3.4911**	**0.0123**	**1.5772**	**9.1200e-003**	**1.5864**	**0.4184**	**8.3900e-003**	**0.4267**		**1,226.2634**	**1,226.2634**	**0.0280**		**1,226.9640**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**5.3418**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4511	0.2721	3.4911	0.0123	1.5772	9.1200e-003	1.5864	0.4184	8.3900e-003	0.4267		1,226.2634	1,226.2634	0.0280		1,226.9640
Total	**0.4511**	**0.2721**	**3.4911**	**0.0123**	**1.5772**	**9.1200e-003**	**1.5864**	**0.4184**	**8.3900e-003**	**0.4267**		**1,226.2634**	**1,226.2634**	**0.0280**		**1,226.9640**

3.7 Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**5.3017**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.7 Architectural Coating - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4165	0.2465	3.2461	0.0120	1.5772	8.4800e-003	1.5857	0.4184	7.8000e-003	0.4262		1,193.9803	1,193.9803	0.0253		1,194.6135
Total	**0.4165**	**0.2465**	**3.2461**	**0.0120**	**1.5772**	**8.4800e-003**	**1.5857**	**0.4184**	**7.8000e-003**	**0.4262**		**1,193.9803**	**1,193.9803**	**0.0253**		**1,194.6135**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**5.3017**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.7 Architectural Coating - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4165	0.2465	3.2461	0.0120	1.5772	8.4800e-003	1.5857	0.4184	7.8000e-003	0.4262		1,193.9803	1,193.9803	0.0253		1,194.6135
Total	**0.4165**	**0.2465**	**3.2461**	**0.0120**	**1.5772**	**8.4800e-003**	**1.5857**	**0.4184**	**7.8000e-003**	**0.4262**		**1,193.9803**	**1,193.9803**	**0.0253**		**1,194.6135**

3.7 Architectural Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**5.3017**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.7 Architectural Coating - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3796	0.2217	3.0082	0.0117	1.5772	7.8900e-003	1.5851	0.4184	7.2600e-003	0.4256		1,165.4680	1,165.4680	0.0227		1,166.0361
Total	**0.3796**	**0.2217**	**3.0082**	**0.0117**	**1.5772**	**7.8900e-003**	**1.5851**	**0.4184**	**7.2600e-003**	**0.4256**		**1,165.4680**	**1,165.4680**	**0.0227**		**1,166.0361**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**5.3017**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.7 Architectural Coating - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3796	0.2217	3.0082	0.0117	1.5772	7.8900e-003	1.5851	0.4184	7.2600e-003	0.4256		1,165.4680	1,165.4680	0.0227		1,166.0361
Total	**0.3796**	**0.2217**	**3.0082**	**0.0117**	**1.5772**	**7.8900e-003**	**1.5851**	**0.4184**	**7.2600e-003**	**0.4256**		**1,165.4680**	**1,165.4680**	**0.0227**		**1,166.0361**

3.7 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**5.3017**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.7 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3468	0.2003	2.8010	0.0114	1.5772	7.3500e-003	1.5846	0.4184	6.7600e-003	0.4251		1,140.4483	1,140.4483	0.0205		1,140.9599
Total	**0.3468**	**0.2003**	**2.8010**	**0.0114**	**1.5772**	**7.3500e-003**	**1.5846**	**0.4184**	**6.7600e-003**	**0.4251**		**1,140.4483**	**1,140.4483**	**0.0205**		**1,140.9599**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**5.3017**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.7 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3468	0.2003	2.8010	0.0114	1.5772	7.3500e-003	1.5846	0.4184	6.7600e-003	0.4251		1,140.4483	1,140.4483	0.0205		1,140.9599
Total	**0.3468**	**0.2003**	**2.8010**	**0.0114**	**1.5772**	**7.3500e-003**	**1.5846**	**0.4184**	**6.7600e-003**	**0.4251**		**1,140.4483**	**1,140.4483**	**0.0205**		**1,140.9599**

3.7 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**5.3017**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.7 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3187	0.1823	2.6247	0.0112	1.5772	6.8700e-003	1.5841	0.4184	6.3200e-003	0.4247		1,118.6159	1,118.6159	0.0185		1,119.0793
Total	**0.3187**	**0.1823**	**2.6247**	**0.0112**	**1.5772**	**6.8700e-003**	**1.5841**	**0.4184**	**6.3200e-003**	**0.4247**		**1,118.6159**	**1,118.6159**	**0.0185**		**1,119.0793**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**5.3017**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.7 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3187	0.1823	2.6247	0.0112	1.5772	6.8700e-003	1.5841	0.4184	6.3200e-003	0.4247		1,118.6159	1,118.6159	0.0185		1,119.0793
Total	**0.3187**	**0.1823**	**2.6247**	**0.0112**	**1.5772**	**6.8700e-003**	**1.5841**	**0.4184**	**6.3200e-003**	**0.4247**		**1,118.6159**	**1,118.6159**	**0.0185**		**1,119.0793**

3.7 Architectural Coating - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**5.3017**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.7 Architectural Coating - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2953	0.1676	2.4632	0.0110	1.5772	6.4200e-003	1.5837	0.4184	5.9100e-003	0.4243		1,099.5659	1,099.5659	0.0168		1,099.9852
Total	**0.2953**	**0.1676**	**2.4632**	**0.0110**	**1.5772**	**6.4200e-003**	**1.5837**	**0.4184**	**5.9100e-003**	**0.4243**		**1,099.5659**	**1,099.5659**	**0.0168**		**1,099.9852**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**5.3017**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.7 Architectural Coating - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2953	0.1676	2.4632	0.0110	1.5772	6.4200e-003	1.5837	0.4184	5.9100e-003	0.4243		1,099.5659	1,099.5659	0.0168		1,099.9852
Total	**0.2953**	**0.1676**	**2.4632**	**0.0110**	**1.5772**	**6.4200e-003**	**1.5837**	**0.4184**	**5.9100e-003**	**0.4243**		**1,099.5659**	**1,099.5659**	**0.0168**		**1,099.9852**

3.7 Architectural Coating - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.7081
Total	**5.2888**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**		**281.4481**	**281.4481**	**0.0104**		**281.7081**

3.7 Architectural Coating - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2747	0.1560	2.3224	0.0109	1.5772	6.0100e-003	1.5833	0.4184	5.5300e-003	0.4239		1,083.1337	1,083.1337	0.0152		1,083.5146
Total	**0.2747**	**0.1560**	**2.3224**	**0.0109**	**1.5772**	**6.0100e-003**	**1.5833**	**0.4184**	**5.5300e-003**	**0.4239**		**1,083.1337**	**1,083.1337**	**0.0152**		**1,083.5146**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	0.0000	281.4481	281.4481	0.0104		281.7081
Total	**5.2888**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0104**		**281.7081**

3.7 Architectural Coating - 2035

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2747	0.1560	2.3224	0.0109	1.5772	6.0100e-003	1.5833	0.4184	5.5300e-003	0.4239		1,083.1337	1,083.1337	0.0152		1,083.5146
Total	**0.2747**	**0.1560**	**2.3224**	**0.0109**	**1.5772**	**6.0100e-003**	**1.5833**	**0.4184**	**5.5300e-003**	**0.4239**		**1,083.1337**	**1,083.1337**	**0.0152**		**1,083.5146**

3.7 Architectural Coating - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.7081
Total	**5.2888**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**		**281.4481**	**281.4481**	**0.0104**		**281.7081**

3.7 Architectural Coating - 2036

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2747	0.1560	2.3224	0.0109	1.5772	6.0100e-003	1.5833	0.4184	5.5300e-003	0.4239		1,083.1337	1,083.1337	0.0152		1,083.5146
Total	**0.2747**	**0.1560**	**2.3224**	**0.0109**	**1.5772**	**6.0100e-003**	**1.5833**	**0.4184**	**5.5300e-003**	**0.4239**		**1,083.1337**	**1,083.1337**	**0.0152**		**1,083.5146**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	0.0000	281.4481	281.4481	0.0104		281.7081
Total	**5.2888**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0104**		**281.7081**

3.7 Architectural Coating - 2036

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2747	0.1560	2.3224	0.0109	1.5772	6.0100e-003	1.5833	0.4184	5.5300e-003	0.4239		1,083.1337	1,083.1337	0.0152		1,083.5146
Total	**0.2747**	**0.1560**	**2.3224**	**0.0109**	**1.5772**	**6.0100e-003**	**1.5833**	**0.4184**	**5.5300e-003**	**0.4239**		**1,083.1337**	**1,083.1337**	**0.0152**		**1,083.5146**

3.7 Architectural Coating - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.7081
Total	**5.2888**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**		**281.4481**	**281.4481**	**0.0104**		**281.7081**

3.7 Architectural Coating - 2037

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2747	0.1560	2.3224	0.0109	1.5772	6.0100e-003	1.5833	0.4184	5.5300e-003	0.4239		1,083.1337	1,083.1337	0.0152		1,083.5146
Total	**0.2747**	**0.1560**	**2.3224**	**0.0109**	**1.5772**	**6.0100e-003**	**1.5833**	**0.4184**	**5.5300e-003**	**0.4239**		**1,083.1337**	**1,083.1337**	**0.0152**		**1,083.5146**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	0.0000	281.4481	281.4481	0.0104		281.7081
Total	**5.2888**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0104**		**281.7081**

3.7 Architectural Coating - 2037

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2747	0.1560	2.3224	0.0109	1.5772	6.0100e-003	1.5833	0.4184	5.5300e-003	0.4239		1,083.1337	1,083.1337	0.0152		1,083.5146
Total	**0.2747**	**0.1560**	**2.3224**	**0.0109**	**1.5772**	**6.0100e-003**	**1.5833**	**0.4184**	**5.5300e-003**	**0.4239**		**1,083.1337**	**1,083.1337**	**0.0152**		**1,083.5146**

3.7 Architectural Coating - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.7081
Total	**5.2888**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**		**281.4481**	**281.4481**	**0.0104**		**281.7081**

3.7 Architectural Coating - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2747	0.1560	2.3224	0.0109	1.5772	6.0100e-003	1.5833	0.4184	5.5300e-003	0.4239		1,083.1337	1,083.1337	0.0152		1,083.5146
Total	**0.2747**	**0.1560**	**2.3224**	**0.0109**	**1.5772**	**6.0100e-003**	**1.5833**	**0.4184**	**5.5300e-003**	**0.4239**		**1,083.1337**	**1,083.1337**	**0.0152**		**1,083.5146**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	0.0000	281.4481	281.4481	0.0104		281.7081
Total	**5.2888**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0104**		**281.7081**

3.7 Architectural Coating - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2747	0.1560	2.3224	0.0109	1.5772	6.0100e-003	1.5833	0.4184	5.5300e-003	0.4239		1,083.1337	1,083.1337	0.0152		1,083.5146
Total	**0.2747**	**0.1560**	**2.3224**	**0.0109**	**1.5772**	**6.0100e-003**	**1.5833**	**0.4184**	**5.5300e-003**	**0.4239**		**1,083.1337**	**1,083.1337**	**0.0152**		**1,083.5146**

3.7 Architectural Coating - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.7081
Total	**5.2888**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**		**281.4481**	**281.4481**	**0.0104**		**281.7081**

3.7 Architectural Coating - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2747	0.1560	2.3224	0.0109	1.5772	6.0100e-003	1.5833	0.4184	5.5300e-003	0.4239		1,083.1337	1,083.1337	0.0152		1,083.5146
Total	**0.2747**	**0.1560**	**2.3224**	**0.0109**	**1.5772**	**6.0100e-003**	**1.5833**	**0.4184**	**5.5300e-003**	**0.4239**		**1,083.1337**	**1,083.1337**	**0.0152**		**1,083.5146**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	0.0000	281.4481	281.4481	0.0104		281.7081
Total	**5.2888**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0104**		**281.7081**

3.7 Architectural Coating - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2747	0.1560	2.3224	0.0109	1.5772	6.0100e-003	1.5833	0.4184	5.5300e-003	0.4239		1,083.1337	1,083.1337	0.0152		1,083.5146
Total	**0.2747**	**0.1560**	**2.3224**	**0.0109**	**1.5772**	**6.0100e-003**	**1.5833**	**0.4184**	**5.5300e-003**	**0.4239**		**1,083.1337**	**1,083.1337**	**0.0152**		**1,083.5146**

3.7 Architectural Coating - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1149	0.7270	1.7923	2.9700e-003		7.4300e-003	7.4300e-003		7.4300e-003	7.4300e-003		281.4481	281.4481	9.9000e-003		281.6957
Total	**5.2858**	**0.7270**	**1.7923**	**2.9700e-003**		**7.4300e-003**	**7.4300e-003**		**7.4300e-003**	**7.4300e-003**		**281.4481**	**281.4481**	**9.9000e-003**		**281.6957**

3.7 Architectural Coating - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2042	0.1194	1.9065	0.0103	1.5772	4.6300e-003	1.5819	0.4184	4.2600e-003	0.4226		1,031.4149	1,031.4149	0.0108		1,031.6843
Total	**0.2042**	**0.1194**	**1.9065**	**0.0103**	**1.5772**	**4.6300e-003**	**1.5819**	**0.4184**	**4.2600e-003**	**0.4226**		**1,031.4149**	**1,031.4149**	**0.0108**		**1,031.6843**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1149	0.7270	1.7923	2.9700e-003		7.4300e-003	7.4300e-003		7.4300e-003	7.4300e-003	0.0000	281.4481	281.4481	9.9000e-003		281.6957
Total	**5.2858**	**0.7270**	**1.7923**	**2.9700e-003**		**7.4300e-003**	**7.4300e-003**		**7.4300e-003**	**7.4300e-003**	**0.0000**	**281.4481**	**281.4481**	**9.9000e-003**		**281.6957**

3.7 Architectural Coating - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2042	0.1194	1.9065	0.0103	1.5772	4.6300e-003	1.5819	0.4184	4.2600e-003	0.4226		1,031.4149	1,031.4149	0.0108		1,031.6843
Total	**0.2042**	**0.1194**	**1.9065**	**0.0103**	**1.5772**	**4.6300e-003**	**1.5819**	**0.4184**	**4.2600e-003**	**0.4226**		**1,031.4149**	**1,031.4149**	**0.0108**		**1,031.6843**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Increase Transit Accessibility

Improve Pedestrian Network

Expand Transit Network

Increase Transit Frequency

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	21.6307	117.3377	205.4730	1.0316	107.2998	0.4425	107.7424	28.7041	0.4113	29.1153		105,161.6666	105,161.6666	3.6303		105,252.4250
Unmitigated	22.2809	119.8019	218.0311	1.1008	115.4554	0.4711	115.9264	30.8858	0.4378	31.3236		112,192.8853	112,192.8853	3.8221		112,288.4386

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Office Park	7,126.38	7,126.38	7126.38	17,860,467	16,598,839
Office Park	2,992.82	2,992.82	2992.82	7,500,735	6,970,898
Other Asphalt Surfaces	0.00	0.00	0.00		
Research & Development	5,759.26	5,759.26	5759.26	14,434,142	13,414,543
Strip Mall	9,439.59	9,439.59	9439.59	14,537,287	13,510,402
Total	25,318.05	25,318.05	25,318.05	54,332,632	50,494,682

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Office Park	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Office Park	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.577209	0.024156	0.214776	0.103225	0.009844	0.003830	0.021383	0.030701	0.004268	0.001869	0.007043	0.001207	0.000491
Office Park	0.577209	0.024156	0.214776	0.103225	0.009844	0.003830	0.021383	0.030701	0.004268	0.001869	0.007043	0.001207	0.000491
Other Asphalt Surfaces	0.577209	0.024156	0.214776	0.103225	0.009844	0.003830	0.021383	0.030701	0.004268	0.001869	0.007043	0.001207	0.000491
Research & Development	0.577209	0.024156	0.214776	0.103225	0.009844	0.003830	0.021383	0.030701	0.004268	0.001869	0.007043	0.001207	0.000491
Strip Mall	0.577209	0.024156	0.214776	0.103225	0.009844	0.003830	0.021383	0.030701	0.004268	0.001869	0.007043	0.001207	0.000491

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan - Monterey County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.6796	6.1783	5.1898	0.0371		0.4696	0.4696		0.4696	0.4696		7,413.9999	7,413.9999	0.1421	0.1359	7,458.0576
NaturalGas Unmitigated	0.9269	8.4260	7.0778	0.0506		0.6404	0.6404		0.6404	0.6404		10,111.1715	10,111.1715	0.1938	0.1854	10,171.2571

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Office Park	13920.8	0.1501	1.3648	1.1464	8.1900e-003		0.1037	0.1037		0.1037	0.1037		1,637.7411	1,637.7411	0.0314	0.0300	1,647.4734
Office Park	33147.3	0.3575	3.2497	2.7298	0.0195		0.2470	0.2470		0.2470	0.2470		3,899.6812	3,899.6812	0.0747	0.0715	3,922.8551
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	36966.8	0.3987	3.6242	3.0443	0.0218		0.2754	0.2754		0.2754	0.2754		4,349.0395	4,349.0395	0.0834	0.0797	4,374.8837
Strip Mall	1910.03	0.0206	0.1873	0.1573	1.1200e-003		0.0142	0.0142		0.0142	0.0142		224.7096	224.7096	4.3100e-003	4.1200e-003	226.0450
Total		**0.9269**	**8.4260**	**7.0778**	**0.0506**		**0.6404**	**0.6404**		**0.6404**	**0.6404**		**10,111.1715**	**10,111.1715**	**0.1938**	**0.1854**	**10,171.2571**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Office Park	23.2408	0.2506	2.2785	1.9140	0.0137		0.1732	0.1732		0.1732	0.1732		2,734.2083	2,734.2083	0.0524	0.0501	2,750.4563
Office Park	9.76038	0.1053	0.9569	0.8038	5.7400e-003		0.0727	0.0727		0.0727	0.0727		1,148.2799	1,148.2799	0.0220	0.0211	1,155.1035
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	28.6808	0.3093	2.8119	2.3620	0.0169		0.2137	0.2137		0.2137	0.2137		3,374.2150	3,374.2150	0.0647	0.0619	3,394.2663
Strip Mall	1.33702	0.0144	0.1311	0.1101	7.9000e-004		9.9600e-003	9.9600e-003		9.9600e-003	9.9600e-003		157.2967	157.2967	3.0100e-003	2.8800e-003	158.2315
Total		**0.6796**	**6.1783**	**5.1898**	**0.0371**		**0.4696**	**0.4696**		**0.4696**	**0.4696**		**7,413.9999**	**7,413.9999**	**0.1421**	**0.1359**	**7,458.0576**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	41.1245	1.5000e-003	0.1667	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3596	0.3596	9.3000e-004		0.3828
Unmitigated	41.1245	1.5000e-003	0.1667	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3596	0.3596	9.3000e-004		0.3828

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.2334					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	34.8758					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0153	1.5000e-003	0.1667	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3596	0.3596	9.3000e-004		0.3828
Total	**41.1245**	**1.5000e-003**	**0.1667**	**1.0000e-005**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**		**0.3596**	**0.3596**	**9.3000e-004**		**0.3828**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.2334					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	34.8758					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0153	1.5000e-003	0.1667	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3596	0.3596	9.3000e-004		0.3828
Total	**41.1245**	**1.5000e-003**	**0.1667**	**1.0000e-005**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**		**0.3596**	**0.3596**	**9.3000e-004**		**0.3828**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan

Monterey County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	572.86	1000sqft	44.20	572,858.00	0
Office Park	240.58	1000sqft	19.10	240,582.00	0
Research & Development	511.48	1000sqft	37.64	511,482.00	0
Strip Mall	294.16	1000sqft	22.56	294,161.00	0
City Park	11.08	Acre	11.08	482,644.80	0
Other Asphalt Surfaces	13.13	Acre	13.13	571,942.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	55
Climate Zone	4			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	328.8	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan - Monterey County, Winter

Project Characteristics - CO2 intensity based on 5-year average (PG&E 2015)

Land Use - Office park includes business park and business aviation reserve land uses, strip mall includes commercial/mixed use land uses, city park includes open space, and other asphalt surfaces includes rights-of-way

Construction Phase - Asssuming 2040 buildout

Vehicle Trips - Trip rates based on project trip generation

Mobile Land Use Mitigation -

Water Mitigation - The project would be required to comply with the the Water Efficient Landscape Ordinance, which will reduce outdoor water use by 20 percent.

Energy Mitigation - The project would be consistent with California's 2019 Building Energy Efficiency Standards, which will take effect on January 1, 2020.

Waste Mitigation - The project would be required to comply with the CalRecycle Waste Diversion and Recycling Mandate which will reduce solid waste production by 25 percent.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	220.00	4,400.00
tblConstructionPhase	NumDays	3,100.00	4,400.00
tblConstructionPhase	NumDays	200.00	250.00
tblConstructionPhase	NumDays	310.00	400.00
tblConstructionPhase	NumDays	220.00	375.00
tblConstructionPhase	NumDays	120.00	150.00
tblConstructionPhase	PhaseEndDate	12/28/2035	12/7/2040
tblConstructionPhase	PhaseEndDate	4/21/2034	12/9/2039
tblConstructionPhase	PhaseEndDate	10/9/2020	12/18/2020
tblConstructionPhase	PhaseEndDate	6/3/2022	1/27/2023
tblConstructionPhase	PhaseEndDate	2/23/2035	1/6/2040
tblConstructionPhase	PhaseEndDate	3/26/2021	7/16/2021
tblConstructionPhase	PhaseStartDate	2/24/2035	1/28/2024
tblConstructionPhase	PhaseStartDate	6/4/2022	1/28/2023
tblConstructionPhase	PhaseStartDate	3/27/2021	7/17/2021
tblConstructionPhase	PhaseStartDate	4/22/2034	8/2/2038

tblConstructionPhase	PhaseStartDate	10/10/2020	12/19/2020
tblLandUse	LandUseSquareFeet	572,860.00	572,858.00
tblLandUse	LandUseSquareFeet	240,580.00	240,582.00
tblLandUse	LandUseSquareFeet	511,480.00	511,482.00
tblLandUse	LandUseSquareFeet	294,160.00	294,161.00
tblLandUse	LotAcreage	13.15	44.20
tblLandUse	LotAcreage	5.52	19.10
tblLandUse	LotAcreage	11.74	37.64
tblLandUse	LotAcreage	6.75	22.56
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	328.8
tblTripsAndVMT	WorkerTripNumber	38.00	15.00
tblTripsAndVMT	WorkerTripNumber	38.00	20.00
tblTripsAndVMT	WorkerTripNumber	38.00	192.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	1.64	12.44
tblVehicleTrips	ST_TR	1.90	11.26
tblVehicleTrips	ST_TR	42.04	32.09
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	0.76	12.44
tblVehicleTrips	SU_TR	1.11	11.26
tblVehicleTrips	SU_TR	20.43	32.09
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.42	12.44
tblVehicleTrips	WD_TR	8.11	11.26
tblVehicleTrips	WD_TR	44.32	32.09

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	9.0956	86.0985	64.1255	0.1227	18.2141	3.9597	20.4128	9.9699	3.6677	11.9927	0.0000	11,915.3286	11,915.3286	3.1039	0.0000	11,992.9261
2021	4.2798	46.4797	31.5648	0.0636	18.2141	2.0457	20.2598	9.9699	1.8820	11.8519	0.0000	6,167.1584	6,167.1584	1.9492	0.0000	6,215.8885
2022	3.7071	38.9151	29.6665	0.0636	8.8376	1.6362	10.4739	3.6401	1.5053	5.1454	0.0000	6,165.8912	6,165.8912	1.9499	0.0000	6,214.6395
2023	6.4043	56.0843	54.5002	0.2167	10.8578	1.4258	11.6779	3.6401	1.3117	4.9518	0.0000	22,128.0878	22,128.0878	1.9493	0.0000	22,161.3808
2024	12.0310	55.7017	58.1840	0.2299	12.4353	0.8004	13.2357	3.3654	0.7559	4.1213	0.0000	23,419.3688	23,419.3688	1.3552	0.0000	23,453.2496
2025	11.6132	53.5319	55.0983	0.2258	12.4355	0.6997	13.1353	3.3655	0.6607	4.0261	0.0000	23,010.3287	23,010.3287	1.3190	0.0000	23,043.3032
2026	11.3510	52.5901	52.4262	0.2218	12.4357	0.6941	13.1298	3.3655	0.6554	4.0209	0.0000	22,620.1269	22,620.1269	1.2887	0.0000	22,652.3444
2027	11.1075	51.7330	50.1341	0.2187	12.4358	0.6877	13.1236	3.3656	0.6494	4.0150	0.0000	22,304.2377	22,304.2377	1.2627	0.0000	22,335.8050
2028	10.8660	51.0039	48.1888	0.2159	12.4360	0.6811	13.1171	3.3656	0.6432	4.0088	0.0000	22,027.0353	22,027.0353	1.2388	0.0000	22,058.0050
2029	10.6150	50.3343	46.3408	0.2134	12.4361	0.6750	13.1111	3.3657	0.6375	4.0032	0.0000	21,781.7887	21,781.7887	1.2168	0.0000	21,812.2074
2030	10.2714	44.9209	44.7662	0.2153	12.4362	0.2589	12.6951	3.3657	0.2530	3.6187	0.0000	21,910.0770	21,910.0770	0.7073	0.0000	21,927.7581
2031	10.0131	44.3920	43.1963	0.2134	12.4363	0.2539	12.6902	3.3657	0.2484	3.6141	0.0000	21,726.3682	21,726.3682	0.6885	0.0000	21,743.5812
2032	9.7842	43.9300	41.8487	0.2118	12.4364	0.2493	12.6857	3.3658	0.2442	3.6099	0.0000	21,571.0741	21,571.0741	0.6719	0.0000	21,587.8705

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2033	9.5895	43.5293	40.7117	0.2105	12.4364	0.2453	12.6817	3.3658	0.2404	3.6062	0.0000	21,439.6267	21,439.6267	0.6581	0.0000	21,456.0784
2034	9.4289	43.1901	39.6690	0.2094	12.4365	0.2415	12.6780	3.3658	0.2369	3.6027	0.0000	21,328.2686	21,328.2686	0.6454	0.0000	21,344.4036
2035	9.1822	42.0412	38.7197	0.2084	12.4366	0.1701	12.6066	3.3658	0.1657	3.5315	0.0000	21,234.4847	21,234.4847	0.6256	0.0000	21,250.1243
2036	9.1822	42.0412	38.7197	0.2084	12.4366	0.1701	12.6066	3.3658	0.1657	3.5315	0.0000	21,234.4847	21,234.4847	0.6256	0.0000	21,250.1243
2037	9.1822	42.0412	38.7197	0.2084	12.4366	0.1701	12.6066	3.3658	0.1657	3.5315	0.0000	21,234.4847	21,234.4847	0.6256	0.0000	21,250.1243
2038	10.4384	46.9326	54.7108	0.2373	12.5598	0.3579	12.9177	3.3985	0.3535	3.7520	0.0000	23,970.1877	23,970.1877	0.7289	0.0000	23,988.4105
2039	10.4384	46.9326	54.7108	0.2373	12.5598	0.3579	12.9177	3.3985	0.3535	3.7520	0.0000	23,970.1877	23,970.1877	0.7289	0.0000	23,988.4105
2040	6.6373	4.5447	19.5210	0.0414	1.7005	0.1288	1.8293	0.4510	0.1284	0.5795	0.0000	3,978.3607	3,978.3607	0.1098	0.0000	3,981.1053
Maximum	**12.0310**	**86.0985**	**64.1255**	**0.2373**	**18.2141**	**3.9597**	**20.4128**	**9.9699**	**3.6677**	**11.9927**	**0.0000**	**23,970.1877**	**23,970.1877**	**3.1039**	**0.0000**	**23,988.4105**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	9.0956	86.0985	64.1255	0.1227	18.2141	3.9597	20.4128	9.9699	3.6677	11.9927	0.0000	11,915.3286	11,915.3286	3.1039	0.0000	11,992.9260
2021	4.2798	46.4797	31.5648	0.0636	18.2141	2.0457	20.2598	9.9699	1.8820	11.8519	0.0000	6,167.1584	6,167.1584	1.9492	0.0000	6,215.8885
2022	3.7071	38.9151	29.6665	0.0636	8.8376	1.6362	10.4739	3.6401	1.5053	5.1454	0.0000	6,165.8912	6,165.8912	1.9499	0.0000	6,214.6395

Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan - Monterey County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	6.4043	56.0843	54.5002	0.2167	10.8578	1.4258	11.6779	3.6401	1.3117	4.9518	0.0000	22,128.0878	22,128.0878	1.9493	0.0000	22,161.3808
2024	12.0310	55.7017	58.1840	0.2299	12.4353	0.8004	13.2357	3.3654	0.7559	4.1213	0.0000	23,419.3688	23,419.3688	1.3552	0.0000	23,453.2496
2025	11.6132	53.5319	55.0983	0.2258	12.4355	0.6997	13.1353	3.3655	0.6607	4.0261	0.0000	23,010.3287	23,010.3287	1.3190	0.0000	23,043.3032
2026	11.3510	52.5901	52.4262	0.2218	12.4357	0.6941	13.1298	3.3655	0.6554	4.0209	0.0000	22,620.1269	22,620.1269	1.2887	0.0000	22,652.3444
2027	11.1075	51.7330	50.1341	0.2187	12.4358	0.6877	13.1236	3.3656	0.6494	4.0150	0.0000	22,304.2377	22,304.2377	1.2627	0.0000	22,335.8050
2028	10.8660	51.0039	48.1888	0.2159	12.4360	0.6811	13.1171	3.3656	0.6432	4.0088	0.0000	22,027.0353	22,027.0353	1.2388	0.0000	22,058.0050
2029	10.6150	50.3343	46.3408	0.2134	12.4361	0.6750	13.1111	3.3657	0.6375	4.0032	0.0000	21,781.7887	21,781.7887	1.2168	0.0000	21,812.2074
2030	10.2714	44.9209	44.7662	0.2153	12.4362	0.2589	12.6951	3.3657	0.2530	3.6187	0.0000	21,910.0770	21,910.0770	0.7073	0.0000	21,927.7581
2031	10.0131	44.3920	43.1963	0.2134	12.4363	0.2539	12.6902	3.3657	0.2484	3.6141	0.0000	21,726.3682	21,726.3682	0.6885	0.0000	21,743.5812
2032	9.7842	43.9300	41.8487	0.2118	12.4364	0.2493	12.6857	3.3658	0.2442	3.6099	0.0000	21,571.0741	21,571.0741	0.6719	0.0000	21,587.8705
2033	9.5895	43.5293	40.7117	0.2105	12.4364	0.2453	12.6817	3.3658	0.2404	3.6062	0.0000	21,439.6267	21,439.6267	0.6581	0.0000	21,456.0784
2034	9.4289	43.1901	39.6690	0.2094	12.4365	0.2415	12.6780	3.3658	0.2369	3.6027	0.0000	21,328.2686	21,328.2686	0.6454	0.0000	21,344.4036
2035	9.1822	42.0412	38.7197	0.2084	12.4366	0.1701	12.6066	3.3658	0.1657	3.5315	0.0000	21,234.4847	21,234.4847	0.6256	0.0000	21,250.1243
2036	9.1822	42.0412	38.7197	0.2084	12.4366	0.1701	12.6066	3.3658	0.1657	3.5315	0.0000	21,234.4847	21,234.4847	0.6256	0.0000	21,250.1243
2037	9.1822	42.0412	38.7197	0.2084	12.4366	0.1701	12.6066	3.3658	0.1657	3.5315	0.0000	21,234.4847	21,234.4847	0.6256	0.0000	21,250.1243
2038	10.4384	46.9326	54.7108	0.2373	12.5598	0.3579	12.9177	3.3985	0.3535	3.7520	0.0000	23,970.1877	23,970.1877	0.7289	0.0000	23,988.4105
2039	10.4384	46.9326	54.7108	0.2373	12.5598	0.3579	12.9177	3.3985	0.3535	3.7520	0.0000	23,970.1877	23,970.1877	0.7289	0.0000	23,988.4105
2040	6.6373	4.5447	19.5210	0.0414	1.7005	0.1288	1.8293	0.4510	0.1284	0.5795	0.0000	3,978.3607	3,978.3607	0.1098	0.0000	3,981.1053

Maximum	**12.0310**	**86.0985**	**64.1255**	**0.2373**	**18.2141**	**3.9597**	**20.4128**	**9.9699**	**3.6677**	**11.9927**	**0.0000**	**23,970.1877**	**23,970.1877**	**3.1039**	**0.0000**	**23,988.4105**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	41.1245	1.5000e-003	0.1667	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3596	0.3596	9.3000e-004		0.3828
Energy	0.9269	8.4260	7.0778	0.0506		0.6404	0.6404		0.6404	0.6404		10,111.1715	10,111.1715	0.1938	0.1854	10,171.2571
Mobile	19.9763	122.3819	225.3962	1.0430	115.4554	0.4725	115.9279	30.8858	0.4392	31.3250		106,318.2479	106,318.2479	4.0012		106,418.2784
Total	**62.0277**	**130.8094**	**232.6407**	**1.0936**	**115.4554**	**1.1135**	**116.5689**	**30.8858**	**1.0802**	**31.9660**		**116,429.7791**	**116,429.7791**	**4.1960**	**0.1854**	**116,589.9183**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	41.1245	1.5000e-003	0.1667	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3596	0.3596	9.3000e-004		0.3828
Energy	0.6796	6.1783	5.1898	0.0371		0.4696	0.4696		0.4696	0.4696		7,413.9999	7,413.9999	0.1421	0.1359	7,458.0576
Mobile	19.3127	119.6256	213.4995	0.9770	107.2998	0.4440	107.7438	28.7041	0.4127	29.1167		99,605.7725	99,605.7725	3.8095		99,701.0111
Total	**61.1168**	**125.8054**	**218.8560**	**1.0141**	**107.2998**	**0.9142**	**108.2140**	**28.7041**	**0.8828**	**29.5869**		**107,020.1321**	**107,020.1321**	**3.9526**	**0.1359**	**107,159.4515**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.47**	**3.83**	**5.93**	**7.27**	**7.06**	**17.90**	**7.17**	**7.06**	**18.27**	**7.44**	**0.00**	**8.08**	**8.08**	**5.80**	**26.68**	**8.09**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/6/2020	12/18/2020	5	250	
2	Site Preparation	Site Preparation	12/19/2020	7/16/2021	5	150	
3	Grading	Grading	7/17/2021	1/27/2023	5	400	
4	Building Construction	Building Construction	1/28/2023	12/9/2039	5	4400	
5	Paving	Paving	8/2/2038	1/6/2040	5	375	
6	Architectural Coating	Architectural Coating	1/28/2024	12/7/2040	5	4400	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1000

Acres of Paving: 13.13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2,428,625; Non-Residential Outdoor: 809,542; Striped Parking Area: 34,317 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Demolition	Graders	1	8.00	187	0.41
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Demolition	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	15	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	15	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	961.00	438.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	15	192.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	192.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	8.0044	85.0824	55.5429	0.1038		3.9435	3.9435		3.6528	3.6528		10,035.0182	10,035.0182	3.0222		10,110.5722
Total	**8.0044**	**85.0824**	**55.5429**	**0.1038**		**3.9435**	**3.9435**		**3.6528**	**3.6528**		**10,035.0182**	**10,035.0182**	**3.0222**		**10,110.5722**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.0912	1.0161	8.5826	0.0189	5.1060	0.0161	5.1222	1.2902	0.0149	1.3051		1,880.3104	1,880.3104	0.0817		1,882.3539
Total	**1.0912**	**1.0161**	**8.5826**	**0.0189**	**5.1060**	**0.0161**	**5.1222**	**1.2902**	**0.0149**	**1.3051**		**1,880.3104**	**1,880.3104**	**0.0817**		**1,882.3539**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	8.0044	85.0824	55.5429	0.1038		3.9435	3.9435		3.6528	3.6528	0.0000	10,035.0182	10,035.0182	3.0222		10,110.5722
Total	**8.0044**	**85.0824**	**55.5429**	**0.1038**		**3.9435**	**3.9435**		**3.6528**	**3.6528**	**0.0000**	**10,035.0182**	**10,035.0182**	**3.0222**		**10,110.5722**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.0912	1.0161	8.5826	0.0189	5.1060	0.0161	5.1222	1.2902	0.0149	1.3051		1,880.3104	1,880.3104	0.0817		1,882.3539
Total	**1.0912**	**1.0161**	**8.5826**	**0.0189**	**5.1060**	**0.0161**	**5.1222**	**1.2902**	**0.0149**	**1.3051**		**1,880.3104**	**1,880.3104**	**0.0817**		**1,882.3539**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0865	0.0806	0.6806	1.5000e-003	0.1479	1.2800e-003	0.1491	0.0392	1.1800e-003	0.0404		149.0995	149.0995	6.4800e-003		149.2615
Total	**0.0865**	**0.0806**	**0.6806**	**1.5000e-003**	**0.1479**	**1.2800e-003**	**0.1491**	**0.0392**	**1.1800e-003**	**0.0404**		**149.0995**	**149.0995**	**6.4800e-003**		**149.2615**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0865	0.0806	0.6806	1.5000e-003	0.1479	1.2800e-003	0.1491	0.0392	1.1800e-003	0.0404		149.0995	149.0995	6.4800e-003		149.2615
Total	**0.0865**	**0.0806**	**0.6806**	**1.5000e-003**	**0.1479**	**1.2800e-003**	**0.1491**	**0.0392**	**1.1800e-003**	**0.0404**		**149.0995**	**149.0995**	**6.4800e-003**		**149.2615**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0798	0.0719	0.6178	1.4500e-003	0.1479	1.2300e-003	0.1491	0.0392	1.1400e-003	0.0404		144.1034	144.1034	5.7700e-003		144.2476
Total	**0.0798**	**0.0719**	**0.6178**	**1.4500e-003**	**0.1479**	**1.2300e-003**	**0.1491**	**0.0392**	**1.1400e-003**	**0.0404**		**144.1034**	**144.1034**	**5.7700e-003**		**144.2476**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0798	0.0719	0.6178	1.4500e-003	0.1479	1.2300e-003	0.1491	0.0392	1.1400e-003	0.0404		144.1034	144.1034	5.7700e-003		144.2476
Total	**0.0798**	**0.0719**	**0.6178**	**1.4500e-003**	**0.1479**	**1.2300e-003**	**0.1491**	**0.0392**	**1.1400e-003**	**0.0404**		**144.1034**	**144.1034**	**5.7700e-003**		**144.2476**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0887	0.0799	0.6864	1.6100e-003	0.1643	1.3700e-003	0.1657	0.0436	1.2700e-003	0.0448		160.1149	160.1149	6.4100e-003		160.2751
Total	**0.0887**	**0.0799**	**0.6864**	**1.6100e-003**	**0.1643**	**1.3700e-003**	**0.1657**	**0.0436**	**1.2700e-003**	**0.0448**		**160.1149**	**160.1149**	**6.4100e-003**		**160.2751**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0887	0.0799	0.6864	1.6100e-003	0.1643	1.3700e-003	0.1657	0.0436	1.2700e-003	0.0448		160.1149	160.1149	6.4100e-003		160.2751
Total	**0.0887**	**0.0799**	**0.6864**	**1.6100e-003**	**0.1643**	**1.3700e-003**	**0.1657**	**0.0436**	**1.2700e-003**	**0.0448**		**160.1149**	**160.1149**	**6.4100e-003**		**160.2751**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0822	0.0716	0.6250	1.5500e-003	0.1643	1.3200e-003	0.1656	0.0436	1.2200e-003	0.0448		154.4807	154.4807	5.7200e-003		154.6236
Total	**0.0822**	**0.0716**	**0.6250**	**1.5500e-003**	**0.1643**	**1.3200e-003**	**0.1656**	**0.0436**	**1.2200e-003**	**0.0448**		**154.4807**	**154.4807**	**5.7200e-003**		**154.6236**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0822	0.0716	0.6250	1.5500e-003	0.1643	1.3200e-003	0.1656	0.0436	1.2200e-003	0.0448		154.4807	154.4807	5.7200e-003		154.6236
Total	**0.0822**	**0.0716**	**0.6250**	**1.5500e-003**	**0.1643**	**1.3200e-003**	**0.1656**	**0.0436**	**1.2200e-003**	**0.0448**		**154.4807**	**154.4807**	**5.7200e-003**		**154.6236**

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**8.6733**	**1.4245**	**10.0978**	**3.5965**	**1.3105**	**4.9070**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0764	0.0642	0.5678	1.4900e-003	0.1643	1.2800e-003	0.1656	0.0436	1.1800e-003	0.0448		148.7578	148.7578	5.0900e-003		148.8849
Total	**0.0764**	**0.0642**	**0.5678**	**1.4900e-003**	**0.1643**	**1.2800e-003**	**0.1656**	**0.0436**	**1.1800e-003**	**0.0448**		**148.7578**	**148.7578**	**5.0900e-003**		**148.8849**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**8.6733**	**1.4245**	**10.0978**	**3.5965**	**1.3105**	**4.9070**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0764	0.0642	0.5678	1.4900e-003	0.1643	1.2800e-003	0.1656	0.0436	1.1800e-003	0.0448		148.7578	148.7578	5.0900e-003		148.8849
Total	**0.0764**	**0.0642**	**0.5678**	**1.4900e-003**	**0.1643**	**1.2800e-003**	**0.1656**	**0.0436**	**1.1800e-003**	**0.0448**		**148.7578**	**148.7578**	**5.0900e-003**		**148.8849**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.1614	38.6162	10.9734	0.1180	2.9634	0.0588	3.0222	0.8530	0.0562	0.9092		12,425.0678	12,425.0678	0.4795		12,437.0549
Worker	3.6701	3.0832	27.2829	0.0718	7.8944	0.0615	7.9559	2.0940	0.0567	2.1507		7,147.8100	7,147.8100	0.2444		7,153.9199
Total	**4.8316**	**41.6994**	**38.2562**	**0.1898**	**10.8578**	**0.1203**	**10.9782**	**2.9469**	**0.1129**	**3.0599**		**19,572.8779**	**19,572.8779**	**0.7239**		**19,590.9747**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.1614	38.6162	10.9734	0.1180	2.9634	0.0588	3.0222	0.8530	0.0562	0.9092		12,425.0678	12,425.0678	0.4795		12,437.0549
Worker	3.6701	3.0832	27.2829	0.0718	7.8944	0.0615	7.9559	2.0940	0.0567	2.1507		7,147.8100	7,147.8100	0.2444		7,153.9199
Total	**4.8316**	**41.6994**	**38.2562**	**0.1898**	**10.8578**	**0.1203**	**10.9782**	**2.9469**	**0.1129**	**3.0599**		**19,572.8779**	**19,572.8779**	**0.7239**		**19,590.9747**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0978	37.7128	10.2329	0.1171	2.9637	0.0546	3.0183	0.8531	0.0522	0.9052		12,336.2856	12,336.2856	0.4731		12,348.1127
Worker	3.4256	2.7724	24.9829	0.0690	7.8944	0.0596	7.9540	2.0940	0.0549	2.1489		6,872.8055	6,872.8055	0.2183		6,878.2638
Total	**4.5233**	**40.4852**	**35.2157**	**0.1862**	**10.8581**	**0.1142**	**10.9723**	**2.9470**	**0.1071**	**3.0541**		**19,209.0911**	**19,209.0911**	**0.6914**		**19,226.3764**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0978	37.7128	10.2329	0.1171	2.9637	0.0546	3.0183	0.8531	0.0522	0.9052		12,336.2856	12,336.2856	0.4731		12,348.1127
Worker	3.4256	2.7724	24.9829	0.0690	7.8944	0.0596	7.9540	2.0940	0.0549	2.1489		6,872.8055	6,872.8055	0.2183		6,878.2638
Total	**4.5233**	**40.4852**	**35.2157**	**0.1862**	**10.8581**	**0.1142**	**10.9723**	**2.9470**	**0.1071**	**3.0541**		**19,209.0911**	**19,209.0911**	**0.6914**		**19,226.3764**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0431	36.9067	9.6328	0.1163	2.9639	0.0506	3.0146	0.8531	0.0484	0.9015		12,253.0404	12,253.0404	0.4665		12,264.7024
Worker	3.2180	2.5088	22.9804	0.0663	7.8944	0.0584	7.9527	2.0940	0.0538	2.1477		6,600.6164	6,600.6164	0.1969		6,605.5380
Total	**4.2611**	**39.4155**	**32.6132**	**0.1826**	**10.8583**	**0.1090**	**10.9673**	**2.9471**	**0.1022**	**3.0493**		**18,853.6567**	**18,853.6567**	**0.6634**		**18,870.2404**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0431	36.9067	9.6328	0.1163	2.9639	0.0506	3.0146	0.8531	0.0484	0.9015		12,253.0404	12,253.0404	0.4665		12,264.7024
Worker	3.2180	2.5088	22.9804	0.0663	7.8944	0.0584	7.9527	2.0940	0.0538	2.1477		6,600.6164	6,600.6164	0.1969		6,605.5380
Total	**4.2611**	**39.4155**	**32.6132**	**0.1826**	**10.8583**	**0.1090**	**10.9673**	**2.9471**	**0.1022**	**3.0493**		**18,853.6567**	**18,853.6567**	**0.6634**		**18,870.2404**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0022	36.2433	9.2077	0.1157	2.9641	0.0479	3.0120	0.8532	0.0458	0.8990		12,190.0401	12,190.0401	0.4607		12,201.5576
Worker	3.0335	2.2767	21.1075	0.0635	7.8944	0.0560	7.9504	2.0940	0.0515	2.1455		6,327.9011	6,327.9011	0.1765		6,332.3123
Total	**4.0357**	**38.5200**	**30.3153**	**0.1792**	**10.8585**	**0.1038**	**10.9623**	**2.9472**	**0.0973**	**3.0445**		**18,517.9412**	**18,517.9412**	**0.6372**		**18,533.8699**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0022	36.2433	9.2077	0.1157	2.9641	0.0479	3.0120	0.8532	0.0458	0.8990		12,190.0401	12,190.0401	0.4607		12,201.5576
Worker	3.0335	2.2767	21.1075	0.0635	7.8944	0.0560	7.9504	2.0940	0.0515	2.1455		6,327.9011	6,327.9011	0.1765		6,332.3123
Total	**4.0357**	**38.5200**	**30.3153**	**0.1792**	**10.8585**	**0.1038**	**10.9623**	**2.9472**	**0.0973**	**3.0445**		**18,517.9412**	**18,517.9412**	**0.6372**		**18,533.8699**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9669	35.6354	8.8247	0.1152	2.9642	0.0454	3.0096	0.8533	0.0434	0.8967		12,134.8878	12,134.8878	0.4550		12,146.2639
Worker	2.8601	2.0691	19.5163	0.0613	7.8944	0.0527	7.9471	2.0940	0.0485	2.1425		6,110.5827	6,110.5827	0.1595		6,114.5698
Total	**3.8269**	**37.7045**	**28.3411**	**0.1765**	**10.8586**	**0.0981**	**10.9567**	**2.9472**	**0.0919**	**3.0391**		**18,245.4704**	**18,245.4704**	**0.6145**		**18,260.8337**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9669	35.6354	8.8247	0.1152	2.9642	0.0454	3.0096	0.8533	0.0434	0.8967		12,134.8878	12,134.8878	0.4550		12,146.2639
Worker	2.8601	2.0691	19.5163	0.0613	7.8944	0.0527	7.9471	2.0940	0.0485	2.1425		6,110.5827	6,110.5827	0.1595		6,114.5698
Total	**3.8269**	**37.7045**	**28.3411**	**0.1765**	**10.8586**	**0.0981**	**10.9567**	**2.9472**	**0.0919**	**3.0391**		**18,245.4704**	**18,245.4704**	**0.6145**		**18,260.8337**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9376	35.1277	8.5522	0.1147	2.9643	0.0432	3.0075	0.8533	0.0413	0.8946		12,089.0868	12,089.0868	0.4486		12,100.3019
Worker	2.6831	1.8846	18.1222	0.0594	7.8944	0.0491	7.9434	2.0940	0.0451	2.1391		5,917.7147	5,917.7147	0.1449		5,921.3379
Total	**3.6207**	**37.0122**	**26.6744**	**0.1741**	**10.8587**	**0.0922**	**10.9510**	**2.9473**	**0.0864**	**3.0337**		**18,006.8015**	**18,006.8015**	**0.5935**		**18,021.6398**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9376	35.1277	8.5522	0.1147	2.9643	0.0432	3.0075	0.8533	0.0413	0.8946		12,089.0868	12,089.0868	0.4486		12,100.3019
Worker	2.6831	1.8846	18.1222	0.0594	7.8944	0.0491	7.9434	2.0940	0.0451	2.1391		5,917.7147	5,917.7147	0.1449		5,921.3379
Total	**3.6207**	**37.0122**	**26.6744**	**0.1741**	**10.8587**	**0.0922**	**10.9510**	**2.9473**	**0.0864**	**3.0337**		**18,006.8015**	**18,006.8015**	**0.5935**		**18,021.6398**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9133	34.6655	8.3223	0.1143	2.9645	0.0412	3.0056	0.8533	0.0394	0.8927		12,049.4009	12,049.4009	0.4435		12,060.4894
Worker	2.4942	1.7116	16.7735	0.0576	7.8944	0.0456	7.9400	2.0940	0.0420	2.1360		5,746.3844	5,746.3844	0.1308		5,749.6539
Total	**3.4076**	**36.3771**	**25.0958**	**0.1719**	**10.8588**	**0.0868**	**10.9457**	**2.9473**	**0.0813**	**3.0286**		**17,795.7853**	**17,795.7853**	**0.5743**		**17,810.1433**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9133	34.6655	8.3223	0.1143	2.9645	0.0412	3.0056	0.8533	0.0394	0.8927		12,049.4009	12,049.4009	0.4435		12,060.4894
Worker	2.4942	1.7116	16.7735	0.0576	7.8944	0.0456	7.9400	2.0940	0.0420	2.1360		5,746.3844	5,746.3844	0.1308		5,749.6539
Total	**3.4076**	**36.3771**	**25.0958**	**0.1719**	**10.8588**	**0.0868**	**10.9457**	**2.9473**	**0.0813**	**3.0286**		**17,795.7853**	**17,795.7853**	**0.5743**		**17,810.1433**

3.5 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

3.5 Building Construction - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8937	34.2702	8.1508	0.1140	2.9646	0.0395	3.0040	0.8534	0.0377	0.8911		12,018.6910	12,018.6910	0.4380		12,029.6419
Worker	2.3061	1.5502	15.5532	0.0561	7.8944	0.0425	7.9368	2.0940	0.0391	2.1330		5,594.6296	5,594.6296	0.1180		5,597.5795
Total	**3.1999**	**35.8203**	**23.7041**	**0.1701**	**10.8590**	**0.0819**	**10.9409**	**2.9473**	**0.0768**	**3.0241**		**17,613.3206**	**17,613.3206**	**0.5560**		**17,627.2214**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

3.5 Building Construction - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8937	34.2702	8.1508	0.1140	2.9646	0.0395	3.0040	0.8534	0.0377	0.8911		12,018.6910	12,018.6910	0.4380		12,029.6419
Worker	2.3061	1.5502	15.5532	0.0561	7.8944	0.0425	7.9368	2.0940	0.0391	2.1330		5,594.6296	5,594.6296	0.1180		5,597.5795
Total	**3.1999**	**35.8203**	**23.7041**	**0.1701**	**10.8590**	**0.0819**	**10.9409**	**2.9473**	**0.0768**	**3.0241**		**17,613.3206**	**17,613.3206**	**0.5560**		**17,627.2214**

3.5 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

3.5 Building Construction - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8775	33.9294	8.0071	0.1138	2.9647	0.0380	3.0027	0.8534	0.0364	0.8898		11,995.9079	11,995.9079	0.4341		12,006.7611
Worker	2.1044	1.3933	14.3645	0.0547	7.8944	0.0395	7.9339	2.0940	0.0363	2.1303		5,460.5016	5,460.5016	0.1057		5,463.1428
Total	**2.9819**	**35.3227**	**22.3716**	**0.1685**	**10.8590**	**0.0775**	**10.9366**	**2.9474**	**0.0727**	**3.0201**		**17,456.4095**	**17,456.4095**	**0.5398**		**17,469.9039**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

3.5 Building Construction - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8775	33.9294	8.0071	0.1138	2.9647	0.0380	3.0027	0.8534	0.0364	0.8898		11,995.9079	11,995.9079	0.4341		12,006.7611
Worker	2.1044	1.3933	14.3645	0.0547	7.8944	0.0395	7.9339	2.0940	0.0363	2.1303		5,460.5016	5,460.5016	0.1057		5,463.1428
Total	**2.9819**	**35.3227**	**22.3716**	**0.1685**	**10.8590**	**0.0775**	**10.9366**	**2.9474**	**0.0727**	**3.0201**		**17,456.4095**	**17,456.4095**	**0.5398**		**17,469.9039**

3.5 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

3.5 Building Construction - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8640	33.6299	7.9004	0.1137	2.9647	0.0367	3.0015	0.8534	0.0351	0.8886		11,981.8438	11,981.8438	0.4303		11,992.6018
Worker	1.9248	1.2579	13.3303	0.0535	7.8944	0.0368	7.9312	2.0940	0.0339	2.1278		5,342.7895	5,342.7895	0.0949		5,345.1629
Total	**2.7888**	**34.8878**	**21.2307**	**0.1672**	**10.8591**	**0.0735**	**10.9327**	**2.9474**	**0.0690**	**3.0164**		**17,324.6333**	**17,324.6333**	**0.5253**		**17,337.7647**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

3.5 Building Construction - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8640	33.6299	7.9004	0.1137	2.9647	0.0367	3.0015	0.8534	0.0351	0.8886		11,981.8438	11,981.8438	0.4303		11,992.6018
Worker	1.9248	1.2579	13.3303	0.0535	7.8944	0.0368	7.9312	2.0940	0.0339	2.1278		5,342.7895	5,342.7895	0.0949		5,345.1629
Total	**2.7888**	**34.8878**	**21.2307**	**0.1672**	**10.8591**	**0.0735**	**10.9327**	**2.9474**	**0.0690**	**3.0164**		**17,324.6333**	**17,324.6333**	**0.5253**		**17,337.7647**

3.5 Building Construction - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

3.5 Building Construction - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8537	33.3662	7.8178	0.1136	2.9648	0.0356	3.0004	0.8535	0.0340	0.8875		11,973.6264	11,973.6264	0.4275		11,984.3129
Worker	1.7712	1.1437	12.4515	0.0525	7.8944	0.0344	7.9288	2.0940	0.0316	2.1256		5,240.0801	5,240.0801	0.0858		5,242.2257
Total	**2.6248**	**34.5099**	**20.2693**	**0.1661**	**10.8592**	**0.0699**	**10.9291**	**2.9474**	**0.0656**	**3.0130**		**17,213.7065**	**17,213.7065**	**0.5133**		**17,226.5386**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

3.5 Building Construction - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8537	33.3662	7.8178	0.1136	2.9648	0.0356	3.0004	0.8535	0.0340	0.8875		11,973.6264	11,973.6264	0.4275		11,984.3129
Worker	1.7712	1.1437	12.4515	0.0525	7.8944	0.0344	7.9288	2.0940	0.0316	2.1256		5,240.0801	5,240.0801	0.0858		5,242.2257
Total	**2.6248**	**34.5099**	**20.2693**	**0.1661**	**10.8592**	**0.0699**	**10.9291**	**2.9474**	**0.0656**	**3.0130**		**17,213.7065**	**17,213.7065**	**0.5133**		**17,226.5386**

3.5 Building Construction - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

3.5 Building Construction - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8442	33.1381	7.7392	0.1135	2.9649	0.0345	2.9994	0.8535	0.0330	0.8865		11,969.7772	11,969.7772	0.4248		11,980.3963
Worker	1.6453	1.0511	11.6479	0.0516	7.8944	0.0321	7.9265	2.0940	0.0296	2.1235		5,150.4737	5,150.4737	0.0775		5,152.4115
Total	**2.4894**	**34.1892**	**19.3871**	**0.1651**	**10.8593**	**0.0667**	**10.9259**	**2.9474**	**0.0625**	**3.0100**		**17,120.2509**	**17,120.2509**	**0.5023**		**17,132.8079**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	**1.3091**	**7.9346**	**16.1570**	**0.0310**		**0.1481**	**0.1481**		**0.1481**	**0.1481**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1162**		**2,900.4529**

3.5 Building Construction - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8442	33.1381	7.7392	0.1135	2.9649	0.0345	2.9994	0.8535	0.0330	0.8865		11,969.7772	11,969.7772	0.4248		11,980.3963
Worker	1.6453	1.0511	11.6479	0.0516	7.8944	0.0321	7.9265	2.0940	0.0296	2.1235		5,150.4737	5,150.4737	0.0775		5,152.4115
Total	**2.4894**	**34.1892**	**19.3871**	**0.1651**	**10.8593**	**0.0667**	**10.9259**	**2.9474**	**0.0625**	**3.0100**		**17,120.2509**	**17,120.2509**	**0.5023**		**17,132.8079**

3.5 Building Construction - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904		2,897.5468	2,897.5468	0.1079		2,900.2448
Total	**1.2168**	**7.1613**	**16.1178**	**0.0310**		**0.0904**	**0.0904**		**0.0904**	**0.0904**		**2,897.5468**	**2,897.5468**	**0.1079**		**2,900.2448**

3.5 Building Construction - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8359	32.9489	7.6727	0.1135	2.9649	0.0336	2.9986	0.8535	0.0322	0.8857		11,968.7110	11,968.7110	0.4230		11,979.2851
Worker	1.5342	0.9779	10.9477	0.0508	7.8944	0.0301	7.9245	2.0940	0.0277	2.1217		5,073.1956	5,073.1956	0.0703		5,074.9521
Total	**2.3701**	**33.9268**	**18.6204**	**0.1643**	**10.8593**	**0.0637**	**10.9231**	**2.9475**	**0.0598**	**3.0073**		**17,041.9066**	**17,041.9066**	**0.4932**		**17,054.2372**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904	0.0000	2,897.5468	2,897.5468	0.1079		2,900.2448
Total	**1.2168**	**7.1613**	**16.1178**	**0.0310**		**0.0904**	**0.0904**		**0.0904**	**0.0904**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1079**		**2,900.2448**

3.5 Building Construction - 2035

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8359	32.9489	7.6727	0.1135	2.9649	0.0336	2.9986	0.8535	0.0322	0.8857		11,968.7110	11,968.7110	0.4230		11,979.2851
Worker	1.5342	0.9779	10.9477	0.0508	7.8944	0.0301	7.9245	2.0940	0.0277	2.1217		5,073.1956	5,073.1956	0.0703		5,074.9521
Total	**2.3701**	**33.9268**	**18.6204**	**0.1643**	**10.8593**	**0.0637**	**10.9231**	**2.9475**	**0.0598**	**3.0073**		**17,041.9066**	**17,041.9066**	**0.4932**		**17,054.2372**

3.5 Building Construction - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904		2,897.5468	2,897.5468	0.1079		2,900.2448
Total	**1.2168**	**7.1613**	**16.1178**	**0.0310**		**0.0904**	**0.0904**		**0.0904**	**0.0904**		**2,897.5468**	**2,897.5468**	**0.1079**		**2,900.2448**

3.5 Building Construction - 2036

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8359	32.9489	7.6727	0.1135	2.9649	0.0336	2.9986	0.8535	0.0322	0.8857		11,968.7110	11,968.7110	0.4230		11,979.2851
Worker	1.5342	0.9779	10.9477	0.0508	7.8944	0.0301	7.9245	2.0940	0.0277	2.1217		5,073.1956	5,073.1956	0.0703		5,074.9521
Total	**2.3701**	**33.9268**	**18.6204**	**0.1643**	**10.8593**	**0.0637**	**10.9231**	**2.9475**	**0.0598**	**3.0073**		**17,041.9066**	**17,041.9066**	**0.4932**		**17,054.2372**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904	0.0000	2,897.5468	2,897.5468	0.1079		2,900.2448
Total	**1.2168**	**7.1613**	**16.1178**	**0.0310**		**0.0904**	**0.0904**		**0.0904**	**0.0904**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1079**		**2,900.2448**

3.5 Building Construction - 2036

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8359	32.9489	7.6727	0.1135	2.9649	0.0336	2.9986	0.8535	0.0322	0.8857		11,968.7110	11,968.7110	0.4230		11,979.2851
Worker	1.5342	0.9779	10.9477	0.0508	7.8944	0.0301	7.9245	2.0940	0.0277	2.1217		5,073.1956	5,073.1956	0.0703		5,074.9521
Total	**2.3701**	**33.9268**	**18.6204**	**0.1643**	**10.8593**	**0.0637**	**10.9231**	**2.9475**	**0.0598**	**3.0073**		**17,041.9066**	**17,041.9066**	**0.4932**		**17,054.2372**

3.5 Building Construction - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904		2,897.5468	2,897.5468	0.1079		2,900.2448
Total	**1.2168**	**7.1613**	**16.1178**	**0.0310**		**0.0904**	**0.0904**		**0.0904**	**0.0904**		**2,897.5468**	**2,897.5468**	**0.1079**		**2,900.2448**

3.5 Building Construction - 2037

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8359	32.9489	7.6727	0.1135	2.9649	0.0336	2.9986	0.8535	0.0322	0.8857		11,968.7110	11,968.7110	0.4230		11,979.2851
Worker	1.5342	0.9779	10.9477	0.0508	7.8944	0.0301	7.9245	2.0940	0.0277	2.1217		5,073.1956	5,073.1956	0.0703		5,074.9521
Total	**2.3701**	**33.9268**	**18.6204**	**0.1643**	**10.8593**	**0.0637**	**10.9231**	**2.9475**	**0.0598**	**3.0073**		**17,041.9066**	**17,041.9066**	**0.4932**		**17,054.2372**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904	0.0000	2,897.5468	2,897.5468	0.1079		2,900.2448
Total	**1.2168**	**7.1613**	**16.1178**	**0.0310**		**0.0904**	**0.0904**		**0.0904**	**0.0904**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1079**		**2,900.2448**

3.5 Building Construction - 2037

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8359	32.9489	7.6727	0.1135	2.9649	0.0336	2.9986	0.8535	0.0322	0.8857		11,968.7110	11,968.7110	0.4230		11,979.2851
Worker	1.5342	0.9779	10.9477	0.0508	7.8944	0.0301	7.9245	2.0940	0.0277	2.1217		5,073.1956	5,073.1956	0.0703		5,074.9521
Total	**2.3701**	**33.9268**	**18.6204**	**0.1643**	**10.8593**	**0.0637**	**10.9231**	**2.9475**	**0.0598**	**3.0073**		**17,041.9066**	**17,041.9066**	**0.4932**		**17,054.2372**

3.5 Building Construction - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904		2,897.5468	2,897.5468	0.1079		2,900.2448
Total	**1.2168**	**7.1613**	**16.1178**	**0.0310**		**0.0904**	**0.0904**		**0.0904**	**0.0904**		**2,897.5468**	**2,897.5468**	**0.1079**		**2,900.2448**

3.5 Building Construction - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8359	32.9489	7.6727	0.1135	2.9649	0.0336	2.9986	0.8535	0.0322	0.8857		11,968.7110	11,968.7110	0.4230		11,979.2851
Worker	1.5342	0.9779	10.9477	0.0508	7.8944	0.0301	7.9245	2.0940	0.0277	2.1217		5,073.1956	5,073.1956	0.0703		5,074.9521
Total	**2.3701**	**33.9268**	**18.6204**	**0.1643**	**10.8593**	**0.0637**	**10.9231**	**2.9475**	**0.0598**	**3.0073**		**17,041.9066**	**17,041.9066**	**0.4932**		**17,054.2372**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904	0.0000	2,897.5468	2,897.5468	0.1079		2,900.2448
Total	**1.2168**	**7.1613**	**16.1178**	**0.0310**		**0.0904**	**0.0904**		**0.0904**	**0.0904**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1079**		**2,900.2448**

3.5 Building Construction - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8359	32.9489	7.6727	0.1135	2.9649	0.0336	2.9986	0.8535	0.0322	0.8857		11,968.7110	11,968.7110	0.4230		11,979.2851
Worker	1.5342	0.9779	10.9477	0.0508	7.8944	0.0301	7.9245	2.0940	0.0277	2.1217		5,073.1956	5,073.1956	0.0703		5,074.9521
Total	**2.3701**	**33.9268**	**18.6204**	**0.1643**	**10.8593**	**0.0637**	**10.9231**	**2.9475**	**0.0598**	**3.0073**		**17,041.9066**	**17,041.9066**	**0.4932**		**17,054.2372**

3.5 Building Construction - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904		2,897.5468	2,897.5468	0.1079		2,900.2448
Total	**1.2168**	**7.1613**	**16.1178**	**0.0310**		**0.0904**	**0.0904**		**0.0904**	**0.0904**		**2,897.5468**	**2,897.5468**	**0.1079**		**2,900.2448**

3.5 Building Construction - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8359	32.9489	7.6727	0.1135	2.9649	0.0336	2.9986	0.8535	0.0322	0.8857		11,968.7110	11,968.7110	0.4230		11,979.2851
Worker	1.5342	0.9779	10.9477	0.0508	7.8944	0.0301	7.9245	2.0940	0.0277	2.1217		5,073.1956	5,073.1956	0.0703		5,074.9521
Total	**2.3701**	**33.9268**	**18.6204**	**0.1643**	**10.8593**	**0.0637**	**10.9231**	**2.9475**	**0.0598**	**3.0073**		**17,041.9066**	**17,041.9066**	**0.4932**		**17,054.2372**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904	0.0000	2,897.5468	2,897.5468	0.1079		2,900.2448
Total	**1.2168**	**7.1613**	**16.1178**	**0.0310**		**0.0904**	**0.0904**		**0.0904**	**0.0904**	**0.0000**	**2,897.5468**	**2,897.5468**	**0.1079**		**2,900.2448**

3.5 Building Construction - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8359	32.9489	7.6727	0.1135	2.9649	0.0336	2.9986	0.8535	0.0322	0.8857		11,968.7110	11,968.7110	0.4230		11,979.2851
Worker	1.5342	0.9779	10.9477	0.0508	7.8944	0.0301	7.9245	2.0940	0.0277	2.1217		5,073.1956	5,073.1956	0.0703		5,074.9521
Total	**2.3701**	**33.9268**	**18.6204**	**0.1643**	**10.8593**	**0.0637**	**10.9231**	**2.9475**	**0.0598**	**3.0073**		**17,041.9066**	**17,041.9066**	**0.4932**		**17,054.2372**

3.6 Paving - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1405	4.8761	15.8203	0.0281		0.1874	0.1874		0.1874	0.1874		2,656.5168	2,656.5168	0.1022		2,659.0727
Paving	0.0917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2322**	**4.8761**	**15.8203**	**0.0281**		**0.1874**	**0.1874**		**0.1874**	**0.1874**		**2,656.5168**	**2,656.5168**	**0.1022**		**2,659.0727**

3.6 Paving - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0240	0.0153	0.1709	7.9000e-004	0.1232	4.7000e-004	0.1237	0.0327	4.3000e-004	0.0331		79.1862	79.1862	1.1000e-003		79.2136
Total	**0.0240**	**0.0153**	**0.1709**	**7.9000e-004**	**0.1232**	**4.7000e-004**	**0.1237**	**0.0327**	**4.3000e-004**	**0.0331**		**79.1862**	**79.1862**	**1.1000e-003**		**79.2136**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1405	4.8761	15.8203	0.0281		0.1874	0.1874		0.1874	0.1874	0.0000	2,656.5168	2,656.5168	0.1022		2,659.0726
Paving	0.0917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2322**	**4.8761**	**15.8203**	**0.0281**		**0.1874**	**0.1874**		**0.1874**	**0.1874**	**0.0000**	**2,656.5168**	**2,656.5168**	**0.1022**		**2,659.0726**

3.6 Paving - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0240	0.0153	0.1709	7.9000e-004	0.1232	4.7000e-004	0.1237	0.0327	4.3000e-004	0.0331		79.1862	79.1862	1.1000e-003		79.2136
Total	**0.0240**	**0.0153**	**0.1709**	**7.9000e-004**	**0.1232**	**4.7000e-004**	**0.1237**	**0.0327**	**4.3000e-004**	**0.0331**		**79.1862**	**79.1862**	**1.1000e-003**		**79.2136**

3.6 Paving - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1405	4.8761	15.8203	0.0281		0.1874	0.1874		0.1874	0.1874		2,656.5168	2,656.5168	0.1022		2,659.0727
Paving	0.0917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2322**	**4.8761**	**15.8203**	**0.0281**		**0.1874**	**0.1874**		**0.1874**	**0.1874**		**2,656.5168**	**2,656.5168**	**0.1022**		**2,659.0727**

3.6 Paving - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0240	0.0153	0.1709	7.9000e-004	0.1232	4.7000e-004	0.1237	0.0327	4.3000e-004	0.0331		79.1862	79.1862	1.1000e-003		79.2136
Total	**0.0240**	**0.0153**	**0.1709**	**7.9000e-004**	**0.1232**	**4.7000e-004**	**0.1237**	**0.0327**	**4.3000e-004**	**0.0331**		**79.1862**	**79.1862**	**1.1000e-003**		**79.2136**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1405	4.8761	15.8203	0.0281		0.1874	0.1874		0.1874	0.1874	0.0000	2,656.5168	2,656.5168	0.1022		2,659.0726
Paving	0.0917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2322**	**4.8761**	**15.8203**	**0.0281**		**0.1874**	**0.1874**		**0.1874**	**0.1874**	**0.0000**	**2,656.5168**	**2,656.5168**	**0.1022**		**2,659.0726**

3.6 Paving - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0240	0.0153	0.1709	7.9000e-004	0.1232	4.7000e-004	0.1237	0.0327	4.3000e-004	0.0331		79.1862	79.1862	1.1000e-003		79.2136
Total	**0.0240**	**0.0153**	**0.1709**	**7.9000e-004**	**0.1232**	**4.7000e-004**	**0.1237**	**0.0327**	**4.3000e-004**	**0.0331**		**79.1862**	**79.1862**	**1.1000e-003**		**79.2136**

3.6 Paving - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0112	3.6566	15.8177	0.0281		0.1164	0.1164		0.1164	0.1164		2,656.5168	2,656.5168	0.0893		2,658.7489
Paving	0.0917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1029**	**3.6566**	**15.8177**	**0.0281**		**0.1164**	**0.1164**		**0.1164**	**0.1164**		**2,656.5168**	**2,656.5168**	**0.0893**		**2,658.7489**

3.6 Paving - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0180	0.0117	0.1385	7.5000e-004	0.1232	3.6000e-004	0.1236	0.0327	3.3000e-004	0.0330		75.3910	75.3910	7.7000e-004		75.4102
Total	**0.0180**	**0.0117**	**0.1385**	**7.5000e-004**	**0.1232**	**3.6000e-004**	**0.1236**	**0.0327**	**3.3000e-004**	**0.0330**		**75.3910**	**75.3910**	**7.7000e-004**		**75.4102**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0112	3.6566	15.8177	0.0281		0.1164	0.1164		0.1164	0.1164	0.0000	2,656.5168	2,656.5168	0.0893		2,658.7489
Paving	0.0917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1029**	**3.6566**	**15.8177**	**0.0281**		**0.1164**	**0.1164**		**0.1164**	**0.1164**	**0.0000**	**2,656.5168**	**2,656.5168**	**0.0893**		**2,658.7489**

3.6 Paving - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0180	0.0117	0.1385	7.5000e-004	0.1232	3.6000e-004	0.1236	0.0327	3.3000e-004	0.0330		75.3910	75.3910	7.7000e-004		75.4102
Total	**0.0180**	**0.0117**	**0.1385**	**7.5000e-004**	**0.1232**	**3.6000e-004**	**0.1236**	**0.0327**	**3.3000e-004**	**0.0330**		**75.3910**	**75.3910**	**7.7000e-004**		**75.4102**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**5.3517**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6844	0.5539	4.9914	0.0138	1.5772	0.0119	1.5892	0.4184	0.0110	0.4293		1,373.1308	1,373.1308	0.0436		1,374.2213
Total	**0.6844**	**0.5539**	**4.9914**	**0.0138**	**1.5772**	**0.0119**	**1.5892**	**0.4184**	**0.0110**	**0.4293**		**1,373.1308**	**1,373.1308**	**0.0436**		**1,374.2213**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**5.3517**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6844	0.5539	4.9914	0.0138	1.5772	0.0119	1.5892	0.4184	0.0110	0.4293		1,373.1308	1,373.1308	0.0436		1,374.2213
Total	**0.6844**	**0.5539**	**4.9914**	**0.0138**	**1.5772**	**0.0119**	**1.5892**	**0.4184**	**0.0110**	**0.4293**		**1,373.1308**	**1,373.1308**	**0.0436**		**1,374.2213**

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**5.3418**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6429	0.5012	4.5913	0.0132	1.5772	0.0117	1.5889	0.4184	0.0107	0.4291		1,318.7496	1,318.7496	0.0393		1,319.7329
Total	**0.6429**	**0.5012**	**4.5913**	**0.0132**	**1.5772**	**0.0117**	**1.5889**	**0.4184**	**0.0107**	**0.4291**		**1,318.7496**	**1,318.7496**	**0.0393**		**1,319.7329**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**5.3418**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6429	0.5012	4.5913	0.0132	1.5772	0.0117	1.5889	0.4184	0.0107	0.4291		1,318.7496	1,318.7496	0.0393		1,319.7329
Total	**0.6429**	**0.5012**	**4.5913**	**0.0132**	**1.5772**	**0.0117**	**1.5889**	**0.4184**	**0.0107**	**0.4291**		**1,318.7496**	**1,318.7496**	**0.0393**		**1,319.7329**

3.7 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**5.3418**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6061	0.4549	4.2171	0.0127	1.5772	0.0112	1.5884	0.4184	0.0103	0.4287		1,264.2633	1,264.2633	0.0353		1,265.1446
Total	**0.6061**	**0.4549**	**4.2171**	**0.0127**	**1.5772**	**0.0112**	**1.5884**	**0.4184**	**0.0103**	**0.4287**		**1,264.2633**	**1,264.2633**	**0.0353**		**1,265.1446**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**5.3418**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6061	0.4549	4.2171	0.0127	1.5772	0.0112	1.5884	0.4184	0.0103	0.4287		1,264.2633	1,264.2633	0.0353		1,265.1446
Total	**0.6061**	**0.4549**	**4.2171**	**0.0127**	**1.5772**	**0.0112**	**1.5884**	**0.4184**	**0.0103**	**0.4287**		**1,264.2633**	**1,264.2633**	**0.0353**		**1,265.1446**

3.7 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**5.3418**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5714	0.4134	3.8992	0.0123	1.5772	0.0105	1.5878	0.4184	9.6900e-003	0.4281		1,220.8448	1,220.8448	0.0319		1,221.6414
Total	**0.5714**	**0.4134**	**3.8992**	**0.0123**	**1.5772**	**0.0105**	**1.5878**	**0.4184**	**9.6900e-003**	**0.4281**		**1,220.8448**	**1,220.8448**	**0.0319**		**1,221.6414**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**5.3418**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5714	0.4134	3.8992	0.0123	1.5772	0.0105	1.5878	0.4184	9.6900e-003	0.4281		1,220.8448	1,220.8448	0.0319		1,221.6414
Total	**0.5714**	**0.4134**	**3.8992**	**0.0123**	**1.5772**	**0.0105**	**1.5878**	**0.4184**	**9.6900e-003**	**0.4281**		**1,220.8448**	**1,220.8448**	**0.0319**		**1,221.6414**

3.7 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**5.3418**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5361	0.3765	3.6207	0.0119	1.5772	9.8000e-003	1.5870	0.4184	9.0200e-003	0.4274		1,182.3114	1,182.3114	0.0290		1,183.0353
Total	**0.5361**	**0.3765**	**3.6207**	**0.0119**	**1.5772**	**9.8000e-003**	**1.5870**	**0.4184**	**9.0200e-003**	**0.4274**		**1,182.3114**	**1,182.3114**	**0.0290**		**1,183.0353**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**5.3418**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5361	0.3765	3.6207	0.0119	1.5772	9.8000e-003	1.5870	0.4184	9.0200e-003	0.4274		1,182.3114	1,182.3114	0.0290		1,183.0353
Total	**0.5361**	**0.3765**	**3.6207**	**0.0119**	**1.5772**	**9.8000e-003**	**1.5870**	**0.4184**	**9.0200e-003**	**0.4274**		**1,182.3114**	**1,182.3114**	**0.0290**		**1,183.0353**

3.7 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**5.3418**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4983	0.3420	3.3512	0.0115	1.5772	9.1200e-003	1.5864	0.4184	8.3900e-003	0.4267		1,148.0810	1,148.0810	0.0261		1,148.7342
Total	**0.4983**	**0.3420**	**3.3512**	**0.0115**	**1.5772**	**9.1200e-003**	**1.5864**	**0.4184**	**8.3900e-003**	**0.4267**		**1,148.0810**	**1,148.0810**	**0.0261**		**1,148.7342**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**5.3418**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4983	0.3420	3.3512	0.0115	1.5772	9.1200e-003	1.5864	0.4184	8.3900e-003	0.4267		1,148.0810	1,148.0810	0.0261		1,148.7342
Total	**0.4983**	**0.3420**	**3.3512**	**0.0115**	**1.5772**	**9.1200e-003**	**1.5864**	**0.4184**	**8.3900e-003**	**0.4267**		**1,148.0810**	**1,148.0810**	**0.0261**		**1,148.7342**

3.7 Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**5.3017**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.7 Architectural Coating - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4607	0.3097	3.1074	0.0112	1.5772	8.4800e-003	1.5857	0.4184	7.8000e-003	0.4262		1,117.7616	1,117.7616	0.0236		1,118.3510
Total	**0.4607**	**0.3097**	**3.1074**	**0.0112**	**1.5772**	**8.4800e-003**	**1.5857**	**0.4184**	**7.8000e-003**	**0.4262**		**1,117.7616**	**1,117.7616**	**0.0236**		**1,118.3510**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**5.3017**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.7 Architectural Coating - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4607	0.3097	3.1074	0.0112	1.5772	8.4800e-003	1.5857	0.4184	7.8000e-003	0.4262		1,117.7616	1,117.7616	0.0236		1,118.3510
Total	**0.4607**	**0.3097**	**3.1074**	**0.0112**	**1.5772**	**8.4800e-003**	**1.5857**	**0.4184**	**7.8000e-003**	**0.4262**		**1,117.7616**	**1,117.7616**	**0.0236**		**1,118.3510**

3.7 Architectural Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**5.3017**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.7 Architectural Coating - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4204	0.2784	2.8699	0.0109	1.5772	7.8900e-003	1.5851	0.4184	7.2600e-003	0.4256		1,090.9639	1,090.9639	0.0211		1,091.4916
Total	**0.4204**	**0.2784**	**2.8699**	**0.0109**	**1.5772**	**7.8900e-003**	**1.5851**	**0.4184**	**7.2600e-003**	**0.4256**		**1,090.9639**	**1,090.9639**	**0.0211**		**1,091.4916**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**5.3017**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.7 Architectural Coating - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4204	0.2784	2.8699	0.0109	1.5772	7.8900e-003	1.5851	0.4184	7.2600e-003	0.4256		1,090.9639	1,090.9639	0.0211		1,091.4916
Total	**0.4204**	**0.2784**	**2.8699**	**0.0109**	**1.5772**	**7.8900e-003**	**1.5851**	**0.4184**	**7.2600e-003**	**0.4256**		**1,090.9639**	**1,090.9639**	**0.0211**		**1,091.4916**

3.7 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**5.3017**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.7 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3846	0.2513	2.6633	0.0107	1.5772	7.3500e-003	1.5846	0.4184	6.7600e-003	0.4251		1,067.4460	1,067.4460	0.0190		1,067.9202
Total	**0.3846**	**0.2513**	**2.6633**	**0.0107**	**1.5772**	**7.3500e-003**	**1.5846**	**0.4184**	**6.7600e-003**	**0.4251**		**1,067.4460**	**1,067.4460**	**0.0190**		**1,067.9202**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**5.3017**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.7 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3846	0.2513	2.6633	0.0107	1.5772	7.3500e-003	1.5846	0.4184	6.7600e-003	0.4251		1,067.4460	1,067.4460	0.0190		1,067.9202
Total	**0.3846**	**0.2513**	**2.6633**	**0.0107**	**1.5772**	**7.3500e-003**	**1.5846**	**0.4184**	**6.7600e-003**	**0.4251**		**1,067.4460**	**1,067.4460**	**0.0190**		**1,067.9202**

3.7 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**5.3017**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.7 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3539	0.2285	2.4877	0.0105	1.5772	6.8700e-003	1.5841	0.4184	6.3200e-003	0.4247		1,046.9255	1,046.9255	0.0172		1,047.3542
Total	**0.3539**	**0.2285**	**2.4877**	**0.0105**	**1.5772**	**6.8700e-003**	**1.5841**	**0.4184**	**6.3200e-003**	**0.4247**		**1,046.9255**	**1,046.9255**	**0.0172**		**1,047.3542**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**5.3017**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.7 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3539	0.2285	2.4877	0.0105	1.5772	6.8700e-003	1.5841	0.4184	6.3200e-003	0.4247		1,046.9255	1,046.9255	0.0172		1,047.3542
Total	**0.3539**	**0.2285**	**2.4877**	**0.0105**	**1.5772**	**6.8700e-003**	**1.5841**	**0.4184**	**6.3200e-003**	**0.4247**		**1,046.9255**	**1,046.9255**	**0.0172**		**1,047.3542**

3.7 Architectural Coating - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**5.3017**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.7 Architectural Coating - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3287	0.2100	2.3272	0.0103	1.5772	6.4200e-003	1.5837	0.4184	5.9100e-003	0.4243		1,029.0229	1,029.0229	0.0155		1,029.4100
Total	**0.3287**	**0.2100**	**2.3272**	**0.0103**	**1.5772**	**6.4200e-003**	**1.5837**	**0.4184**	**5.9100e-003**	**0.4243**		**1,029.0229**	**1,029.0229**	**0.0155**		**1,029.4100**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**5.3017**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.7 Architectural Coating - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3287	0.2100	2.3272	0.0103	1.5772	6.4200e-003	1.5837	0.4184	5.9100e-003	0.4243		1,029.0229	1,029.0229	0.0155		1,029.4100
Total	**0.3287**	**0.2100**	**2.3272**	**0.0103**	**1.5772**	**6.4200e-003**	**1.5837**	**0.4184**	**5.9100e-003**	**0.4243**		**1,029.0229**	**1,029.0229**	**0.0155**		**1,029.4100**

3.7 Architectural Coating - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.7081
Total	**5.2888**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**		**281.4481**	**281.4481**	**0.0104**		**281.7081**

3.7 Architectural Coating - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3065	0.1954	2.1873	0.0102	1.5772	6.0100e-003	1.5833	0.4184	5.5300e-003	0.4239		1,013.5833	1,013.5833	0.0140		1,013.9343
Total	**0.3065**	**0.1954**	**2.1873**	**0.0102**	**1.5772**	**6.0100e-003**	**1.5833**	**0.4184**	**5.5300e-003**	**0.4239**		**1,013.5833**	**1,013.5833**	**0.0140**		**1,013.9343**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	0.0000	281.4481	281.4481	0.0104		281.7081
Total	**5.2888**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0104**		**281.7081**

3.7 Architectural Coating - 2035

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3065	0.1954	2.1873	0.0102	1.5772	6.0100e-003	1.5833	0.4184	5.5300e-003	0.4239		1,013.5833	1,013.5833	0.0140		1,013.9343
Total	**0.3065**	**0.1954**	**2.1873**	**0.0102**	**1.5772**	**6.0100e-003**	**1.5833**	**0.4184**	**5.5300e-003**	**0.4239**		**1,013.5833**	**1,013.5833**	**0.0140**		**1,013.9343**

3.7 Architectural Coating - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.7081
Total	**5.2888**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**		**281.4481**	**281.4481**	**0.0104**		**281.7081**

3.7 Architectural Coating - 2036

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3065	0.1954	2.1873	0.0102	1.5772	6.0100e-003	1.5833	0.4184	5.5300e-003	0.4239		1,013.5833	1,013.5833	0.0140		1,013.9343
Total	**0.3065**	**0.1954**	**2.1873**	**0.0102**	**1.5772**	**6.0100e-003**	**1.5833**	**0.4184**	**5.5300e-003**	**0.4239**		**1,013.5833**	**1,013.5833**	**0.0140**		**1,013.9343**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	0.0000	281.4481	281.4481	0.0104		281.7081
Total	**5.2888**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0104**		**281.7081**

3.7 Architectural Coating - 2036

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3065	0.1954	2.1873	0.0102	1.5772	6.0100e-003	1.5833	0.4184	5.5300e-003	0.4239		1,013.5833	1,013.5833	0.0140		1,013.9343
Total	**0.3065**	**0.1954**	**2.1873**	**0.0102**	**1.5772**	**6.0100e-003**	**1.5833**	**0.4184**	**5.5300e-003**	**0.4239**		**1,013.5833**	**1,013.5833**	**0.0140**		**1,013.9343**

3.7 Architectural Coating - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.7081
Total	**5.2888**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**		**281.4481**	**281.4481**	**0.0104**		**281.7081**

3.7 Architectural Coating - 2037

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3065	0.1954	2.1873	0.0102	1.5772	6.0100e-003	1.5833	0.4184	5.5300e-003	0.4239		1,013.5833	1,013.5833	0.0140		1,013.9343
Total	**0.3065**	**0.1954**	**2.1873**	**0.0102**	**1.5772**	**6.0100e-003**	**1.5833**	**0.4184**	**5.5300e-003**	**0.4239**		**1,013.5833**	**1,013.5833**	**0.0140**		**1,013.9343**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	0.0000	281.4481	281.4481	0.0104		281.7081
Total	**5.2888**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0104**		**281.7081**

3.7 Architectural Coating - 2037

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3065	0.1954	2.1873	0.0102	1.5772	6.0100e-003	1.5833	0.4184	5.5300e-003	0.4239		1,013.5833	1,013.5833	0.0140		1,013.9343
Total	**0.3065**	**0.1954**	**2.1873**	**0.0102**	**1.5772**	**6.0100e-003**	**1.5833**	**0.4184**	**5.5300e-003**	**0.4239**		**1,013.5833**	**1,013.5833**	**0.0140**		**1,013.9343**

3.7 Architectural Coating - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.7081
Total	**5.2888**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**		**281.4481**	**281.4481**	**0.0104**		**281.7081**

3.7 Architectural Coating - 2038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3065	0.1954	2.1873	0.0102	1.5772	6.0100e-003	1.5833	0.4184	5.5300e-003	0.4239		1,013.5833	1,013.5833	0.0140		1,013.9343
Total	**0.3065**	**0.1954**	**2.1873**	**0.0102**	**1.5772**	**6.0100e-003**	**1.5833**	**0.4184**	**5.5300e-003**	**0.4239**		**1,013.5833**	**1,013.5833**	**0.0140**		**1,013.9343**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	0.0000	281.4481	281.4481	0.0104		281.7081
Total	**5.2888**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0104**		**281.7081**

3.7 Architectural Coating - 2038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3065	0.1954	2.1873	0.0102	1.5772	6.0100e-003	1.5833	0.4184	5.5300e-003	0.4239		1,013.5833	1,013.5833	0.0140		1,013.9343
Total	**0.3065**	**0.1954**	**2.1873**	**0.0102**	**1.5772**	**6.0100e-003**	**1.5833**	**0.4184**	**5.5300e-003**	**0.4239**		**1,013.5833**	**1,013.5833**	**0.0140**		**1,013.9343**

3.7 Architectural Coating - 2039

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.7081
Total	**5.2888**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**		**281.4481**	**281.4481**	**0.0104**		**281.7081**

3.7 Architectural Coating - 2039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3065	0.1954	2.1873	0.0102	1.5772	6.0100e-003	1.5833	0.4184	5.5300e-003	0.4239		1,013.5833	1,013.5833	0.0140		1,013.9343
Total	**0.3065**	**0.1954**	**2.1873**	**0.0102**	**1.5772**	**6.0100e-003**	**1.5833**	**0.4184**	**5.5300e-003**	**0.4239**		**1,013.5833**	**1,013.5833**	**0.0140**		**1,013.9343**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	0.0000	281.4481	281.4481	0.0104		281.7081
Total	**5.2888**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0104**		**281.7081**

3.7 Architectural Coating - 2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3065	0.1954	2.1873	0.0102	1.5772	6.0100e-003	1.5833	0.4184	5.5300e-003	0.4239		1,013.5833	1,013.5833	0.0140		1,013.9343
Total	**0.3065**	**0.1954**	**2.1873**	**0.0102**	**1.5772**	**6.0100e-003**	**1.5833**	**0.4184**	**5.5300e-003**	**0.4239**		**1,013.5833**	**1,013.5833**	**0.0140**		**1,013.9343**

3.7 Architectural Coating - 2040

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1149	0.7270	1.7923	2.9700e-003		7.4300e-003	7.4300e-003		7.4300e-003	7.4300e-003		281.4481	281.4481	9.9000e-003		281.6957
Total	**5.2858**	**0.7270**	**1.7923**	**2.9700e-003**		**7.4300e-003**	**7.4300e-003**		**7.4300e-003**	**7.4300e-003**		**281.4481**	**281.4481**	**9.9000e-003**		**281.6957**

3.7 Architectural Coating - 2040

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2305	0.1494	1.7726	9.6600e-003	1.5772	4.6300e-003	1.5819	0.4184	4.2600e-003	0.4226		965.0049	965.0049	9.8300e-003		965.2505
Total	**0.2305**	**0.1494**	**1.7726**	**9.6600e-003**	**1.5772**	**4.6300e-003**	**1.5819**	**0.4184**	**4.2600e-003**	**0.4226**		**965.0049**	**965.0049**	**9.8300e-003**		**965.2505**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.1709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1149	0.7270	1.7923	2.9700e-003		7.4300e-003	7.4300e-003		7.4300e-003	7.4300e-003	0.0000	281.4481	281.4481	9.9000e-003		281.6957
Total	**5.2858**	**0.7270**	**1.7923**	**2.9700e-003**		**7.4300e-003**	**7.4300e-003**		**7.4300e-003**	**7.4300e-003**	**0.0000**	**281.4481**	**281.4481**	**9.9000e-003**		**281.6957**

3.7 Architectural Coating - 2040

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2305	0.1494	1.7726	9.6600e-003	1.5772	4.6300e-003	1.5819	0.4184	4.2600e-003	0.4226		965.0049	965.0049	9.8300e-003		965.2505
Total	**0.2305**	**0.1494**	**1.7726**	**9.6600e-003**	**1.5772**	**4.6300e-003**	**1.5819**	**0.4184**	**4.2600e-003**	**0.4226**		**965.0049**	**965.0049**	**9.8300e-003**		**965.2505**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Increase Transit Accessibility

Improve Pedestrian Network

Expand Transit Network

Increase Transit Frequency

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	19.3127	119.6256	213.4995	0.9770	107.2998	0.4440	107.7438	28.7041	0.4127	29.1167		99,605.7725	99,605.7725	3.8095		99,701.0111
Unmitigated	19.9763	122.3819	225.3962	1.0430	115.4554	0.4725	115.9279	30.8858	0.4392	31.3250		106,318.2479	106,318.2479	4.0012		106,418.2784

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Office Park	7,126.38	7,126.38	7126.38	17,860,467	16,598,839
Office Park	2,992.82	2,992.82	2992.82	7,500,735	6,970,898
Other Asphalt Surfaces	0.00	0.00	0.00		
Research & Development	5,759.26	5,759.26	5759.26	14,434,142	13,414,543
Strip Mall	9,439.59	9,439.59	9439.59	14,537,287	13,510,402
Total	25,318.05	25,318.05	25,318.05	54,332,632	50,494,682

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Office Park	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Office Park	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.577209	0.024156	0.214776	0.103225	0.009844	0.003830	0.021383	0.030701	0.004268	0.001869	0.007043	0.001207	0.000491
Office Park	0.577209	0.024156	0.214776	0.103225	0.009844	0.003830	0.021383	0.030701	0.004268	0.001869	0.007043	0.001207	0.000491
Other Asphalt Surfaces	0.577209	0.024156	0.214776	0.103225	0.009844	0.003830	0.021383	0.030701	0.004268	0.001869	0.007043	0.001207	0.000491
Research & Development	0.577209	0.024156	0.214776	0.103225	0.009844	0.003830	0.021383	0.030701	0.004268	0.001869	0.007043	0.001207	0.000491
Strip Mall	0.577209	0.024156	0.214776	0.103225	0.009844	0.003830	0.021383	0.030701	0.004268	0.001869	0.007043	0.001207	0.000491

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.6796	6.1783	5.1898	0.0371		0.4696	0.4696		0.4696	0.4696		7,413.9999	7,413.9999	0.1421	0.1359	7,458.0576
NaturalGas Unmitigated	0.9269	8.4260	7.0778	0.0506		0.6404	0.6404		0.6404	0.6404		10,111.1715	10,111.1715	0.1938	0.1854	10,171.2571

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Office Park	13920.8	0.1501	1.3648	1.1464	8.1900e-003		0.1037	0.1037		0.1037	0.1037		1,637.7411	1,637.7411	0.0314	0.0300	1,647.4734
Office Park	33147.3	0.3575	3.2497	2.7298	0.0195		0.2470	0.2470		0.2470	0.2470		3,899.6812	3,899.6812	0.0747	0.0715	3,922.8551
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	36966.8	0.3987	3.6242	3.0443	0.0218		0.2754	0.2754		0.2754	0.2754		4,349.0395	4,349.0395	0.0834	0.0797	4,374.8837
Strip Mall	1910.03	0.0206	0.1873	0.1573	1.1200e-003		0.0142	0.0142		0.0142	0.0142		224.7096	224.7096	4.3100e-003	4.1200e-003	226.0450
Total		**0.9269**	**8.4260**	**7.0778**	**0.0506**		**0.6404**	**0.6404**		**0.6404**	**0.6404**		**10,111.1715**	**10,111.1715**	**0.1938**	**0.1854**	**10,171.2571**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Office Park	23.2408	0.2506	2.2785	1.9140	0.0137		0.1732	0.1732		0.1732	0.1732		2,734.2083	2,734.2083	0.0524	0.0501	2,750.4563
Office Park	9.76038	0.1053	0.9569	0.8038	5.7400e-003		0.0727	0.0727		0.0727	0.0727		1,148.2799	1,148.2799	0.0220	0.0211	1,155.1035
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	28.6808	0.3093	2.8119	2.3620	0.0169		0.2137	0.2137		0.2137	0.2137		3,374.2150	3,374.2150	0.0647	0.0619	3,394.2663
Strip Mall	1.33702	0.0144	0.1311	0.1101	7.9000e-004		9.9600e-003	9.9600e-003		9.9600e-003	9.9600e-003		157.2967	157.2967	3.0100e-003	2.8800e-003	158.2315
Total		**0.6796**	**6.1783**	**5.1898**	**0.0371**		**0.4696**	**0.4696**		**0.4696**	**0.4696**		**7,413.9999**	**7,413.9999**	**0.1421**	**0.1359**	**7,458.0576**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	41.1245	1.5000e-003	0.1667	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3596	0.3596	9.3000e-004		0.3828
Unmitigated	41.1245	1.5000e-003	0.1667	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3596	0.3596	9.3000e-004		0.3828

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.2334					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	34.8758					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0153	1.5000e-003	0.1667	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3596	0.3596	9.3000e-004		0.3828
Total	**41.1245**	**1.5000e-003**	**0.1667**	**1.0000e-005**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**		**0.3596**	**0.3596**	**9.3000e-004**		**0.3828**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.2334					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	34.8758					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0153	1.5000e-003	0.1667	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3596	0.3596	9.3000e-004		0.3828
Total	**41.1245**	**1.5000e-003**	**0.1667**	**1.0000e-005**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**		**0.3596**	**0.3596**	**9.3000e-004**		**0.3828**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX C

TRAFFIC IMPACT STUDY

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TRAFFIC IMPACT STUDY

MARINA MUNICIPAL AIRPORT BUSINESS AND INDUSTRIAL PARK/UNIVERSITY OF CALIFORNIA MONTEREY BAY EDUCATION SCIENCE AND TECHNOLOGY (UC MBEST) CENTER SPECIFIC PLAN

CITY OF MARINA

MONTEREY COUNTY, CALIFORNIA

LSA

September 2019

TRAFFIC IMPACT STUDY

MARINA MUNICIPAL AIRPORT BUSINESS AND INDUSTRIAL PARK/UNIVERSITY OF CALIFORNIA MONTEREY BAY EDUCATION SCIENCE AND TECHNOLOGY (UC MBEST) CENTER SPECIFIC PLAN

MONTEREY COUNTY, CALIFORNIA

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Project No. MAR1202B

LSA

September 2019

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1.0 INTRODUCTION

The Traffic Impact Study (TIS) has been prepared for the proposed Marina Municipal Airport Business and Industrial Park/University of California Monterey Bay Education Science and Technology (UC MBEST) Center Specific Plan (Specific Plan) area located in the City if Marina (City). The Specific Plan area is bounded on the north and west by the Airport and its associated uses, on the east by West Blanco Road, on the south by Reservation Road, and on the west by Imjin Road. Figure 1-1 illustrates the regional and project location. (Figures and tables are located at the end of each chapter.)

The City of Marina, the United States Department of Transportation, and the FAA certified the *Marina Municipal Airport Final Environmental Assessment/Environmental Impact Report* (EA/EIR) in June 1995. The Specific Plan is an addendum to this EA/EIR. The Specific Plan provides project guidance for the review of specific development proposals at the parcel map and site plan approval stages, and is the reference for determining permitted uses, intensity of use, and development standards and requirements. The proposed Specific Plan consist of approximately 150 acres, which will include the following land uses: Business Park, Open Space, Research and Development, Commercial/Mixed Use, and Business Aviation Reserve. Figure 1-2 illustrates the Specific Plan land Use concept.

This report is intended to satisfy the established requirements for the disclosure of potential impacts and mitigation measures pursuant to the California Environmental Quality Act (CEQA). This study examines traffic operations in the vicinity of the proposed project under the following scenarios:

- Existing Conditions;
- Existing with Project Conditions;
- General Plan Build-out (2040) without Project Conditions; and
- General Plan Build-out (2040) with Project Conditions.

Traffic conditions were examined for the weekday daily, a.m., and p.m. peak hour conditions. The a.m. peak hour is defined as the one hour of highest traffic volumes occurring between 7:00 and 9:00 a.m. The p.m. peak hour is the one hour of highest traffic volumes occurring between 4:00 and 6:00 p.m.

1.1 PROJECT DESCRIPTION

The Specific Plan has five general land use designations: Open Space, Research and Development, Commercial/Mixed Use, Business Park, and Business Aviation Reserve. In addition, the Specific Plan designated a Campus Core Overlay Area (Overlay Area) surrounding the Specific Plan's centrally located open space plaza. At full build out, the maximum gross floor area for land use designations is approximately 800,000 square feet on UC-owned property and approximately 882,000 square feet

on City-owned property within the Specific Plan area. The estimated gross floor area (i.e., at full build out) for each of the five land use designations is shown in Table 1-A.

Table 2-A: Estimated Land Use Density

Land Use Designations	City Owned			UC MBEST Owned		
	Gross Acreage	FAR	Allowable Building Square Footage	Gross Acreage	FAR	Allowable Building Square Footage
Business Park	39.57	0.3	517,101			
Business Park/Overlay	3.20	0.4	55,757			
Business Park Subtotals	***42.77***		***572,858***			
Business Aviation Reserve	14.53	0.3	189,878			
Business Aviation Reserve/Overlay	2.91	0.4	50,704			
Business Aviation Reserve Subtotals	***17.44***		***240,582***			
Research and Development				33.14	0.3	433,074
Research and Development/Overlay				4.50	0.4	78,408
Research and Development Subtotals				***37.64***		***511,482***
Commercial/Mixed Use	3.50	0.3	45,738	19.01	0.3	248,423
Open Space	4.84			6.24		
Rights-of-Way	8.96			9.63		
Totals	***77.51***		***859,178***	***72.52***		***759,905***

City = City of Marina
FAR = floor-to-area ratio
UC MBEST = University of California Monterey Bay Education Science and Technology

1.2 STUDY AREA

1.2.1 Study Intersections

The study intersections considered for this study and their jurisdictions are as follows:

1. Imjin Road/University Drive (City of Marina);
2. Imjin Parkway/Reservation Road (City of Marina/County of Monterey);
3. MBEST Drive/University Drive (City of Marina);
4. MBEST Drive/Reservation Road (City of Marina/County of Monterey);
5. Blanco Road/Research Drive (City of Marina/County of Monterey); and
6. Blanco Road/Reservation Road (City of Marina/County of Monterey).

Figure 1-3 illustrates the locations of all analysis intersections.

1.2.2 Roadway Segments

The following roadway segments are included in the analysis:

Imjin Road

1. Between University Drive and Reservation Road (City of Marina);

Blanco Road

2. Between Research Drive and Reservation Road (City of Marina/County of Monterey);

Reservation Road

3. Between Imjin Road and MBEST Drive (City of Marina/County of Monterey); and
4. Between MBEST Drive and Blanco Road (City of Marina/County of Monterey).

1.3 LIST OF CHAPTER 1.0 FIGURES AND TABLES

- Figure 1-1: Regional and Project Location
- Figure 1-2: Land Use Concept
- Figure 1-3: Study Area Intersections

LSA

FIGURE 1-1

N

0 1000 2000
FEET

SOURCE: ESRI Streetmap, 2013; Bing Aerial, 2015.

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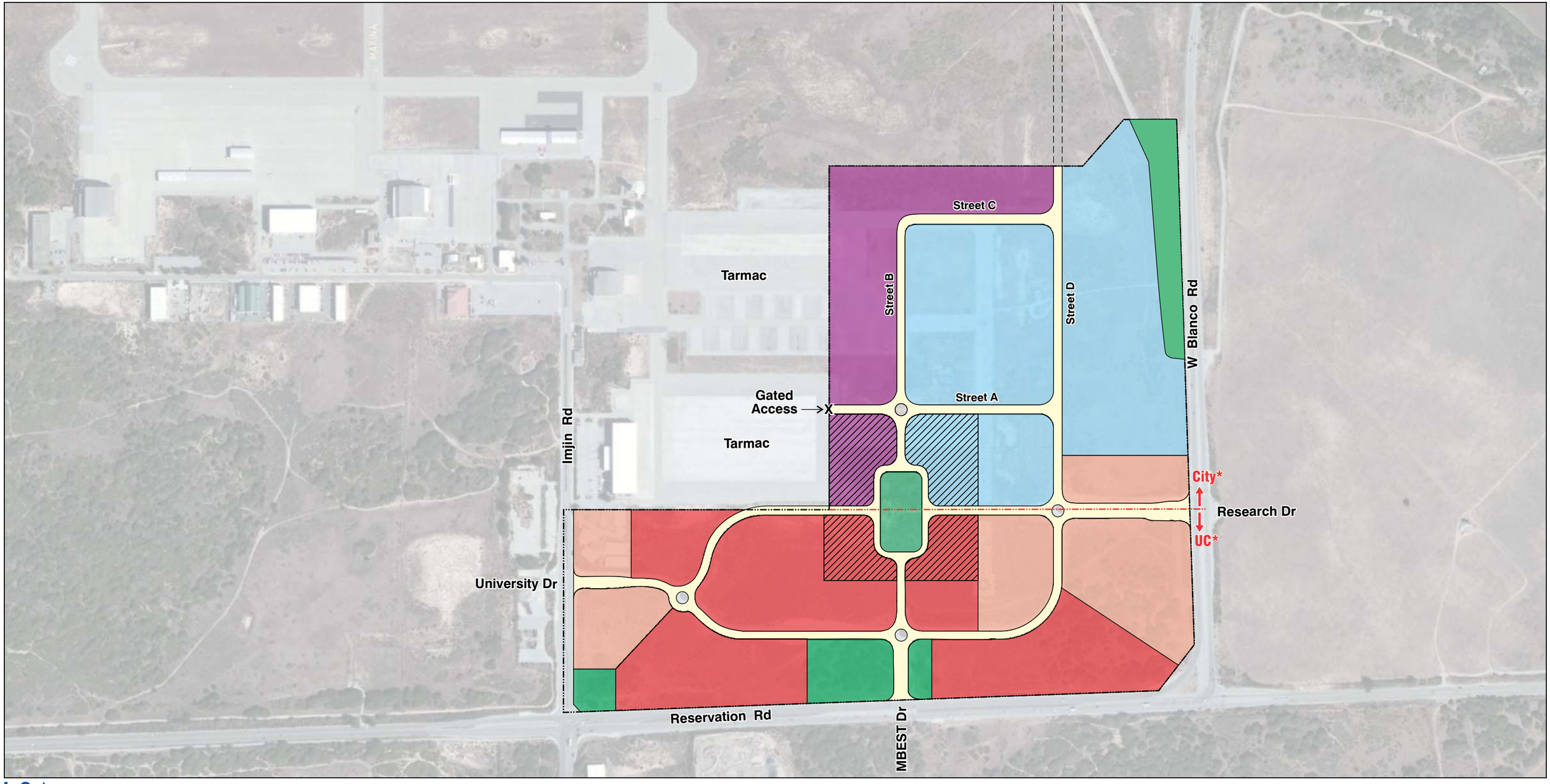
Marina Airport Specific Plan
Traffic Impact Study
Regional and Project Location



LSA

N

0 250 500
FEET

SOURCE: Google Earth

LEGEND - CITY*

- Commercial/Mixed Use - 3.50 ac
- Business Park - 42.77 ac
- Business Aviation Reserve - 17.44 ac
- Campus Core Overlay - 6.38 ac
- ROW - 8.96 ac
- Open Space - 4.84 ac

LEGEND - UC*

- Commercial/Mixed Use - 19.01 ac
- Research & Development - 37.64 ac
- Campus Core Overlay - 4.50 ac
- ROW - 9.63 ac
- Open Space - 6.24 ac

FIGURE1-2

Marina Airport Specific Plan
Traffic Impact Study
Land Use Concept

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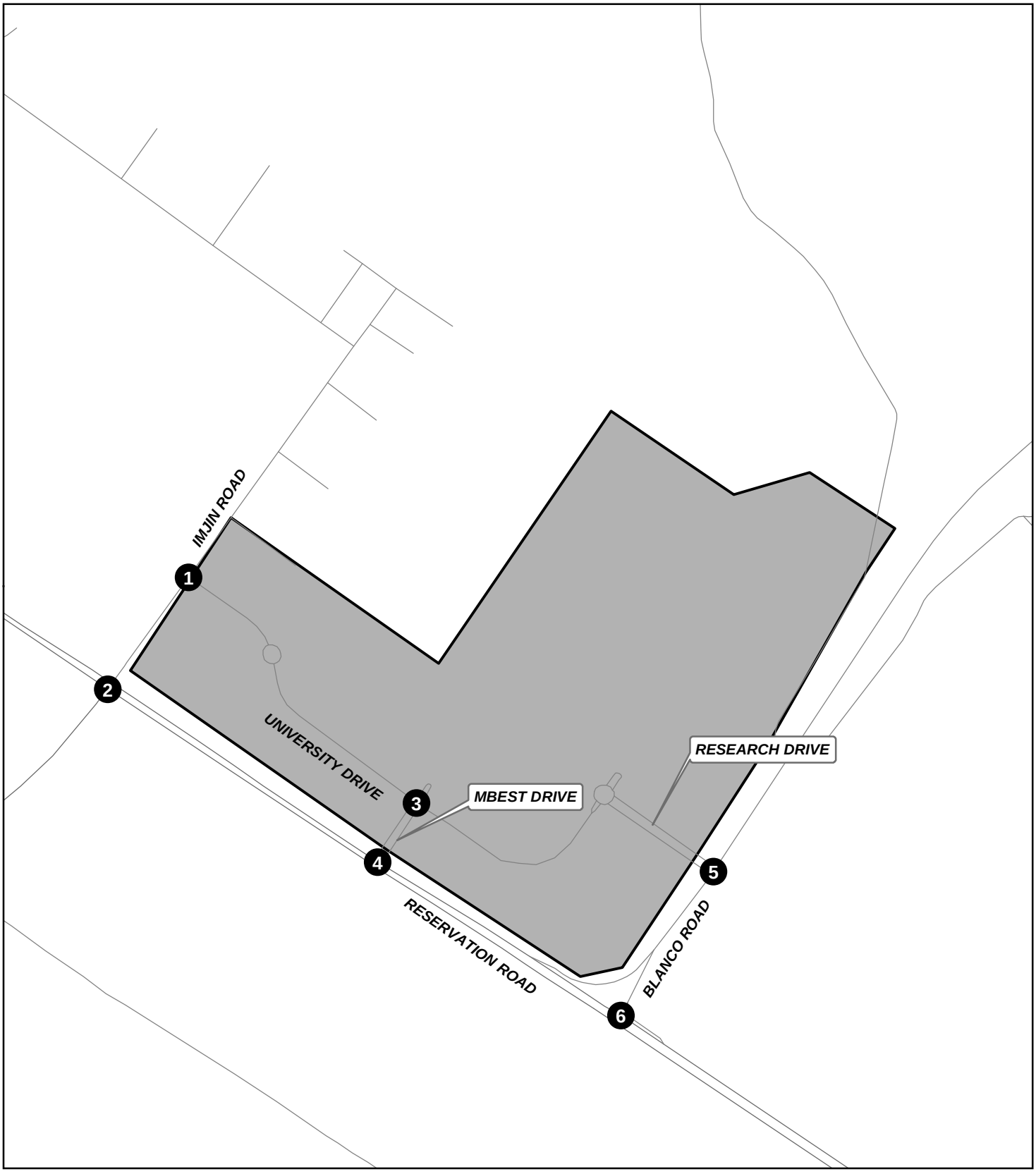

LSA

LEGEND

Project Site

Study Intersections

N

0 375 750

FEET

SOURCE: ESRI Streetmap, 2013

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FIGURE 1-3

Marina Airport Specific Plan
Traffic Impact Study

Study Area Intersections

2.0 ANALYSIS METHODOLOGY

2.1 LEVEL OF SERVICE DEFINITIONS

Level of service (LOS) can be characterized for the whole intersection, each intersection approach, and by each lane group. Control delay alone is used to characterize LOS for the entire intersection. Control delay quantifies the increase in travel time due to the traffic signal control, and is a surrogate measure of driver discomfort and fuel consumption.

A complete description of the meaning of LOS can be found in the Transportation Research Board Special Report 209, *Highway Capacity Manual* (HCM). The HCM establishes LOS A through F for intersections. A description of LOS for signalized and unsignalized intersections is summarized in Table 2-A. A description of LOS for roadway segments is summarized in Table 2-B.

Table 2-C shows the LOS criteria for unsignalized and signalized intersections. Table 2-D summarizes the LOS criteria used to evaluate roadway segments based on the roadway design necessary to accommodate future volumes consistent with the City of Marina General Plan LOS D standard. The daily traffic volumes represent the total vehicles (both directions) traveling on a roadway segment within a 24 hour period.

For all study area intersections, the *Highway Capacity Manual 6th Edition* (HCM 6) analysis methodologies were used to determine intersection LOS. Intersection LOS was calculated using Synchro 10 software, which uses the HCM 6 methodologies.

2.2 LEVEL OF SERVICE PROCEDURES AND THRESHOLDS

Study intersections and roadway segments analyzed in this report are under the jurisdiction of the County of Monterey and the City of Marina. The City of Marina and County of Monterey use LOS D as its minimum LOS criteria for intersections and roadway segments. As stated in the *City of Marina General Plan* (updated August 4, 2010), a peak period Level of Service (LOS) "D" shall be maintained for all highway segments and major roads within the Marina Planning Area, except that where existing roads and highways are operating a lower LOS standard at the time of plan adoption, the existing LOS will be maintained or improved. Similarly, per the *County of Monterey General Plan,* the acceptable level of service for County roads and intersections shall be LOS D.

2.3 PROJECT SIGNIFICANCE THRESHOLD

At study intersections and roadway segments under the jurisdiction of the City of Marina and the County of Monterey, the determination of significant circulation impacts are based on the *City of Marina General Plan* and *County of Monterey General Plan*, respectively. Both, the City of Marina and County of Monterey consider a significant impact occurs at a study intersection or roadway segment when the LOS falls below the target LOS of D with the addition of project traffic or when a project contributes to an unsatisfactory condition (LOS E or F).

2.4 LIST OF CHAPTER 2.0 FIGURES AND TABLES

- Table 2-A: Intersection Level of Service Definitions

- Table 2-B: Roadway Segment Level of Service Definitions
- Table 2-C: Level of Service Criteria for Unsignalized and Signalized Intersections
- Table 2-D: Roadway Segment Capacity and Levels of Service

Table 2-A: Intersection Level of Service Definitions

LOS	Description
A	Traffic operations with a control delay of 10 seconds per vehicle or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If LOS A is the result of favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.
B	Traffic operations with control delay between 10 seconds per vehicle and 20 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.
C	Traffic operations with control delay between 20 and 35 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of the insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.
D	Traffic operations with control delay between 35 and 55 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.
E	Traffic operations with control delay between 55 and 80 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.
F	Traffic operations with control delay exceeding 80 seconds per vehicle or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Source: *Highway Capacity Manual* (6th Edition)

Table 2-B: Roadway Segment Level of Service Definitions

LOS	Description
A	Describes primarily free-flow operation. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control Delay at the boundary intersection is minimal. The travel speed exceeds 80% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
B	Describes reasonably unimpeded operation. The ability to maneuver within the traffic stream is only slightly restricted, and control delay at the boundary is not significant. The travel speed is between 67% and 80% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
C	Describes stable operation. The ability to maneuver and change lanes at mid-segment locations may be more restricted than at LOS B. Longer queues at the boundary intersection may contribute to lower travel speeds. The travel speed is between 50% and 67% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
D	Indicates a less stable condition in which small increases in flow may cause substantial increases in delay and decreases in travel speed. This operation may be due to adverse signal progression, high volume, or inappropriate signal timing at the boundary intersections. The travel speed is between 40% and 50% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
E	Characterized by unstable operation and significant delay. Such operations may be due to some combination of adverse progression, high volume, and inappropriate signal timing at the boundary intersections. The travel speed is between 30% and 40% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
F	Characterized by flow at extremely low speed. Congestion is likely occurring at the boundary intersections, as indicated by high delay and extensive queuing. The travel speed is between 30% or less of the base free-flow speed, and the volume-to-capacity ratio is greater than 1.0.

Source: *Highway Capacity Manual* (6th Edition)

Table 2-C: Level of Service Criteria for Unsignalized and Signalized Intersections

Level of Service	Unsignalized Intersection Average Delay per Vehicle (sec.)	Signalized Intersection Average Delay per Vehicle (sec.)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

Source: *Highway Capacity Manual* (6th Edition)

Table 2-D: Roadway Segment Capacity at Levels of Service D

Roadway Segment	Planned Capacity	
	Required Roadway	Planned Capacity
Imjin Road between University Drive and Reservation Road	4-Lane Arterial	32,500
Blanco Road between Research Drive and Reservation Road	4-Lane Expressway	45,000
Reservation Road between Imjin Road and MBEST Drive	5-Lane Arterial	40,500
Reservation Road between MBEST Drive and Blanco Road	5-Lane Arterial	40,500

Source: City of Marina General Plan, June 1995

3.0 CIRCULATION NETWORK SETTING

3.1 EXISTING CIRCULATION NETWORK

This section provides a description of the circulation network within the study area. Figure 3-1 illustrates existing geometrics and traffic control for study intersections. Within the City of Marina, all major roadways are classified based on the City's Circulation Plan. Table 3-A summarizes the classifications of major roadways within the TIA study area limits. Figure 3-2 illustrates the roadway classifications per the City of Marina General Plan. Following is a brief description of these roadways:

- **Reservation Road:** Reservation Road, within the study area, is a five-lane east-west arterial roadway of which three are westbound lanes and two are eastbound lanes. The speed limit on Reservation Road near the Specific Plan area is 55 miles per hour (mph).
- **Imjin Parkway/Road:** Imjin Parkway/Road runs both north and south of Reservation Road between SR-1 to the south and west and the Marina Municipal Airport (Airport) to the north. South of Reservation Road, Imjin Parkway is designated in the City's General Plan as an expressway while Imjin Road north of Reservation Road is designated as a collector street. Imjin Road leads into the Specific Plan area and transitions from a divided four-lane roadway to a two-lane roadway just north of the Imjin Road/University Drive intersection. The speed limit on Imjin Road within the Specific Plan area is 25 mph.
- **Blanco Road:** Blanco Road, which is designated in the City's General Plan as an expressway, provides direct access to the Specific Plan area from the city of Salinas and terminates at Reservation Road. Within the study area, Blanco Road is a four-lane roadway. The speed limit on West Blanco Road near the Specific Plan area is 55 mph.
- **MBEST Drive:** MBEST Drive, which is designated in the City's General Plan as a collector street, is a four-lane roadway connecting Reservation Road with University Drive. There is currently no posted speed limit on MBEST Drive. MBEST Drive is currently closed to vehicular traffic.
- **University Drive/Research Drive:** University Drive/Research Drive, designated in the City's General Plan as a collector street, is a two-lane roadway connecting Imjin Road with Blanco Road. The speed limit on University Drive/Research Drive within the Specific Plan area is 25 mph. There is currently no posted speed limit on Research Drive. University Drive/Research Drive is currently closed to vehicular traffic.

3.2 BICYCLES, TRAILS, AND TRANSIT

3.2.1 Bicycle

Figure 3-2 illustrates non-vehicular circulation within the City of Marina and surrounding region. The existing bicycle facilities include Class I, Class II, and Class III routes and are described as follows:

- Class I bike facilities provide completely separate right-of-way (ROW) and are designated for the exclusive use of bicycles and pedestrians with minimal vehicle and pedestrian cross-flow.

- Class II bike facilities provide restricted ROW and are designated for the use of bicycles with a striped lane on a street or highway.
- Class III bike facilities provide for a ROW designated by signs or pavement markings (sharrows) for shared use with pedestrian or motor vehicles.

Within the Specific Plan, Class II bike lanes can be found along University Drive, MBEST Drive, West Blanco Road, and Imjin Road.

3.2.2 Pedestrians

The City supports the integration of pedestrian-oriented improvements and amenities within the circulation system to improve walkability. Within the Specific Plan, Imjin Road has a sidewalk along the east side from Reservation Road to the start of the Airport development. MBEST Drive has a sidewalk on the east side, and University Drive has a sidewalk on the north side. Research Drive has a sidewalk on both the north and south sides from University Drive to West Blanco Road.

3.2.3 Transit

The Specific Plan area is served by Monterey-Salinas Transit (MST). Transit service to the City of Marina is provided by Routes 2X, 16, and 20, while Routes 2X, 20, 25, 72, and 74 provide transit service to Salinas and Monterey. These routes are discussed in detail below.

Route 2X: Route 2X connects Pebble Beach to the Salinas Transit Center, traveling on Reservation Road and West Blanco Road adjacent to the Specific Plan area. The nearest bus stop to the Specific Plan area is at the Marina Transit Exchange in downtown Marina at Reservation Road and De Forest Road, which is approximately 2 miles west of the Specific Plan area.

Route 16: Route 16 starts at the Marina Transit Exchange, travels west to the intersection of Beach Road and Reservation Road, then travels west toward the Specific Plan area on Reservation Road, turns south on Imjin Parkway, and ends at the Del Monte Center in Monterey. The stop nearest the Specific Plan area is at the intersection of Reservation Road and Imjin Parkway/Road.

Route 20: Route 20 starts at the Salinas Transit Center and ends at the Del Monte Center in Monterey, traveling through West Blanco Road and Reservation Road near the Specific Plan area. The stop nearest the Specific Plan area is at the intersection of Reservation Road and Imjin Parkway/Road.

Route 25: Route 25 connects Salinas with the California State University, Monterey Bay (CSUMB) campus, traveling through West Blanco Road, Reservation Road, and Imjin Parkway south of the Specific Plan area. The stop nearest the Specific Plan area is at Preston Drive and Ready Court, less than 1 mile south of the Specific Plan area.

Route 72: Route 72 connects the Presidio of Monterey to north Salinas, traveling on Imjin Parkway, Reservation Road, and West Blanco Road. This is an express route and has no stops near the Specific Plan area.

Route 74: Route 74 connects the Presidio of Monterey with Toro Park in Salinas, traveling through Reservation Road near the Specific Plan area. The stop nearest the Specific Plan area is at Preston Drive and Ready Court, less than 1 mile south of the Specific Plan area.

3.3 LIST OF CHAPTER 3.0 FIGURES AND TABLES

- Figure 3-1: Existing Study Intersection Geometrics and Traffic Control
- Figure 3-2: City of Marina General Plan Roadway Classifications
- Figure 3-3: City of Marina Non-Vehicular Circulation
- Table 3-A: City of Marina General Plan Roadway Segment Classification

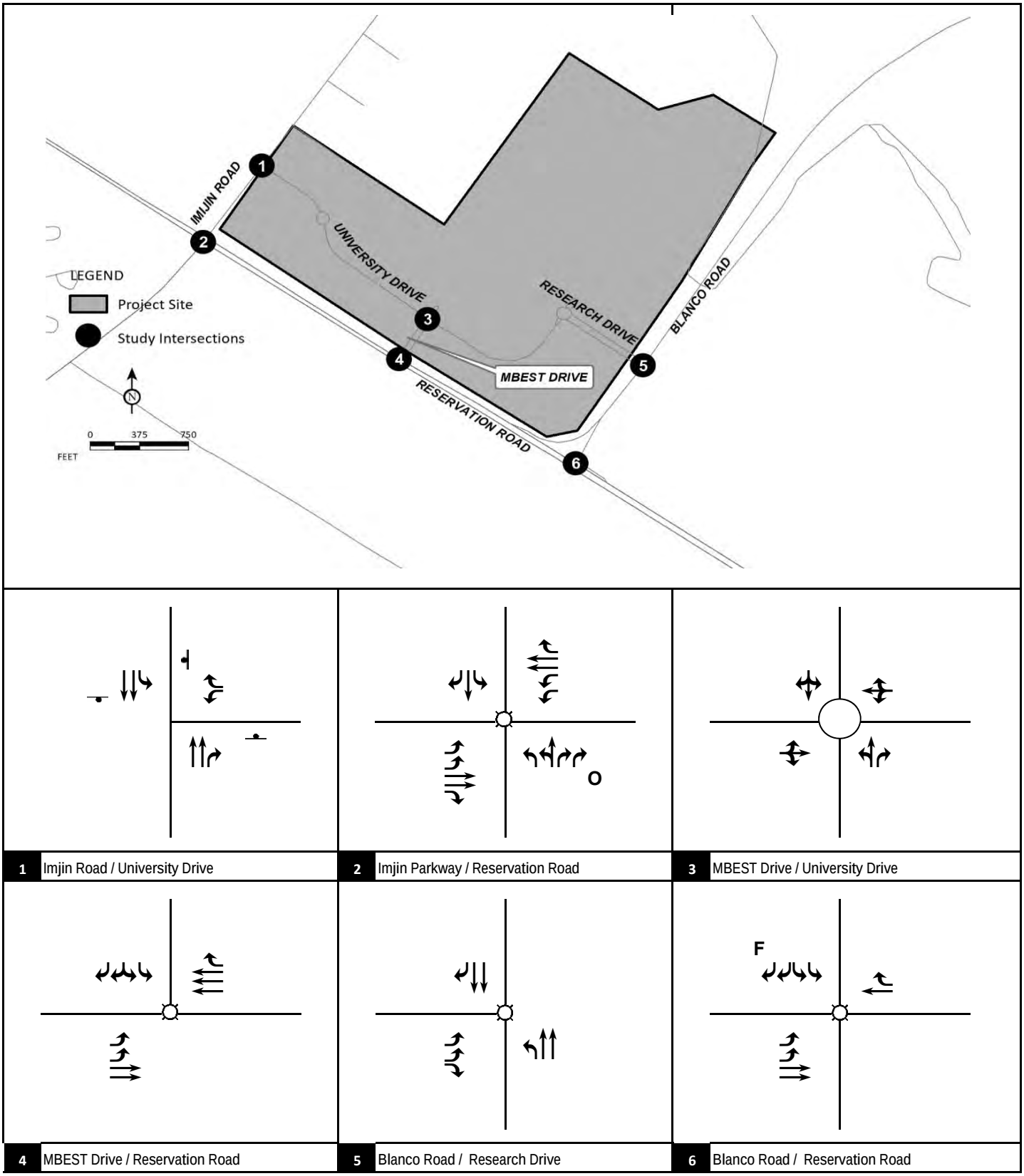

FIGURE 3-1

LSA

Legend

Stop Sign
Signal
F Free Right-Turn
Roundabout
O Overlap

Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan
Traffic Impact Study

Existing Study Intersection Geometrics and Traffic Control

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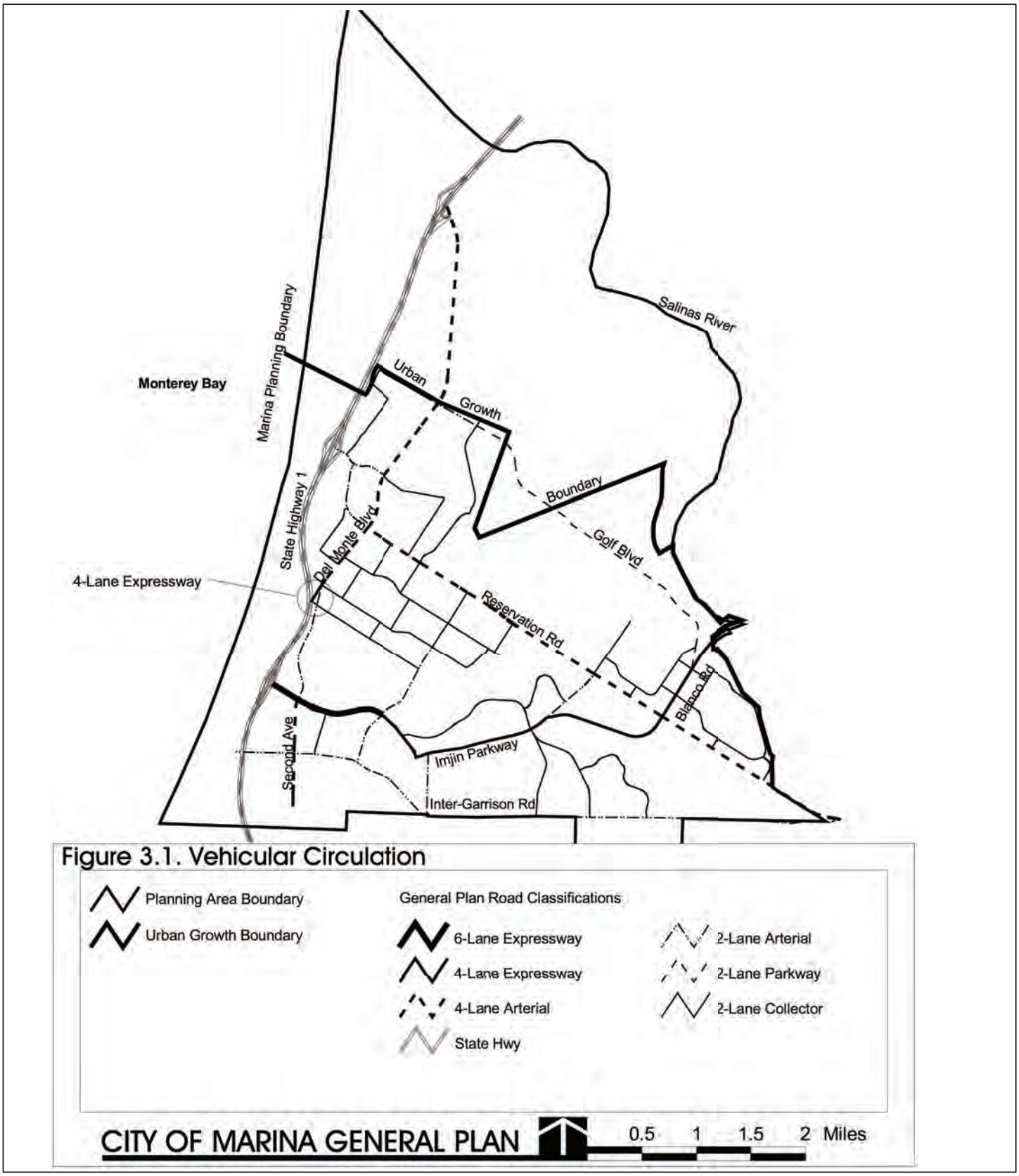

FIGURE 3-2

LSA

N

SOURCE: City of Marina General Plan

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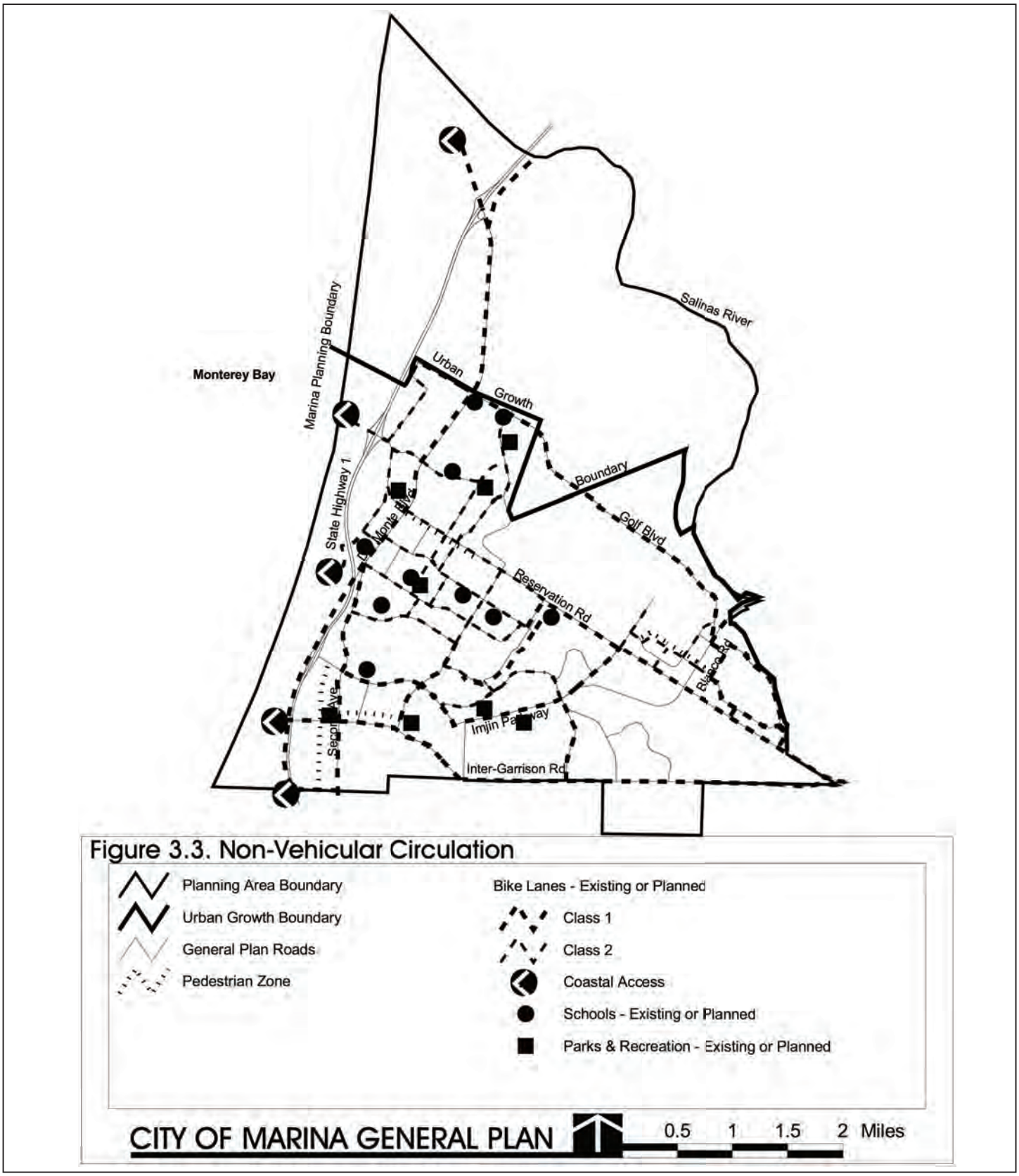


FIGURE 3-3

LSA

N

SOURCE: City of Marina General Plan

I:\MAR1202B\Reports\Traffic\fig3-2_Non-Vehicular_Circulation.ai (09/17/2019)

LSA

Table 3-A - City of Marina General Plan Roadway Segment Classification

Roadway	#	Segment	Existing Condition Number of Lanes	Existing with Project Condition Number of Lanes	Jurisdiction	General Plan Classification[1]
Imjin Road	1	between University Drive and Reservation Road	4	4	City of Marina	Arterial
Blanco Road	2	between Research Drive and Reservation Road	4	4	City of Marina/Monterey County	Expressway
Reservation Road	3	between Imjin Road and MBEST Drive	5	5	City of Marina/Monterey County	Arterial
Reservation Road	4	between Mbest Drive and Blanco Road	5	5	City of Marina/Monterey County	Arterial

Notes:

[1]Classifications for the segments have been obtained from the *City of Marina General Plan*, adopted 2000, Updated 2010.

4.0 TRAFFIC VOLUMES FOR WITHOUT PROJECT SCENARIOS

4.1 EXISTING TRAFFIC VOLUMES

Existing traffic volumes are based on counts collected by Counts Unlimited in August 2019. Daily tube counts were collected for roadway segments while a.m. and p.m. peak hour turning movement counts were collected at study intersections. All U-turns were considered as part of the analysis purposes. Detailed count sheets are included in Appendix A.

Vehicle classification counts were conducted at selected intersection to determine truck percentage. The percentage of trucks at the remaining study intersections without classification counts was determined based on truck percentages derived from adjacent intersections with classification counts.

Figure 4-1 illustrates existing peak hour traffic volumes at study intersections. Table 4-A summarizes the existing roadway segment daily traffic volumes.

Detailed volume development worksheets are included in Appendix B.

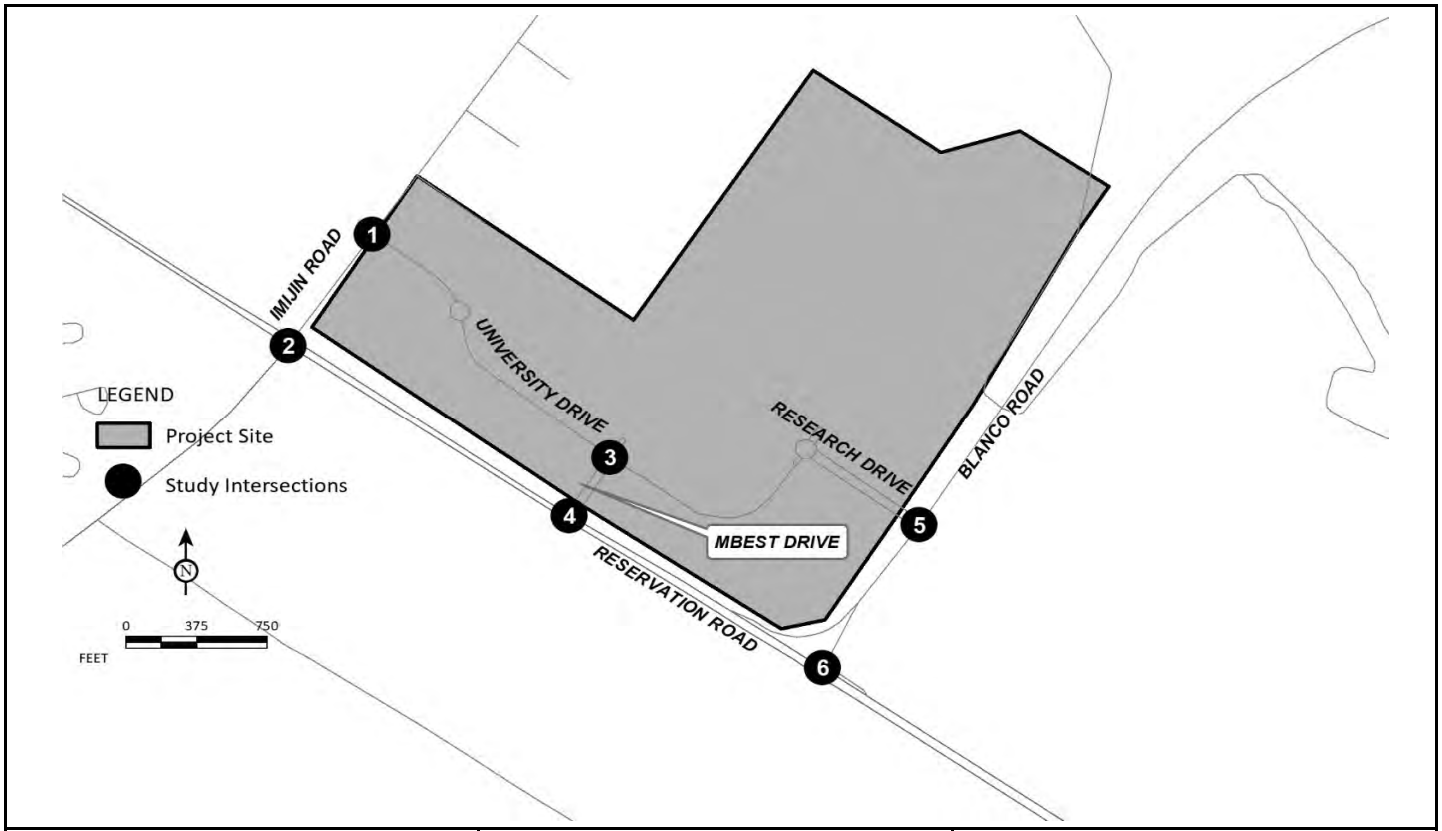
4.2 GENERAL PLAN BUILD-OUT (2040) WITHOUT PROJECT PEAK HOUR TRAFFIC VOLUMES

General Plan build-out conditions traffic volumes were developed using forecast volumes obtained from the Association of Monterey Bay Area Governments (AMBAG) and by applying the National Cooperative Highway Research Program (NCHRP) post-processing methodologies. Figure 4-2 illustrates peak hour traffic volumes at study intersections for General Plan build-out without project conditions. Table 4-B summarizes the General Plan build-out roadway segment daily traffic volumes.

Detailed volume development worksheets are included in Appendix B.

4.3 LIST OF CHAPTER 4.0 FIGURES AND TABLES

- Figure 4-1: Existing Peak Hour Traffic Volumes
- Figure 4-2: General Plan Build-out (2040) Peak Hour Traffic Volumes
- Table 4-A: Existing Roadway Segment Daily Traffic Volumes
- Table 4-B: General Plan Build-out (2040) Roadway Segment Daily Traffic Volumes



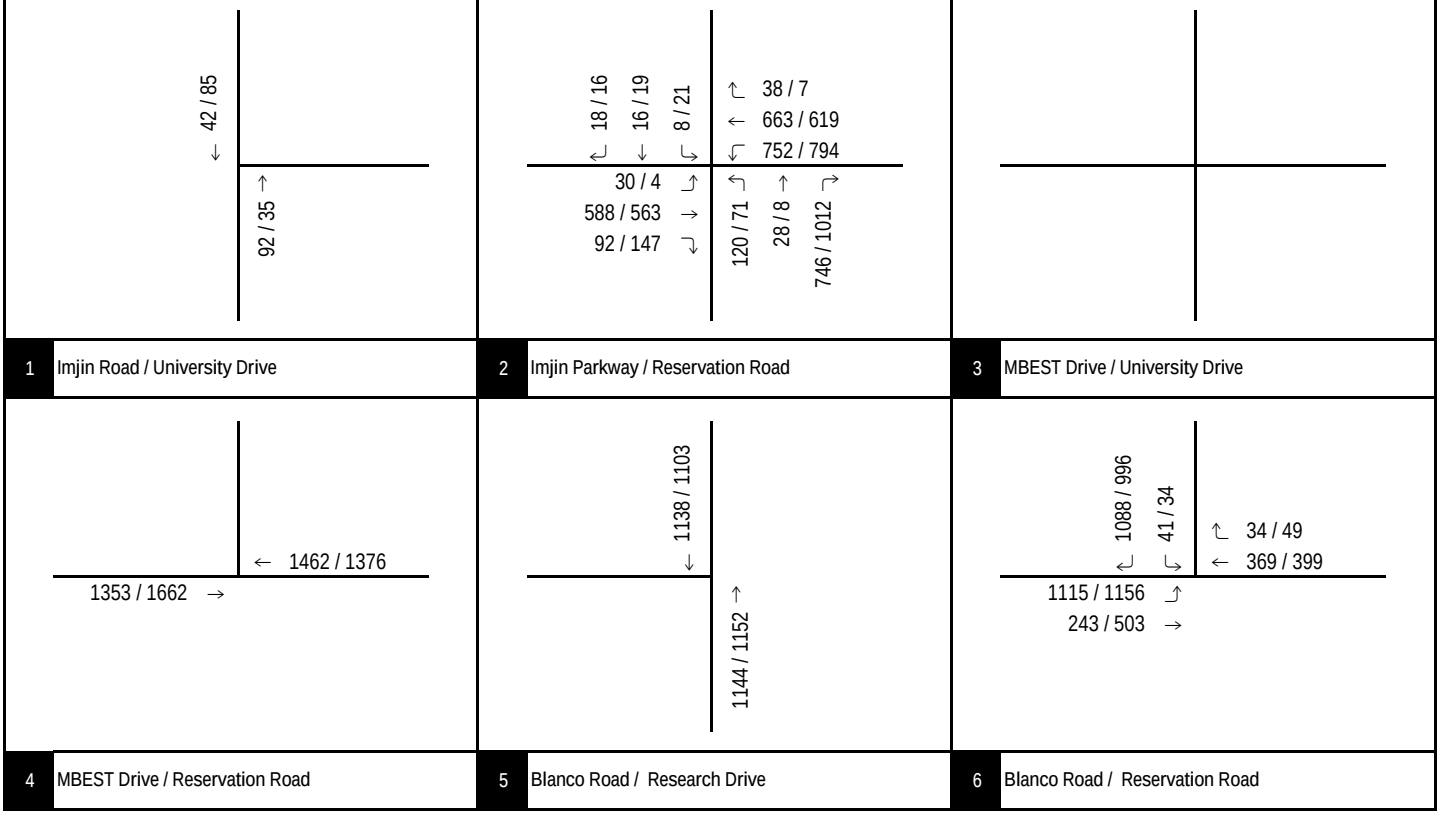


FIGURE 4-1

LSA

XXXX / YYYY
AM / PM Peak Hour Volumes

Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan
Traffic Impact Study

Existing Peak Hour Traffic Volumes

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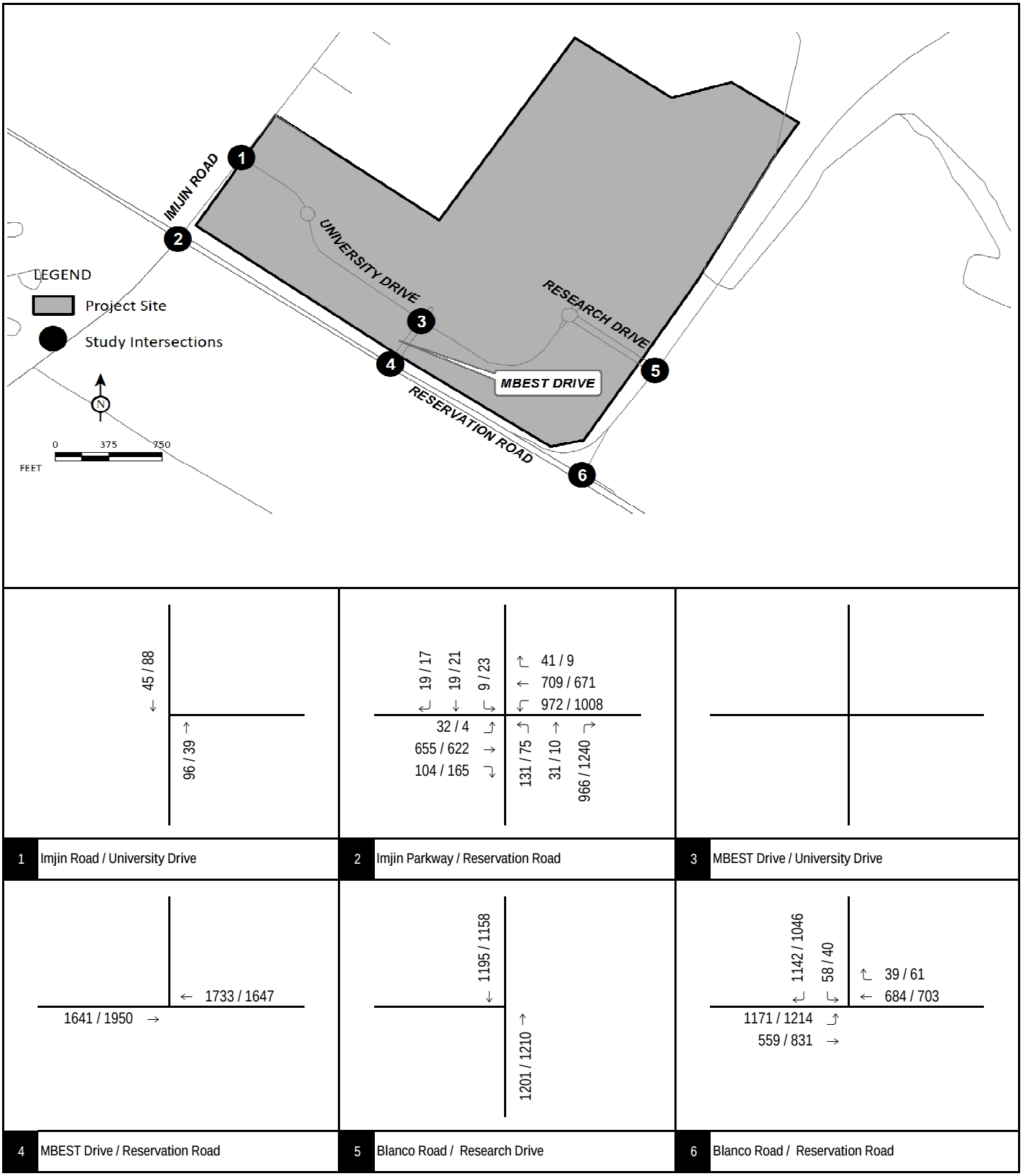

FIGURE 4-2

LSA

XXXX / YYYY
AM / PM Peak Hour Volumes

Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan
Traffic Impact Study

General Plan Build-out (2040) Peak Hour Traffic Volumes

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LSA

Table 4-A - Existing Roadway Segment Daily Traffic Volumes

Roadway	#	Segment	Existing ADT	Net Project Trips	Pass-by Trips	Existing With Project ADT
Imjin Road	**1**	between University Drive and Reservation Road	1,343	4,722	470	6,535
Blanco Road	**2**	between Research Drive and Reservation Road	26,053	1,656	328	28,037
Reservation Road	**3**	between Imjin Road and MBEST Drive	33,100	7,940	0	41,040
Reservation Road	**4**	between MBEST Drive and Blanco Road	33,207	876	0	34,083

LSA

Table 4-B - General Plan Build-out Year (2040) Daily Traffic Volumes

Roadway	#	Segment	General Plan Build-out Year (2040) ADT	Net Project Trips	Pass-By Trips	General Plan Build-out Year (2040) With Project ADT
Imjin Road	**1**	between University Drive and Reservation Road	1,423	4,722	470	6,615
Blanco Road	**2**	between Research Drive and Reservation Road	27,356	1,656	328	29,340
Reservation Road	**3**	between Imjin Road and MBEST Drive	39,311	7,940	0	47,251
Reservation Road	**4**	between MBEST Drive and Blanco Road	39,418	876	0	40,294

5.0 PROJECT TRAFFIC

5.1 PROJECT TRIP GENERATION

The trip generation for the proposed project was developed using rates from the ITE *Trip Generation Manual* (10th Edition) for Land Uses 770 – "Business Park", 760 – "Research and Development Center," and 820 – "Shopping Center."

For the Commercial/Mixed Use designation, a certain percentage of external trips will be pass-by trips. A pass-by trip is a trip where an intermediate stop is made on the way from the origin to the primary destination of the trip without making a route diversion. It is not actually a "new" trip added to the surrounding circulation system. A pass-by rates of 34 percent for Land Use 820 is provided for the PM peak hour in the ITE *Trip Generation Handbook* (3rd Edition). However, per the County of Monterey TIS guidelines state that the pass-by rate shall not be assumed to exceed 15 percent. Figure 5-1 illustrates the total pass-by trips. After deducting the pass-by trips from the total external trips for the Commercial/Mixed Use, the net external trips were attained. As shown in Table 5-A, , the project is anticipated to generate 817 net trips in the a.m. peak hour, 1,546 net trips in the p.m. peak hour, and 25,317 net daily trips.

5.2 PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

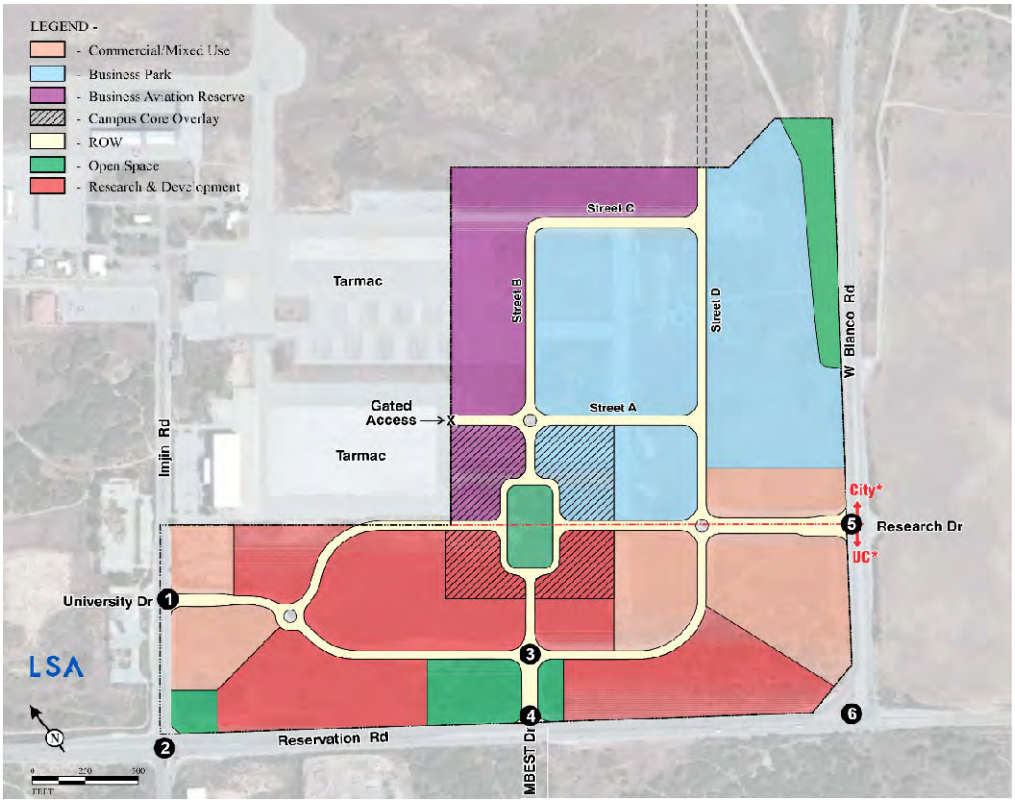
The distribution of project trips was developed based on the regional roadway network and the locations of residential, employment, and commercial centers in relation to the proposed project. Because the project has four different land uses, a separate trip distribution was considered for each land use. Figures 5-2, 5-3, 5-4, and 5-5 illustrate the trip distributions for Business Park, Business Aviation Reserve, Research and Development and Commercial/Mix Use at the study intersections, respectively.

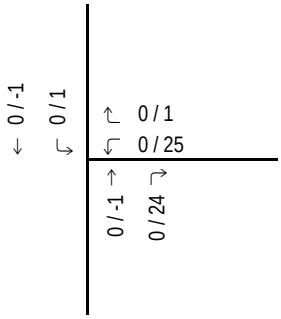
The trip generation for each land use was applied to the corresponding trip distribution pattern to develop the trip assignment for the land use. Figures 5-6, 5-7, 5-8 and 5-9 illustrate the trip assignments for the residential use and the coffee shop, respectively. Figure 5-10 illustrates the total project trip assignment.

5.3 LIST OF CHAPTER 5.0 FIGURES AND TABLES

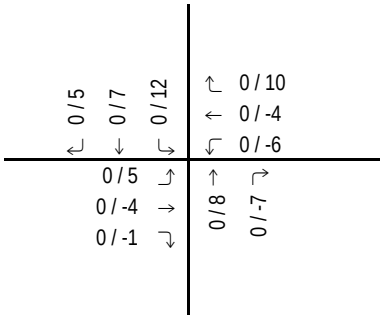
- Figure 5-1: Pass-by Trip Assignment
- Figure 5-2: Project Trip Distribution – Business Park
- Figure 5-3: Project Trip Distribution – Business Aviation Reserve
- Figure 5-4: Project Trip Distribution – Research and Development
- Figure 5-5: Project Trip Distribution – Commercial/Mixed Use
- Figure 5-6: Project Trip Assignment – Business Park
- Figure 5-7: Project Trip Assignment – Business Aviation Reserve
- Figure 5-8: Project Trip Assignment – Research and Development

- Figure 5-9: Project Trip Assignment – Commercial/Mixed Use
- Figure 5-10: Total Project Trip Assignment
- Table 5-A: Project Trip Generation

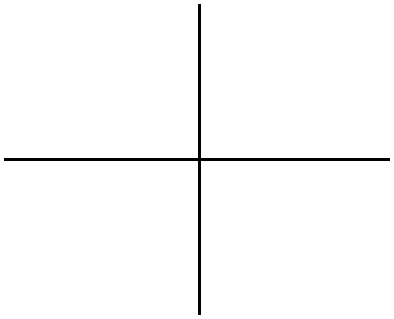




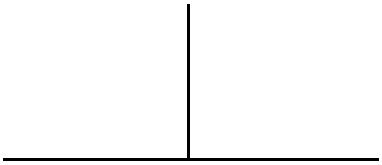
1 Imjin Road / University Drive



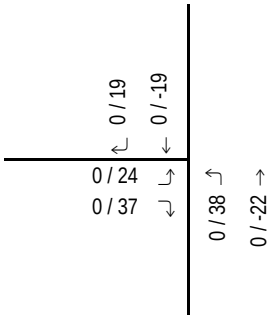
2 Imjin Parkway / Reservation Road



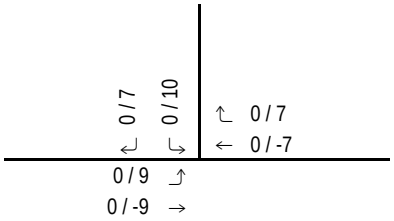
3 MBEST Drive / University Drive



4 MBEST Drive / Reservation Road



5 Blanco Road / Research Drive



6 Blanco Road / Reservation Road

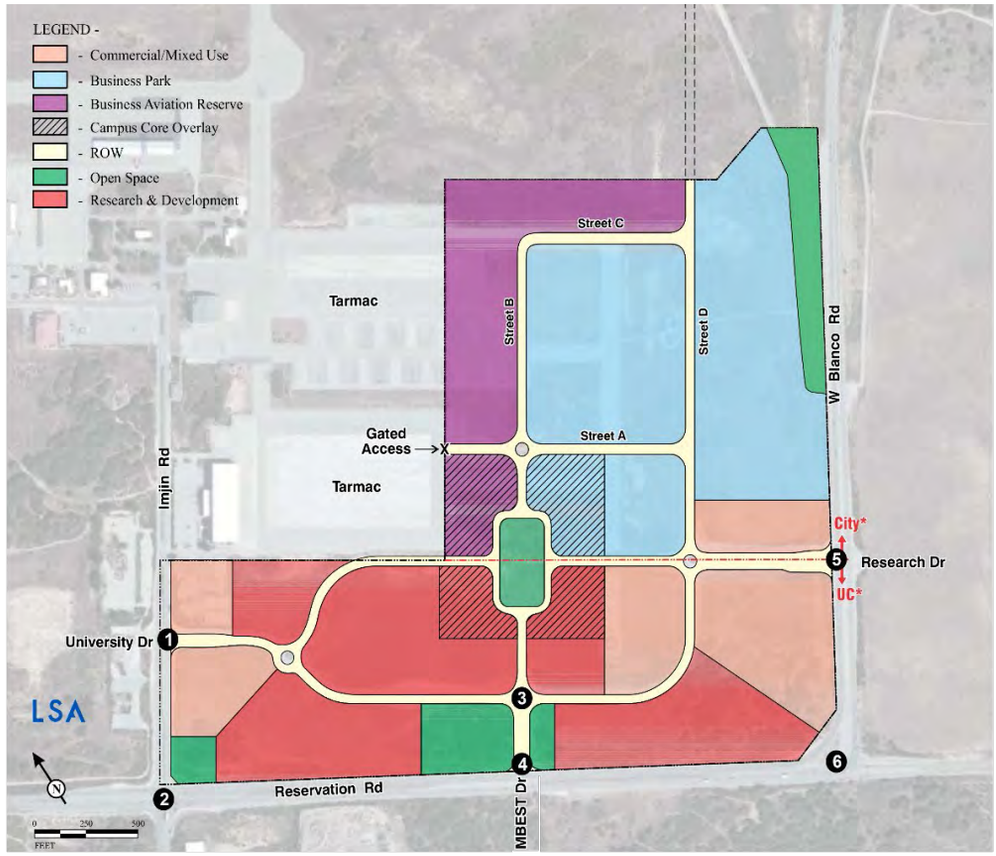
LSA

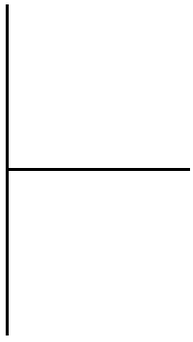
XX / YY
AM / PM Peak Hour Trips

FIGURE 5-1

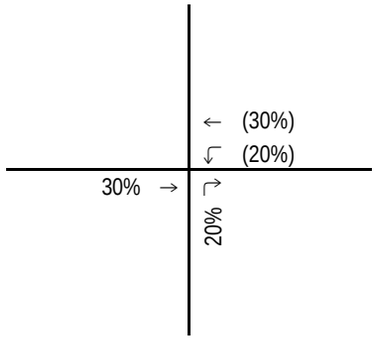
Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan
Traffic Impact Study

Pass-by Trip Assignment

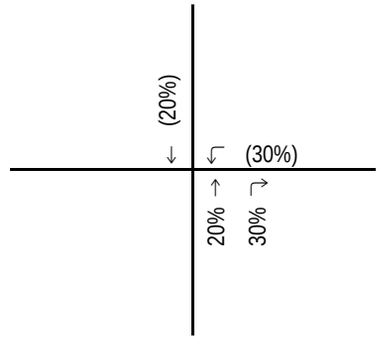




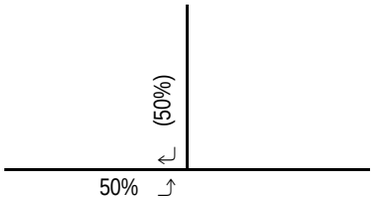
1 Imjin Road / University Drive



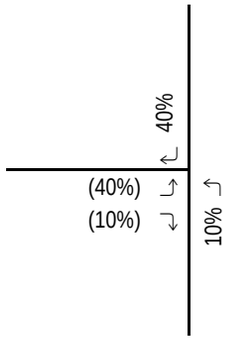
2 Imjin Parkway / Reservation Road



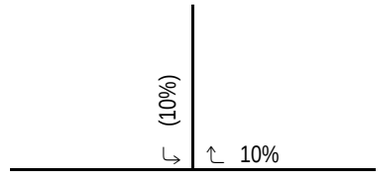
3 MBEST Drive / University Drive



4 MBEST Drive / Reservation Road



5 Blanco Road / Research Drive



6 Blanco Road / Reservation Road

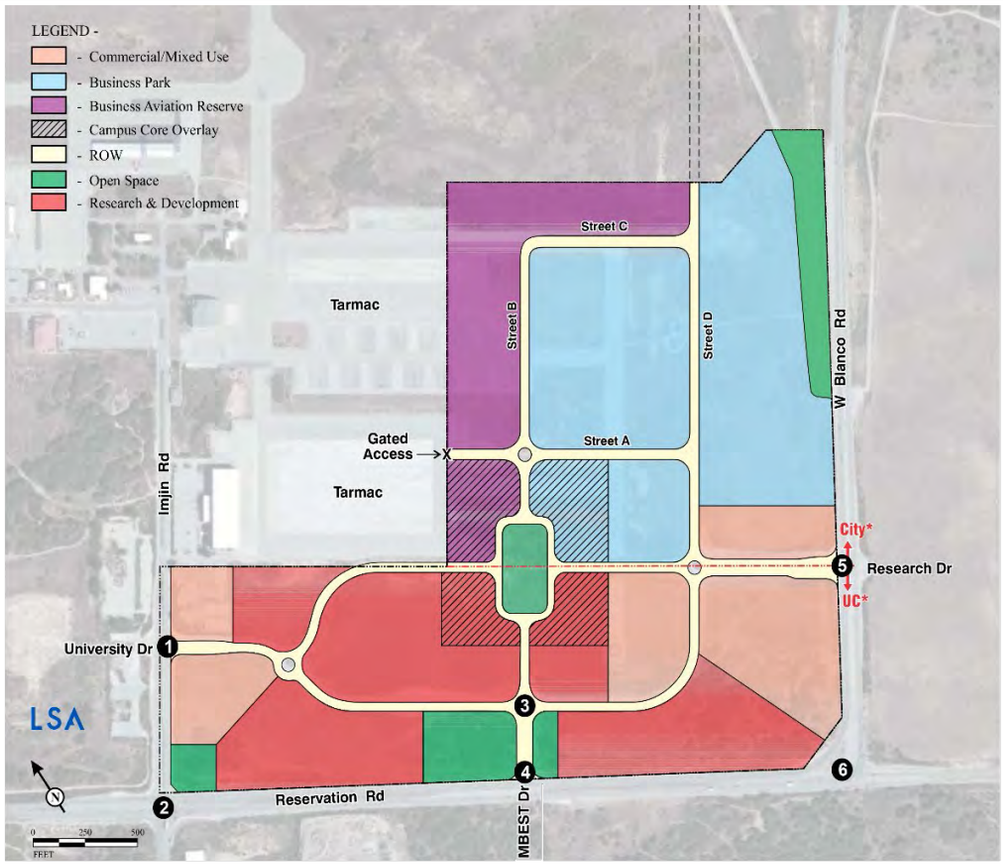
FIGURE 5-2

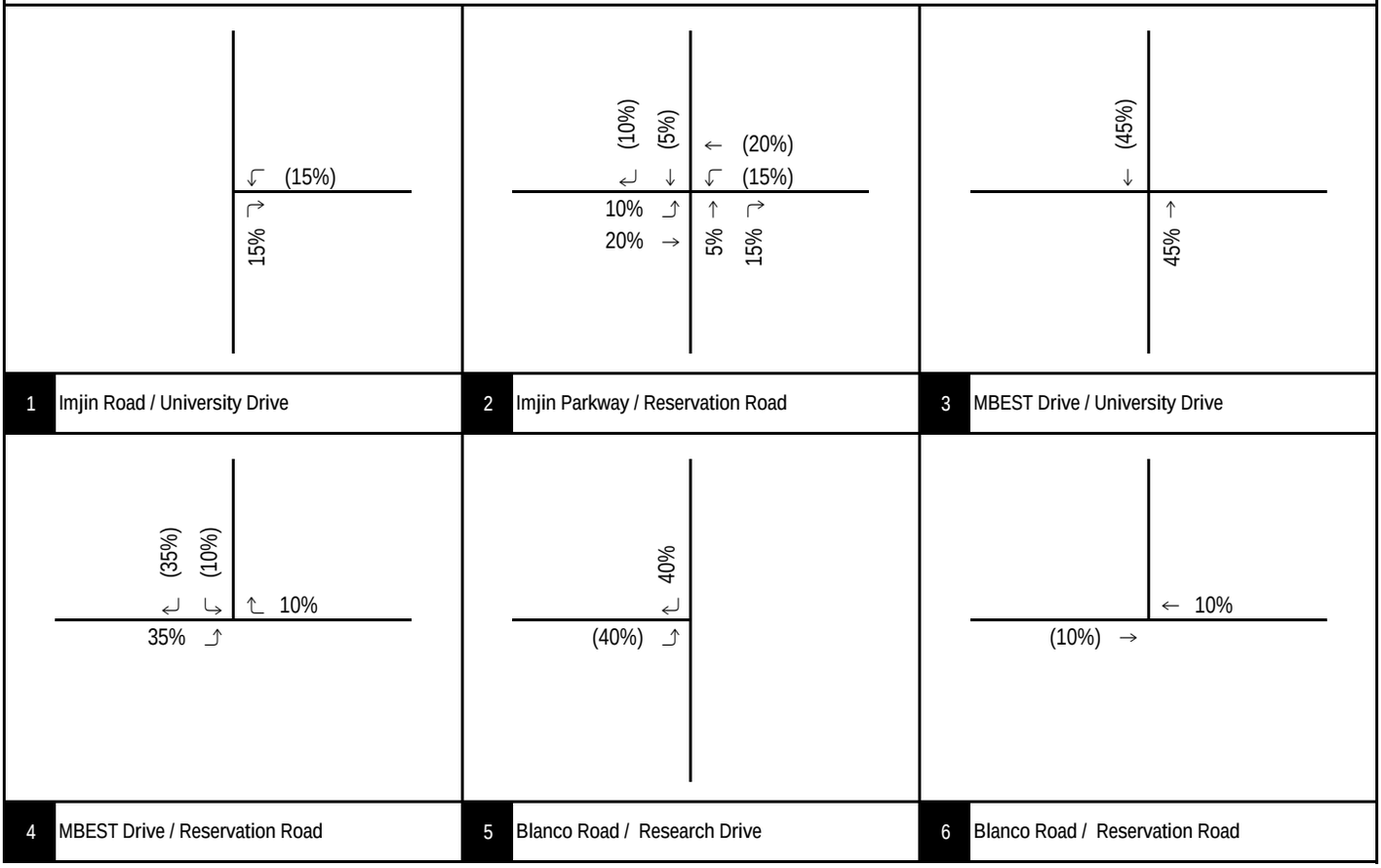
LSA

XX% (YY%)
Inbound% (Outbound%) Distribution

Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan
Traffic Impact Study

Project Trip Distribution - Business Park





1	Imjin Road / University Drive	2	Imjin Parkway / Reservation Road	3	MBEST Drive / University Drive
4	MBEST Drive / Reservation Road	5	Blanco Road / Research Drive	6	Blanco Road / Reservation Road

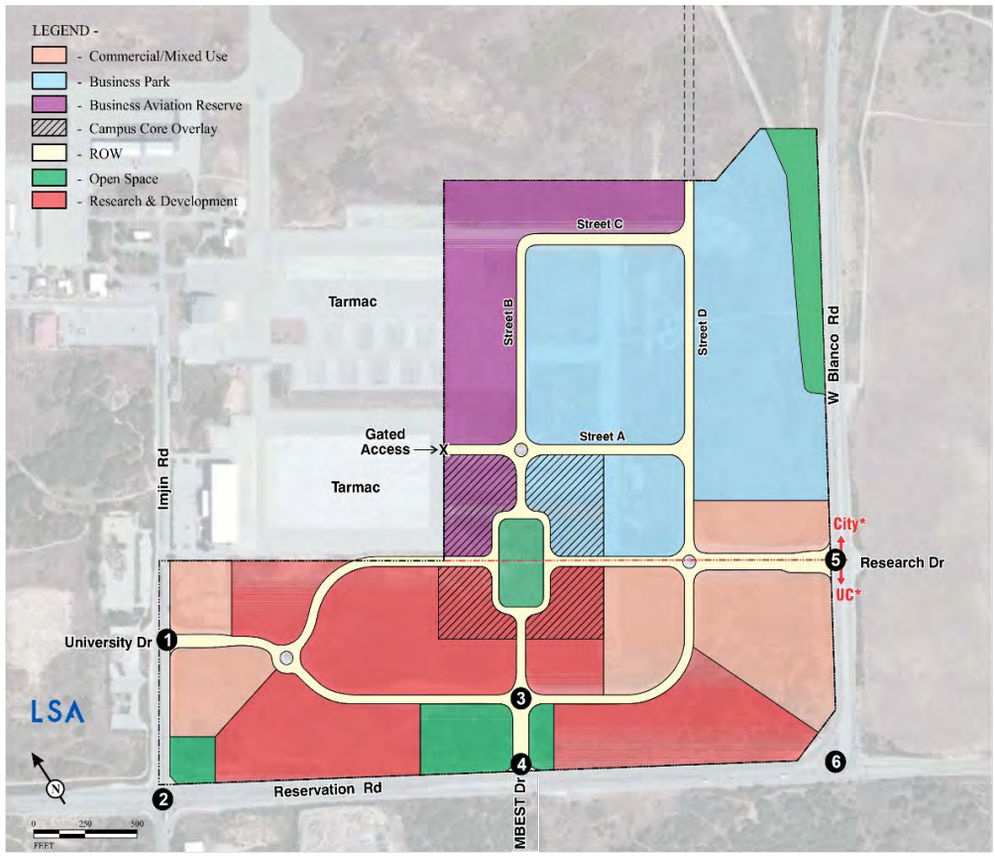
FIGURE 5-3

LSA

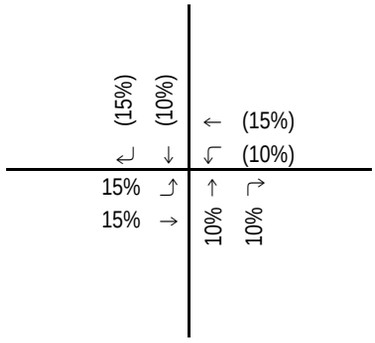
XX% (YY%)
Inbound% (Outbound%) Distribution

Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan
Traffic Impact Study

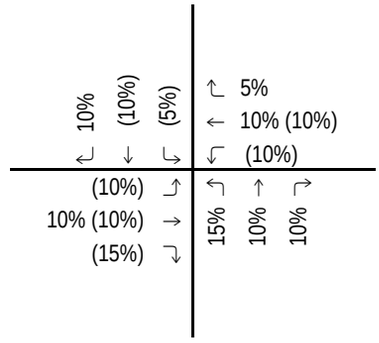
Project Trip Distribution - Business Aviation Reserve



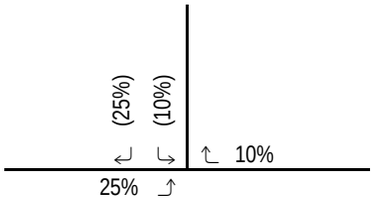
1 Imjin Road / University Drive



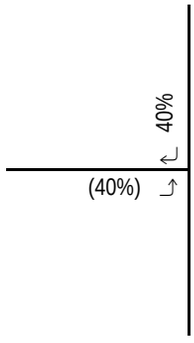
2 Imjin Parkway / Reservation Road



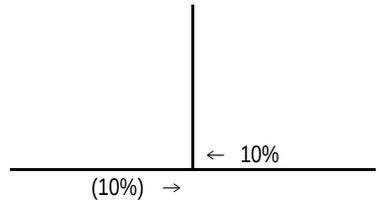
3 MBEST Drive / University Drive



4 MBEST Drive / Reservation Road



5 Blanco Road / Research Drive



6 Blanco Road / Reservation Road

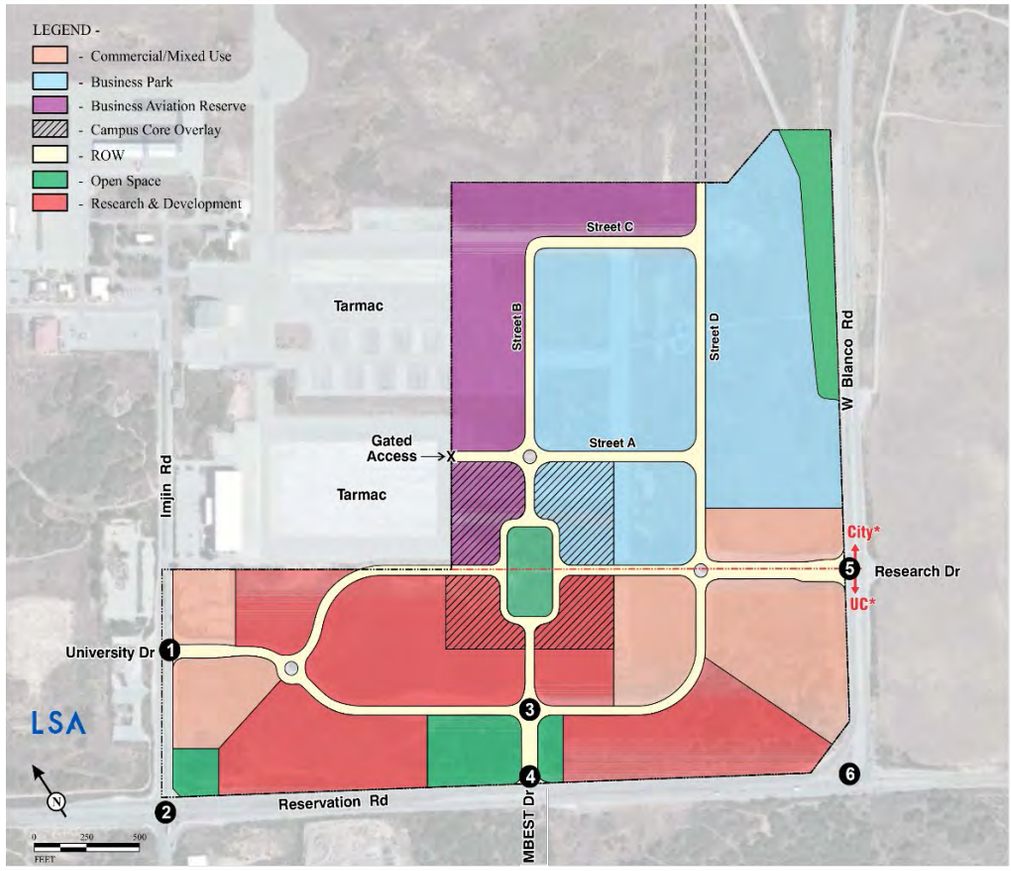
FIGURE 5-4

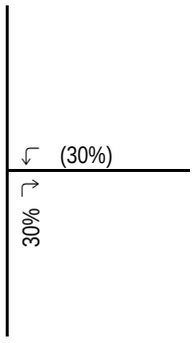
LSA

XX% (YY%)
Inbound% (Outbound%) Distribution

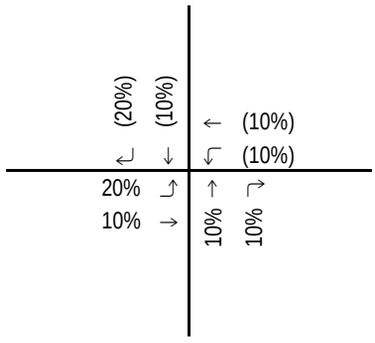
Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan
Traffic Impact Study

Project Trip Distribution - Research and Development

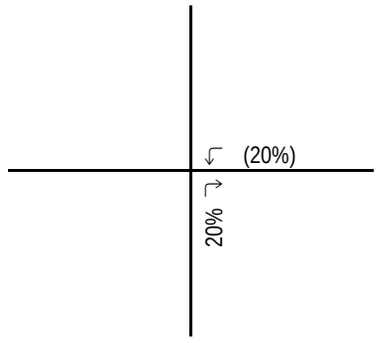




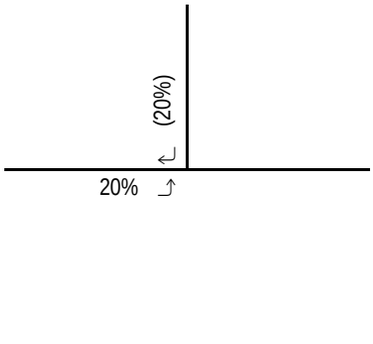
1 Imjin Road / University Drive



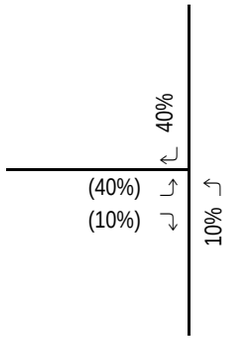
2 Imjin Parkway / Reservation Road



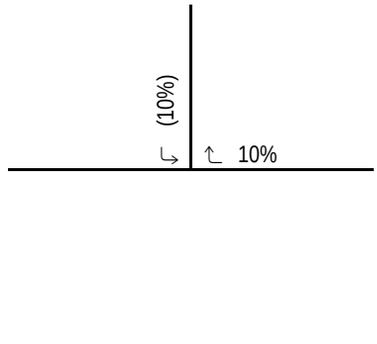
3 MBEST Drive / University Drive



4 MBEST Drive / Reservation Road



5 Blanco Road / Research Drive



6 Blanco Road / Reservation Road

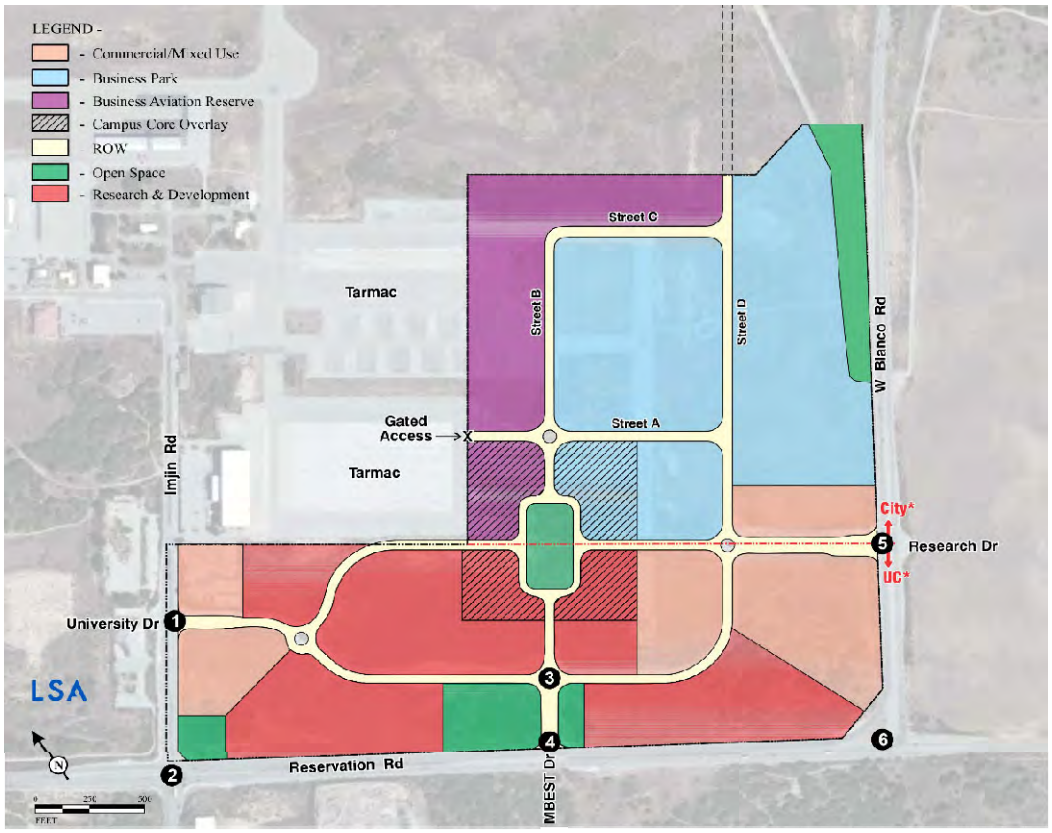
FIGURE 5-5

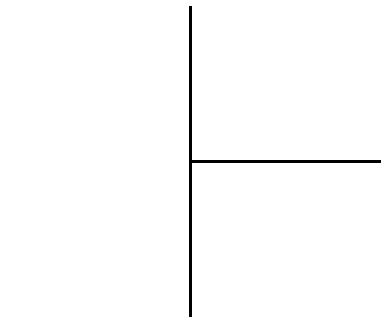
LSA

XX% (YY%)
Inbound% (Outbound%) Distribution

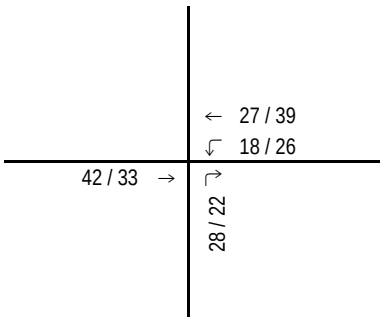
Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan
Traffic Impact Study

Project Trip Distribution - Commercial/Mix-Use

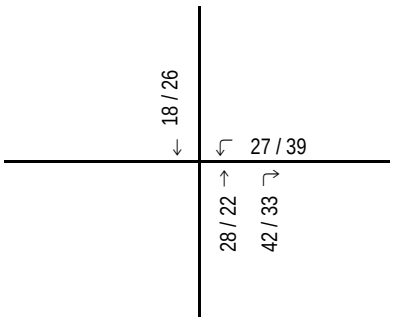




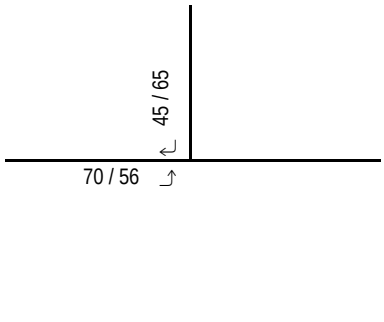
1 Imjin Road / University Drive



2 Imjin Parkway / Reservation Road



3 MBEST Drive / University Drive



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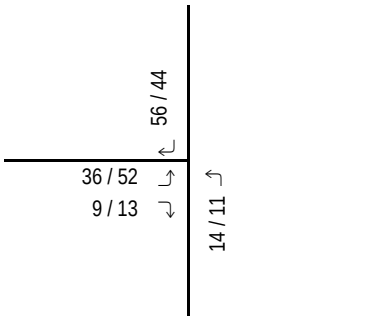
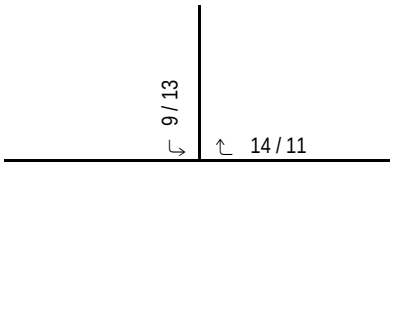


5 Blanco Road / Research Drive



6 Blanco Road / Research Drive

FIGURE 5-6

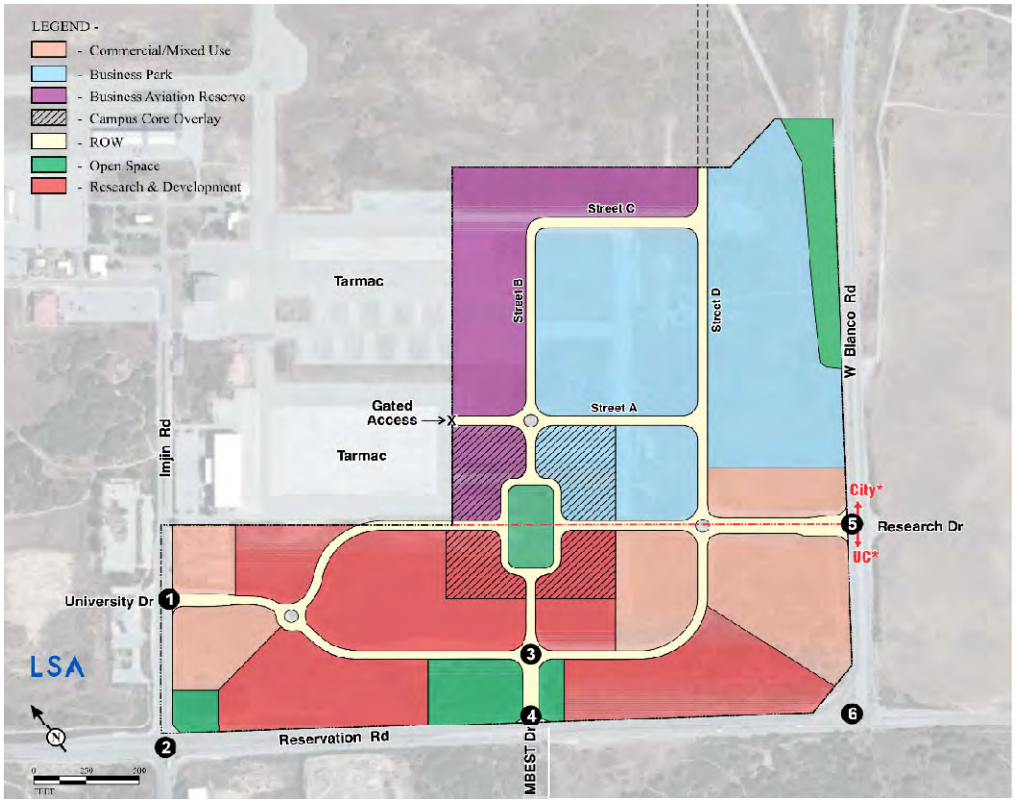
LSA

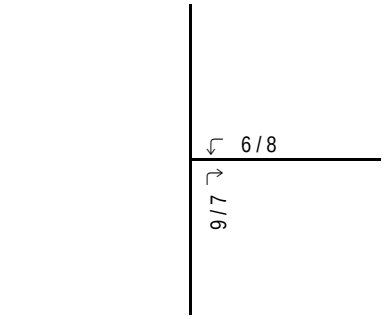
XX / YY
AM / PM Peak Hour Trips

Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan
Traffic Impact Study

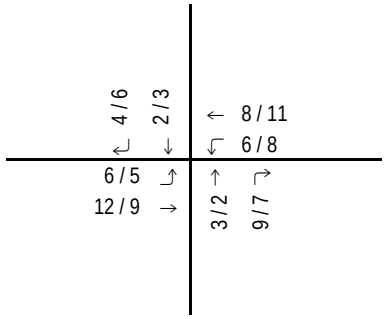
Project Trip Assignment - Business Park

R:\MAR1202B\Traffic\212 - Assign_BP.xlsx 9/20/2019

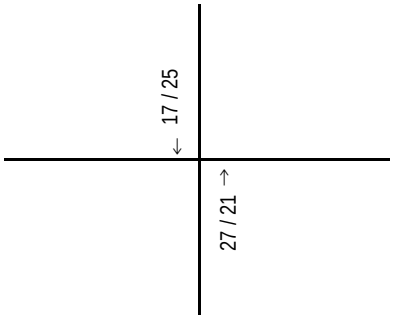




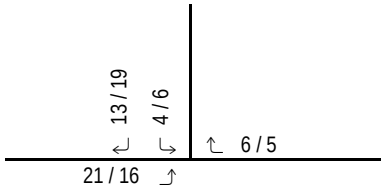
1 Imjin Road / University Drive



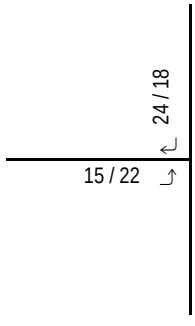
2 Imjin Parkway / Reservation Road



3 MBEST Drive / University Drive



4 MBEST Drive / Reservation Road



5 Blanco Road / Research Drive

6 Blanco Road / Reservation Road

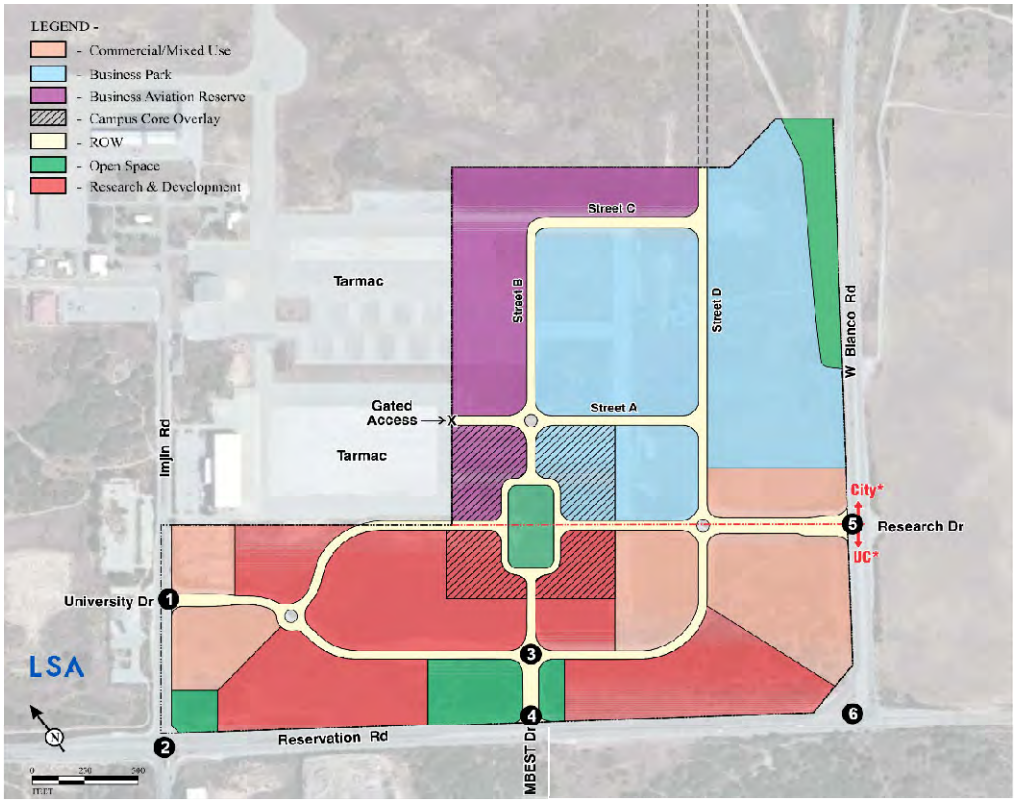
FIGURE 5-7

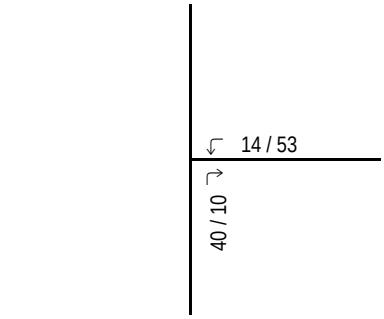
LSA

XX / YY
AM / PM Peak Hour Trips

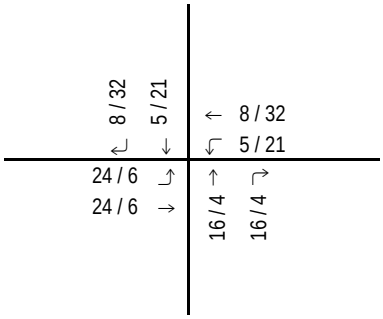
Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan
Traffic Impact Study

Project Trip Assignment - Business Aviation Reserve

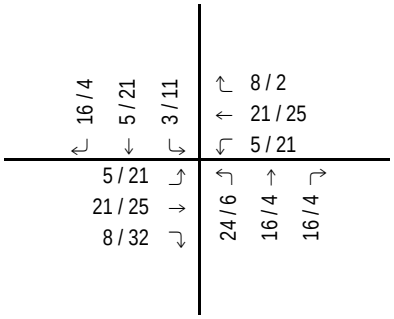




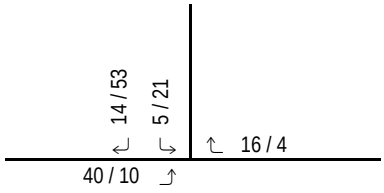
1 Imjin Road / University Drive



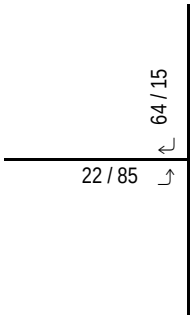
2 Imjin Parkway / Reservation Road



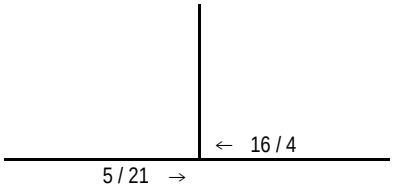
3 MBEST Drive / University Drive



4 MBEST Drive / Reservation Road



5 Blanco Road / Research Drive



6 Blanco Road / Research Drive

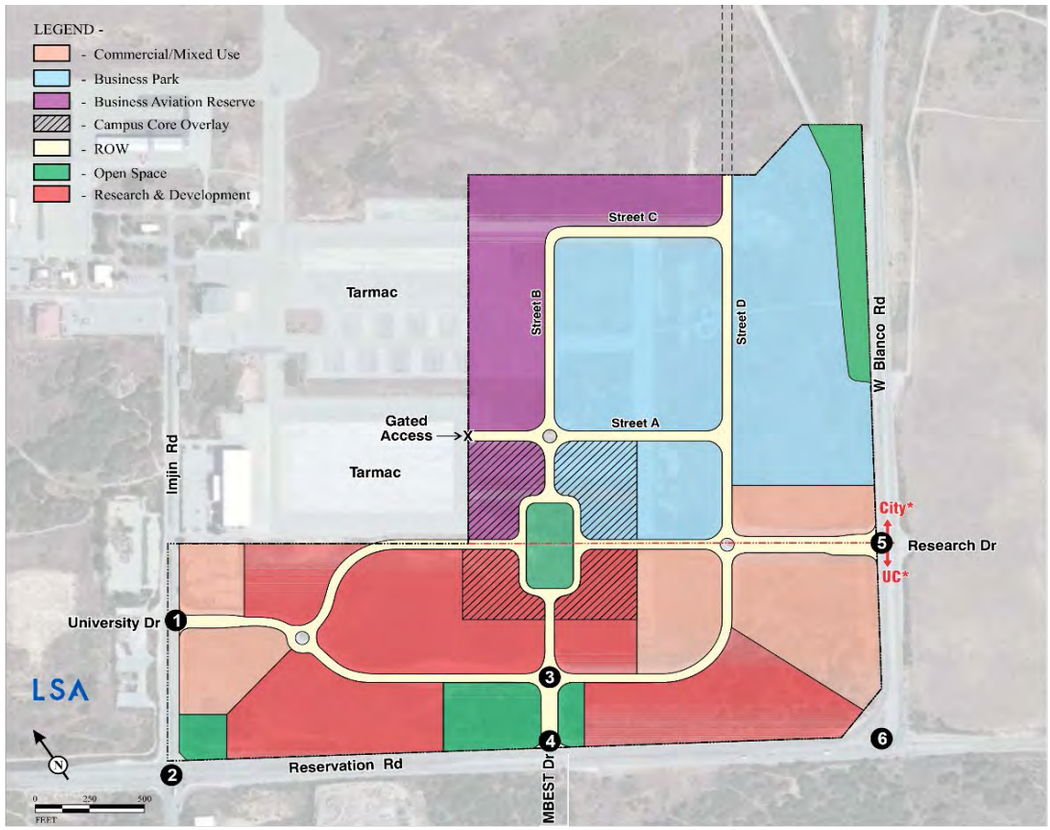
FIGURE 5-8

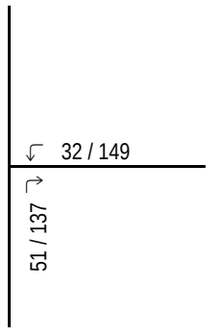
LSA

XX / YY
AM / PM Peak Hour Trips

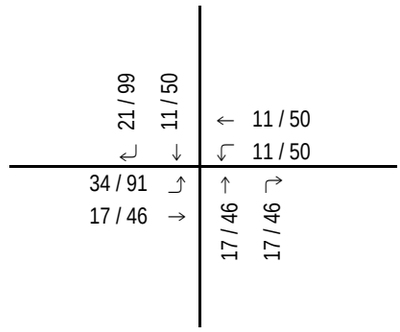
Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan
Traffic Impact Study

Project Trip Assignment - Research and Development

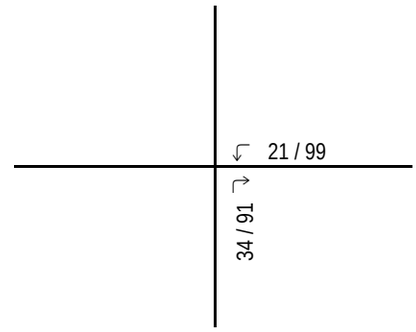




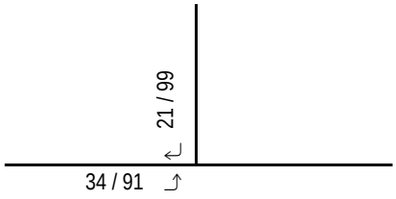
1 Imjin Road / University Drive



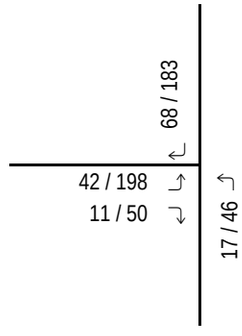
2 Imjin Parkway / Reservation Road



3 MBEST Drive / University Drive



4 MBEST Drive / Reservation Road



5 Blanco Road / Research Drive

6 Blanco Road / Research Drive

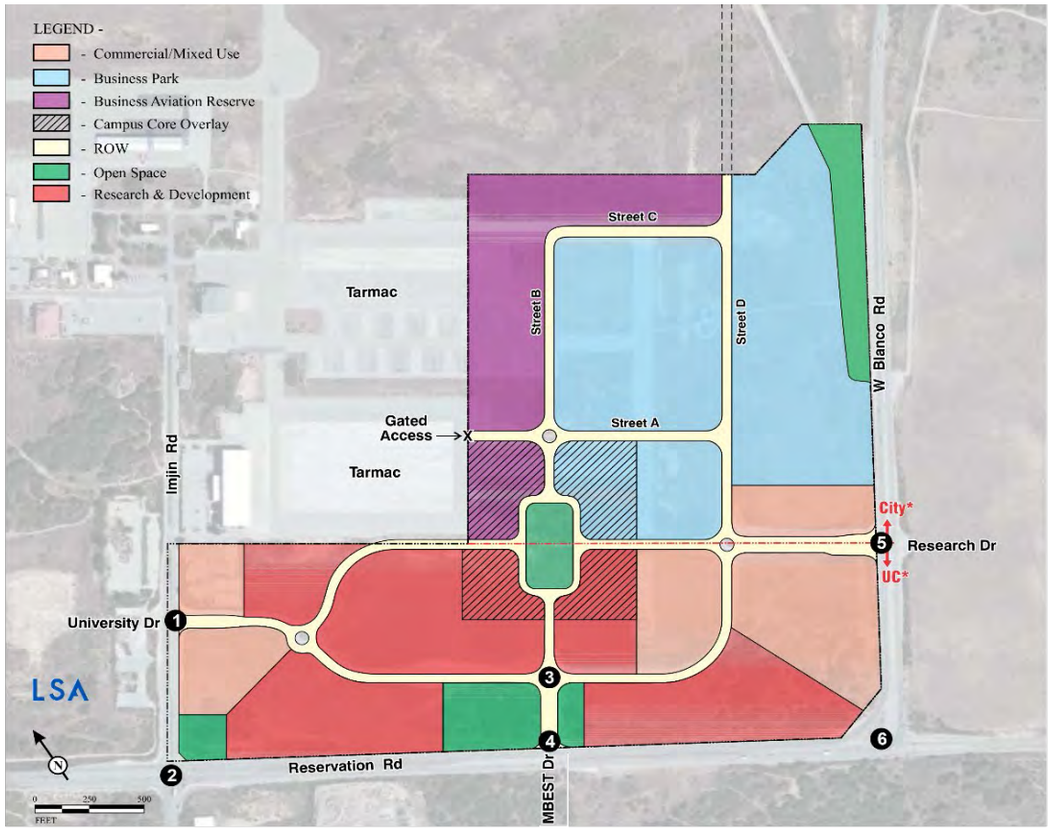
FIGURE 5-9

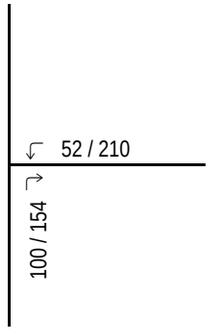
LSA

XX / YY
AM / PM Peak Hour Trips

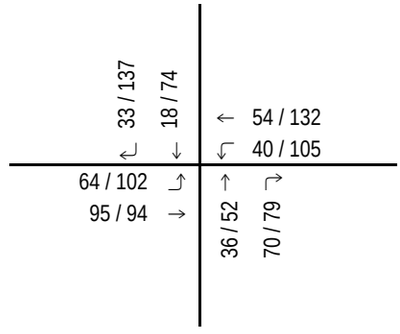
Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan
Traffic Impact Study

Project Trip Assignment - Commercial/Mix-Use

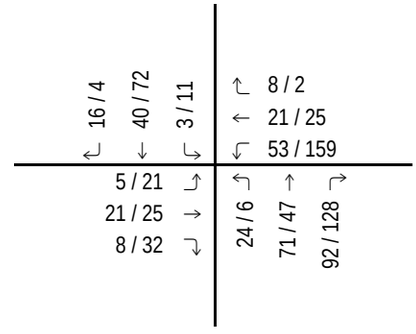




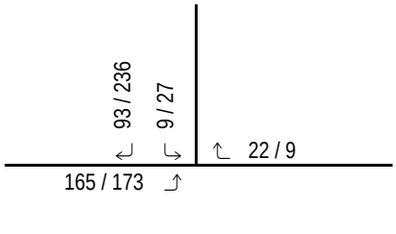
1 Imjin Road / University Drive



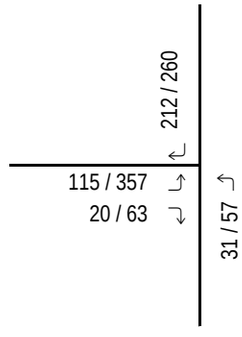
2 Imjin Parkway / Reservation Road



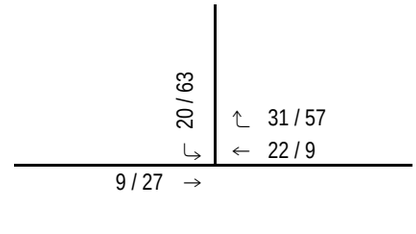
3 MBEST Drive / University Drive



4 MBEST Drive / Reservation Road



5 Blanco Road / Research Drive



6 Blanco Road / Research Drive

LSA

XXX / YYY
AM / PM Peak Hour Trips

FIGURE 5-10

Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan
Traffic Impact Study

Total Project Trip Assignment

LSA

Table 5-A - Project Trip Generation

Land Use	Units	A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Daily
Business Park	572.86 TSF							
Trips/Unit[1]		0.24	0.16	0.40	0.19	0.23	0.42	12.44
Trip Generation		**140**	**89**	**229**	**111**	**130**	**241**	**7,126**
Business Aviation Reserve	240.58 TSF							
Trips/Unit[1]		0.24	0.16	0.40	0.19	0.23	0.42	12.44
Trip Generation		**59**	**38**	**97**	**46**	**55**	**101**	**2,993**
Research and Development	511.48 TSF							
Trips/Unit[2]		0.32	0.11	0.42	0.07	0.42	0.49	11.26
Trip Generation		**161**	**54**	**215**	**38**	**213**	**251**	**5,759**
Commercial/Mixed-Use	294.16 TSF							
Trips/Unit[3]		0.58	0.36	0.94	1.83	1.98	3.81	37.75
Trip Generation		171	105	276	538	583	1,121	11,105
Pass-By Trips[4]		0	0	0	(81)	(87)	(168)	(1,666)
Net Trip Generation		**171**	**105**	**276**	**457**	**496**	**953**	**9,439**
	Total Net Trip Generation	**531**	**286**	**817**	**652**	**894**	**1,546**	**25,317**

Notes:

[1] Rates based on Land Use 770 - "Business Park" from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* , 10th Edition. Setting used is "General Urban/Suburban".

[2] Rates based on Land Use 760 - "Research and Development Center" from ITE *Trip Generation Manual* , 10th Edition. Setting used is "General Urban/Suburban".

[3] Rates based on Land Use 820 - "Shopping Center" from ITE *Trip Generation Manual* , 10th Edition. Setting used is "General Urban/Suburban".

[4] A maximum pass-by trip rate of 15% is allowed per the *Monterey County Guide for the Preparation of Traffic Impact Studies,* dated 2014. For the purposes of this analysis, the pass-by trips has been capped at 15%. The pass-by rates for the a.m. peak hour and p.m. peak hour are 0% and 34%, respectively. Pass-by rates are based on Land Use 820 - "Shopping Center" from ITE Trip Generation Handbook, 3rd Edition

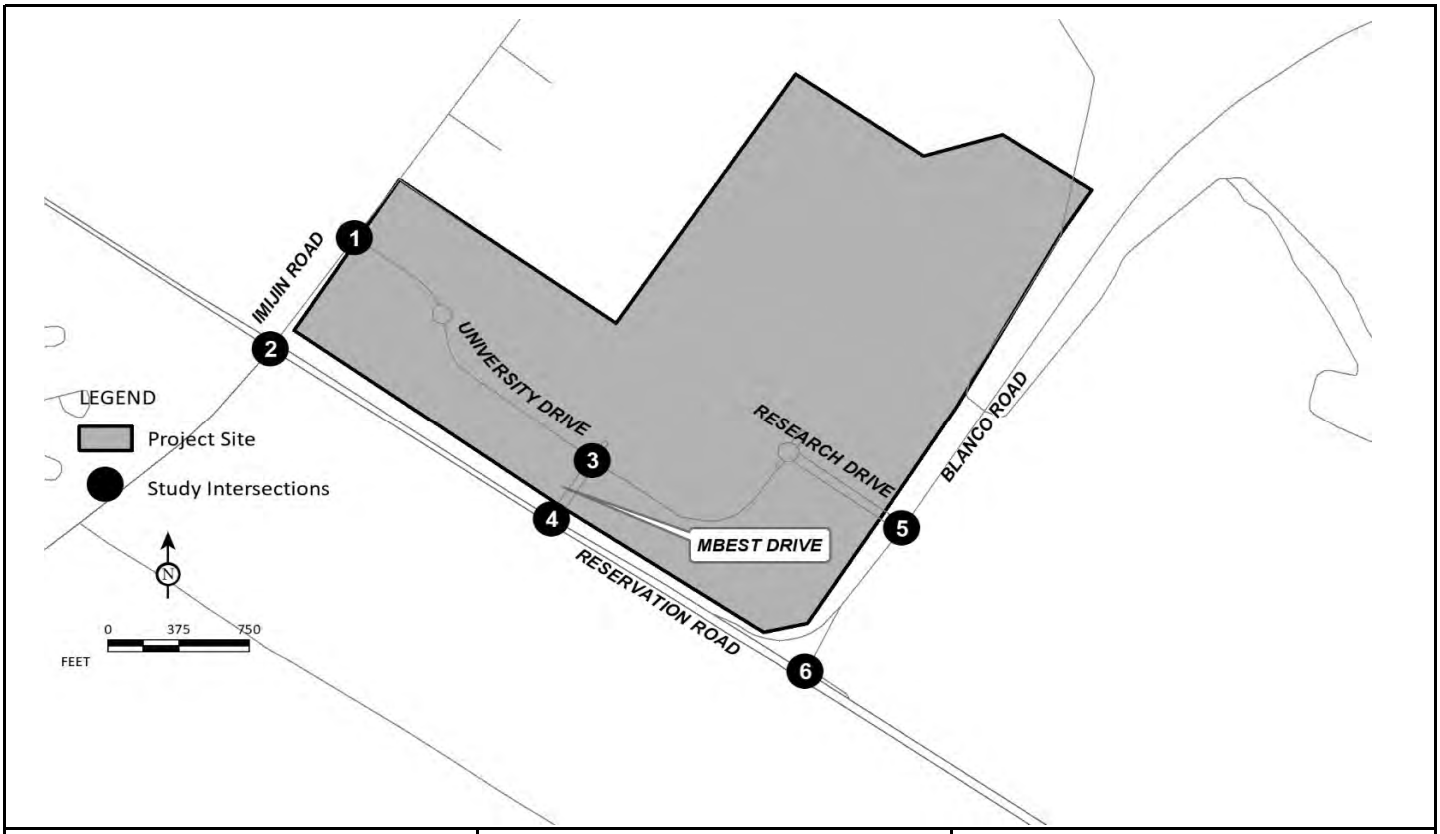
6.0 TRAFFIC VOLUMES FOR WITH PROJECT SCENARIOS

Existing and General Plan build-out with project traffic volumes were developed by adding project traffic to the corresponding without project scenarios. Figures 6-1 and 6-2 illustrate "with project" peak hour traffic volumes at study intersections under existing and General Plan build-out conditions, respectively. Previously referenced Tables 4-A and 4-B summarize the "with project" roadway segment daily traffic volumes under existing and General Plan build-out conditions, respectively.

Detailed volume development worksheets are included in Appendix B.

6.1 LIST OF CHAPTER 6.0 FIGURES

- Figure 6-1: Existing with Project Peak Hour Traffic Volumes
- Figure 6-2: General Plan Build-out (2040) with Project Peak Hour Traffic Volumes



42 / 84 ↓ 0 / 1 ↳ ↑ 0 / 1 ↰ 52 / 235 → 92 / 34 ↱ 100 / 178	51 / 158 ↲ 34 / 100 ↓ 8 / 33 ↘ ↱ 38 / 17 ← 717 / 747 ↰ 792 / 893 94 / 111 → 683 / 653 → 92 / 146 ↴ 120 / 71 ↰ 64 / 68 → ↱ 816 / 1084	16 / 4 ↲ 40 / 72 ↓ 3 / 11 ↘ ↱ 8 / 2 ← 21 / 25 ↰ 53 / 159 5 / 21 ↴ 21 / 25 → 8 / 32 ↴ ↰ 24 / 6 ↑ 71 / 47 ↱ 92 / 128	
1 Imjin Road / University Drive	2 Imjin Parkway / Reservation Road	3 MBEST Drive / University Drive	
93 / 236 ↲ 9 / 27 ↘ ↱ 22 / 9 ← 1462 / 1376 165 / 173 ↱ 1353 / 1662 →	212 / 279 ↲ 1138 / 1084 ↓ 115 / 381 ↱ 20 / 100 ↴ ↰ 31 / 95 ↑ 1144 / 1130	1088 / 1003 ↲ 61 / 107 ↘ ↱ 65 / 113 ← 391 / 401 1115 / 1165 ↱ 252 / 521 →	
4 MBEST Drive / Reservation Road	5 Blanco Road / Research Drive	6 Blanco Road / Reservation Road	

FIGURE 6-1

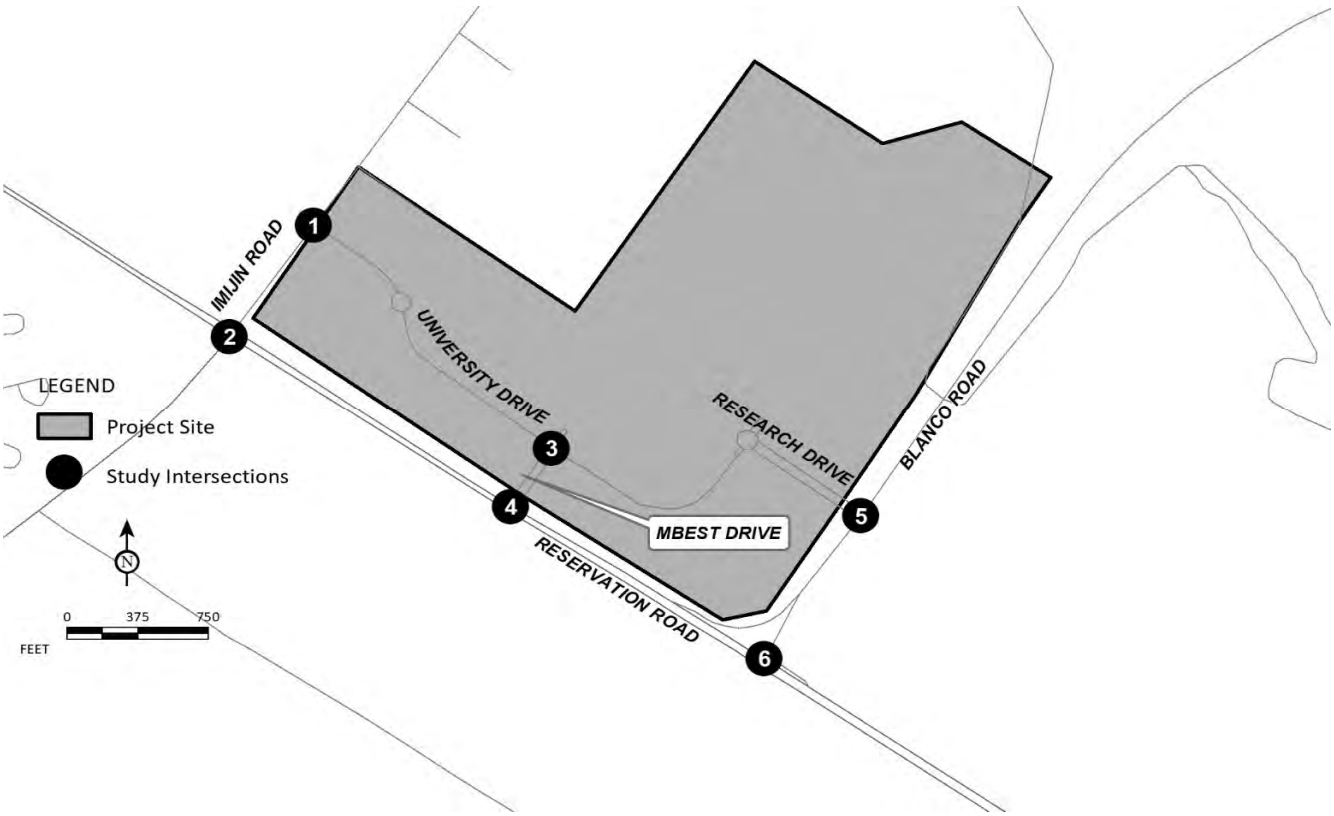
LSA

XXXX / YYYY
AM / PM Peak Hour Volumes

Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan
Traffic Impact Study

Existing with Project Peak Hour Traffic Volumes

R:\MAR1202B\Traffic\z12 - Vol_2019_WP.xlsx 9/18/2019



45 / 87 ↓ 0 / 1 ↳ ↑ 0 / 1 ↰ 52 / 235 → 96 / 38 ↱ 100 / 178	52 / 159 ↲ 37 / 102 ↓ 9 / 35 ↳ ↱ 41 / 19 ← 763 / 799 ↰ 1012 / 1107 → 96 / 111 ↱ 750 / 712 → 104 / 164 ↴ 131 / 75 ↰ 67 / 70 ↑ 1036 / 1312 ↱	16 / 4 ↲ 40 / 72 ↓ 3 / 11 ↳ ↱ 8 / 2 ← 21 / 25 ↰ 53 / 159 → 5 / 21 ↱ 21 / 25 → 8 / 32 ↴ 24 / 6 ↰ 71 / 47 ↑ 92 / 128 ↱	
1 Imjin Road / University Drive	2 Imjin Parkway / Reservation Road	3 MBEST Drive / University Drive	
93 / 236 ↲ 9 / 27 ↳ ↱ 22 / 9 ← 1733 / 1647 ↰ 165 / 173 ↱ 1641 / 1950 →	212 / 279 ↲ 1195 / 1139 ↓ 115 / 381 ↱ 20 / 100 ↴ ↰ 31 / 95 ↑ 1201 / 1188	1142 / 1053 ↲ 78 / 113 ↳ ↱ 70 / 125 ← 706 / 705 ↰ 1171 / 1223 ↱ 568 / 849 →	
4 MBEST Drive / Reservation Road	5 Blanco Road / Research Drive	6 Blanco Road / Reservation Road	

FIGURE 6-2

LSA

XXXX / YYYY
AM / PM Peak Hour Volumes

Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan
Traffic Impact Study

General Plan Build-out (2040) with Project Peak Hour Traffic Volumes

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7.0 INTERSECTION AND ROADWAY SEGMENT LEVELS OF SERVICE

7.1 EXISTING LEVELS OF SERVICE

7.1.1 Study Intersections

Previously referenced Figure 3-1 illustrates existing study geometrics and traffic control. An intersection LOS analysis was conducted for existing conditions using the methodologies previously discussed. Table 7-A summarizes the results of this analysis and shows that all study intersections are currently operating at a satisfactory LOS.

7.1.2 Roadway Segments

A roadway segment LOS analysis was conducted for existing conditions using the methodologies previously discussed. Table 7-B summarizes the results of this analysis and shows that all roadway segments are currently operating at a satisfactory LOS.

7.2 EXISTING WITH PROJECT LEVELS OF SERVICE

Analysis of the existing with project scenario is provided for CEQA compliance to identify direct project impacts if the project were to be built and in operation today. This scenario eliminates the effects of ambient growth and other cumulative projects and deals specifically with project impacts.

7.2.1 Study Intersections

An intersection LOS analysis was conducted for existing with project conditions using the methodologies previously discussed. Table 7-A summarizes the results of the analysis and shows that all study intersections are currently operating at a satisfactory LOS.

Detailed intersection level of service worksheets are provided in Appendix D.

7.2.2 Roadway Segments

A roadway segment LOS analysis was conducted for existing with project conditions using the methodologies previously discussed. Table 7-B summarizes the results of this analysis and shows that the following roadway segment is forecast to operate at an unsatisfactory LOS under existing with project conditions:

- Reservation Road between Imjin Road and MBEST Drive.

This segment operates at a satisfactory LOS under existing conditions; therefore, the project has a significant direct impact at this segment. All other roadway segments are forecast to operate at a satisfactory LOS.

7.3 GENERAL PLAN BUILD-OUT (2040) WITHOUT PROJECT LEVELS OF SERVICE

7.3.1 Study Intersections

An intersection LOS analysis was conducted for General Plan build-out without project conditions using the methodologies previously discussed. Table 7-C summarizes the results of this analysis and

shows that all intersections are forecast to operate at a satisfactory LOS under General Plan build-out without project conditions.

7.3.2 Roadway Segments

A roadway segment LOS analysis was conducted for General Plan build-out without project conditions using the methodologies previously discussed. Table 7-D summarizes the results of this analysis and shows that all roadway segments are forecast to operate at a satisfactory LOS under General Plan build-out without project conditions.

7.4 GENERAL PLAN BUILD-OUT (2040) WITH PROJECT LEVELS OF SERVICE

7.4.1 Study Intersections

An intersection LOS analysis was conducted for General Plan build-out with project conditions using the methodologies previously discussed. Table 7-C summarizes the results of this analysis and shows that all intersections are forecast to operate at a satisfactory LOS.

Detailed intersection level of service worksheets are provided in Appendix D.

7.4.2 Roadway Segments

A roadway segment LOS analysis was conducted for General Plan build-out with project conditions using the methodologies previously discussed. Table 7-D summarizes the results of this analysis and shows that the following roadway segment is forecast to operate at an unsatisfactory LOS under General Plan build-out with project conditions:

- Reservation Road between Imjin Road and MBEST Drive.

This segments operates at a satisfactory LOS under General Plan build-out conditions; therefore, the project has a significant direct impact at this segments. All other roadway segments are forecast to operate at a satisfactory LOS.

7.5 LIST OF CHAPTER 7.0 FIGURES AND TABLES

- Table 7-A: Existing Intersection Levels of Service
- Table 7-B: Existing Roadway Segment Levels of Service
- Table 7-C: General Plan Build-out (2040) Intersection Levels of Service
- Table 7-D: General Plan Build-out (2040) Roadway Segment Levels of Service

Table 7-A - Existing Intersection Levels of Service

Intersection	Jurisdiction	Control	LOS Standard	Without Project				With Project				A.M. Peak Hour	P.M. Peak Hour	Significant Impact
				A.M. Peak Hour		P.M Peak Hour		A.M. Peak Hour		P.M Peak Hour		Increase	Increase	
				Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	in Delay (sec.)	in Delay (sec.)	
1 . Imjin Road / University Drive	City of Marina	AWSC	D	7.4	A	7.0	A	8.0	A	11.9	B	0.6	4.9	No
2 . Imjin Parkway / Reservation Road	City of Marina/ County of Monterey	Signal	D	33.8	C	32.4	C	36.3	D	36.4	D	2.5	4.0	No
3 . MBEST Drive / University Drive	City of Marina	Roundabout	D	-	-	-	-	3.3	A	3.9	A	3.3	3.9	No
4 . MBEST Drive / Reservation Road	City of Marina/ County of Monterey	Signal	D	No Conflicting Movements		No Conflicting Movements		34.9	C	24.2	C	-	-	No
5 . Blanco Road / Research Drive	City of Marina/ County of Monterey	Signal	D	0.6	A	0.4	A	5.9	A	16.3	B	5.3	15.9	No
6 . Blanco Road / Reservation Road	City of Marina/ County of Monterey	Signal	D	43.0	D	32.0	C	46.7	D	32.4	C	3.7	0.4	No

Notes:

AWSC = All-Way Stop Control

Table 7-B - Existing Roadway Segment Levels of Service

Roadway Segment	Functional Classification	LOS D Threshold[1]	Without Project		With Project	
			Daily Volume	Exceeds LOS D Threshold	Daily Volume	Exceeds LOS D Threshold
Segments on Imjin Road						
1 . between University Drive and Reservation Road	4 Lane Arterial	32,500	1,400	No	6,600	No
Segments on Blanco Road						
2 . between Research Drive and Reservation Road	4 Lane Expressway	45,000	26,100	No	28,100	No
Segments on Reservation Road						
3 . between Imjin Road and Mbest Drive	5 Lane Arterial	40,500	33,100	No	41,100	**Yes**
4 . between Mbest Drive and Blanco Road	5 Lane Arterial	40,500	33,300	No	34,100	No

Notes:

LOS = Level of Service

[1] Capacity based on LOS standard D per Table 3.1.A of the City of Marina General Plan, Adopted October 2000, Updated August 2010.

LSA

Table 7-C - General Plan Build-out (2040) Intersection Levels of Service

Intersection	Jurisdiction	Control	LOS Standard	Without Project				With Project				A.M. Peak Hour	P.M. Peak Hour	Significant Impact
				A.M. Peak Hour		P.M. Peak Hour		A.M Peak Hour		P.M. Peak Hour		Increase	Increase	
				Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	in Delay (sec.)	in Delay (sec.)	
1 . Imjin Road / University Drive	City of Marina	AWSC	D	7.5	A	7.0	A	8.1	A	11.9	B	0.6	4.9	No
2 . Imjin Parkway / Reservation Road	City of Marina/ County of Monterey	Signal	D	36.4	D	34.7	C	41.2	D	42.1	D	4.8	7.4	No
3 . MBEST Drive / University Drive	City of Marina	Roundabout	D	-	-	-	-	3.2	A	3.9	A	3.2	3.9	No
4 . MBEST Drive / Reservation Road	City of Marina/ County of Monterey	Signal	D	No Conflicting Movements		No Conflicting Movements		25.6	C	20.3	C	-	-	No
5 . Blanco Road / Research Drive	City of Marina/ County of Monterey	Signal	D	0.6	A	0.4	A	6.0	A	16.1	B	5.4	15.7	No
6 . Blanco Road / Reservation Road	City of Marina/ County of Monterey	Signal	D	52.0	D	37.6	D	54.1	D	38.7	D	2.1	1.1	No

Notes:

AWSC = All-Way Stop Control

Table 7-D - General Plan Build-out (2040) Roadway Segment Levels of Service

Roadway Segment	Functional Classification	LOS D Threshold[1]	Without Project		With Project	
			Daily Volume	Exceeds LOS D Threshold	Daily Volume	Exceeds LOS D Threshold
Segments on Imjin Road						
1 . between University Drive and Reservation Road	4 Lane Arterial	32,500	1,500	No	6,700	No
Segments on Blanco Road						
2 . between Research Drive and Reservation Road	4 Lane Expressway	45,000	27,400	No	29,400	No
Segments on Reservation Road						
3 . between Imjin Road and Mbest Drive	5 Lane Arterial	40,500	39,400	No	47,300	**Yes**
4 . between Mbest Drive and Blanco Road	5 Lane Arterial	40,500	39,500	No	40,300	No

Notes:

LOS = Level of Service

[1] Capacity based on LOS standard D per Table 3.1.A of the City of Marina General Plan, Adopted October 2000, Updated August 2010.

8.0 CIRCULATION IMPROVEMENTS

8.1 RECOMMENDED IMPROVEMENTS

At roadway segments where the level of service is forecast to be unsatisfactory or where the project would have a significant impact, the City requires that improvements be identified to improve the LOS to D or better.

Based on the results, the recommended improvements are as follows:

8.1.1 Existing with Project Conditions

- **Reservation Road, between Imjin Road and MBEST Drive:** Proposed improvements recommended at this roadway segment include the widening of Reservation Road from five to six lanes. The proposed mitigation is consistent with the Program Level Mitigation recommended in the *Marina Municipal Airport Final EA/EIR.*

8.2.2 General Plan Build-out (2040) with Project Conditions

- **Reservation Road, between Imjin Road and MBEST Drive:** Proposed improvements recommended at this roadway segment include the widening of Reservation Road from five to six lanes. The proposed mitigation is consistent with the Program Level Mitigation recommended in the *Marina Municipal Airport Final EA/EIR.*

Table 8-A summarizes the recommended improvements for roadway segments which is consistent with the program mitigation in the Marina Municipal Airport Final EA/EIR. Table 8-B summarizes the post-improvement roadway levels of service for existing conditions. Table 8-C summarizes the post-improvement roadway segment levels of service for General Plan Build Out conditions. With implementation of the recommended roadway improvements, all roadway segments are forecast to operate at a satisfactory LOS.

8.2 LIST OF CHAPTER 8.0 FIGURES AND TABLES

- Table 8-A: Recommended Improvements for Roadway Segments
- Table 8-B: Existing with Project with Improvements Roadway Segment Levels of Service
- Table 8-C: General Plan Build-Out (2040) with Project with Improvements Roadway Segment Levels of Service

LSA

Table 8-A - Roadway Segment Improvement

Roadway Segment	Mitigations
Segments on Reservation Road	
1 . between Imjin Road and MBEST Drive	Widen from 5 lanes to 6 lanes. Mitigation consitent with Program Level Mitigation in the *Marina Municipal Airport Final Environmental Impact Report,* 1995.

Table 8-B - Existing (2019) Roadway Segment With Improvements Levels of Service

Roadway Segment	Without Improvements				With Improvements			
	Functional Classification	LOS D Threshold[1]	Daily Volume	Exceeds LOS D Threshold	Functional Classification	LOS D Threshold[1]	Daily Volume	Exceeds LOS D Threshold
Segments on Reservation Road								
4 . between Imjin Road and MBEST Drive	5 Lane Arterial	40,500	41,100	**Yes**	6 Lane Arterial	48,500	41,100	No

Notes:

[1] Capacity based on LOS standard D per Table 3.1.A of the City of Marina General Plan, Adopted October 2000, Updated August 2010.

Table 8-C - General Plan Build-Out (2040) Roadway Segment With Improvements Levels of Service

Roadway Segment	Without Improvements				With Improvements			
	Functional Classification	LOS D Threshold[1]	Daily Volume	Exceeds LOS D Threshold	Functional Classification	LOS D Threshold[1]	Daily Volume	Exceeds LOS D Threshold
Segments on Reservation Road								
4 . between Imjin Road and MBEST Drive	5 Lane Arterial	40,500	47,300	**Yes**	6 Lane Arterial	48,500	47,300	No

Notes:

[1] Capacity based on LOS standard D per Table 3.1.A of the City of Marina General Plan, Adopted October 2000, Updated August 2010.

9.0 SUMMARY AND CONCLUSIONS

The proposed Specific Plan has five general land use designations: Open Space, Research and Development, Commercial/Mixed Use, Business Park, and Business Aviation Reserve. In addition, the Specific Plan designated a Campus Core Overlay Area (Overlay Area) surrounding the Specific Plan's centrally located open space plaza. At full build out, the maximum gross floor area for land use designations is approximately 800,000 square feet on UC-owned property and approximately 882,000 square feet on City-owned property within the Specific Plan area. The project has been proposed to be built in three phases. Under full build-out condition, the project will generate 817 net daily trips, with 1,546 net trips occurring during the a.m. peak hour and 25,2317 net trips occurring during the p.m. peak hour.

9.1 EXISTING CONDITIONS SUMMARY

Based on the significance criteria as discussed in the Significance Threshold section of this report, under existing conditions, a significant project impact occurs at the segment of Reservation Road between Imjin Road and MBEST Drive. With the implementation of the improvements listed in Chapter 8.0 of this report, this roadway segment is forecast to operate at a satisfactory LOS.

9.2 GENERAL PLAN BUILD-OUT (2040) CONDITIONS SUMMARY

Based on the significance criteria as discussed in the Significance Threshold section of this report, under General Plan build-out conditions, a significant project impact occurs at the segment of Reservation Road between Imjin Road and MBEST Drive. With the implementation of the improvements listed in Chapter 8.0 of this report, this roadway segment is forecast to operate at a satisfactory LOS.

APPENDIX A:

TRAFFIC COUNT SHEETS

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Marina
N/S: Imjin Road
E/W: University Drive
Weather: Clear

File Name : 01_MNA_Imjin_University AM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 1

Groups Printed- Total Volume

	Imjin Road Southbound					University Drive Westbound					Imjin Road Northbound					University Drive Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	0	1	0	0	1	0	0	0	0	0	0	29	0	0	29	0	0	0	0	0	30
07:15 AM	0	4	0	0	4	0	0	0	0	0	0	16	0	1	17	0	0	0	0	0	21
07:30 AM	0	8	0	0	8	0	0	0	0	0	0	16	0	1	17	0	0	0	0	0	25
07:45 AM	0	12	0	0	12	0	0	0	0	0	0	34	0	1	35	0	0	0	0	0	47
Total	0	25	0	0	25	0	0	0	0	0	0	95	0	3	98	0	0	0	0	0	123
08:00 AM	0	18	0	0	18	0	0	0	0	0	0	26	0	0	26	0	0	0	0	0	44
08:15 AM	0	7	0	0	7	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	20
08:30 AM	0	5	0	0	5	0	0	0	0	0	0	20	0	0	20	0	0	0	0	0	25
08:45 AM	0	3	1	2	6	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	17
Total	0	33	1	2	36	0	0	0	0	0	0	70	0	0	70	0	0	0	0	0	106
Grand Total	0	58	1	2	61	0	0	0	0	0	0	165	0	3	168	0	0	0	0	0	229
Apprch %	0	95.1	1.6	3.3		0	0	0	0		0	98.2	0	1.8		0	0	0	0		
Total %	0	25.3	0.4	0.9	26.6	0	0	0	0	0	0	72.1	0	1.3	73.4	0	0	0	0	0	

	Imjin Road Southbound					University Drive Westbound					Imjin Road Northbound					University Drive Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total		Thru	Right	U-Turns	App. Total		Thru	Right	U-Turns	App. Total		Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	4	0	0	4	0	0	0	0	0	0	16	0	**1**	17	0	0	0	0	0	21
07:30 AM	0	8	0	0	8	0	0	0	0	0	0	16	0	1	17	0	0	0	0	0	25
07:45 AM	0	12	0	0	12	0	0	0	0	0	0	**34**	0	1	**35**	0	0	0	0	0	**47**
08:00 AM	0	**18**	0	0	**18**	0	0	0	0	0	0	26	0	0	26	0	0	0	0	0	44
Total Volume	0	42	0	0	42	0	0	0	0	0	0	92	0	3	95	0	0	0	0	0	137
% App. Total	0	100	0	0		0	0	0	0		0	96.8	0	3.2		0	0	0	0		
PHF	.000	.583	.000	.000	.583	.000	.000	.000	.000	.000	.000	.676	.000	.750	.679	.000	.000	.000	.000	.000	.729

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Site Code : 00319524
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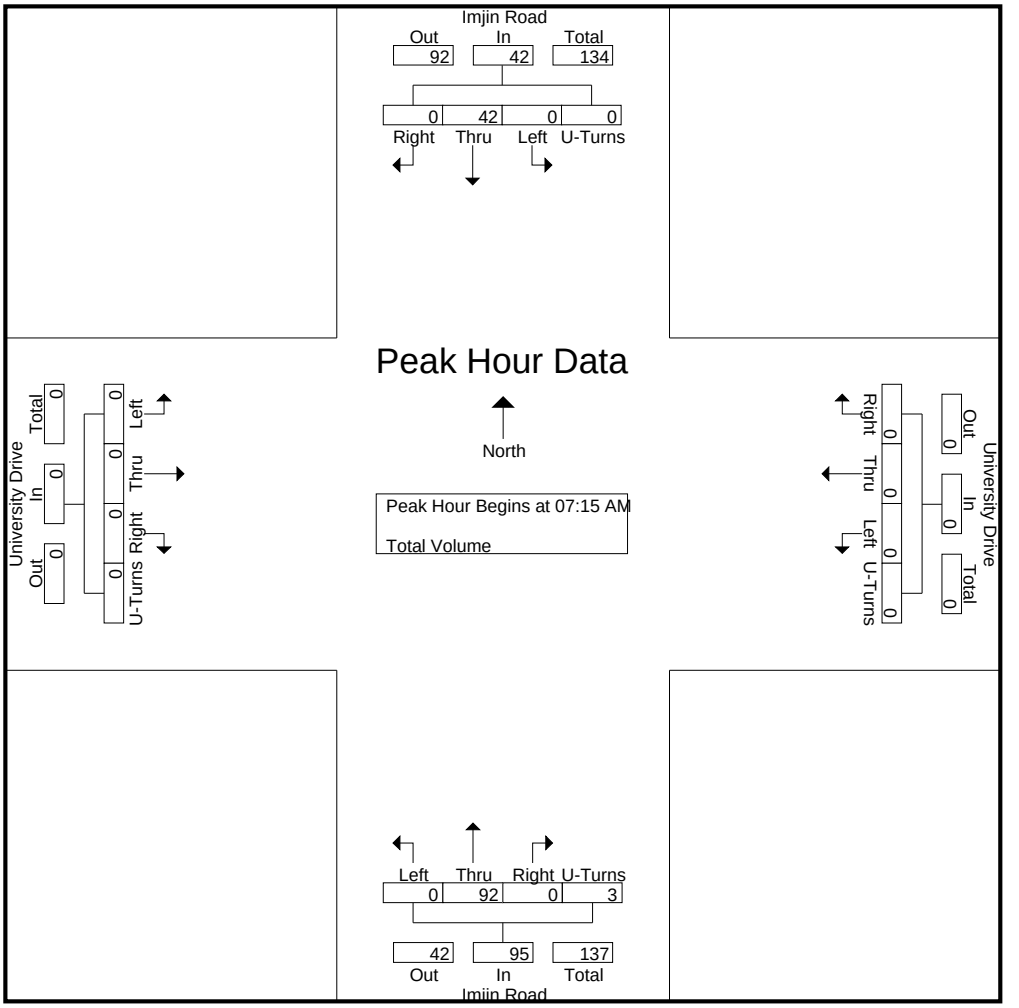

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM					07:00 AM					07:00 AM					07:00 AM				
+0 mins.	0	8	0	0	8	0	0	0	0	0	0	29	0	0	29	0	0	0	0	0
+15 mins.	0	12	0	0	12	0	0	0	0	0	0	16	0	**1**	17	0	0	0	0	0
+30 mins.	0	**18**	0	0	**18**	0	0	0	0	0	0	16	0	1	17	0	0	0	0	0
+45 mins.	0	7	0	0	7	0	0	0	0	0	0	**34**	0	1	**35**	0	0	0	0	0
Total Volume	0	45	0	0	45	0	0	0	0	0	0	95	0	3	98	0	0	0	0	0
% App. Total	0	100	0	0		0	0	0	0		0	96.9	0	3.1		0	0	0	0	
PHF	.000	.625	.000	.000	.625	.000	.000	.000	.000	.000	.000	.699	.000	.750	.700	.000	.000	.000	.000	.000

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Site Code : 00319524
Start Date : 8/13/2019
Page No : 1

Groups Printed- Total Volume

	Imjin Road Southbound					University Drive Westbound					Imjin Road Northbound					University Drive Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	0	21	0	0	21	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	26
04:15 PM	0	22	0	0	22	0	0	0	0	0	0	17	0	0	17	0	0	0	0	0	39
04:30 PM	0	32	0	0	32	0	0	0	0	0	0	4	0	1	5	0	0	0	0	0	37
04:45 PM	0	10	0	0	10	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	18
Total	0	85	0	0	85	0	0	0	0	0	0	34	0	1	35	0	0	0	0	0	120
05:00 PM	0	21	0	0	21	0	0	0	0	0	0	6	0	1	7	0	0	0	0	0	28
05:15 PM	0	9	0	0	9	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	13
05:30 PM	0	13	0	0	13	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	16
05:45 PM	0	16	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Total	0	59	0	0	59	1	0	0	0	1	0	12	0	1	13	0	0	0	0	0	73
Grand Total	0	144	0	0	144	1	0	0	0	1	0	46	0	2	48	0	0	0	0	0	193
Apprch %	0	100	0	0		100	0	0	0		0	95.8	0	4.2		0	0	0	0		
Total %	0	74.6	0	0	74.6	0.5	0	0	0	0.5	0	23.8	0	1	24.9	0	0	0	0	0	

	Imjin Road Southbound					University Drive Westbound					Imjin Road Northbound					University Drive Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total		Thru	Right	U-Turns	App. Total		Thru	Right	U-Turns	App. Total		Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	22	0	0	22	0	0	0	0	0	0	**17**	0	0	**17**	0	0	0	0	0	**39**
04:30 PM	0	**32**	0	0	**32**	0	0	0	0	0	0	4	0	**1**	5	0	0	0	0	0	37
04:45 PM	0	10	0	0	10	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	18
05:00 PM	0	21	0	0	21	0	0	0	0	0	0	6	0	1	7	0	0	0	0	0	28
Total Volume	0	85	0	0	85	0	0	0	0	0	0	35	0	2	37	0	0	0	0	0	122
% App. Total	0	100	0	0		0	0	0	0		0	94.6	0	5.4		0	0	0	0		
PHF	.000	.664	.000	.000	.664	.000	.000	.000	.000	.000	.000	.515	.000	.500	.544	.000	.000	.000	.000	.000	.782

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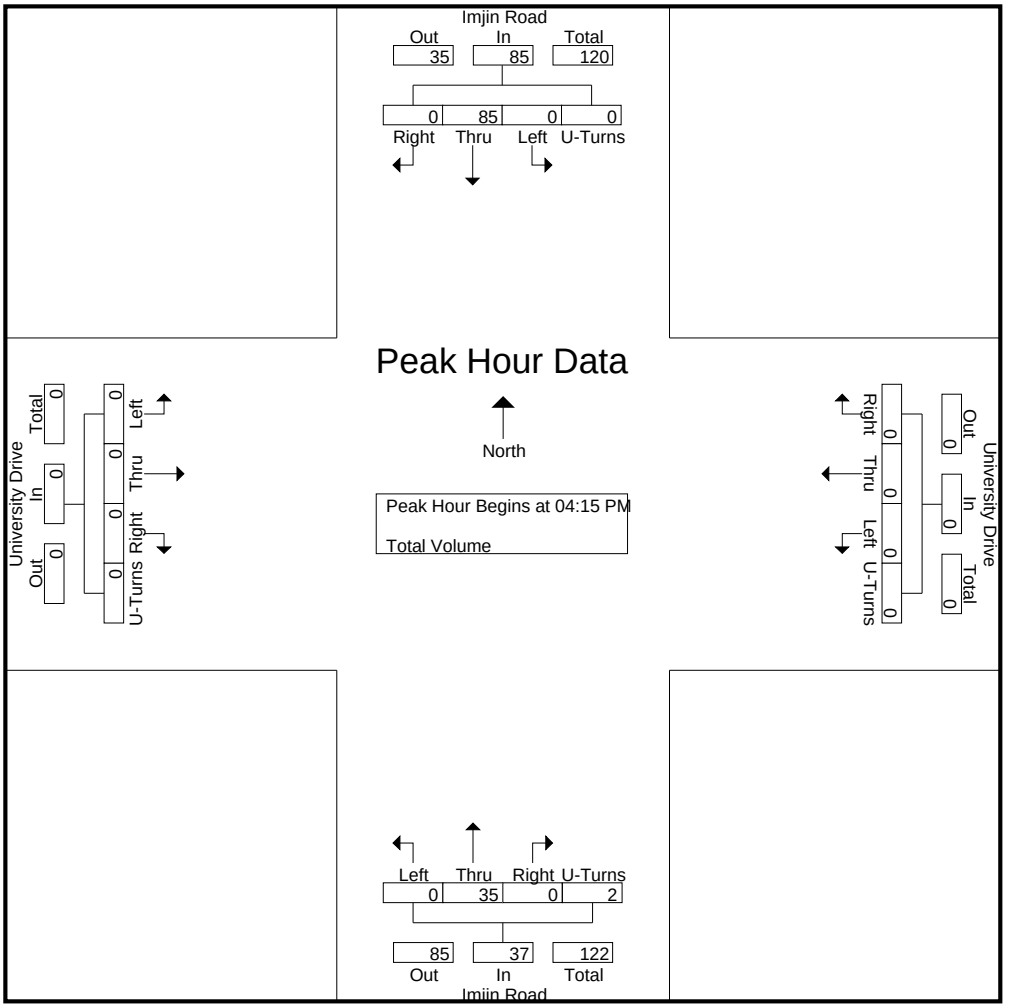

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM					04:45 PM					04:15 PM					04:00 PM				
+0 mins.	0	21	0	0	21	0	0	0	0	0	0	**17**	0	0	**17**	0	0	0	0	0
+15 mins.	0	22	0	0	22	0	0	0	0	0	0	4	0	**1**	5	0	0	0	0	0
+30 mins.	0	**32**	0	0	**32**	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0
+45 mins.	0	10	0	0	10	**1**	0	0	0	**1**	0	6	0	1	7	0	0	0	0	0
Total Volume	0	85	0	0	85	1	0	0	0	1	0	35	0	2	37	0	0	0	0	0
% App. Total	0	100	0	0		100	0	0	0		0	94.6	0	5.4		0	0	0	0	
PHF	.000	.664	.000	.000	.664	.250	.000	.000	.000	.250	.000	.515	.000	.500	.544	.000	.000	.000	.000	.000

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City of Marina
N/S: Imjin Road
E/W: Reservation Road
Weather: Clear

File Name : 02_MNA_Imjin_Reservation AM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	0	1	2	0	3	223	158	7	0	388	15	14	106	0	135	12	102	14	1	129	655
07:15 AM	3	1	1	0	5	208	182	9	0	399	28	3	153	0	184	5	124	19	0	148	736
07:30 AM	1	1	6	0	8	197	185	6	0	388	41	7	225	0	273	6	193	15	0	214	883
07:45 AM	3	6	3	0	12	180	165	14	0	359	39	10	218	0	267	13	155	30	0	198	836
Total	7	9	12	0	28	808	690	36	0	1534	123	34	702	0	859	36	574	78	1	689	3110
08:00 AM	2	8	8	0	18	179	132	10	0	321	14	10	164	0	188	7	126	29	0	162	689
08:15 AM	3	2	2	0	7	169	131	4	0	304	17	3	181	0	201	6	115	16	0	137	649
08:30 AM	2	3	1	0	6	212	122	12	0	346	11	2	112	0	125	6	93	22	0	121	598
08:45 AM	3	0	0	0	3	167	93	4	0	264	11	6	125	1	143	1	73	10	0	84	494
Total	10	13	11	0	34	727	478	30	0	1235	53	21	582	1	657	20	407	77	0	504	2430
Grand Total	17	22	23	0	62	1535	1168	66	0	2769	176	55	1284	1	1516	56	981	155	1	1193	5540
Apprch %	27.4	35.5	37.1	0		55.4	42.2	2.4	0		11.6	3.6	84.7	0.1		4.7	82.2	13	0.1		
Total %	0.3	0.4	0.4	0	1.1	27.7	21.1	1.2	0	50	3.2	1	23.2	0	27.4	1	17.7	2.8	0	21.5	
Passenger Vehicles	15	21	21	0	57	1516	1152	65	0	2733	172	53	1253	1	1479	53	961	152	1	1167	5436
% Passenger Vehicles	88.2	95.5	91.3	0	91.9	98.8	98.6	98.5	0	98.7	97.7	96.4	97.6	100	97.6	94.6	98	98.1	100	97.8	98.1
Large 2 Axle Vehicles	1	1	2	0	4	17	12	1	0	30	4	2	27	0	33	2	19	3	0	24	91
% Large 2 Axle Vehicles	5.9	4.5	8.7	0	6.5	1.1	1	1.5	0	1.1	2.3	3.6	2.1	0	2.2	3.6	1.9	1.9	0	2	1.6
3 Axle Vehicles	1	0	0	0	1	2	2	0	0	4	0	0	2	0	2	1	1	0	0	2	9
% 3 Axle Vehicles	5.9	0	0	0	1.6	0.1	0.2	0	0	0.1	0	0	0.2	0	0.1	1.8	0.1	0	0	0.2	0.2
4+ Axle Trucks	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	0	0	0	0	0	4
% 4+ Axle Trucks	0	0	0	0	0	0	0.2	0	0	0.1	0	0	0.2	0	0.1	0	0	0	0	0	0.1

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	**3**	1	1	0	5	**208**	182	9	0	**399**	28	3	153	0	184	5	124	19	0	148	736
07:30 AM	1	1	6	0	8	197	**185**	6	0	388	**41**	7	**225**	0	**273**	6	**193**	15	0	**214**	**883**
07:45 AM	3	6	3	0	12	180	165	**14**	0	359	39	**10**	218	0	267	**13**	155	**30**	0	198	836
08:00 AM	2	**8**	**8**	0	**18**	179	132	10	0	321	14	10	164	0	188	7	126	29	0	162	689
Total Volume	9	16	18	0	43	764	664	39	0	1467	122	30	760	0	912	31	598	93	0	722	3144
% App. Total	20.9	37.2	41.9	0		52.1	45.3	2.7	0		13.4	3.3	83.3	0		4.3	82.8	12.9	0		
PHF	.750	.500	.563	.000	.597	.918	.897	.696	.000	.919	.744	.750	.844	.000	.835	.596	.775	.775	.000	.843	.890

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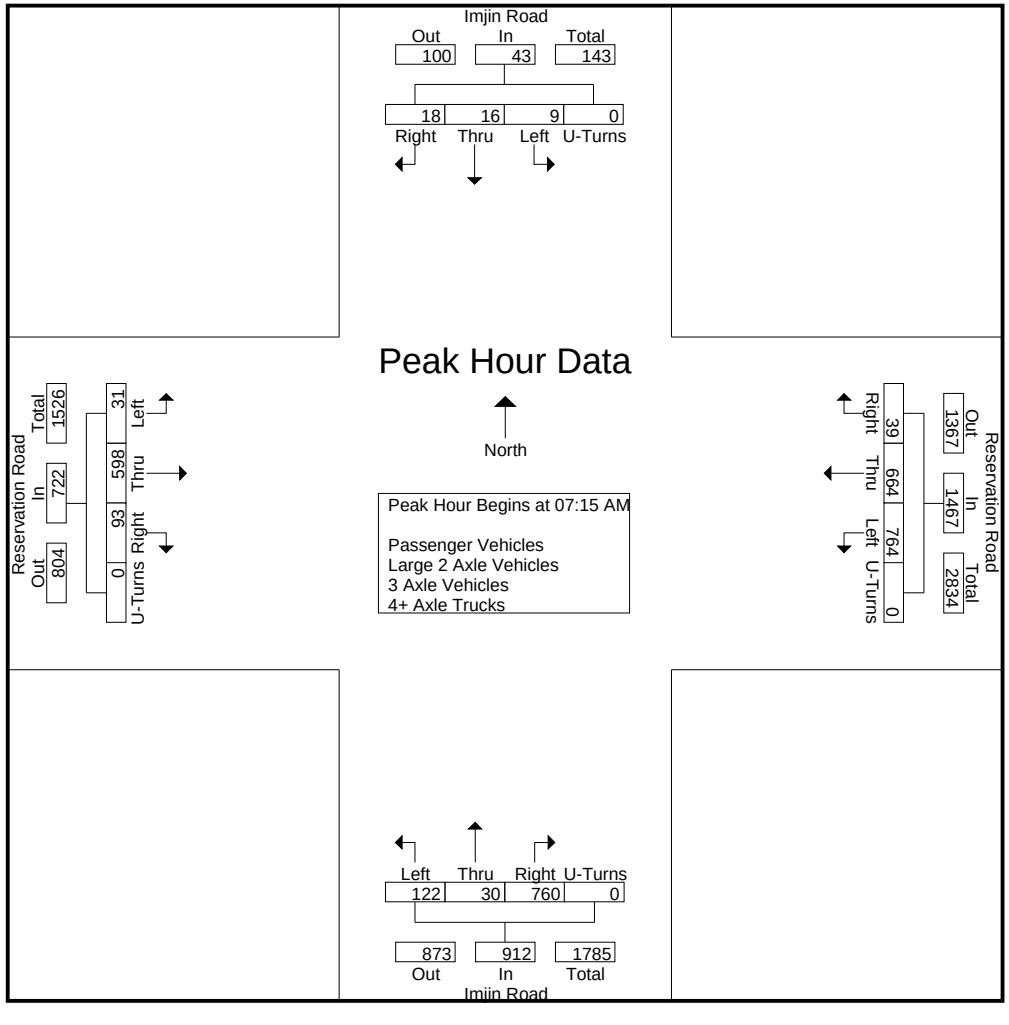
City of Marina
N/S: Imjin Road
E/W: Reservation Road
Weather: Clear

File Name : 02_MNA_Imjin_Reservation AM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 2



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City of Marina
N/S: Imjin Road
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Weather: Clear

File Name : 02_MNA_Imjin_Reservation AM
Site Code : 00319524
Start Date : 8/13/2019

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:30 AM					07:00 AM					07:30 AM					07:15 AM					
+0 mins.	1	1	6	0	8	**223**	158	7	0	388	**41**	7	**225**	0	**273**	5	124	19	0	148	
+15 mins.	**3**	6	3	0	12	208	182	9	0	**399**	39	**10**	218	0	267	6	**193**	15	0	**214**	
+30 mins.	2	**8**	**8**	0	**18**	197	**185**	6	0	388	14	10	164	0	188	**13**	155	**30**	0	198	
+45 mins.	3	2	2	0	7	180	165	**14**	0	359	17	3	181	0	201	7	126	29	0	162	
Total Volume	9	17	19	0	45	808	690	36	0	1534	111	30	788	0	929	31	598	93	0	722	
% App. Total	20	37.8	42.2	0		52.7	45	2.3	0		11.9	3.2	84.8	0		4.3	82.8	12.9	0		
PHF	.750	.531	.594	.000	.625	.906	.932	.643	.000	.961	.677	.750	.876	.000	.851	.596	.775	.775	.000	.843	

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City of Marina
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File Name : 02_MNA_Imjin_Reservation AM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 1

Groups Printed- Passenger Vehicles

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	0	0	1	0	1	218	156	7	0	381	14	14	98	0	126	10	95	13	1	119	627
07:15 AM	3	1	0	0	4	200	182	8	0	390	27	2	150	0	179	5	121	19	0	145	718
07:30 AM	1	1	6	0	8	196	182	6	0	384	41	7	222	0	270	5	189	15	0	209	871
07:45 AM	2	6	3	0	11	177	164	14	0	355	38	9	212	0	259	13	154	30	0	197	822
Total	6	8	10	0	24	791	684	35	0	1510	120	32	682	0	834	33	559	77	1	670	3038
08:00 AM	2	8	8	0	18	179	129	10	0	318	14	10	162	0	186	7	124	28	0	159	681
08:15 AM	2	2	2	0	6	168	128	4	0	300	17	3	178	0	198	6	115	16	0	137	641
08:30 AM	2	3	1	0	6	212	120	12	0	344	11	2	111	0	124	6	90	22	0	118	592
08:45 AM	3	0	0	0	3	166	91	4	0	261	10	6	120	1	137	1	73	9	0	83	484
Total	9	13	11	0	33	725	468	30	0	1223	52	21	571	1	645	20	402	75	0	497	2398
Grand Total	15	21	21	0	57	1516	1152	65	0	2733	172	53	1253	1	1479	53	961	152	1	1167	5436
Apprch %	26.3	36.8	36.8	0		55.5	42.2	2.4	0		11.6	3.6	84.7	0.1		4.5	82.3	13	0.1		
Total %	0.3	0.4	0.4	0	1	27.9	21.2	1.2	0	50.3	3.2	1	23.1	0	27.2	1	17.7	2.8	0	21.5	

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	**3**	1	0	0	4	**200**	**182**	8	0	**390**	27	2	150	0	179	5	121	19	0	145	718
07:30 AM	1	1	6	0	8	196	182	6	0	384	**41**	7	**222**	0	**270**	5	**189**	15	0	**209**	**871**
07:45 AM	2	6	3	0	11	177	164	**14**	0	355	38	9	212	0	259	**13**	154	**30**	0	197	822
08:00 AM	2	**8**	**8**	0	**18**	179	129	10	0	318	14	**10**	162	0	186	7	124	28	0	159	681
Total Volume	8	16	17	0	41	752	657	38	0	1447	120	28	746	0	894	30	588	92	0	710	3092
% App. Total	19.5	39	41.5	0		52	45.4	2.6	0		13.4	3.1	83.4	0		4.2	82.8	13	0		
PHF	.667	.500	.531	.000	.569	.940	.902	.679	.000	.928	.732	.700	.840	.000	.828	.577	.778	.767	.000	.849	.887

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City of Marina
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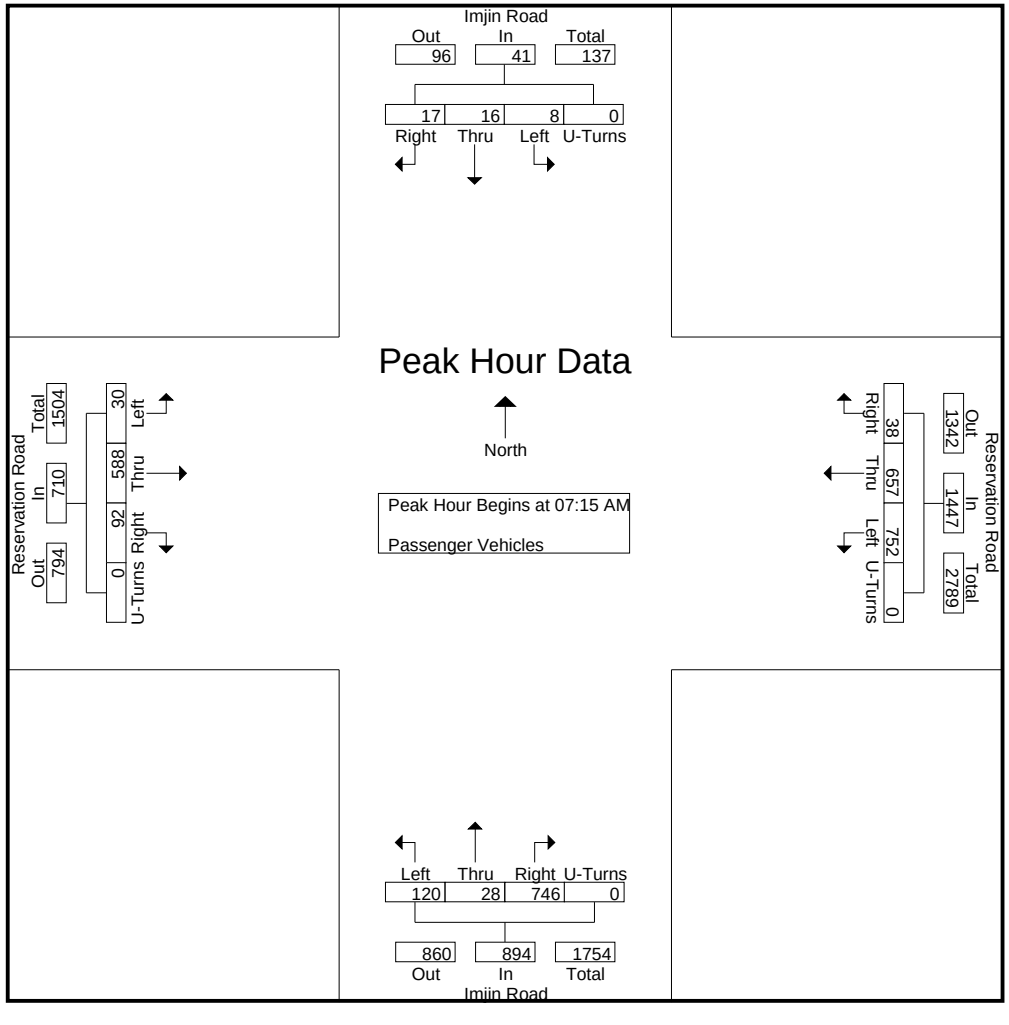
E/W: Reservation Road
Weather: Clear

File Name : 02_MNA_Imjin_Reservation AM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 2



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City of Marina
N/S: Imjin Road
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Weather: Clear

File Name : 02_MNA_Imjin_Reservation AM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 3

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:15 AM					07:15 AM					07:15 AM					07:15 AM					
+0 mins.	**3**	1	0	0	4	**200**	**182**	8	0	**390**	27	2	150	0	179	5	121	19	0	145	
+15 mins.	1	1	6	0	8	196	182	6	0	384	**41**	7	**222**	0	**270**	5	**189**	15	0	**209**	
+30 mins.	2	6	3	0	11	177	164	**14**	0	355	38	9	212	0	259	**13**	154	**30**	0	197	
+45 mins.	2	**8**	**8**	0	**18**	179	129	10	0	318	14	**10**	162	0	186	7	124	28	0	159	
Total Volume	8	16	17	0	41	752	657	38	0	1447	120	28	746	0	894	30	588	92	0	710	
% App. Total	19.5	39	41.5	0		52	45.4	2.6	0		13.4	3.1	83.4	0		4.2	82.8	13	0		
PHF	.667	.500	.531	.000	.569	.940	.902	.679	.000	.928	.732	.700	.840	.000	.828	.577	.778	.767	.000	.849	

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City of Marina
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File Name : 02_MNA_Imjin_Reservation AM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	0	1	1	0	2	4	1	0	0	5	1	0	6	0	7	2	7	1	0	10	24
07:15 AM	0	0	1	0	1	8	0	1	0	9	1	1	3	0	5	0	3	0	0	3	18
07:30 AM	0	0	0	0	0	1	3	0	0	4	0	0	3	0	3	0	3	0	0	3	10
07:45 AM	1	0	0	0	1	3	1	0	0	4	1	1	5	0	7	0	1	0	0	1	13
Total	1	1	2	0	4	16	5	1	0	22	3	2	17	0	22	2	14	1	0	17	65
08:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	0	2	1	0	3	7
08:15 AM	0	0	0	0	0	1	2	0	0	3	0	0	2	0	2	0	0	0	0	0	5
08:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	3	0	0	3	6
08:45 AM	0	0	0	0	0	0	1	0	0	1	1	0	5	0	6	0	0	1	0	1	8
Total	0	0	0	0	0	1	7	0	0	8	1	0	10	0	11	0	5	2	0	7	26
Grand Total	1	1	2	0	4	17	12	1	0	30	4	2	27	0	33	2	19	3	0	24	91
Apprch %	25	25	50	0		56.7	40	3.3	0		12.1	6.1	81.8	0		8.3	79.2	12.5	0		
Total %	1.1	1.1	2.2	0	4.4	18.7	13.2	1.1	0	33	4.4	2.2	29.7	0	36.3	2.2	20.9	3.3	0	26.4	

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	0	**1**	0	**1**	**8**	0	**1**	0	**9**	**1**	**1**	3	0	5	0	**3**	0	0	**3**	**18**
07:30 AM	0	0	0	0	0	1	**3**	0	0	4	0	0	3	0	3	0	3	0	0	3	10
07:45 AM	**1**	0	0	0	1	3	1	0	0	4	1	1	**5**	0	**7**	0	1	0	0	1	13
08:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	0	2	**1**	0	3	7
Total Volume	1	0	1	0	2	12	6	1	0	19	2	2	13	0	17	0	9	1	0	10	48
% App. Total	50	0	50	0		63.2	31.6	5.3	0		11.8	11.8	76.5	0		0	90	10	0		
PHF	.250	.000	.250	.000	.500	.375	.500	.250	.000	.528	.500	.500	.650	.000	.607	.000	.750	.250	.000	.833	.667

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City of Marina
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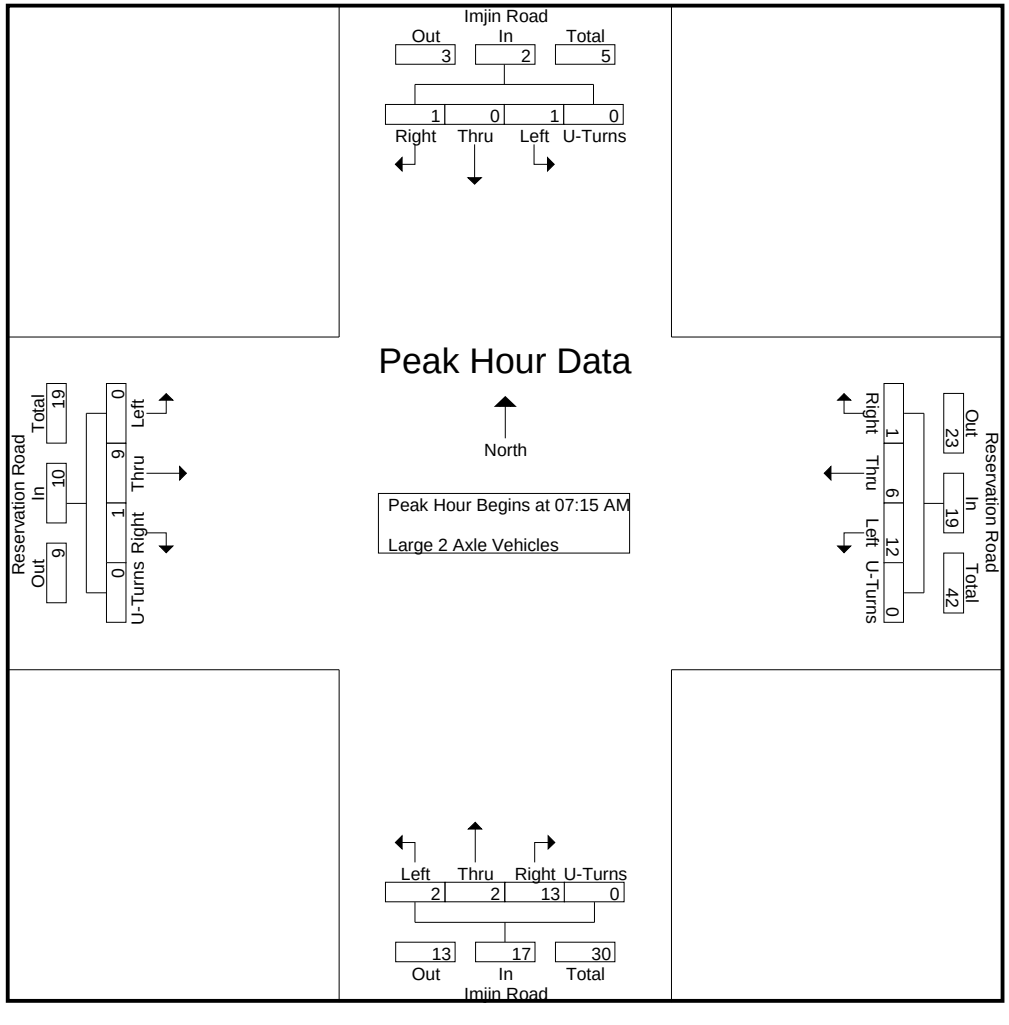

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	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:15 AM					07:15 AM					07:15 AM					07:15 AM					
+0 mins.	0	0	**1**	0	**1**	**8**	0	**1**	0	**9**	**1**	**1**	3	0	5	0	**3**	0	0	**3**	
+15 mins.	0	0	0	0	0	1	**3**	0	0	4	0	0	3	0	3	0	3	0	0	3	
+30 mins.	**1**	0	0	0	1	3	1	0	0	4	1	1	**5**	0	**7**	0	1	0	0	1	
+45 mins.	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	0	2	**1**	0	3	
Total Volume	1	0	1	0	2	12	6	1	0	19	2	2	13	0	17	0	9	1	0	10	
% App. Total	50	0	50	0		63.2	31.6	5.3	0		11.8	11.8	76.5	0		0	90	10	0		
PHF	.250	.000	.250	.000	.500	.375	.500	.250	.000	.528	.500	.500	.650	.000	.607	.000	.750	.250	.000	.833	

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Page No : 1

Groups Printed- 3 Axle Vehicles

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	0	0	0	0	0	1	1	0	0	2	0	0	1	0	1	0	0	0	0	0	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	1	0	0	2	0	0	1	0	1	1	1	0	0	2	5
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	1	0	0	0	1	1	1	0	0	2	0	0	1	0	1	0	0	0	0	0	4
Grand Total	1	0	0	0	1	2	2	0	0	4	0	0	2	0	2	1	1	0	0	2	9
Apprch %	100	0	0	0		50	50	0	0		0	0	100	0		50	50	0	0		
Total %	11.1	0	0	0	11.1	22.2	22.2	0	0	44.4	0	0	22.2	0	22.2	11.1	11.1	0	0	22.2	

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	**2**	**2**
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		50	50	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.250	.250

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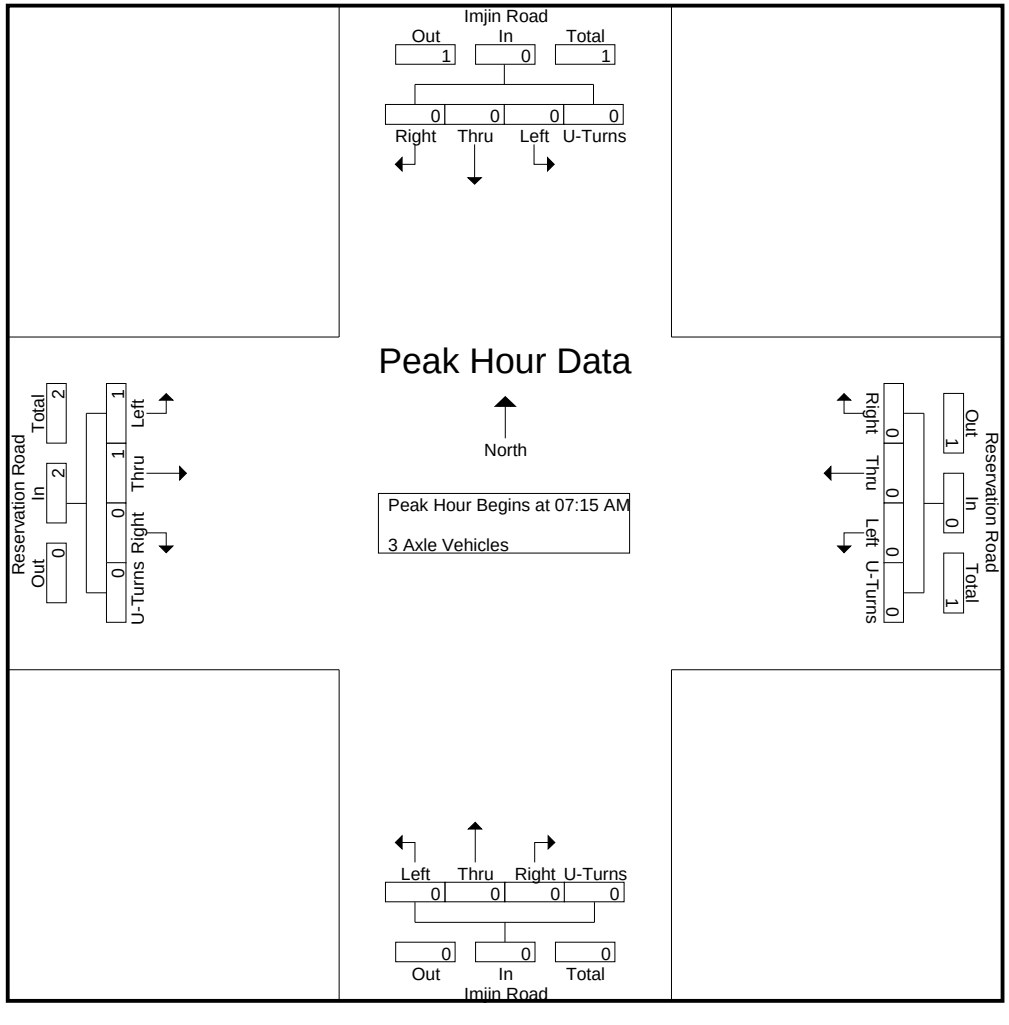
City of Marina
N/S: Imjin Road
E/W: Reservation Road
Weather: Clear

File Name : 02_MNA_Imjin_Reservation AM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 2



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File Name : 02_MNA_Imjin_Reservation AM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 3

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:15 AM					07:15 AM					07:15 AM					07:15 AM					
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	**2**	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		50	50	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.250	

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City of Marina
N/S: Imjin Road
E/W: Reservation Road
Weather: Clear

File Name : 02_MNA_Imjin_Reservation AM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2
08:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	0	0	0	0	0	4
Apprch %	0	0	0	0		0	100	0	0		0	0	100	0		0	0	0	0		
Total %	0	0	0	0	0	0	50	0	0	50	0	0	50	0	50	0	0	0	0	0	

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	**1**
08:00 AM	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	2
% App. Total	0	0	0	0		0	100	0	0		0	0	100	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.500

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E/W: Reservation Road
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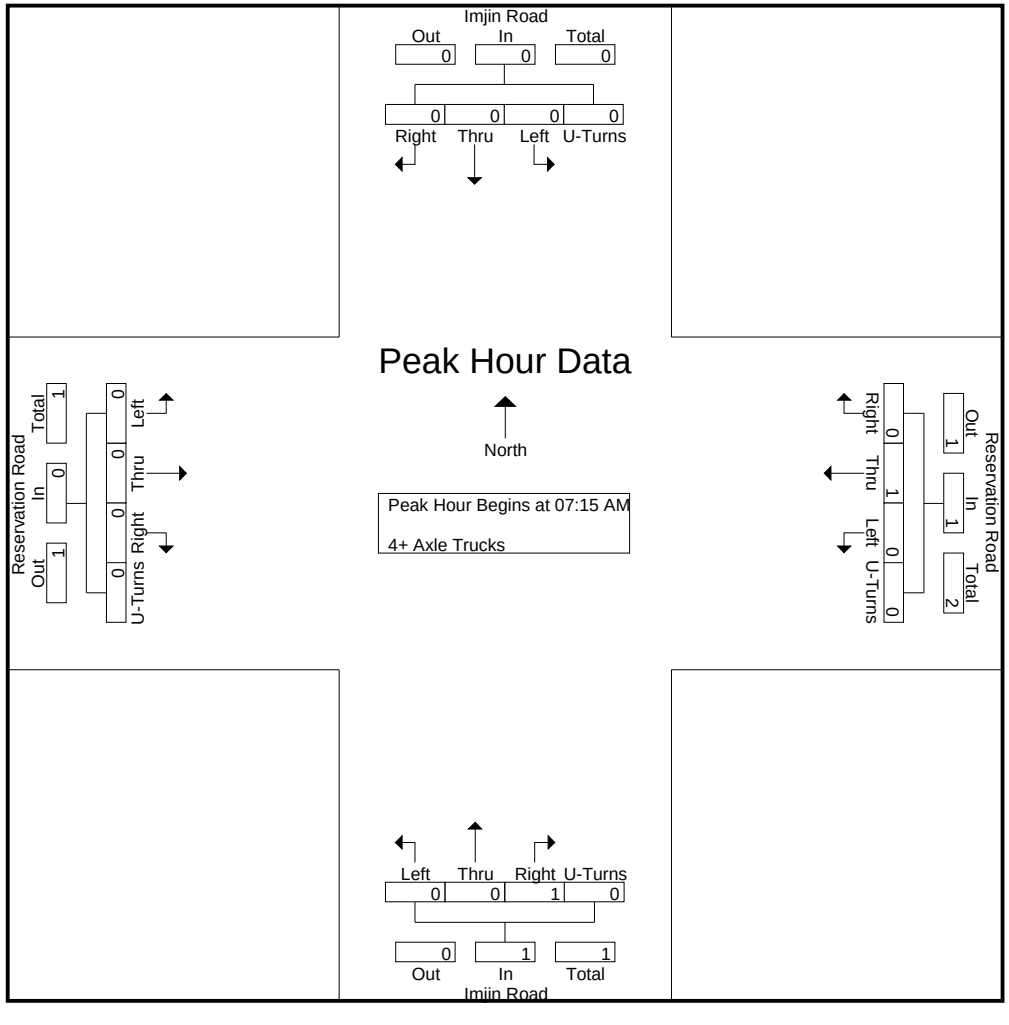
File Name : 02_MNA_Imjin_Reservation AM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 2



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Start Date : 8/13/2019

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:15 AM					07:15 AM					07:15 AM					07:15 AM					
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	
% App. Total	0	0	0	0		0	100	0	0		0	0	100	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	

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Weather: Clear

File Name : 02_MNA_Imjin_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	9	11	2	0	22	148	106	0	0	254	17	3	218	0	238	4	146	36	1	187	701
04:15 PM	8	4	5	1	18	168	115	4	0	287	27	7	236	0	270	6	141	25	0	172	747
04:30 PM	13	12	2	0	27	155	114	1	0	270	15	2	263	0	280	3	177	29	0	209	786
04:45 PM	6	1	2	0	9	180	161	1	0	342	22	5	228	0	255	2	130	28	1	161	767
Total	36	28	11	1	76	651	496	6	0	1153	81	17	945	0	1043	15	594	118	2	729	3001
05:00 PM	9	6	8	0	23	170	138	3	0	311	12	2	282	0	296	0	160	46	1	207	837
05:15 PM	5	2	3	0	10	229	166	2	0	397	16	1	236	0	253	1	139	27	0	167	827
05:30 PM	1	10	3	0	14	215	154	1	0	370	21	0	266	0	287	1	134	46	0	181	852
05:45 PM	4	2	10	0	16	160	130	0	0	290	30	0	220	0	250	0	128	39	0	167	723
Total	19	20	24	0	63	774	588	6	0	1368	79	3	1004	0	1086	2	561	158	1	722	3239
Grand Total	55	48	35	1	139	1425	1084	12	0	2521	160	20	1949	0	2129	17	1155	276	3	1451	6240
Apprch %	39.6	34.5	25.2	0.7		56.5	43	0.5	0		7.5	0.9	91.5	0		1.2	79.6	19	0.2		
Total %	0.9	0.8	0.6	0	2.2	22.8	17.4	0.2	0	40.4	2.6	0.3	31.2	0	34.1	0.3	18.5	4.4	0	23.3	
Passenger Vehicles	53	47	33	1	134	1406	1068	11	0	2485	156	18	1918	0	2092	14	1135	273	3	1425	6136
% Passenger Vehicles	96.4	97.9	94.3	100	96.4	98.7	98.5	91.7	0	98.6	97.5	90	98.4	0	98.3	82.4	98.3	98.9	100	98.2	98.3
Large 2 Axle Vehicles	1	1	2	0	4	17	12	1	0	30	4	2	27	0	33	2	19	3	0	24	91
% Large 2 Axle Vehicles	1.8	2.1	5.7	0	2.9	1.2	1.1	8.3	0	1.2	2.5	10	1.4	0	1.6	11.8	1.6	1.1	0	1.7	1.5
3 Axle Vehicles	1	0	0	0	1	2	2	0	0	4	0	0	2	0	2	1	1	0	0	2	9
% 3 Axle Vehicles	1.8	0	0	0	0.7	0.1	0.2	0	0	0.2	0	0	0.1	0	0.1	5.9	0.1	0	0	0.1	0.1
4+ Axle Trucks	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	0	0	0	0	0	4
% 4+ Axle Trucks	0	0	0	0	0	0	0.2	0	0	0.1	0	0	0.1	0	0.1	0	0	0	0	0	0.1

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	6	1	2	0	9	180	161	1	0	342	**22**	**5**	228	0	255	**2**	130	28	**1**	161	767
05:00 PM	**9**	6	**8**	0	**23**	170	138	**3**	0	311	12	2	**282**	0	**296**	0	**160**	**46**	1	**207**	837
05:15 PM	5	2	3	0	10	**229**	**166**	2	0	**397**	16	1	236	0	253	1	139	27	0	167	827
05:30 PM	1	**10**	3	0	14	215	154	1	0	370	21	0	266	0	287	1	134	46	0	181	**852**
Total Volume	21	19	16	0	56	794	619	7	0	1420	71	8	1012	0	1091	4	563	147	2	716	3283
% App. Total	37.5	33.9	28.6	0		55.9	43.6	0.5	0		6.5	0.7	92.8	0		0.6	78.6	20.5	0.3		
PHF	.583	.475	.500	.000	.609	.867	.932	.583	.000	.894	.807	.400	.897	.000	.921	.500	.880	.799	.500	.865	.963

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City of Marina
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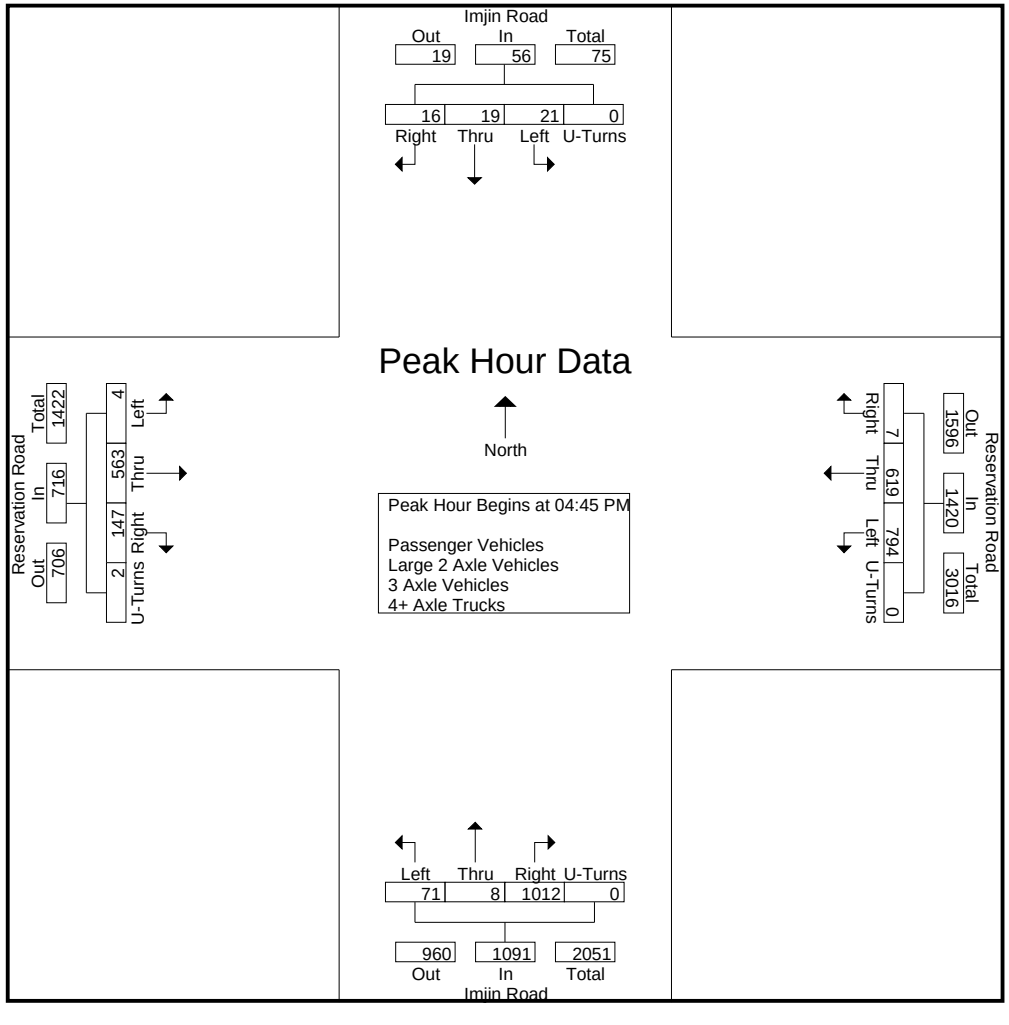

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Page No : 3

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:15 PM					04:45 PM					04:15 PM					04:15 PM					
+0 mins.	8	4	5	**1**	18	180	161	1	0	342	**27**	**7**	236	0	270	**6**	141	25	0	172	
+15 mins.	**13**	**12**	2	0	**27**	170	138	**3**	0	311	15	2	263	0	280	3	**177**	29	0	**209**	
+30 mins.	6	1	2	0	9	**229**	**166**	2	0	**397**	22	5	228	0	255	2	130	28	**1**	161	
+45 mins.	9	6	**8**	0	23	215	154	1	0	370	12	2	**282**	0	**296**	0	160	**46**	1	207	
Total Volume	36	23	17	1	77	794	619	7	0	1420	76	16	1009	0	1101	11	608	128	2	749	
% App. Total	46.8	29.9	22.1	1.3		55.9	43.6	0.5	0		6.9	1.5	91.6	0		1.5	81.2	17.1	0.3		
PHF	.692	.479	.531	.250	.713	.867	.932	.583	.000	.894	.704	.571	.895	.000	.930	.458	.859	.696	.500	.896	

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Weather: Clear

File Name : 02_MNA_Imjin_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 1

Groups Printed- Passenger Vehicles

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	9	10	1	0	20	143	104	0	0	247	16	3	210	0	229	2	139	35	1	177	673
04:15 PM	8	4	4	1	17	160	115	3	0	278	26	6	233	0	265	6	138	25	0	169	729
04:30 PM	13	12	2	0	27	154	111	1	0	266	15	2	260	0	277	2	173	29	0	204	774
04:45 PM	5	1	2	0	8	177	160	1	0	338	21	4	222	0	247	2	129	28	1	160	753
Total	35	27	9	1	72	634	490	5	0	1129	78	15	925	0	1018	12	579	117	2	710	2929
05:00 PM	9	6	8	0	23	170	135	3	0	308	12	2	280	0	294	0	158	45	1	204	829
05:15 PM	4	2	3	0	9	228	163	2	0	393	16	1	233	0	250	1	139	27	0	167	819
05:30 PM	1	10	3	0	14	215	152	1	0	368	21	0	265	0	286	1	131	46	0	178	846
05:45 PM	4	2	10	0	16	159	128	0	0	287	29	0	215	0	244	0	128	38	0	166	713
Total	18	20	24	0	62	772	578	6	0	1356	78	3	993	0	1074	2	556	156	1	715	3207
Grand Total	53	47	33	1	134	1406	1068	11	0	2485	156	18	1918	0	2092	14	1135	273	3	1425	6136
Apprch %	39.6	35.1	24.6	0.7		56.6	43	0.4	0		7.5	0.9	91.7	0		1	79.6	19.2	0.2		
Total %	0.9	0.8	0.5	0	2.2	22.9	17.4	0.2	0	40.5	2.5	0.3	31.3	0	34.1	0.2	18.5	4.4	0	23.2	

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	5	1	2	0	8	177	160	1	0	338	**21**	**4**	222	0	247	**2**	129	28	**1**	160	753
05:00 PM	**9**	6	**8**	0	**23**	170	135	**3**	0	308	12	2	**280**	0	**294**	0	**158**	45	1	**204**	829
05:15 PM	4	2	3	0	9	**228**	**163**	2	0	**393**	16	1	233	0	250	1	139	27	0	167	819
05:30 PM	1	**10**	3	0	14	215	152	1	0	368	21	0	265	0	286	1	131	**46**	0	178	**846**
Total Volume	19	19	16	0	54	790	610	7	0	1407	70	7	1000	0	1077	4	557	146	2	709	3247
% App. Total	35.2	35.2	29.6	0		56.1	43.4	0.5	0		6.5	0.6	92.9	0		0.6	78.6	20.6	0.3		
PHF	.528	.475	.500	.000	.587	.866	.936	.583	.000	.895	.833	.438	.893	.000	.916	.500	.881	.793	.500	.869	.960

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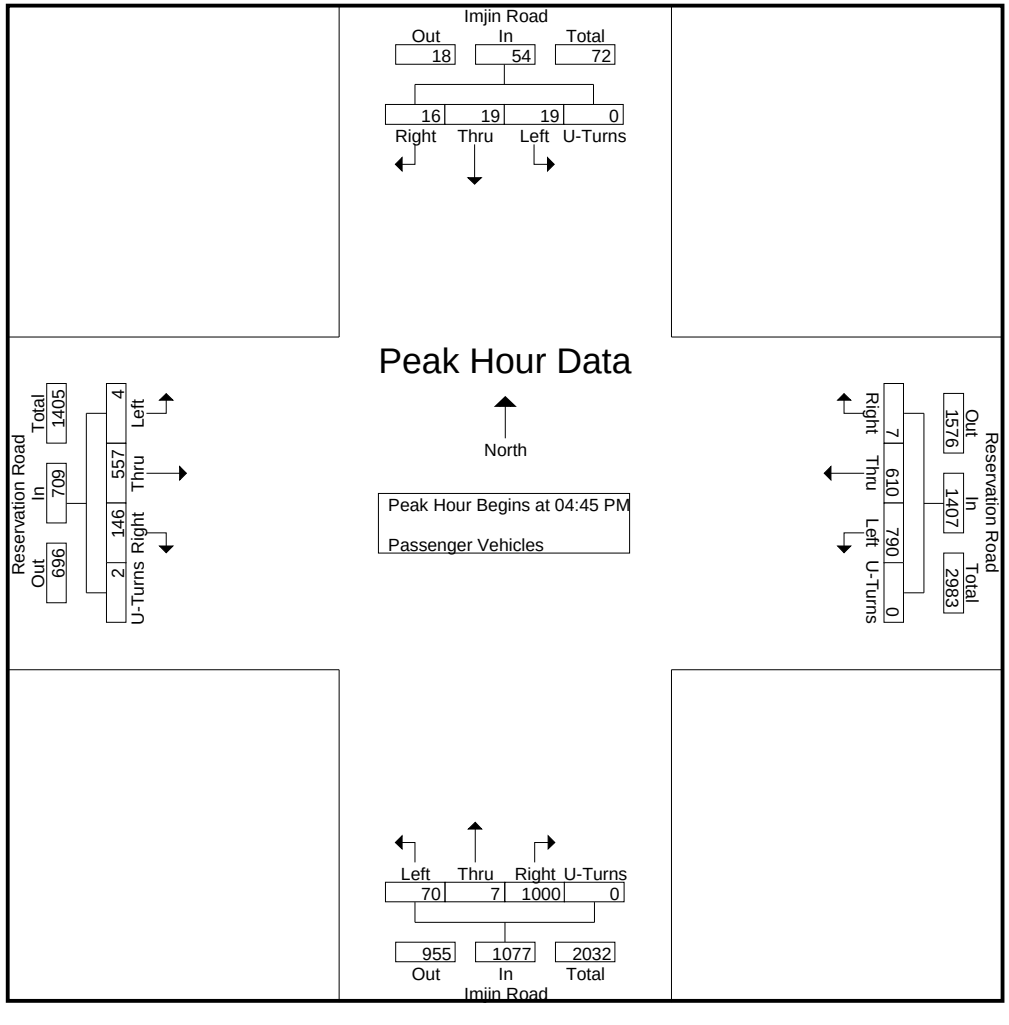
City of Marina
N/S: Imjin Road
E/W: Reservation Road
Weather: Clear

File Name : 02_MNA_Imjin_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 2



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City of Marina
N/S: Imjin Road
E/W: Reservation Road
Weather: Clear

File Name : 02_MNA_Imjin_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:45 PM					04:45 PM					04:45 PM					04:45 PM					
+0 mins.	5	1	2	0	8	177	160	1	0	338	**21**	**4**	222	0	247	**2**	129	28	**1**	160	
+15 mins.	**9**	6	**8**	0	**23**	170	135	**3**	0	308	12	2	**280**	0	**294**	0	**158**	45	1	**204**	
+30 mins.	4	2	3	0	9	**228**	**163**	2	0	**393**	16	1	233	0	250	1	139	27	0	167	
+45 mins.	1	**10**	3	0	14	215	152	1	0	368	21	0	265	0	286	1	131	**46**	0	178	
Total Volume	19	19	16	0	54	790	610	7	0	1407	70	7	1000	0	1077	4	557	146	2	709	
% App. Total	35.2	35.2	29.6	0		56.1	43.4	0.5	0		6.5	0.6	92.9	0		0.6	78.6	20.6	0.3		
PHF	.528	.475	.500	.000	.587	.866	.936	.583	.000	.895	.833	.438	.893	.000	.916	.500	.881	.793	.500	.869	

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City of Marina
N/S: Imjin Road
E/W: Reservation Road
Weather: Clear

File Name : 02_MNA_Imjin_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	0	1	1	0	2	4	1	0	0	5	1	0	6	0	7	2	7	1	0	10	24
04:15 PM	0	0	1	0	1	8	0	1	0	9	1	1	3	0	5	0	3	0	0	3	18
04:30 PM	0	0	0	0	0	1	3	0	0	4	0	0	3	0	3	0	3	0	0	3	10
04:45 PM	1	0	0	0	1	3	1	0	0	4	1	1	5	0	7	0	1	0	0	1	13
Total	1	1	2	0	4	16	5	1	0	22	3	2	17	0	22	2	14	1	0	17	65
05:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	0	2	1	0	3	7
05:15 PM	0	0	0	0	0	1	2	0	0	3	0	0	2	0	2	0	0	0	0	0	5
05:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	3	0	0	3	6
05:45 PM	0	0	0	0	0	0	1	0	0	1	1	0	5	0	6	0	0	1	0	1	8
Total	0	0	0	0	0	1	7	0	0	8	1	0	10	0	11	0	5	2	0	7	26
Grand Total	1	1	2	0	4	17	12	1	0	30	4	2	27	0	33	2	19	3	0	24	91
Apprch %	25	25	50	0		56.7	40	3.3	0		12.1	6.1	81.8	0		8.3	79.2	12.5	0		
Total %	1.1	1.1	2.2	0	4.4	18.7	13.2	1.1	0	33	4.4	2.2	29.7	0	36.3	2.2	20.9	3.3	0	26.4	

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	**1**	0	0	0	**1**	**3**	1	0	0	**4**	**1**	**1**	**5**	0	**7**	0	1	0	0	1	**13**
05:00 PM	0	0	0	0	0	0	**2**	0	0	2	0	0	2	0	2	0	2	**1**	0	**3**	7
05:15 PM	0	0	0	0	0	1	2	0	0	3	0	0	2	0	2	0	0	0	0	0	5
05:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	**3**	0	0	3	6
Total Volume	1	0	0	0	1	4	7	0	0	11	1	1	10	0	12	0	6	1	0	7	31
% App. Total	100	0	0	0		36.4	63.6	0	0		8.3	8.3	83.3	0		0	85.7	14.3	0		
PHF	.250	.000	.000	.000	.250	.333	.875	.000	.000	.688	.250	.250	.500	.000	.429	.000	.500	.250	.000	.583	.596

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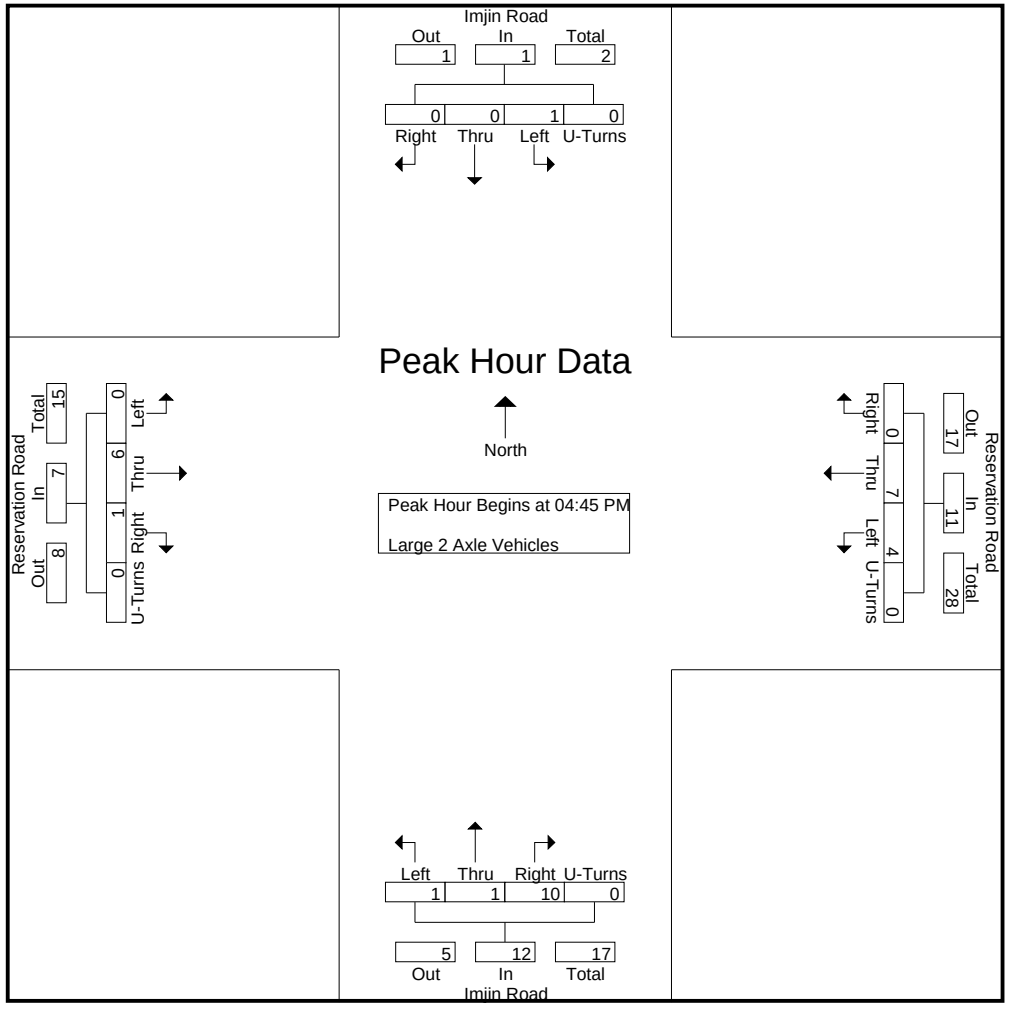
City of Marina
N/S: Imjin Road
E/W: Reservation Road
Weather: Clear

File Name : 02_MNA_Imjin_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 2



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City of Marina
N/S: Imjin Road
E/W: Reservation Road
Weather: Clear

File Name : 02_MNA_Imjin_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:45 PM					04:45 PM					04:45 PM					04:45 PM					
+0 mins.	**1**	0	0	0	**1**	**3**	1	0	0	**4**	**1**	**1**	**5**	0	**7**	0	1	0	0	1	
+15 mins.	0	0	0	0	0	0	**2**	0	0	2	0	0	2	0	2	0	2	**1**	0	**3**	
+30 mins.	0	0	0	0	0	1	2	0	0	3	0	0	2	0	2	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	**3**	0	0	3	
Total Volume	1	0	0	0	1	4	7	0	0	11	1	1	10	0	12	0	6	1	0	7	
% App. Total	100	0	0	0		36.4	63.6	0	0		8.3	8.3	83.3	0		0	85.7	14.3	0		
PHF	.250	.000	.000	.000	.250	.333	.875	.000	.000	.688	.250	.250	.500	.000	.429	.000	.500	.250	.000	.583	

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City of Marina
N/S: Imjin Road
E/W: Reservation Road
Weather: Clear

File Name : 02_MNA_Imjin_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	0	0	0	0	0	1	1	0	0	2	0	0	1	0	1	0	0	0	0	0	3
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	1	0	0	2	0	0	1	0	1	1	1	0	0	2	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	1	0	0	0	1	1	1	0	0	2	0	0	1	0	1	0	0	0	0	0	4
Grand Total	1	0	0	0	1	2	2	0	0	4	0	0	2	0	2	1	1	0	0	2	9
Apprch %	100	0	0	0		50	50	0	0		0	0	100	0		50	50	0	0		
Total %	11.1	0	0	0	11.1	22.2	22.2	0	0	44.4	0	0	22.2	0	22.2	11.1	11.1	0	0	22.2	

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	**1**	0	0	0	**1**	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	**2**
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
% App. Total	100	0	0	0		0	0	0	0		0	0	100	0		0	0	0	0		
PHF	.250	.000	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250

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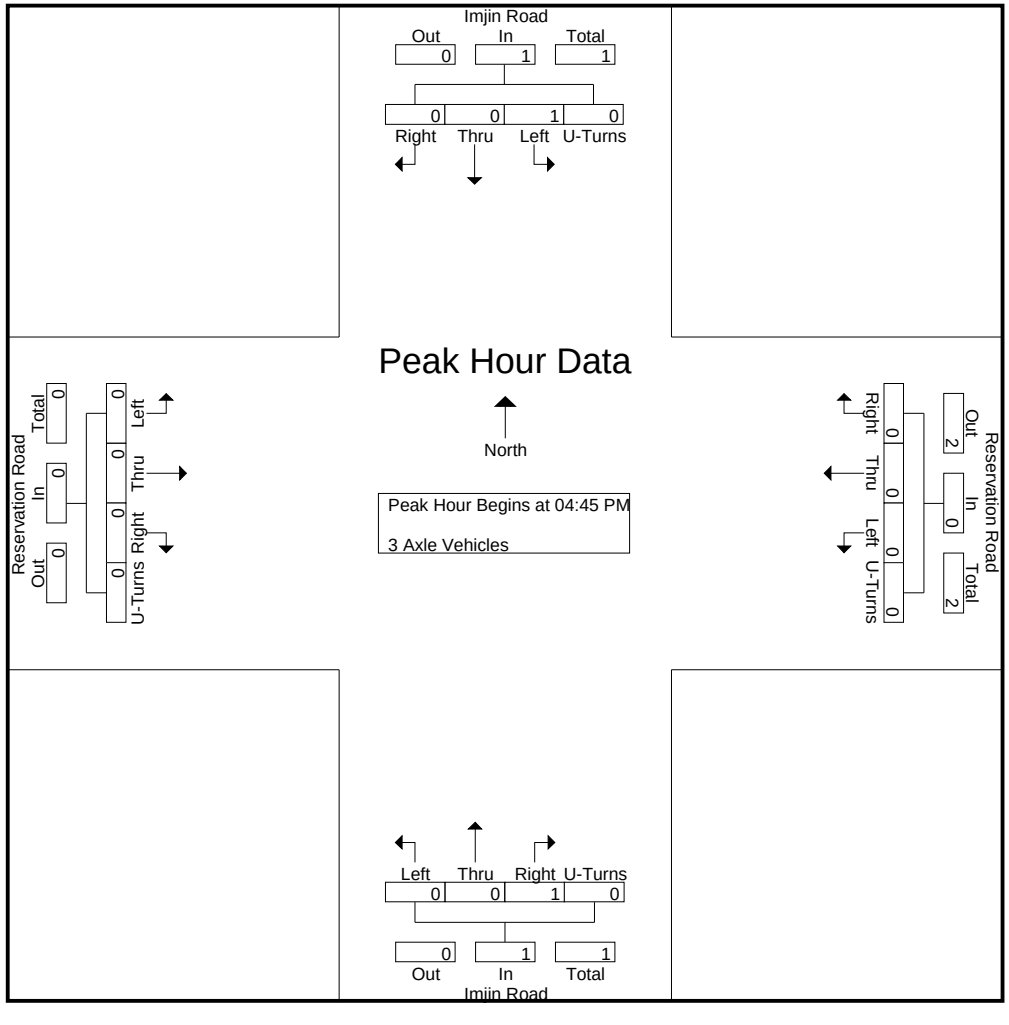
City of Marina
N/S: Imjin Road
E/W: Reservation Road
Weather: Clear

File Name : 02_MNA_Imjin_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 2



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City of Marina
N/S: Imjin Road
E/W: Reservation Road
Weather: Clear

File Name : 02_MNA_Imjin_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:45 PM					04:45 PM					04:45 PM					04:45 PM					
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	**1**	0	0	0	**1**	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	
% App. Total	100	0	0	0		0	0	0	0		0	0	100	0		0	0	0	0		
PHF	.250	.000	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	

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City of Marina
N/S: Imjin Road
E/W: Reservation Road
Weather: Clear

File Name : 02_MNA_Imjin_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	0	0	0	0	0	4
Apprch %	0	0	0	0		0	100	0	0		0	0	100	0		0	0	0	0		
Total %	0	0	0	0	0	0	50	0	0	50	0	0	50	0	50	0	0	0	0	0	

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	**1**
05:00 PM	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	0	0	0	0	3
% App. Total	0	0	0	0		0	100	0	0		0	0	100	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.500	.000	.000	.500	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.750

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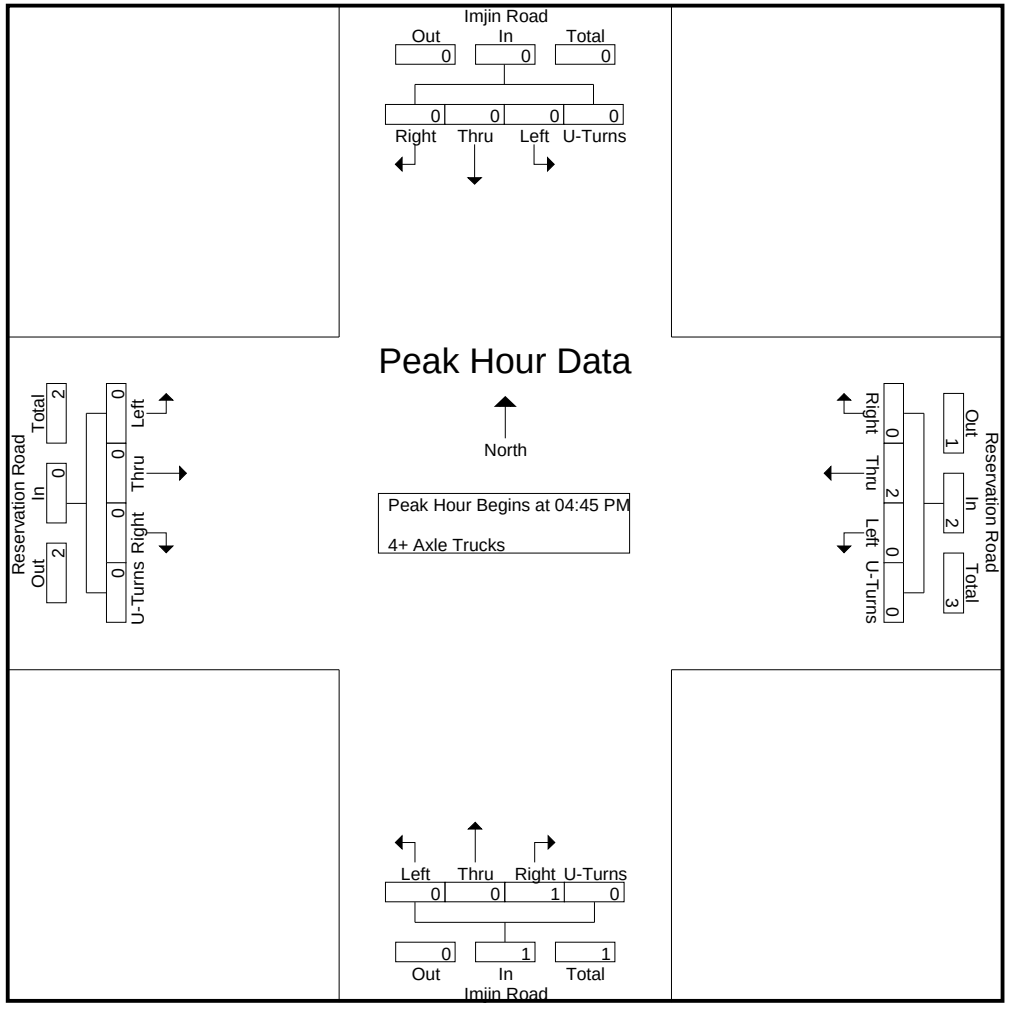
City of Marina
N/S: Imjin Road
E/W: Reservation Road
Weather: Clear

File Name : 02_MNA_Imjin_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 2



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City of Marina
N/S: Imjin Road
E/W: Reservation Road
Weather: Clear

File Name : 02_MNA_Imjin_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 3

	Imjin Road Southbound					Reservation Road Westbound					Imjin Road Northbound					Reservation Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:45 PM					04:45 PM					04:45 PM					04:45 PM					
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	0	0	0	0	
% App. Total	0	0	0	0		0	100	0	0		0	0	100	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.500	.000	.000	.500	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	

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City of Marina
N/S: Mbest Drive
E/W: Reservation Road
Weather: Clear

File Name : 04_MNA_Mbest_Reservation AM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 1

Groups Printed- Total Volume

	Mbest Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
07:00 AM	0	0	0	0	387	0	0	387	0	195	0	195	582
07:15 AM	0	0	0	0	409	0	0	409	0	286	0	286	695
07:30 AM	0	0	0	0	384	0	0	384	0	400	0	400	784
07:45 AM	0	0	0	0	348	0	0	348	0	376	0	376	724
Total	0	0	0	0	1528	0	0	1528	0	1257	0	1257	2785
08:00 AM	0	0	0	0	321	0	0	321	0	291	0	291	612
08:15 AM	0	0	0	0	315	0	0	315	0	300	0	300	615
08:30 AM	0	0	0	0	355	0	0	355	0	212	0	212	567
08:45 AM	0	0	0	0	260	0	0	260	0	194	0	194	454
Total	0	0	0	0	1251	0	0	1251	0	997	0	997	2248
Grand Total	0	0	0	0	2779	0	0	2779	0	2254	0	2254	5033
Apprch %	0	0	0		100	0	0		0	100	0		
Total %	0	0	0	0	55.2	0	0	55.2	0	44.8	0	44.8	

	Mbest Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	0	0	0	0	**409**	0	0	**409**	0	286	0	286	695
07:30 AM	0	0	0	0	384	0	0	384	0	**400**	0	**400**	**784**
07:45 AM	0	0	0	0	348	0	0	348	0	376	0	376	724
08:00 AM	0	0	0	0	321	0	0	321	0	291	0	291	612
Total Volume	0	0	0	0	1462	0	0	1462	0	1353	0	1353	2815
% App. Total	0	0	0		100	0	0		0	100	0		
PHF	.000	.000	.000	.000	.894	.000	.000	.894	.000	.846	.000	.846	.898

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City of Marina
N/S: Mbest Drive
E/W: Reservation Road
Weather: Clear

File Name : 04_MNA_Mbest_Reservation AM
Site Code : 00319524
Start Date : 8/13/2019
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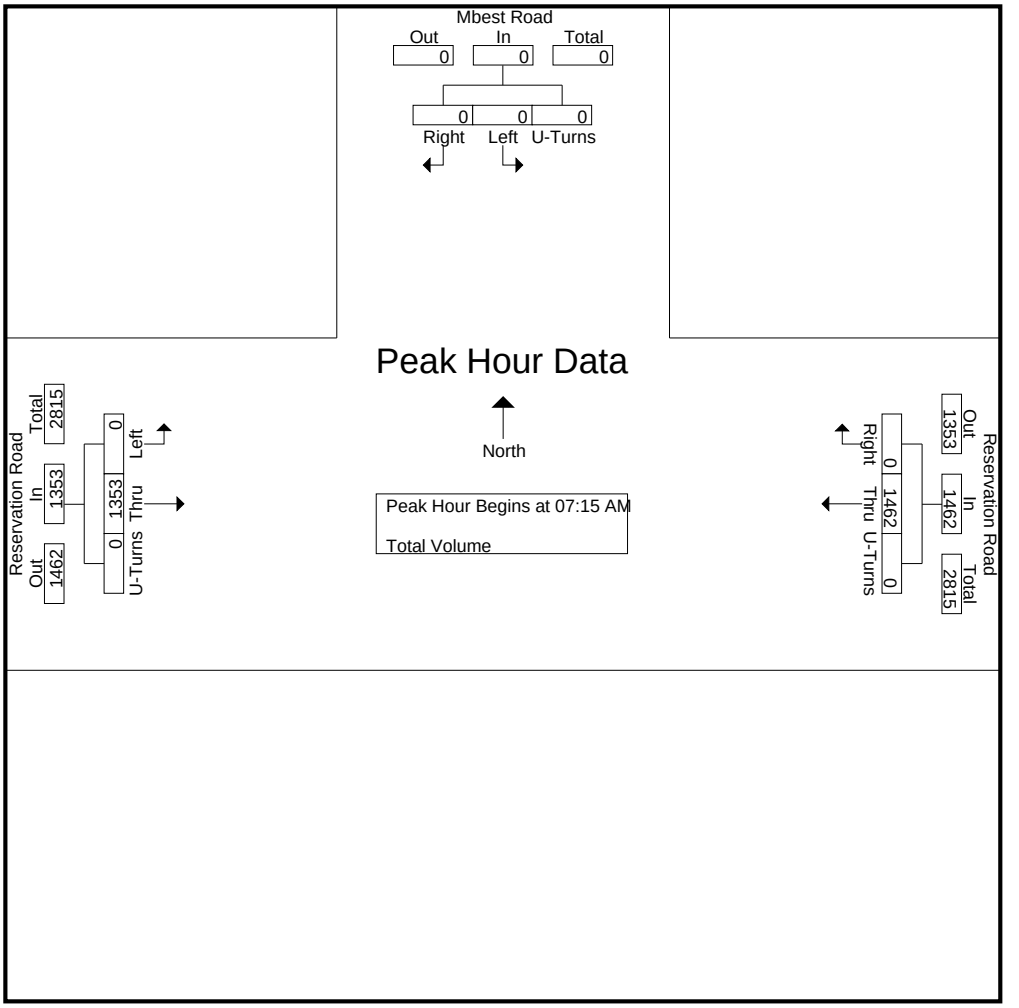

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:30 AM			
+0 mins.	0	0	0	0	387	0	0	387	0	**400**	0	**400**
+15 mins.	0	0	0	0	**409**	0	0	**409**	0	376	0	376
+30 mins.	0	0	0	0	384	0	0	384	0	291	0	291
+45 mins.	0	0	0	0	348	0	0	348	0	300	0	300
Total Volume	0	0	0	0	1528	0	0	1528	0	1367	0	1367
% App. Total	0	0	0		100	0	0		0	100	0	
PHF	.000	.000	.000	.000	.934	.000	.000	.934	.000	.854	.000	.854

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City of Marina
N/S: Mbest Drive
E/W: Reservation Road
Weather: Clear

File Name : 04_MNA_Mbest_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 1

Groups Printed- Total Volume

	Mbest Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
04:00 PM	0	0	0	0	272	0	0	272	0	381	0	381	653
04:15 PM	0	0	0	0	295	0	0	295	0	419	0	419	714
04:30 PM	0	0	0	0	286	0	0	286	0	455	0	455	741
04:45 PM	0	0	0	0	377	0	0	377	0	375	0	375	752
Total	0	0	0	0	1230	0	0	1230	0	1630	0	1630	2860
05:00 PM	0	0	0	0	312	0	0	312	0	438	0	438	750
05:15 PM	0	0	0	0	401	0	0	401	0	394	0	394	795
05:30 PM	0	0	0	0	356	0	0	356	0	383	0	383	739
05:45 PM	0	0	0	0	309	0	0	309	0	349	0	349	658
Total	0	0	0	0	1378	0	0	1378	0	1564	0	1564	2942
Grand Total	0	0	0	0	2608	0	0	2608	0	3194	0	3194	5802
Apprch %	0	0	0		100	0	0		0	100	0		
Total %	0	0	0	0	45	0	0	45	0	55	0	55	

	Mbest Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	0	0	0	0	286	0	0	286	0	**455**	0	**455**	741
04:45 PM	0	0	0	0	377	0	0	377	0	375	0	375	752
05:00 PM	0	0	0	0	312	0	0	312	0	438	0	438	750
05:15 PM	0	0	0	0	**401**	0	0	**401**	0	394	0	394	**795**
Total Volume	0	0	0	0	1376	0	0	1376	0	1662	0	1662	3038
% App. Total	0	0	0		100	0	0		0	100	0		
PHF	.000	.000	.000	.000	.858	.000	.000	.858	.000	.913	.000	.913	.955

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City of Marina
N/S: Mbest Drive
E/W: Reservation Road
Weather: Clear

File Name : 04_MNA_Mbest_Reservation PM
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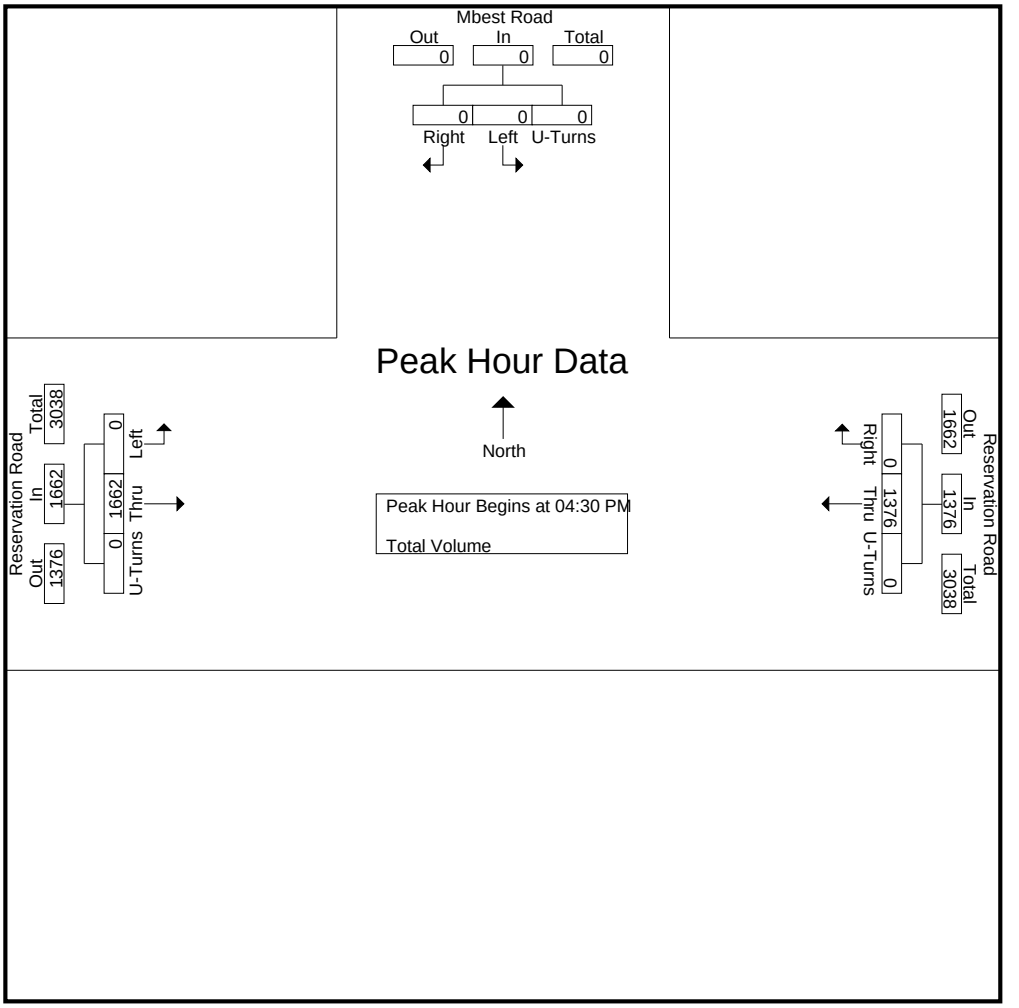

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:45 PM				04:15 PM			
+0 mins.	0	0	0	0	377	0	0	377	0	419	0	419
+15 mins.	0	0	0	0	312	0	0	312	0	**455**	0	**455**
+30 mins.	0	0	0	0	**401**	0	0	**401**	0	375	0	375
+45 mins.	0	0	0	0	356	0	0	356	0	438	0	438
Total Volume	0	0	0	0	1446	0	0	1446	0	1687	0	1687
% App. Total	0	0	0		100	0	0		0	100	0	
PHF	.000	.000	.000	.000	.901	.000	.000	.901	.000	.927	.000	.927

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City of Marina
N/S: Blanco Road
E/W: Research Drive
Weather: Clear

File Name : 05_MNA_Blanco_Research AM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 1

Groups Printed- Total Volume

	Blanco Road Southbound				Blanco Road Northbound				Research Drive Eastbound				
Start Time	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Left	Right	U-Turns	App. Total	Int. Total
07:00 AM	308	0	0	308	0	146	0	146	0	0	0	0	454
07:15 AM	307	0	0	307	0	255	0	255	0	0	0	0	562
07:30 AM	279	0	0	279	0	332	0	332	0	0	0	0	611
07:45 AM	277	0	0	277	0	307	0	307	0	0	0	0	584
Total	1171	0	0	1171	0	1040	0	1040	0	0	0	0	2211
08:00 AM	275	0	0	275	0	250	0	250	0	0	0	0	525
08:15 AM	256	0	0	256	0	265	0	265	0	0	0	0	521
08:30 AM	296	0	0	296	0	182	0	182	0	0	0	0	478
08:45 AM	189	0	0	189	0	155	0	155	0	0	0	0	344
Total	1016	0	0	1016	0	852	0	852	0	0	0	0	1868
Grand Total	2187	0	0	2187	0	1892	0	1892	0	0	0	0	4079
Apprch %	100	0	0		0	100	0		0	0	0		
Total %	53.6	0	0	53.6	0	46.4	0	46.4	0	0	0	0	

	Blanco Road Southbound				Blanco Road Northbound				Research Drive Eastbound				
Start Time	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Left	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	**307**	0	0	**307**	0	255	0	255	0	0	0	0	562
07:30 AM	279	0	0	279	0	**332**	0	**332**	0	0	0	0	**611**
07:45 AM	277	0	0	277	0	307	0	307	0	0	0	0	584
08:00 AM	275	0	0	275	0	250	0	250	0	0	0	0	525
Total Volume	1138	0	0	1138	0	1144	0	1144	0	0	0	0	2282
% App. Total	100	0	0		0	100	0		0	0	0		
PHF	.927	.000	.000	.927	.000	.861	.000	.861	.000	.000	.000	.000	.934

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City of Marina
N/S: Blanco Road
E/W: Research Drive
Weather: Clear

File Name : 05_MNA_Blanco_Research AM
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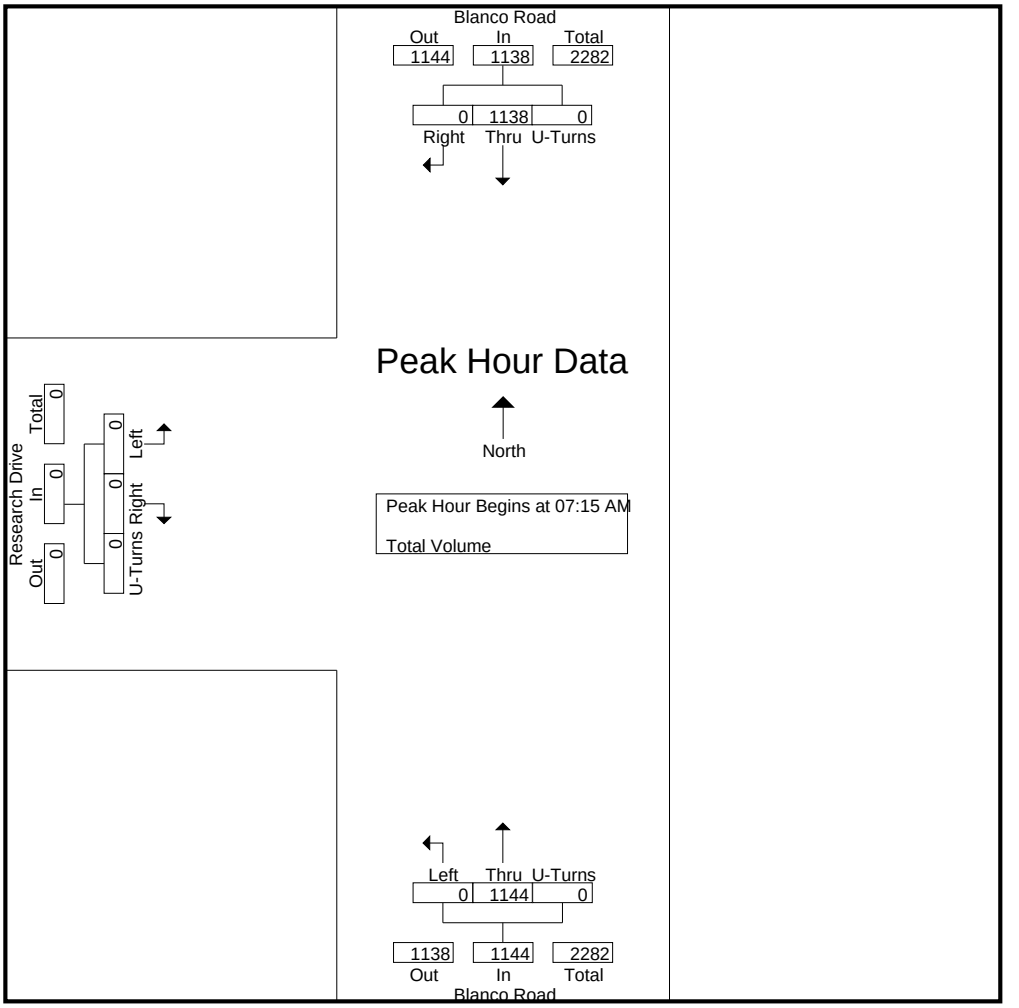

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:30 AM				07:00 AM			
+0 mins.	**308**	0	0	**308**	0	**332**	0	**332**	0	0	0	0
+15 mins.	307	0	0	307	0	307	0	307	0	0	0	0
+30 mins.	279	0	0	279	0	250	0	250	0	0	0	0
+45 mins.	277	0	0	277	0	265	0	265	0	0	0	0
Total Volume	1171	0	0	1171	0	1154	0	1154	0	0	0	0
% App. Total	100	0	0		0	100	0		0	0	0	
PHF	.950	.000	.000	.950	.000	.869	.000	.869	.000	.000	.000	.000

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City of Marina
N/S: Blanco Road
E/W: Research Drive
Weather: Clear

File Name : 05_MNA_Blanco_Research PM
Site Code : 00319524
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Groups Printed- Total Volume

	Blanco Road Southbound				Blanco Road Northbound				Research Drive Eastbound				
Start Time	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Left	Right	U-Turns	App. Total	Int. Total
04:00 PM	227	0	0	227	0	271	1	272	0	0	0	0	499
04:15 PM	226	0	0	226	0	303	0	303	0	0	0	0	529
04:30 PM	235	0	0	235	0	327	0	327	0	0	0	0	562
04:45 PM	290	0	0	290	0	277	0	277	0	0	0	0	567
Total	978	0	0	978	0	1178	1	1179	0	0	0	0	2157
05:00 PM	236	0	0	236	0	297	0	297	0	0	0	0	533
05:15 PM	296	0	0	296	0	291	0	291	0	0	0	0	587
05:30 PM	281	0	0	281	0	287	0	287	0	0	0	0	568
05:45 PM	233	0	0	233	0	246	0	246	0	0	0	0	479
Total	1046	0	0	1046	0	1121	0	1121	0	0	0	0	2167
Grand Total	2024	0	0	2024	0	2299	1	2300	0	0	0	0	4324
Apprch %	100	0	0		0	100	0		0	0	0		
Total %	46.8	0	0	46.8	0	53.2	0	53.2	0	0	0	0	

	Blanco Road Southbound				Blanco Road Northbound				Research Drive Eastbound				
Start Time	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Left	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	290	0	0	290	0	277	0	277	0	0	0	0	567
05:00 PM	236	0	0	236	0	**297**	0	**297**	0	0	0	0	533
05:15 PM	**296**	0	0	**296**	0	291	0	291	0	0	0	0	**587**
05:30 PM	281	0	0	281	0	287	0	287	0	0	0	0	568
Total Volume	1103	0	0	1103	0	1152	0	1152	0	0	0	0	2255
% App. Total	100	0	0		0	100	0		0	0	0		
PHF	.932	.000	.000	.932	.000	.970	.000	.970	.000	.000	.000	.000	.960

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City of Marina
N/S: Blanco Road
E/W: Research Drive
Weather: Clear

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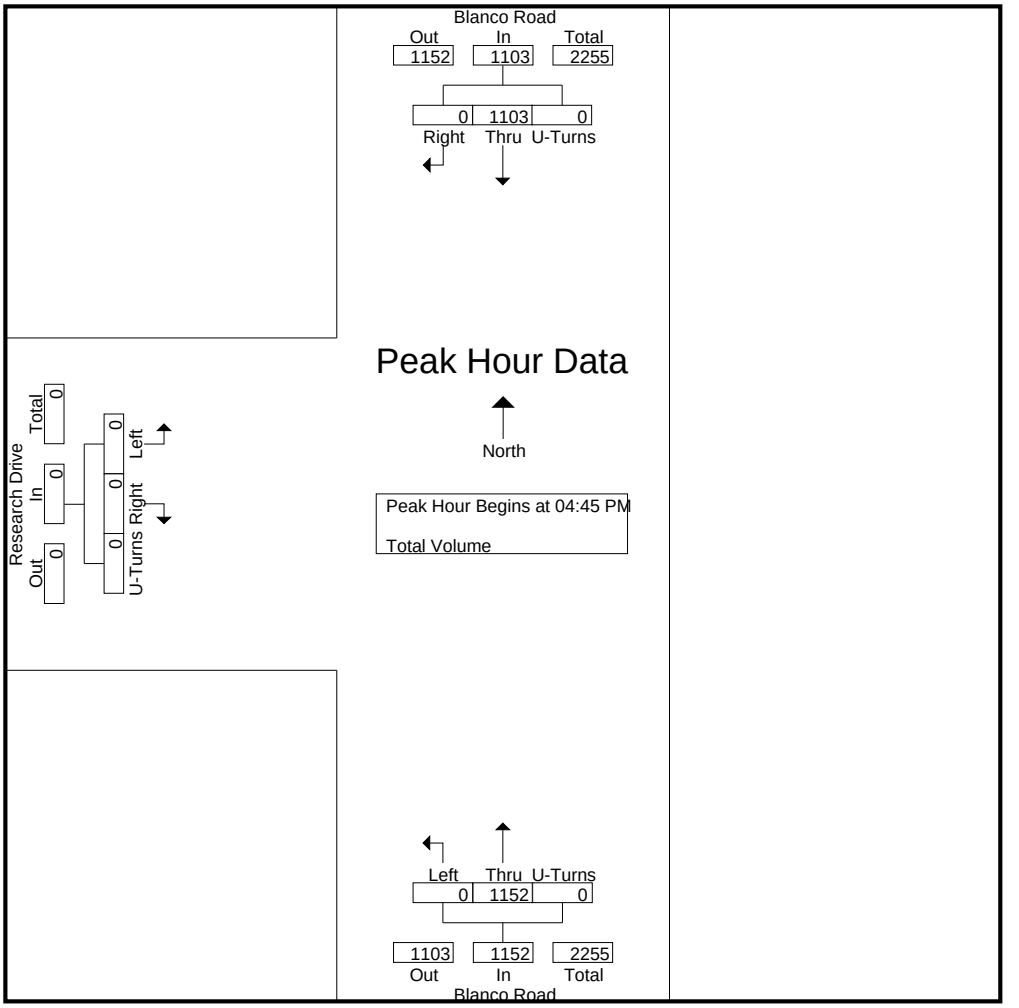

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:15 PM				04:00 PM			
+0 mins.	290	0	0	290	0	303	0	303	0	0	0	0
+15 mins.	236	0	0	236	0	**327**	0	**327**	0	0	0	0
+30 mins.	**296**	0	0	**296**	0	277	0	277	0	0	0	0
+45 mins.	281	0	0	281	0	297	0	297	0	0	0	0
Total Volume	1103	0	0	1103	0	1204	0	1204	0	0	0	0
% App. Total	100	0	0		0	100	0		0	0	0	
PHF	.932	.000	.000	.932	.000	.920	.000	.920	.000	.000	.000	.000

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City of Marina
N/S: Blanco Road
E/W: Reservation Road
Weather: Clear

File Name : 06_MNA_Blanco_Reservation AM
Site Code : 00319524
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Blanco Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
07:00 AM	4	304	0	308	79	8	0	87	145	54	0	199	594
07:15 AM	6	305	0	311	109	12	0	121	236	48	0	284	716
07:30 AM	8	263	0	271	111	5	0	116	336	66	0	402	789
07:45 AM	18	256	0	274	87	6	0	93	300	80	0	380	747
Total	36	1128	0	1164	386	31	0	417	1017	248	0	1265	2846
08:00 AM	9	264	0	273	62	11	0	73	243	49	0	292	638
08:15 AM	13	236	0	249	74	9	0	83	254	43	0	297	629
08:30 AM	15	297	0	312	68	6	0	74	168	47	0	215	601
08:45 AM	10	181	0	191	68	5	0	73	143	37	0	180	444
Total	47	978	0	1025	272	31	0	303	808	176	0	984	2312
Grand Total	83	2106	0	2189	658	62	0	720	1825	424	0	2249	5158
Apprch %	3.8	96.2	0		91.4	8.6	0		81.1	18.9	0		
Total %	1.6	40.8	0	42.4	12.8	1.2	0	14	35.4	8.2	0	43.6	
Passenger Vehicles	72	2027	0	2099	626	58	0	684	1784	398	0	2182	4965
% Passenger Vehicles	86.7	96.2	0	95.9	95.1	93.5	0	95	97.8	93.9	0	97	96.3
Large 2 Axle Vehicles	8	59	0	67	23	3	0	26	31	22	0	53	146
% Large 2 Axle Vehicles	9.6	2.8	0	3.1	3.5	4.8	0	3.6	1.7	5.2	0	2.4	2.8
3 Axle Vehicles	0	10	0	10	5	1	0	6	7	4	0	11	27
% 3 Axle Vehicles	0	0.5	0	0.5	0.8	1.6	0	0.8	0.4	0.9	0	0.5	0.5
4+ Axle Trucks	3	10	0	13	4	0	0	4	3	0	0	3	20
% 4+ Axle Trucks	3.6	0.5	0	0.6	0.6	0	0	0.6	0.2	0	0	0.1	0.4

	Blanco Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	6	**305**	0	**311**	109	**12**	0	**121**	236	48	0	284	716
07:30 AM	8	263	0	271	**111**	5	0	116	**336**	66	0	**402**	**789**
07:45 AM	**18**	256	0	274	87	6	0	93	300	**80**	0	380	747
08:00 AM	9	264	0	273	62	11	0	73	243	49	0	292	638
Total Volume	41	1088	0	1129	369	34	0	403	1115	243	0	1358	2890
% App. Total	3.6	96.4	0		91.6	8.4	0		82.1	17.9	0		
PHF	.569	.892	.000	.908	.831	.708	.000	.833	.830	.759	.000	.845	.916

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City of Marina
N/S: Blanco Road
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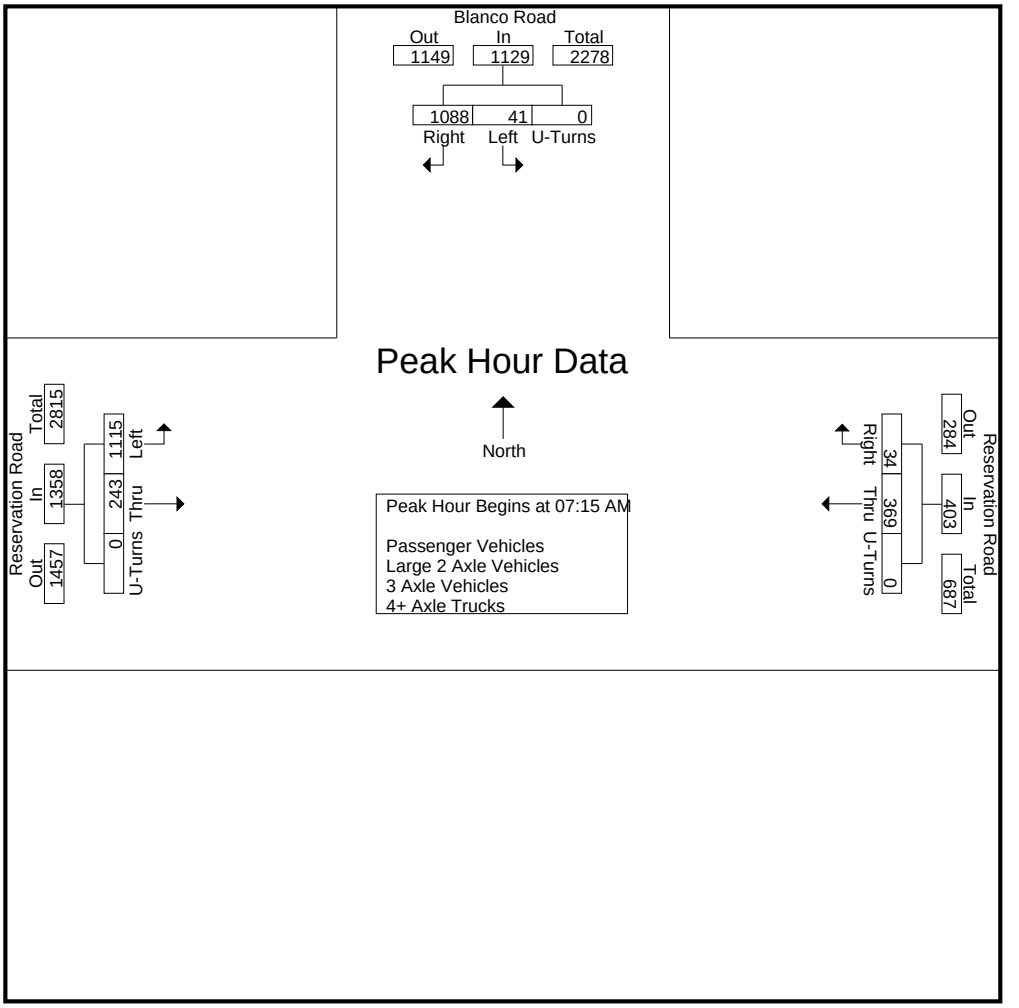

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:30 AM			
+0 mins.	4	304	0	308	79	8	0	87	**336**	66	0	**402**
+15 mins.	6	**305**	0	**311**	109	**12**	0	**121**	300	**80**	0	380
+30 mins.	8	263	0	271	**111**	5	0	116	243	49	0	292
+45 mins.	**18**	256	0	274	87	6	0	93	254	43	0	297
Total Volume	36	1128	0	1164	386	31	0	417	1133	238	0	1371
% App. Total	3.1	96.9	0		92.6	7.4	0		82.6	17.4	0	
PHF	.500	.925	.000	.936	.869	.646	.000	.862	.843	.744	.000	.853

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City of Marina
N/S: Blanco Road
E/W: Reservation Road
Weather: Clear

File Name : 06_MNA_Blanco_Reservation AM
Site Code : 00319524
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Groups Printed- Passenger Vehicles

	Blanco Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
07:00 AM	4	293	0	297	74	8	0	82	141	50	0	191	570
07:15 AM	6	289	0	295	100	12	0	112	229	42	0	271	678
07:30 AM	7	255	0	262	108	4	0	112	332	64	0	396	770
07:45 AM	17	243	0	260	87	6	0	93	295	73	0	368	721
Total	34	1080	0	1114	369	30	0	399	997	229	0	1226	2739
08:00 AM	8	257	0	265	58	11	0	69	236	47	0	283	617
08:15 AM	9	225	0	234	68	8	0	76	248	41	0	289	599
08:30 AM	14	290	0	304	65	5	0	70	166	46	0	212	586
08:45 AM	7	175	0	182	66	4	0	70	137	35	0	172	424
Total	38	947	0	985	257	28	0	285	787	169	0	956	2226
Grand Total	72	2027	0	2099	626	58	0	684	1784	398	0	2182	4965
Apprch %	3.4	96.6	0		91.5	8.5	0		81.8	18.2	0		
Total %	1.5	40.8	0	42.3	12.6	1.2	0	13.8	35.9	8	0	43.9	

	Blanco Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	6	**289**	0	**295**	100	**12**	0	**112**	229	42	0	271	678
07:30 AM	7	255	0	262	**108**	4	0	112	**332**	64	0	**396**	**770**
07:45 AM	**17**	243	0	260	87	6	0	93	295	**73**	0	368	721
08:00 AM	8	257	0	265	58	11	0	69	236	47	0	283	617
Total Volume	38	1044	0	1082	353	33	0	386	1092	226	0	1318	2786
% App. Total	3.5	96.5	0		91.5	8.5	0		82.9	17.1	0		
PHF	.559	.903	.000	.917	.817	.688	.000	.862	.822	.774	.000	.832	.905

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City of Marina
N/S: Blanco Road
E/W: Reservation Road
Weather: Clear

File Name : 06_MNA_Blanco_Reservation AM
Site Code : 00319524
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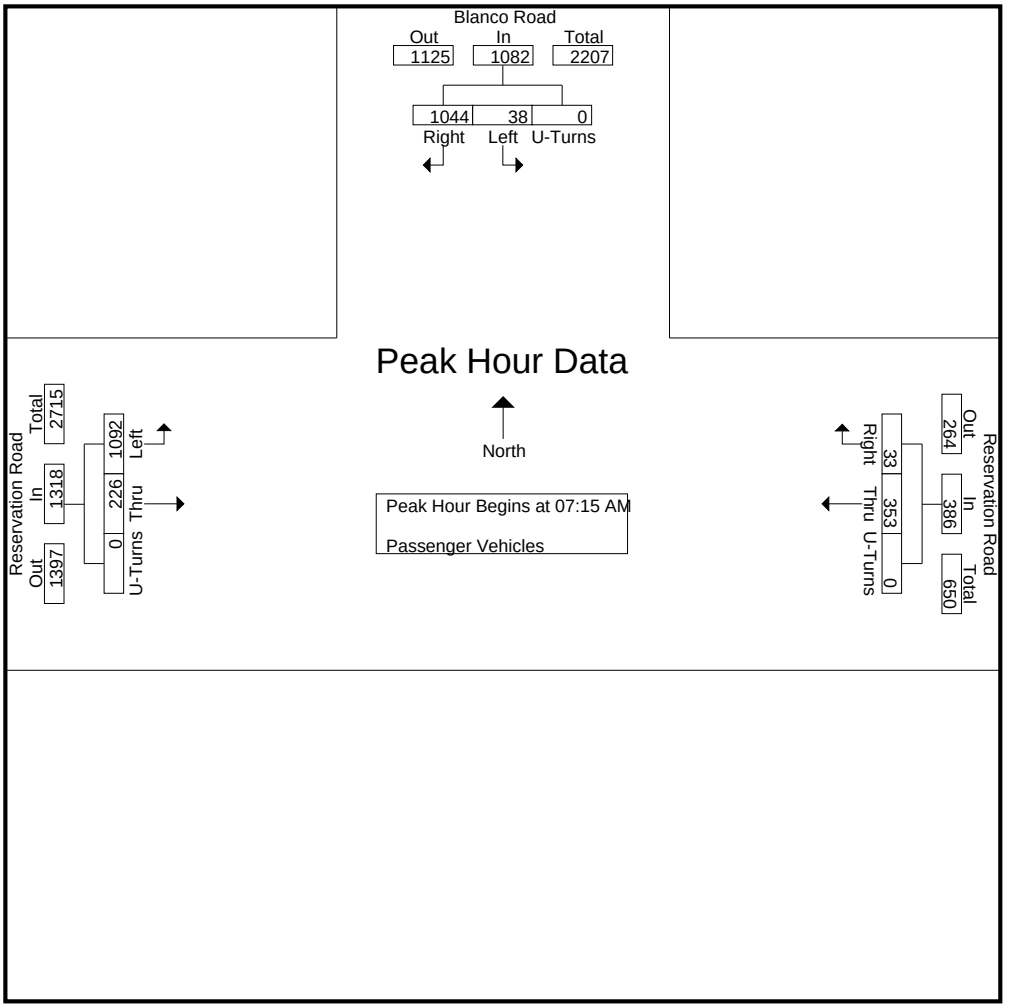

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM			
+0 mins.	6	**289**	0	**295**	100	**12**	0	**112**	229	42	0	271
+15 mins.	7	255	0	262	**108**	4	0	112	**332**	64	0	**396**
+30 mins.	**17**	243	0	260	87	6	0	93	295	**73**	0	368
+45 mins.	8	257	0	265	58	11	0	69	236	47	0	283
Total Volume	38	1044	0	1082	353	33	0	386	1092	226	0	1318
% App. Total	3.5	96.5	0		91.5	8.5	0		82.9	17.1	0	
PHF	.559	.903	.000	.917	.817	.688	.000	.862	.822	.774	.000	.832

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City of Marina
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Site Code : 00319524
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Groups Printed- Large 2 Axle Vehicles

	Blanco Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
07:00 AM	0	6	0	6	3	0	0	3	2	3	0	5	14
07:15 AM	0	12	0	12	6	0	0	6	6	6	0	12	30
07:30 AM	0	6	0	6	3	1	0	4	4	2	0	6	16
07:45 AM	1	12	0	13	0	0	0	0	4	6	0	10	23
Total	1	36	0	37	12	1	0	13	16	17	0	33	83
08:00 AM	1	5	0	6	2	0	0	2	5	1	0	6	14
08:15 AM	2	7	0	9	4	1	0	5	5	2	0	7	21
08:30 AM	1	7	0	8	3	0	0	3	2	0	0	2	13
08:45 AM	3	4	0	7	2	1	0	3	3	2	0	5	15
Total	7	23	0	30	11	2	0	13	15	5	0	20	63
Grand Total	8	59	0	67	23	3	0	26	31	22	0	53	146
Apprch %	11.9	88.1	0		88.5	11.5	0		58.5	41.5	0		
Total %	5.5	40.4	0	45.9	15.8	2.1	0	17.8	21.2	15.1	0	36.3	

	Blanco Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	0	**12**	0	12	**6**	0	0	**6**	**6**	**6**	0	**12**	**30**
07:30 AM	0	6	0	6	3	**1**	0	4	4	2	0	6	16
07:45 AM	**1**	12	0	**13**	0	0	0	0	4	6	0	10	23
08:00 AM	1	5	0	6	2	0	0	2	5	1	0	6	14
Total Volume	2	35	0	37	11	1	0	12	19	15	0	34	83
% App. Total	5.4	94.6	0		91.7	8.3	0		55.9	44.1	0		
PHF	.500	.729	.000	.712	.458	.250	.000	.500	.792	.625	.000	.708	.692

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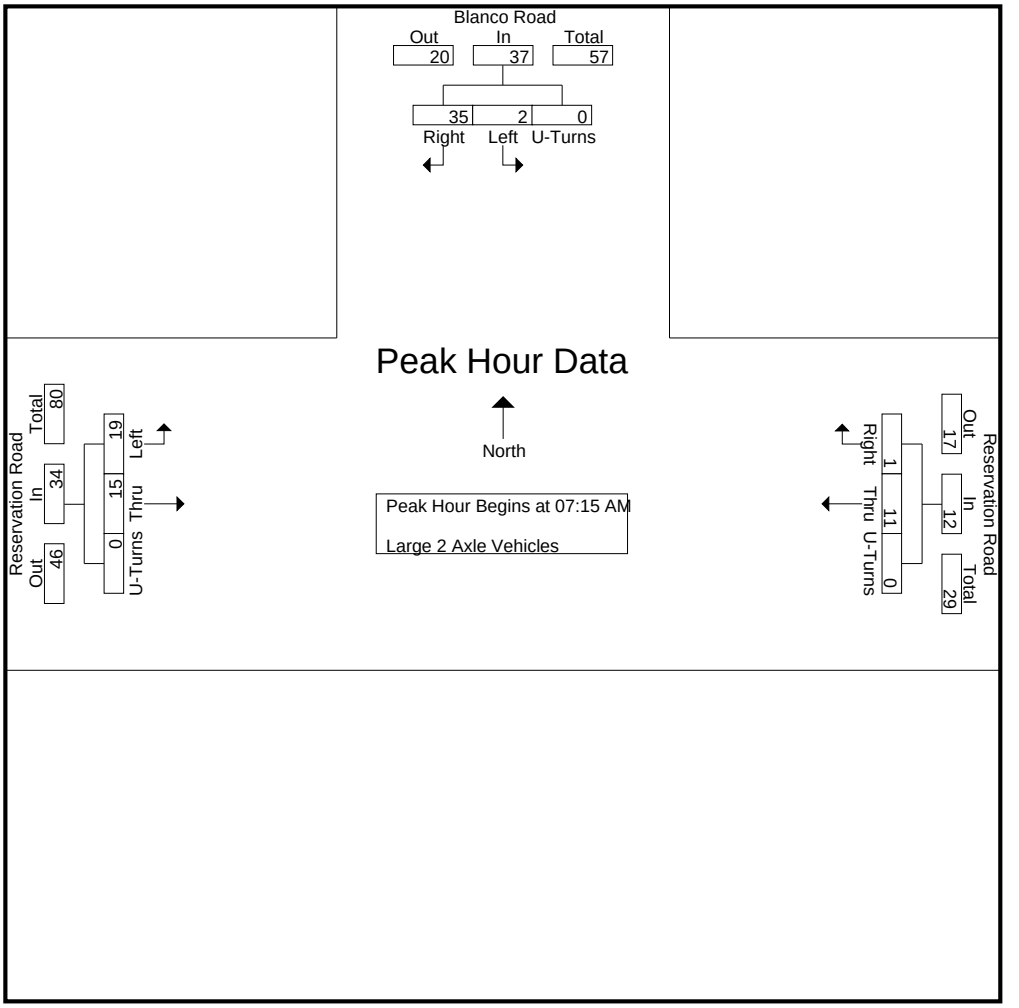

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	**12**	0	12	**6**	0	0	**6**	**6**	**6**	0	**12**
+15 mins.	0	6	0	6	3	**1**	0	4	4	2	0	6
+30 mins.	**1**	12	0	**13**	0	0	0	0	4	6	0	10
+45 mins.	1	5	0	6	2	0	0	2	5	1	0	6
Total Volume	2	35	0	37	11	1	0	12	19	15	0	34
% App. Total	5.4	94.6	0		91.7	8.3	0		55.9	44.1	0	
PHF	.500	.729	.000	.712	.458	.250	.000	.500	.792	.625	.000	.708

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Weather: Clear

File Name : 06_MNA_Blanco_Reservation AM
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Groups Printed- 3 Axle Vehicles

	Blanco Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
07:00 AM	0	2	0	2	1	0	0	1	2	1	0	3	6
07:15 AM	0	1	0	1	2	0	0	2	1	0	0	1	4
07:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
07:45 AM	0	1	0	1	0	0	0	0	1	1	0	2	3
Total	0	5	0	5	3	0	0	3	4	2	0	6	14
08:00 AM	0	2	0	2	2	0	0	2	1	1	0	2	6
08:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	1	0	1	0	1	0	1	2
08:45 AM	0	2	0	2	0	0	0	0	2	0	0	2	4
Total	0	5	0	5	2	1	0	3	3	2	0	5	13
Grand Total	0	10	0	10	5	1	0	6	7	4	0	11	27
Apprch %	0	100	0		83.3	16.7	0		63.6	36.4	0		
Total %	0	37	0	37	18.5	3.7	0	22.2	25.9	14.8	0	40.7	

	Blanco Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	0	1	0	1	**2**	0	0	**2**	**1**	0	0	1	4
07:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
07:45 AM	0	1	0	1	0	0	0	0	1	**1**	0	**2**	3
08:00 AM	0	**2**	0	**2**	2	0	0	2	1	1	0	2	**6**
Total Volume	0	5	0	5	4	0	0	4	3	2	0	5	14
% App. Total	0	100	0		100	0	0		60	40	0		
PHF	.000	.625	.000	.625	.500	.000	.000	.500	.750	.500	.000	.625	.583

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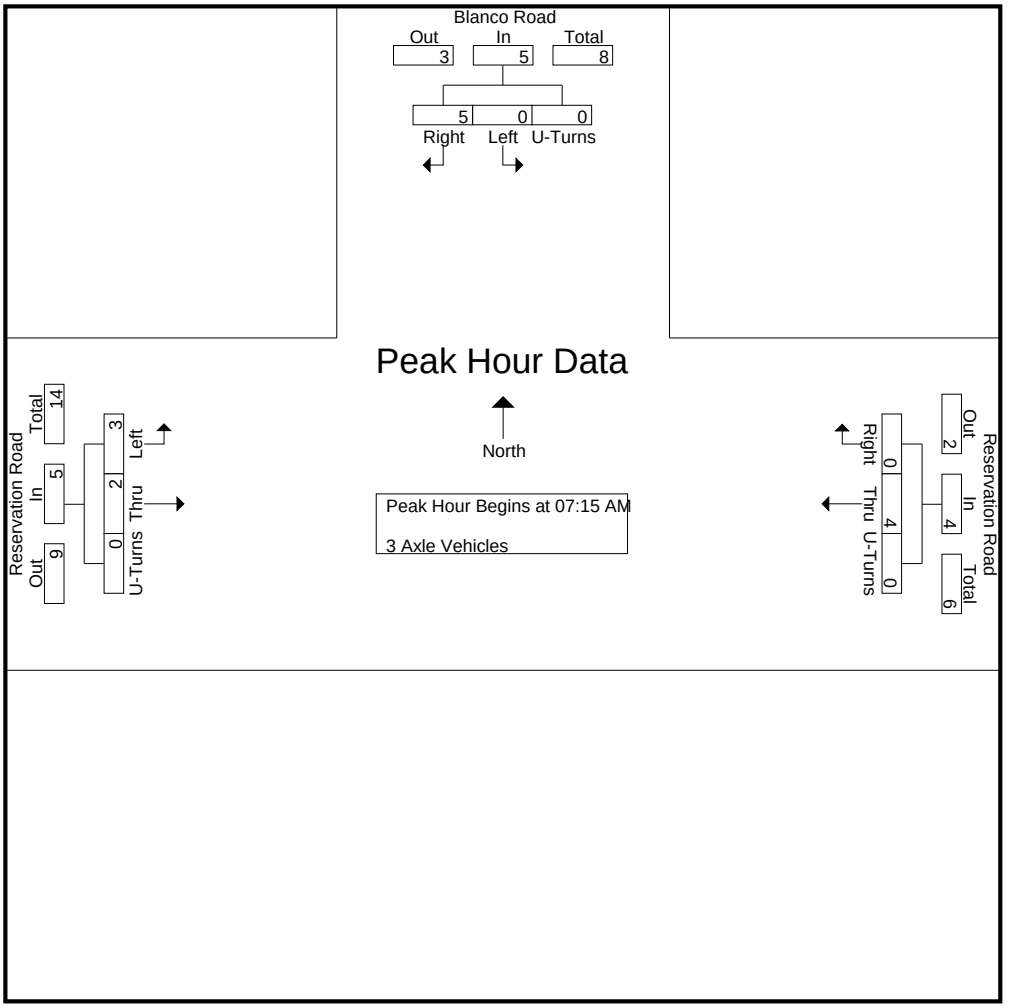

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	1	0	1	**2**	0	0	**2**	**1**	0	0	1
+15 mins.	0	1	0	1	0	0	0	0	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	1	**1**	0	**2**
+45 mins.	0	**2**	0	**2**	2	0	0	2	1	1	0	2
Total Volume	0	5	0	5	4	0	0	4	3	2	0	5
% App. Total	0	100	0		100	0	0		60	40	0	
PHF	.000	.625	.000	.625	.500	.000	.000	.500	.750	.500	.000	.625

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Groups Printed- 4+ Axle Trucks

	Blanco Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
07:00 AM	0	3	0	3	1	0	0	1	0	0	0	0	4
07:15 AM	0	3	0	3	1	0	0	1	0	0	0	0	4
07:30 AM	1	1	0	2	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	7	0	8	2	0	0	2	0	0	0	0	10
08:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
08:15 AM	2	3	0	5	2	0	0	2	1	0	0	1	8
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	2	3	0	5	2	0	0	2	3	0	0	3	10
Grand Total	3	10	0	13	4	0	0	4	3	0	0	3	20
Apprch %	23.1	76.9	0		100	0	0		100	0	0		
Total %	15	50	0	65	20	0	0	20	15	0	0	15	

	Blanco Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	0	**3**	0	**3**	**1**	0	0	**1**	0	0	0	0	**4**
07:30 AM	**1**	1	0	2	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	**1**	0	0	**1**	1
Total Volume	1	4	0	5	1	0	0	1	1	0	0	1	7
% App. Total	20	80	0		100	0	0		100	0	0		
PHF	.250	.333	.000	.417	.250	.000	.000	.250	.250	.000	.000	.250	.438

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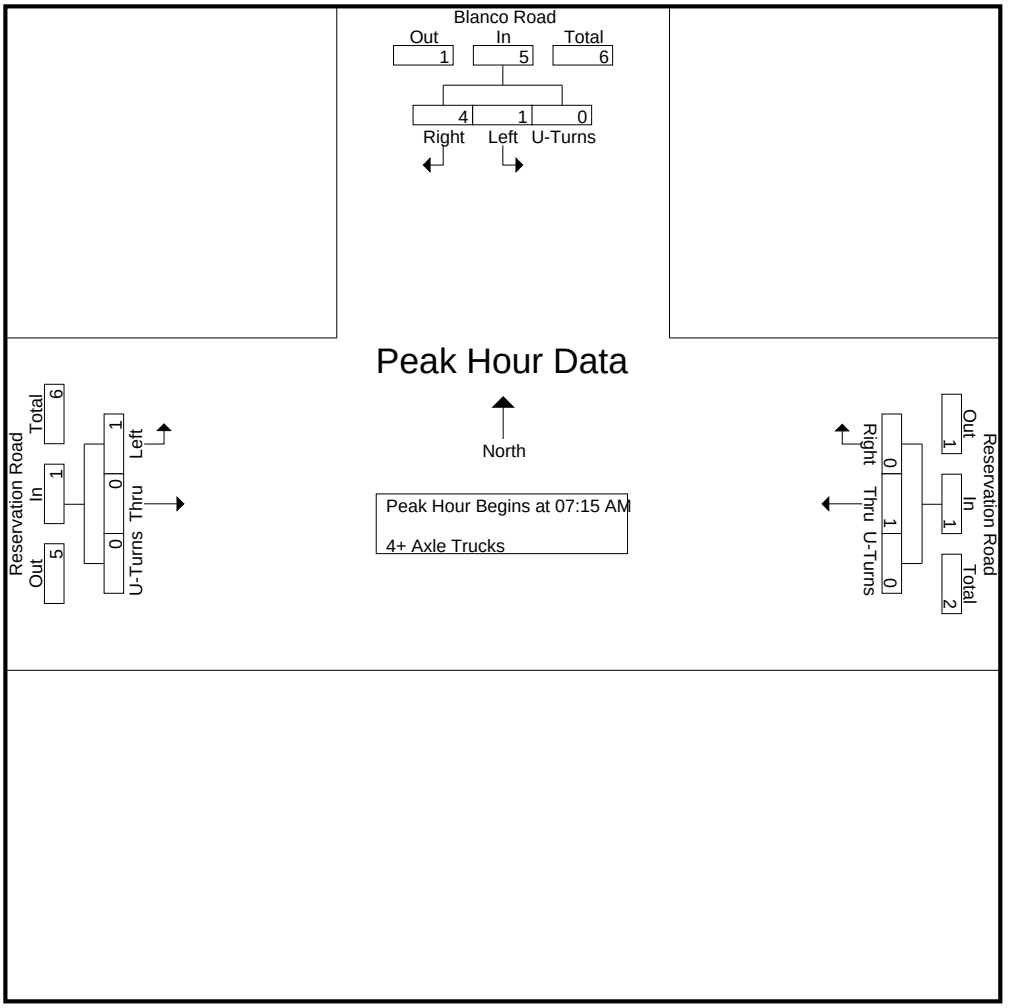

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	**3**	0	**3**	**1**	0	0	**1**	0	0	0	0
+15 mins.	**1**	1	0	2	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	**1**	0	0	**1**
Total Volume	1	4	0	5	1	0	0	1	1	0	0	1
% App. Total	20	80	0		100	0	0		100	0	0	
PHF	.250	.333	.000	.417	.250	.000	.000	.250	.250	.000	.000	.250

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City of Marina
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Weather: Clear

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Site Code : 00319524
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Blanco Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
04:00 PM	6	222	0	228	59	12	0	71	284	100	0	384	683
04:15 PM	5	243	0	248	56	11	0	67	297	120	0	417	732
04:30 PM	12	228	0	240	73	8	0	81	333	129	0	462	783
04:45 PM	8	282	0	290	98	14	0	112	266	114	0	380	782
Total	31	975	0	1006	286	45	0	331	1180	463	0	1643	2980
05:00 PM	3	240	0	243	109	12	0	121	288	143	0	431	795
05:15 PM	11	246	0	257	119	15	0	134	269	117	0	386	777
05:30 PM	17	259	0	276	69	18	0	87	276	106	0	382	745
05:45 PM	14	222	0	236	88	13	0	101	234	105	0	339	676
Total	45	967	0	1012	385	58	0	443	1067	471	0	1538	2993
Grand Total	76	1942	0	2018	671	103	0	774	2247	934	0	3181	5973
Apprch %	3.8	96.2	0		86.7	13.3	0		70.6	29.4	0		
Total %	1.3	32.5	0	33.8	11.2	1.7	0	13	37.6	15.6	0	53.3	
Passenger Vehicles	69	1913	0	1982	654	96	0	750	2208	919	0	3127	5859
% Passenger Vehicles	90.8	98.5	0	98.2	97.5	93.2	0	96.9	98.3	98.4	0	98.3	98.1
Large 2 Axle Vehicles	6	25	0	31	14	5	0	19	34	14	0	48	98
% Large 2 Axle Vehicles	7.9	1.3	0	1.5	2.1	4.9	0	2.5	1.5	1.5	0	1.5	1.6
3 Axle Vehicles	0	3	0	3	2	0	0	2	3	0	0	3	8
% 3 Axle Vehicles	0	0.2	0	0.1	0.3	0	0	0.3	0.1	0	0	0.1	0.1
4+ Axle Trucks	1	1	0	2	1	2	0	3	2	1	0	3	8
% 4+ Axle Trucks	1.3	0.1	0	0.1	0.1	1.9	0	0.4	0.1	0.1	0	0.1	0.1

	Blanco Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	**12**	228	0	240	73	8	0	81	**333**	129	0	**462**	783
04:45 PM	8	**282**	0	**290**	98	14	0	112	266	114	0	380	782
05:00 PM	3	240	0	243	109	12	0	121	288	**143**	0	431	**795**
05:15 PM	11	246	0	257	**119**	**15**	0	**134**	269	117	0	386	777
Total Volume	34	996	0	1030	399	49	0	448	1156	503	0	1659	3137
% App. Total	3.3	96.7	0		89.1	10.9	0		69.7	30.3	0		
PHF	.708	.883	.000	.888	.838	.817	.000	.836	.868	.879	.000	.898	.986

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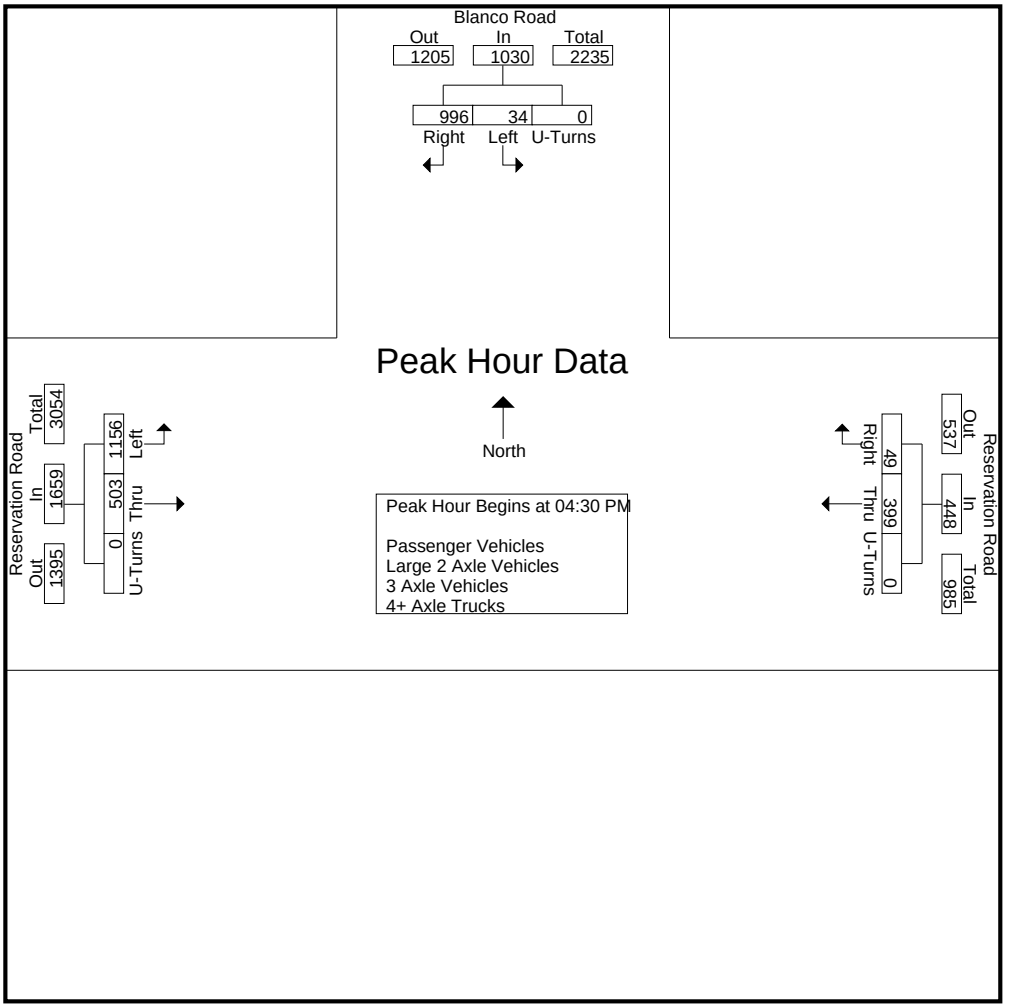

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:15 PM			
+0 mins.	8	**282**	0	**290**	98	14	0	112	297	120	0	417
+15 mins.	3	240	0	243	109	12	0	121	**333**	129	0	**462**
+30 mins.	11	246	0	257	**119**	15	0	**134**	266	114	0	380
+45 mins.	**17**	259	0	276	69	**18**	0	87	288	**143**	0	431
Total Volume	39	1027	0	1066	395	59	0	454	1184	506	0	1690
% App. Total	3.7	96.3	0		87	13	0		70.1	29.9	0	
PHF	.574	.910	.000	.919	.830	.819	.000	.847	.889	.885	.000	.915

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Groups Printed- Passenger Vehicles

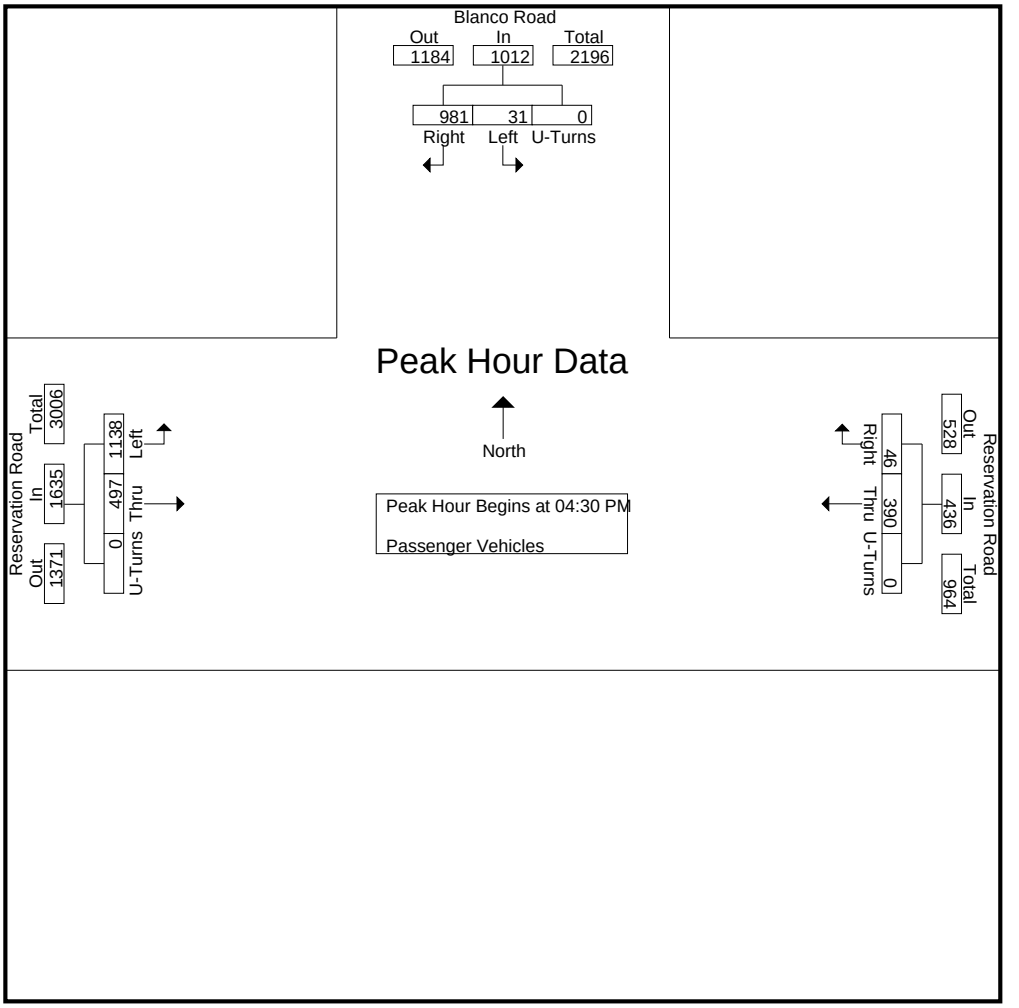
	Blanco Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
04:00 PM	5	218	0	223	57	12	0	69	272	97	0	369	661
04:15 PM	5	236	0	241	52	10	0	62	293	117	0	410	713
04:30 PM	12	223	0	235	72	7	0	79	328	127	0	455	769
04:45 PM	7	275	0	282	95	13	0	108	260	112	0	372	762
Total	29	952	0	981	276	42	0	318	1153	453	0	1606	2905
05:00 PM	3	239	0	242	107	12	0	119	286	141	0	427	788
05:15 PM	9	244	0	253	116	14	0	130	264	117	0	381	764
05:30 PM	16	258	0	274	69	16	0	85	272	106	0	378	737
05:45 PM	12	220	0	232	86	12	0	98	233	102	0	335	665
Total	40	961	0	1001	378	54	0	432	1055	466	0	1521	2954
Grand Total	69	1913	0	1982	654	96	0	750	2208	919	0	3127	5859
Apprch %	3.5	96.5	0		87.2	12.8	0		70.6	29.4	0		
Total %	1.2	32.7	0	33.8	11.2	1.6	0	12.8	37.7	15.7	0	53.4	

	Blanco Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	**12**	223	0	235	72	7	0	79	**328**	127	0	**455**	769
04:45 PM	7	**275**	0	**282**	95	13	0	108	260	112	0	372	762
05:00 PM	3	239	0	242	107	12	0	119	286	**141**	0	427	**788**
05:15 PM	9	244	0	253	**116**	**14**	0	**130**	264	117	0	381	764
Total Volume	31	981	0	1012	390	46	0	436	1138	497	0	1635	3083
% App. Total	3.1	96.9	0		89.4	10.6	0		69.6	30.4	0		
PHF	.646	.892	.000	.897	.841	.821	.000	.838	.867	.881	.000	.898	.978

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Marina
N/S: Blanco Road
E/W: Reservation Road
Weather: Clear

File Name : 06_MNA_Blanco_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM			
+0 mins.	**12**	223	0	235	72	7	0	79	**328**	127	0	**455**
+15 mins.	7	**275**	0	**282**	95	13	0	108	260	112	0	372
+30 mins.	3	239	0	242	107	12	0	119	286	**141**	0	427
+45 mins.	9	244	0	253	**116**	**14**	0	**130**	264	117	0	381
Total Volume	31	981	0	1012	390	46	0	436	1138	497	0	1635
% App. Total	3.1	96.9	0		89.4	10.6	0		69.6	30.4	0	
PHF	.646	.892	.000	.897	.841	.821	.000	.838	.867	.881	.000	.898

Counts Unlimited
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(951) 268-6268

City of Marina
N/S: Blanco Road
E/W: Reservation Road
Weather: Clear

File Name : 06_MNA_Blanco_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Blanco Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
04:00 PM	1	3	0	4	1	0	0	1	10	3	0	13	18
04:15 PM	0	7	0	7	3	0	0	3	4	3	0	7	17
04:30 PM	0	5	0	5	1	1	0	2	5	2	0	7	14
04:45 PM	1	7	0	8	3	0	0	3	6	2	0	8	19
Total	2	22	0	24	8	1	0	9	25	10	0	35	68
05:00 PM	0	1	0	1	1	0	0	1	1	2	0	3	5
05:15 PM	2	1	0	3	3	1	0	4	3	0	0	3	10
05:30 PM	0	1	0	1	0	2	0	2	4	0	0	4	7
05:45 PM	2	0	0	2	2	1	0	3	1	2	0	3	8
Total	4	3	0	7	6	4	0	10	9	4	0	13	30
Grand Total	6	25	0	31	14	5	0	19	34	14	0	48	98
Apprch %	19.4	80.6	0		73.7	26.3	0		70.8	29.2	0		
Total %	6.1	25.5	0	31.6	14.3	5.1	0	19.4	34.7	14.3	0	49	

	Blanco Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	0	5	0	5	1	**1**	0	2	5	**2**	0	7	14
04:45 PM	1	**7**	0	**8**	**3**	0	0	3	**6**	2	0	**8**	**19**
05:00 PM	0	1	0	1	1	0	0	1	1	2	0	3	5
05:15 PM	**2**	1	0	3	3	1	0	**4**	3	0	0	3	10
Total Volume	3	14	0	17	8	2	0	10	15	6	0	21	48
% App. Total	17.6	82.4	0		80	20	0		71.4	28.6	0		
PHF	.375	.500	.000	.531	.667	.500	.000	.625	.625	.750	.000	.656	.632

Counts Unlimited
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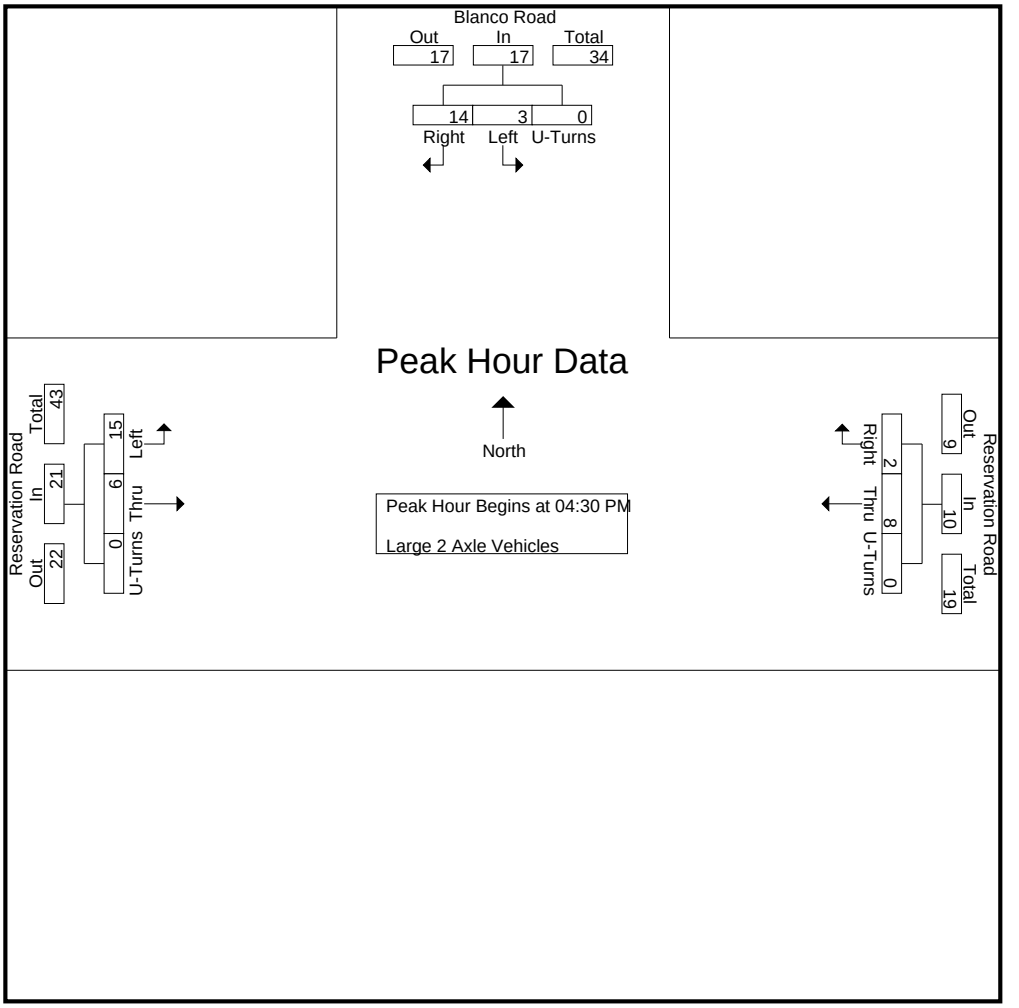
Corona, CA 92878
(951) 268-6268

City of Marina
N/S: Blanco Road
E/W: Reservation Road
Weather: Clear

File Name : 06_MNA_Blanco_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	5	0	5	1	**1**	0	2	5	**2**	0	7
+15 mins.	1	**7**	0	**8**	**3**	0	0	3	**6**	2	0	**8**
+30 mins.	0	1	0	1	1	0	0	1	1	2	0	3
+45 mins.	**2**	1	0	3	3	1	0	**4**	3	0	0	3
Total Volume	3	14	0	17	8	2	0	10	15	6	0	21
% App. Total	17.6	82.4	0		80	20	0		71.4	28.6	0	
PHF	.375	.500	.000	.531	.667	.500	.000	.625	.625	.750	.000	.656

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City of Marina
N/S: Blanco Road
E/W: Reservation Road
Weather: Clear

File Name : 06_MNA_Blanco_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Blanco Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
04:00 PM	0	1	0	1	1	0	0	1	1	0	0	1	3
04:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	2	0	0	2	1	0	0	1	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	2	0	0	2	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
Total	0	2	0	2	0	0	0	0	2	0	0	2	4
Grand Total	0	3	0	3	2	0	0	2	3	0	0	3	8
Apprch %	0	100	0		100	0	0		100	0	0		
Total %	0	37.5	0	37.5	25	0	0	25	37.5	0	0	37.5	

	Blanco Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	**2**	0	0	**2**	**2**
Total Volume	0	0	0	0	0	0	0	0	2	0	0	2	2
% App. Total	0	0	0		0	0	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.250

Counts Unlimited
PO Box 1178
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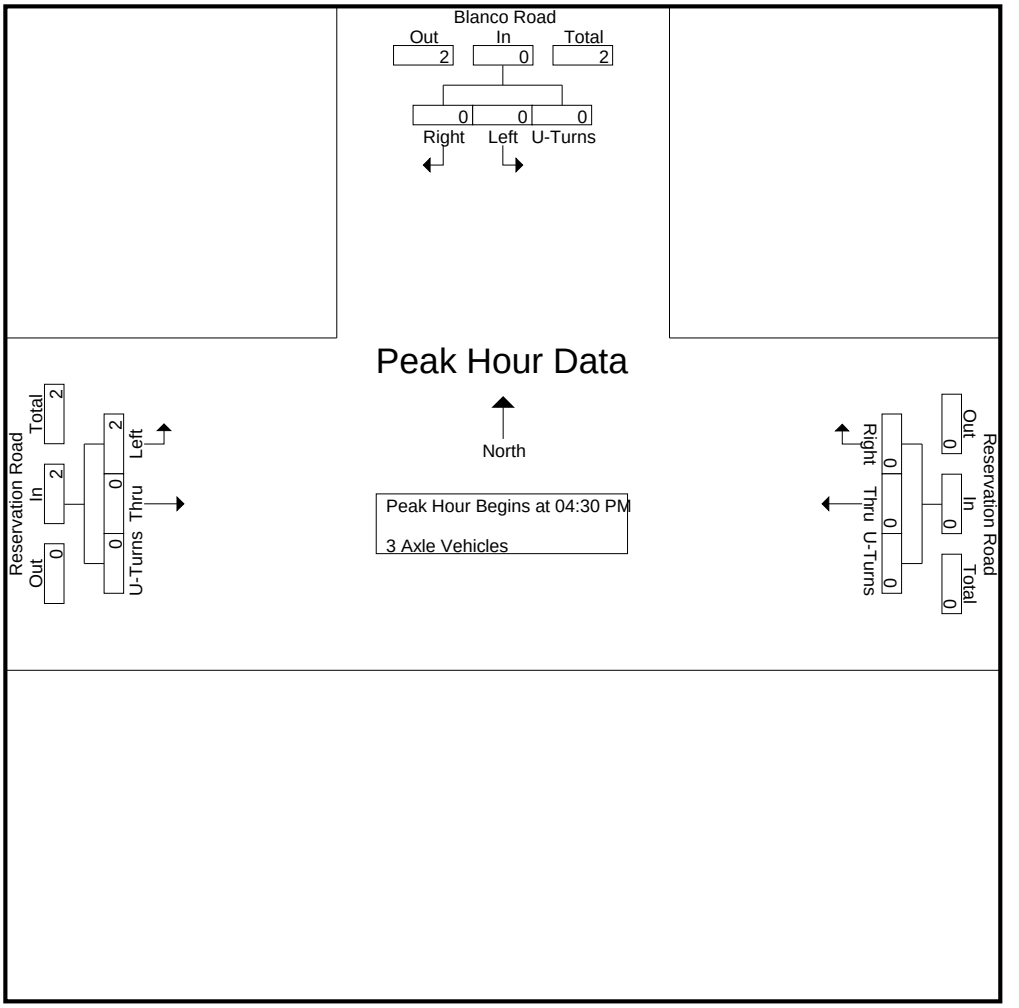
(951) 268-6268

City of Marina
N/S: Blanco Road
E/W: Reservation Road
Weather: Clear

File Name : 06_MNA_Blanco_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	**2**	0	0	**2**
Total Volume	0	0	0	0	0	0	0	0	2	0	0	2
% App. Total	0	0	0		0	0	0		100	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250

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City of Marina
N/S: Blanco Road
E/W: Reservation Road
Weather: Clear

File Name : 06_MNA_Blanco_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Blanco Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	2	0	2	1	0	0	1	3
05:00 PM	0	0	0	0	1	0	0	1	1	0	0	1	2
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
05:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	1	1	0	2	1	0	0	1	1	1	0	2	5
Grand Total	1	1	0	2	1	2	0	3	2	1	0	3	8
Apprch %	50	50	0		33.3	66.7	0		66.7	33.3	0		
Total %	12.5	12.5	0	25	12.5	25	0	37.5	25	12.5	0	37.5	

	Blanco Road Southbound				Reservation Road Westbound				Reservation Road Eastbound				
Start Time	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	1
05:00 PM	0	0	0	0	**1**	0	0	1	**1**	0	0	**1**	**2**
05:15 PM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	1	1	1	0	2	1	0	0	1	4
% App. Total	0	100	0		50	50	0		100	0	0		
PHF	.000	.250	.000	.250	.250	.250	.000	.500	.250	.000	.000	.250	.500

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(951) 268-6268

City of Marina
N/S: Blanco Road
E/W: Reservation Road
Weather: Clear

File Name : 06_MNA_Blanco_Reservation PM
Site Code : 00319524
Start Date : 8/13/2019
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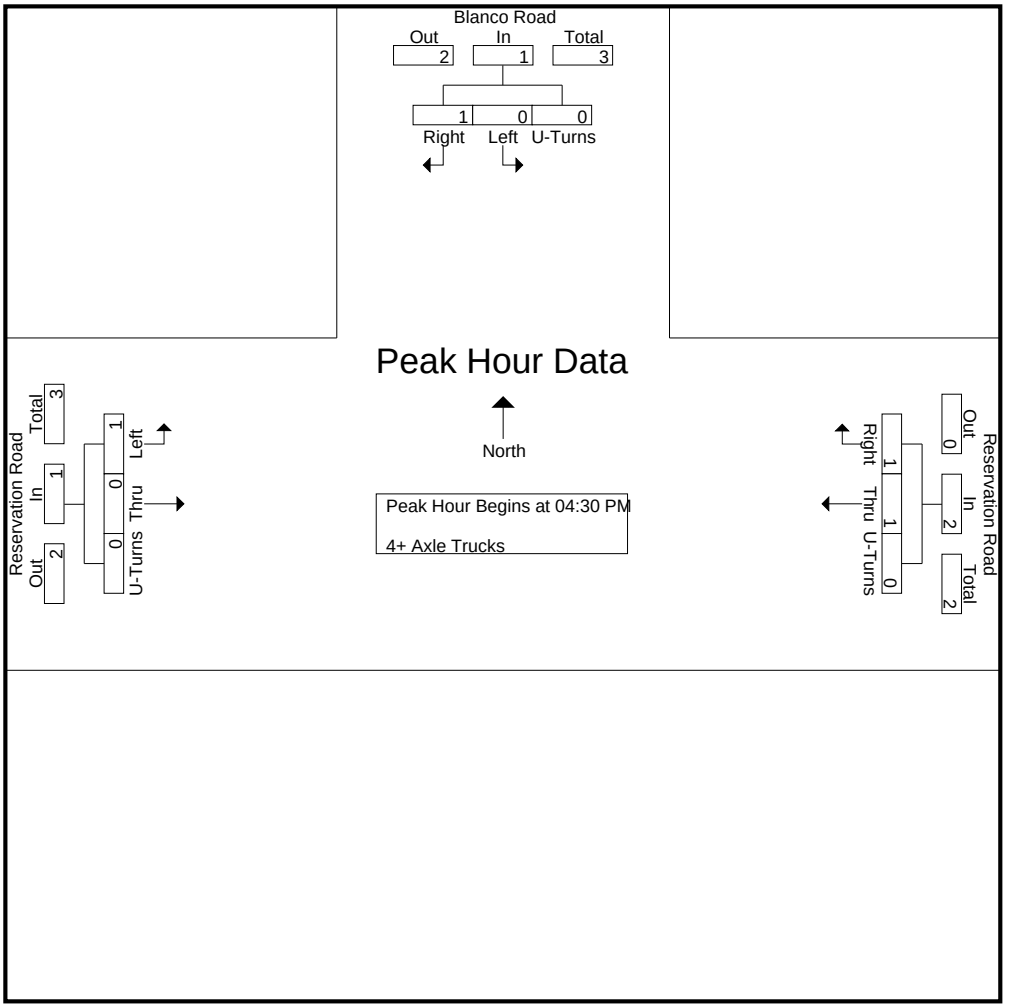

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	**1**	0	**1**	0	0	0	0
+30 mins.	0	0	0	0	**1**	0	0	1	**1**	0	0	**1**
+45 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	1	1	0	2	1	0	0	1
% App. Total	0	100	0		50	50	0		100	0	0	
PHF	.000	.250	.000	.250	.250	.250	.000	.500	.250	.000	.000	.250

Counts Unlimited, Inc

PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

City of Marina
Imjin Parkway
B/ University Drive - Reservation Road
24 Hour Directional Volume Count

MNA001
Site Code: 003-19524

Start	8/13/2019	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
Time	Tue	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	14			0	23				
12:15		0	11			0	22				
12:30		0	**19**			0	12				
12:45		1	**17**	1	61	0	9	0	66	1	127
01:00		1	**9**			1	14				
01:15		0	**20**			0	19				
01:30		0	12			1	15				
01:45		0	12	1	53	0	15	2	63	3	116
02:00		0	13			0	12				
02:15		0	5			0	15				
02:30		0	13			0	10				
02:45		0	14	0	45	0	16	0	53	0	98
03:00		0	8			0	12				
03:15		0	10			0	34				
03:30		0	14			0	19				
03:45		0	13	0	45	0	16	0	81	0	126
04:00		1	5			0	**23**				
04:15		0	10			1	**22**				
04:30		1	14			0	**30**				
04:45		0	4	2	33	1	**21**	2	96	4	129
05:00		0	9			0	23				
05:15		1	7			0	8				
05:30		1	3			0	11				
05:45		3	1	5	20	0	12	0	54	5	74
06:00		9	0			0	14				
06:15		10	3			0	8				
06:30		7	2			2	6				
06:45		10	8	36	13	4	3	6	31	42	44
07:00		31	4			1	6				
07:15		21	1			4	10				
07:30		**21**	0			3	3				
07:45		**13**	1	86	6	**14**	2	22	21	108	27
08:00		**34**	1			**17**	0				
08:15		**28**	2			**13**	3				
08:30		15	1			**5**	4				
08:45		15	1	92	5	5	2	40	9	132	14
09:00		12	1			4	1				
09:15		14	5			10	3				
09:30		14	0			6	3				
09:45		7	0	47	6	5	1	25	8	72	14
10:00		21	0			12	0				
10:15		20	2			12	2				
10:30		13	1			10	1				
10:45		11	1	65	4	14	1	48	4	113	8
11:00		12	0			7	0				
11:15		12	1			7	1				
11:30		10	0			14	3				
11:45		9	0	43	1	10	0	38	4	81	5
Total		378	292	378	292	183	490	183	490	561	782
Combined Total		670		670		673		673		1343	
AM Peak	-	07:30	-	-	-	07:45	-	-	-	-	-
Vol.	-	96	-	-	-	49	-	-	-	-	-
P.H.F.		0.706				0.721					
PM Peak	-	-	00:30	-	-	-	04:00	-	-	-	-
Vol.	-	-	65	-	-	-	96	-	-	-	-
P.H.F.			0.813				0.800				
Percentage		56.4%	43.6%			27.2%	72.8%				
ADT/AADT		ADT 1,343		AADT 1,343							

Counts Unlimited, Inc

PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

City of Marina
Blanco Road
B/ Research Drive - Reservation Road
24 Hour Directional Volume Count

MNA004
Site Code: 003-19524

Start Time	8/13/2019 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		36	154			23	168				
12:15		18	176			21	165				
12:30		19	162			12	168				
12:45		18	173	91	665	7	188	63	689	154	1354
01:00		15	173			9	148				
01:15		9	164			14	150				
01:30		14	185			12	165				
01:45		10	170	48	692	7	206	42	669	90	1361
02:00		18	218			14	155				
02:15		10	180			10	191				
02:30		6	215			8	179				
02:45		5	234	39	847	7	202	39	727	78	1574
03:00		7	246			12	190				
03:15		6	241			10	181				
03:30		3	253			16	232				
03:45		12	285	28	1025	22	210	60	813	88	1838
04:00		11	280			19	201				
04:15		7	279			20	223				
04:30		10	**303**			34	241				
04:45		28	**308**	56	1170	44	252	117	917	173	2087
05:00		19	**270**			38	**242**				
05:15		28	**303**			28	**258**				
05:30		36	257			62	**283**				
05:45		40	285	123	1115	113	**255**	241	1038	364	2153
06:00		46	241			129	230				
06:15		72	227			177	230				
06:30		93	234			239	185				
06:45		134	208	345	910	**299**	162	844	807	1189	1717
07:00		147	214			**292**	133				
07:15		163	169			**338**	125				
07:30		**282**	132			**309**	128				
07:45		**329**	133	921	648	297	123	1236	509	2157	1157
08:00		**275**	123			273	120				
08:15		**275**	147			266	87				
08:30		234	117			281	107				
08:45		166	144	950	531	258	79	1078	393	2028	924
09:00		157	142			194	99				
09:15		159	112			190	88				
09:30		133	105			183	96				
09:45		122	86	571	445	187	76	754	359	1325	804
10:00		151	72			178	66				
10:15		135	85			207	46				
10:30		146	73			178	51				
10:45		133	70	565	300	176	49	739	212	1304	512
11:00		132	59			160	34				
11:15		119	60			196	34				
11:30		139	52			195	27				
11:45		169	53	559	224	161	32	712	127	1271	351
Total		4296	8572	4296	8572	5925	7260	5925	7260	10221	15832
Combined Total		12868		12868		13185		13185		26053	
AM Peak	-	07:30	-	-	-	06:45	-	-	-	-	-
Vol.	-	1161	-	-	-	1238	-	-	-	-	-
P.H.F.		0.882				0.916					
PM Peak	-	-	04:30	-	-	-	05:00	-	-	-	-
Vol.	-	-	1184	-	-	-	1038	-	-	-	-
P.H.F.			0.961				0.917				
Percentage		33.4%	66.6%			44.9%	55.1%				
ADT/AADT		ADT 26,053		AADT 26,053							

Counts Unlimited, Inc

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City of Marina
Reservation Road
B/ Imjin Parkway - MBEST Drive
24 Hour Directional Volume Count

MNA006
Site Code: 003-19524

Start	8/13/2019	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
Time	Tue	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		38	197			24	219				
12:15		26	232			25	223				
12:30		22	220			19	219				
12:45		25	233	111	882	9	227	77	888	188	1770
01:00		18	254			11	195				
01:15		11	221			18	183				
01:30		17	248			13	219				
01:45		13	223	59	946	9	241	51	838	110	1784
02:00		18	278			15	211				
02:15		12	224			11	226				
02:30		9	277			10	226				
02:45		5	303	44	1082	6	250	42	913	86	1995
03:00		8	290			10	242				
03:15		8	305			11	234				
03:30		4	339			20	294				
03:45		15	371	35	1305	22	277	63	1047	98	2352
04:00		14	343			23	259				
04:15		9	399			21	270				
04:30		17	**419**			33	305				
04:45		35	**433**	75	1594	50	314	127	1148	202	2742
05:00		25	**386**			43	**334**				
05:15		34	**412**			37	**353**				
05:30		39	358			64	**372**				
05:45		51	369	149	1525	132	**332**	276	1391	425	2916
06:00		55	345			157	288				
06:15		97	312			209	262				
06:30		97	297			260	230				
06:45		200	293	449	1247	389	197	1015	977	1464	2224
07:00		173	258			**379**	169				
07:15		229	243			**425**	151				
07:30		**343**	179			**394**	167				
07:45		**394**	175	1139	855	**404**	151	1602	638	2741	1493
08:00		**348**	166			338	142				
08:15		**315**	192			314	111				
08:30		254	161			336	121				
08:45		215	184	1132	703	331	102	1319	476	2451	1179
09:00		189	165			245	106				
09:15		182	144			230	97				
09:30		172	131			237	102				
09:45		172	113	715	553	232	80	944	385	1659	938
10:00		178	83			206	83				
10:15		161	110			254	62				
10:30		193	95			225	54				
10:45		175	81	707	369	222	65	907	264	1614	633
11:00		175	74			203	47				
11:15		156	67			246	37				
11:30		197	62			248	22				
11:45		187	58	715	261	217	40	914	146	1629	407
Total		5330	11322	5330	11322	7337	9111	7337	9111	12667	20433
Combined Total		16652		16652		16448		16448		33100	
AM Peak	-	07:30	-	-	-	07:00	-	-	-	-	-
Vol.	-	1400	-	-	-	1602	-	-	-	-	-
P.H.F.		0.888				0.942					
PM Peak	-	-	04:30	-	-	-	05:00	-	-	-	-
Vol.	-	-	1650	-	-	-	1391	-	-	-	-
P.H.F.			0.953				0.935				
Percentage		32.0%	68.0%			44.6%	55.4%				
ADT/AADT		ADT 33,100		AADT 33,100							

Counts Unlimited, Inc

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City of Marina
Reservation Road
B/ MBEST Drive - Blanco Road
24 Hour Directional Volume Count

MNA007
Site Code: 003-19524

Start	8/13/2019	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
Time	Tue	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		42	194			26	217				
12:15		23	230			25	216				
12:30		25	223			18	219				
12:45		21	230	111	877	11	228	80	880	191	1757
01:00		21	246			10	184				
01:15		11	219			17	189				
01:30		16	257			13	217				
01:45		12	220	60	942	10	235	50	825	110	1767
02:00		19	270			15	214				
02:15		12	232			11	219				
02:30		11	273			8	229				
02:45		5	312	47	1087	6	251	40	913	87	2000
03:00		8	310			11	250				
03:15		8	289			10	229				
03:30		3	338			20	292				
03:45		16	376	35	1313	23	274	64	1045	99	2358
04:00		13	355			21	270				
04:15		10	398			20	268				
04:30		15	**412**			34	300				
04:45		34	**447**	72	1612	50	299	125	1137	197	2749
05:00		25	**376**			44	**346**				
05:15		32	**426**			34	**335**				
05:30		40	366			67	**398**				
05:45		52	375	149	1543	128	**327**	273	1406	422	2949
06:00		57	358			155	292				
06:15		84	312			203	261				
06:30		108	320			261	230				
06:45		178	285	427	1275	385	204	1004	987	1431	2262
07:00		184	279			**367**	165				
07:15		221	246			**428**	151				
07:30		**313**	178			**389**	161				
07:45		**420**	183	1138	886	**401**	155	1585	632	2723	1518
08:00		**359**	164			343	142				
08:15		**298**	183			306	117				
08:30		284	178			328	114				
08:45		219	186	1160	711	341	109	1318	482	2478	1193
09:00		191	169			241	97				
09:15		189	140			234	103				
09:30		178	141			234	100				
09:45		161	111	719	561	227	83	936	383	1655	944
10:00		188	90			216	82				
10:15		162	104			251	59				
10:30		197	100			215	56				
10:45		173	85	720	379	210	67	892	264	1612	643
11:00		181	71			209	43				
11:15		157	70			254	39				
11:30		189	63			243	24				
11:45		203	58	730	262	219	39	925	145	1655	407
Total		5368	11448	5368	11448	7292	9099	7292	9099	12660	20547
Combined Total		16816		16816		16391		16391		33207	
AM Peak	-	07:30	-	-	-	07:00	-	-	-	-	-
Vol.	-	1390	-	-	-	1585	-	-	-	-	-
P.H.F.		0.827				0.926					
PM Peak	-	-	04:30	-	-	-	05:00	-	-	-	-
Vol.	-	-	1661	-	-	-	1406	-	-	-	-
P.H.F.			0.929				0.883				
Percentage		31.9%	68.1%			44.5%	55.5%				
ADT/AADT		ADT 33,207		AADT 33,207							

APPENDIX B:

VOLUME DEVELOPMENT WORKSHEETS

Table B-1 - Existing Peak Hour Volume Summary

	AM Peak Hour				PM Peak Hour			
	Existing Without Project	Net Project Trips	Project Pass-by Trips	Existing With Project	Existing Without Project	Net Project Trips	Project Pass-by Trips	Existing With Project
1 Imjin Road / University Drive								
NBL	0	0	0	0	0	0	0	0
NBT	92	0	0	92	35	0	-1	34
NBR	0	100	0	100	0	154	24	178
SBL	0	0	0	0	0	0	1	1
SBT	42	0	0	42	85	0	-1	84
SBR	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0
WBL	0	52	0	52	0	210	25	235
WBT	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	1	1
North Leg								
Approach	42	0	0	42	85	0		85
Departure	92	0	0	92	35	0		35
Total	134	0	0	134	120	0		120
South Leg								
Approach	92	100	0	192	35	154		212
Departure	42	52	0	94	85	210		319
Total	134	152	0	286	120	364		531
East Leg								
Approach	0	52	0	52	0	210		236
Departure	0	100	0	100	0	154		179
Total	0	152	0	152	0	364		415
West Leg								
Approach	0	0	0	0	0	0		0
Departure	0	0	0	0	0	0		0
Total	0	0	0	0	0	0		0
Total Approaches								
Approach	134	152	0	286	120	364		533
Departure	134	152	0	286	120	364		533
Total	268	304	0	572	240	728		1,066

Table B-1 - Existing Peak Hour Volume Summary

	AM Peak Hour				PM Peak Hour			
	Existing Without Project	Net Project Trips	Project Pass-by Trips	Existing With Project	Existing Without Project	Net Project Trips	Project Pass-by Trips	Existing With Project
2 Imjin Parkway / Reservation Road								
NBL	120	0	0	120	71	0	0	71
NBT	28	36	0	64	8	52	8	68
NBR	746	70	0	816	1,012	79	-7	1,084
SBL	8	0	0	8	21	0	12	33
SBT	16	18	0	34	19	74	7	100
SBR	18	33	0	51	16	137	5	158
EBL	30	64	0	94	4	102	5	111
EBT	588	95	0	683	563	94	-4	653
EBR	92	0	0	92	147	0	-1	146
WBL	752	40	0	792	794	105	-6	893
WBT	663	54	0	717	619	132	-4	747
WBR	38	0	0	38	7	0	10	17
North Leg								
Approach	42	51		93	56	211		291
Departure	96	100		196	19	154		196
Total	138	151		289	75	365		487
South Leg								
Approach	894	106		1,000	1,091	131		1,223
Departure	860	58		918	960	179		1,139
Total	1,754	164		1,918	2,051	310		2,362
East Leg								
Approach	1,453	94		1,547	1,420	237		1,657
Departure	1,342	165		1,507	1,596	173		1,770
Total	2,795	259		3,054	3,016	410		3,427
West Leg								
Approach	710	159		869	714	196		910
Departure	801	87		888	706	269		976
Total	1,511	246		1,757	1,420	465		1,886
Total Approaches								
Approach	3,099	410		3,509	3,281	775		4,081
Departure	3,099	410		3,509	3,281	775		4,081
Total	6,198	820		7,018	6,562	1,550		8,162

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Table B-1 - Existing Peak Hour Volume Summary

	AM Peak Hour				PM Peak Hour			
	Existing Without Project	Net Project Trips	Project Pass-by Trips	Existing With Project	Existing Without Project	Net Project Trips	Project Pass-by Trips	Existing With Project
3 MBEST Drive / University Drive								
NBL	0	24	0	24	0	6	0	6
NBT	0	71	0	71	0	47	0	47
NBR	0	92	0	92	0	128	0	128
SBL	0	3	0	3	0	11	0	11
SBT	0	40	0	40	0	72	0	72
SBR	0	16	0	16	0	4	0	4
EBL	0	5	0	5	0	21	0	21
EBT	0	21	0	21	0	25	0	25
EBR	0	8	0	8	0	32	0	32
WBL	0	53	0	53	0	159	0	159
WBT	0	21	0	21	0	25	0	25
WBR	0	8	0	8	0	2	0	2
North Leg								
Approach	0	59		59	0	87		87
Departure	0	84		84	0	70		70
Total	0	143		143	0	157		157
South Leg								
Approach	0	187		187	0	181		181
Departure	0	101		101	0	263		263
Total	0	288		288	0	444		444
East Leg								
Approach	0	82		82	0	186		186
Departure	0	116		116	0	164		164
Total	0	198		198	0	350		350
West Leg								
Approach	0	34		34	0	78		78
Departure	0	61		61	0	35		35
Total	0	95		95	0	113		113
Total Approaches								
Approach	0	362		362	0	532		532
Departure	0	362		362	0	532		532
Total	0	724		724	0	1,064		1,064

LSA

Table B-1 - Existing Peak Hour Volume Summary

	AM Peak Hour				PM Peak Hour			
	Existing Without Project	Net Project Trips	Project Pass-by Trips	Existing With Project	Existing Without Project	Net Project Trips	Project Pass-by Trips	Existing With Project
4 MBEST Drive / Reservation Road								
NBL	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0
SBL	0	9	0	9	0	27	0	27
SBT	0	0	0	0	0	0	0	0
SBR	0	93	0	93	0	236	0	236
EBL	0	165	0	165	0	173	0	173
EBT	1,353	0	0	1,353	1,662	0	0	1,662
EBR	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0
WBT	1,462	0	0	1,462	1,376	0	0	1,376
WBR	0	22	0	22	0	9	0	9
North Leg								
Approach	0	102		102	0	263		263
Departure	0	187		187	0	182		182
Total	0	289		289	0	445		445
South Leg								
Approach	0	0		0	0	0		0
Departure	0	0		0	0	0		0
Total	0	0		0	0	0		0
East Leg								
Approach	1,462	22		1,484	1,376	9		1,385
Departure	1,353	9		1,362	1,662	27		1,689
Total	2,815	31		2,846	3,038	36		3,074
West Leg								
Approach	1,353	165		1,518	1,662	173		1,835
Departure	1,462	93		1,555	1,376	236		1,612
Total	2,815	258		3,073	3,038	409		3,447
Total Approaches								
Approach	2,815	289		3,104	3,038	445		3,483
Departure	2,815	289		3,104	3,038	445		3,483
Total	5,630	578		6,208	6,076	890		6,966

LSA

Table B-1 - Existing Peak Hour Volume Summary

	AM Peak Hour				PM Peak Hour			
	Existing Without Project	Net Project Trips	Project Pass-by Trips	Existing With Project	Existing Without Project	Net Project Trips	Project Pass-by Trips	Existing With Project
5 Blanco Road / Research Drive								
NBL	0	31	0	31	0	57	38	95
NBT	1,144	0	0	1,144	1,152	0	-22	1,130
NBR	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0
SBT	1,138	0	0	1,138	1,103	0	-19	1,084
SBR	0	212	0	212	0	260	19	279
EBL	0	115	0	115	0	357	24	381
EBT	0	0	0	0	0	0	0	0
EBR	0	20	0	20	0	63	37	100
WBL	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0
North Leg								
Approach	1,138	212		1,350	1,103	260		1,363
Departure	1,144	115		1,259	1,152	357		1,511
Total	2,282	327		2,609	2,255	617		2,874
South Leg								
Approach	1,144	31		1,175	1,152	57		1,225
Departure	1,138	20		1,158	1,103	63		1,184
Total	2,282	51		2,333	2,255	120		2,409
East Leg								
Approach	0	0		0	0	0		0
Departure	0	0		0	0	0		0
Total	0	0		0	0	0		0
West Leg								
Approach	0	135		135	0	420		481
Departure	0	243		243	0	317		374
Total	0	378		378	0	737		855
Total Approaches								
Approach	2,282	378		2,660	2,255	737		3,069
Departure	2,282	378		2,660	2,255	737		3,069
Total	4,564	756		5,320	4,510	1,474		6,138

LSA

Table B-1 - Existing Peak Hour Volume Summary

	AM Peak Hour				PM Peak Hour			
	Existing Without Project	Net Project Trips	Project Pass-by Trips	Existing With Project	Existing Without Project	Net Project Trips	Project Pass-by Trips	Existing With Project
6 Blanco Road / Reservation Road								
NBL	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0
SBL	41	20	0	61	34	63	10	107
SBT	0	0	0	0	0	0	0	0
SBR	1,088	0	0	1,088	996	0	7	1,003
EBL	1,115	0	0	1,115	1,156	0	9	1,165
EBT	243	9	0	252	503	27	-9	521
EBR	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0
WBT	369	22	0	391	399	9	-7	401
WBR	34	31	0	65	49	57	7	113
North Leg								
Approach	1,129	20		1,149	1,030	63		1,110
Departure	1,149	31		1,180	1,205	57		1,278
Total	2,278	51		2,329	2,235	120		2,388
South Leg								
Approach	0	0		0	0	0		0
Departure	0	0		0	0	0		0
Total	0	0		0	0	0		0
East Leg								
Approach	403	53		456	448	66		514
Departure	284	29		313	537	90		628
Total	687	82		769	985	156		1,142
West Leg								
Approach	1,358	9		1,367	1,659	27		1,686
Departure	1,457	22		1,479	1,395	9		1,404
Total	2,815	31		2,846	3,054	36		3,090
Total Approaches								
Approach	2,890	82		2,972	3,137	156		3,310
Departure	2,890	82		2,972	3,137	156		3,310
Total	5,780	164		5,944	6,274	312		6,620

Table B-2-Build-Out (2040) Peak Hour Volume Summary

	AM Peak Hour				PM Peak Hour			
	Build-Out Without Project	Net Project Trips	Project Pass-by Trips	Build-Out With Project	Build-Out Without Project	Net Project Trips	Project Pass-by Trips	Build-Out With Project
1 Imjin Road / University Drive								
NBL	0	0	0	0	0	0	0	0
NBT	96	0	0	96	39	0	-1	38
NBR	0	100	0	100	0	154	24	178
SBL	0	0	0	0	0	0	1	1
SBT	45	0	0	45	88	0	-1	87
SBR	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0
WBL	0	52	0	52	0	210	25	235
WBT	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	1	1
North Leg								
Approach	45	0	0	45	88	0	0	88
Departure	96	0	0	96	39	0	0	39
Total	141	0	0	141	127	0	0	127
South Leg								
Approach	96	100	0	196	39	154	23	216
Departure	45	52	0	97	88	210	24	322
Total	141	152	0	293	127	364	47	538
East Leg								
Approach	0	52	0	52	0	210	26	236
Departure	0	100	0	100	0	154	25	179
Total	0	152	0	152	0	364	51	415
West Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Total Approaches								
Approach	141	152	0	293	127	364	49	540
Departure	141	152	0	293	127	364	49	540
Total	282	304	0	586	254	728	98	1,080

Table B-2-Build-Out (2040) Peak Hour Volume Summary

	AM Peak Hour				PM Peak Hour			
	Build-Out Without Project	Net Project Trips	Project Pass-by Trips	Build-Out With Project	Build-Out Without Project	Net Project Trips	Project Pass-by Trips	Build-Out With Project
2 Imjin Parkway / Reservation Road								
NBL	131	0	0	131	75	0	0	75
NBT	31	36	0	67	10	52	8	70
NBR	966	70	0	1,036	1,240	79	-7	1,312
SBL	9	0	0	9	23	0	12	35
SBT	19	18	0	37	21	74	7	102
SBR	19	33	0	52	17	137	5	159
EBL	32	64	0	96	4	102	5	111
EBT	655	95	0	750	622	94	-4	712
EBR	104	0	0	104	165	0	-1	164
WBL	972	40	0	1,012	1,008	105	-6	1,107
WBT	709	54	0	763	671	132	-4	799
WBR	41	0	0	41	9	0	10	19
North Leg								
Approach	47	51	0	98	61	211	24	296
Departure	104	100	0	204	23	154	23	200
Total	151	151	0	302	84	365	47	496
South Leg								
Approach	1,128	106	0	1,234	1,325	131	1	1,457
Departure	1,095	58	0	1,153	1,194	179	0	1,373
Total	2,223	164	0	2,387	2,519	310	1	2,830
East Leg								
Approach	1,722	94	0	1,816	1,688	237	0	1,925
Departure	1,630	165	0	1,795	1,885	173	1	2,059
Total	3,352	259	0	3,611	3,573	410	1	3,984
West Leg								
Approach	791	159	0	950	791	196	0	987
Departure	859	87	0	946	763	269	1	1,033
Total	1,650	246	0	1,896	1,554	465	1	2,020
Total Approaches								
Approach	3,688	410	0	4,098	3,865	775	25	4,665
Departure	3,688	410	0	4,098	3,865	775	25	4,665
Total	7,376	820	0	8,196	7,730	1,550	50	9,330

Table B-2-Build-Out (2040) Peak Hour Volume Summary

	AM Peak Hour				PM Peak Hour			
	Build-Out Without Project	Net Project Trips	Project Pass-by Trips	Build-Out With Project	Build-Out Without Project	Net Project Trips	Project Pass-by Trips	Build-Out With Project
3 MBEST Drive / University Drive								
NBL	0	24	0	24	0	6	0	6
NBT	0	71	0	71	0	47	0	47
NBR	0	92	0	92	0	128	0	128
SBL	0	3	0	3	0	11	0	11
SBT	0	40	0	40	0	72	0	72
SBR	0	16	0	16	0	4	0	4
EBL	0	5	0	5	0	21	0	21
EBT	0	21	0	21	0	25	0	25
EBR	0	8	0	8	0	32	0	32
WBL	0	53	0	53	0	159	0	159
WBT	0	21	0	21	0	25	0	25
WBR	0	8	0	8	0	2	0	2
North Leg								
Approach	0	59	0	59	0	87	0	87
Departure	0	84	0	84	0	70	0	70
Total	0	143	0	143	0	157	0	157
South Leg								
Approach	0	187	0	187	0	181	0	181
Departure	0	101	0	101	0	263	0	263
Total	0	288	0	288	0	444	0	444
East Leg								
Approach	0	82	0	82	0	186	0	186
Departure	0	116	0	116	0	164	0	164
Total	0	198	0	198	0	350	0	350
West Leg								
Approach	0	34	0	34	0	78	0	78
Departure	0	61	0	61	0	35	0	35
Total	0	95	0	95	0	113	0	113
Total Approaches								
Approach	0	362	0	362	0	532	0	532
Departure	0	362	0	362	0	532	0	532
Total	0	724	0	724	0	1,064	0	1,064

Table B-2-Build-Out (2040) Peak Hour Volume Summary

	AM Peak Hour				PM Peak Hour			
	Build-Out Without Project	Net Project Trips	Project Pass-by Trips	Build-Out With Project	Build-Out Without Project	Net Project Trips	Project Pass-by Trips	Build-Out With Project
4 MBEST Drive / Reservation Road								
NBL	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0
SBL	0	9	0	9	0	27	0	27
SBT	0	0	0	0	0	0	0	0
SBR	0	93	0	93	0	236	0	236
EBL	0	165	0	165	0	173	0	173
EBT	1,641	0	0	1,641	1,950	0	0	1,950
EBR	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0
WBT	1,733	0	0	1,733	1,647	0	0	1,647
WBR	0	22	0	22	0	9	0	9
North Leg								
Approach	0	102	0	102	0	263	0	263
Departure	0	187	0	187	0	182	0	182
Total	0	289	0	289	0	445	0	445
South Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
East Leg								
Approach	1,733	22	0	1,755	1,647	9	0	1,656
Departure	1,641	9	0	1,650	1,950	27	0	1,977
Total	3,374	31	0	3,405	3,597	36	0	3,633
West Leg								
Approach	1,641	165	0	1,806	1,950	173	0	2,123
Departure	1,733	93	0	1,826	1,647	236	0	1,883
Total	3,374	258	0	3,632	3,597	409	0	4,006
Total Approaches								
Approach	3,374	289	0	3,663	3,597	445	0	4,042
Departure	3,374	289	0	3,663	3,597	445	0	4,042
Total	6,748	578	0	7,326	7,194	890	0	8,084

Table B-2-Build-Out (2040) Peak Hour Volume Summary

	AM Peak Hour				PM Peak Hour			
	Build-Out Without Project	Net Project Trips	Project Pass-by Trips	Build-Out With Project	Build-Out Without Project	Net Project Trips	Project Pass-by Trips	Build-Out With Project
5 Blanco Road / Research Drive								
NBL	0	31	0	31	0	57	38	95
NBT	1,201	0	0	1,201	1,210	0	-22	1,188
NBR	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0
SBT	1,195	0	0	1,195	1,158	0	-19	1,139
SBR	0	212	0	212	0	260	19	279
EBL	0	115	0	115	0	357	24	381
EBT	0	0	0	0	0	0	0	0
EBR	0	20	0	20	0	63	37	100
WBL	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0
North Leg								
Approach	1,195	212	0	1,407	1,158	260	0	1,418
Departure	1,201	115	0	1,316	1,210	357	2	1,569
Total	2,396	327	0	2,723	2,368	617	2	2,987
South Leg								
Approach	1,201	31	0	1,232	1,210	57	16	1,283
Departure	1,195	20	0	1,215	1,158	63	18	1,239
Total	2,396	51	0	2,447	2,368	120	34	2,522
East Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
West Leg								
Approach	0	135	0	135	0	420	61	481
Departure	0	243	0	243	0	317	57	374
Total	0	378	0	378	0	737	118	855
Total Approaches								
Approach	2,396	378	0	2,774	2,368	737	77	3,182
Departure	2,396	378	0	2,774	2,368	737	77	3,182
Total	4,792	756	0	5,548	4,736	1,474	154	6,364

Table B-2-Build-Out (2040) Peak Hour Volume Summary

	AM Peak Hour				PM Peak Hour			
	Build-Out Without Project	Net Project Trips	Project Pass-by Trips	Build-Out With Project	Build-Out Without Project	Net Project Trips	Project Pass-by Trips	Build-Out With Project
6 Blanco Road / Reservation Road								
NBL	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0
SBL	58	20	0	78	40	63	10	113
SBT	0	0	0	0	0	0	0	0
SBR	1,142	0	0	1,142	1,046	0	7	1,053
EBL	1,171	0	0	1,171	1,214	0	9	1,223
EBT	559	9	0	568	831	27	-9	849
EBR	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0
WBT	684	22	0	706	703	9	-7	705
WBR	39	31	0	70	61	57	7	125
North Leg								
Approach	1,200	20	0	1,220	1,086	63	17	1,166
Departure	1,210	31	0	1,241	1,275	57	16	1,348
Total	2,410	51	0	2,461	2,361	120	33	2,514
South Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
East Leg								
Approach	723	53	0	776	764	66	0	830
Departure	617	29	0	646	871	90	1	962
Total	1,340	82	0	1,422	1,635	156	1	1,792
West Leg								
Approach	1,730	9	0	1,739	2,045	27	0	2,072
Departure	1,826	22	0	1,848	1,749	9	0	1,758
Total	3,556	31	0	3,587	3,794	36	0	3,830
Total Approaches								
Approach	3,653	82	0	3,735	3,895	156	17	4,068
Departure	3,653	82	0	3,735	3,895	156	17	4,068
Total	7,306	164	0	7,470	7,790	312	34	8,136

APPENDIX C:

INTERSECTION LEVEL OF SERVICE WORKSHEETS

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations								
Traffic Vol, veh/h	0	0	3	92	0	0	0	42
Future Vol, veh/h	0	0	3	92	0	0	0	42
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	0	0	0	2	0	0	0	12
Mvmt Flow	0	0	4	126	0	0	0	58
Number of Lanes	1	1	0	2	1	0	1	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	3	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	2	0
HCM Control Delay	0	7.8	6.9
HCM LOS	-	A	A

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	0%	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	100%	100%	100%	100%	100%
Vol Right, %	0%	0%	0%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	61	0	0	0	0	21	21
LT Vol	0	0	0	0	0	0	0	0
Through Vol	34	61	0	0	0	0	21	21
RT Vol	0	0	0	0	0	0	0	0
Lane Flow Rate	46	84	0	0	0	0	29	29
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.059	0.108	0	0	0	0	0.039	0.024
Departure Headway (Hd)	4.578	4.612	4.578	4.968	4.968	4.674	4.878	2.973
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	784	779	0	0	0	0	727	1182
Service Time	2.295	2.329	2.295	2.668	2.668	2.449	2.653	0.747
HCM Lane V/C Ratio	0.059	0.108	0	0	0	0	0.04	0.025
HCM Control Delay	7.6	7.9	7.3	7.7	7.7	7.4	7.9	5.8
HCM Lane LOS	A	A	N	N	N	N	A	A
HCM 95th-tile Q	0.2	0.4	0	0	0	0	0.1	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	588	92	752	663	38	120	28	746	8	16	18
Future Volume (veh/h)	30	588	92	752	663	38	120	28	746	8	16	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1841	1856	1870	1900	1870	1722	1722	1737
Adj Flow Rate, veh/h	34	661	103	845	745	43	157	0	838	9	18	20
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	4	3	2	0	2	12	12	11
Cap, veh/h	93	758	338	918	1594	717	855	0	1610	227	238	204
Arrive On Green	0.03	0.22	0.22	0.45	0.76	0.76	0.24	0.00	0.24	0.14	0.14	0.14
Sat Flow, veh/h	3428	3526	1572	3428	3497	1572	3563	0	3170	1640	1722	1472
Grp Volume(v), veh/h	34	661	103	845	745	43	157	0	838	9	18	20
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1714	1749	1572	1781	0	1585	1640	1722	1472
Q Serve(g_s), s	1.3	23.5	7.2	30.1	10.3	0.9	4.6	0.0	23.0	0.6	1.2	1.5
Cycle Q Clear(g_c), s	1.3	23.5	7.2	30.1	10.3	0.9	4.6	0.0	23.0	0.6	1.2	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	93	758	338	918	1594	717	855	0	1610	227	238	204
V/C Ratio(X)	0.36	0.87	0.30	0.92	0.47	0.06	0.18	0.00	0.52	0.04	0.08	0.10
Avail Cap(c_a), veh/h	224	854	381	1147	1789	804	855	0	1610	227	238	204
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.85	0.85	0.85	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.1	49.3	42.8	34.6	9.7	8.6	39.3	0.0	21.4	48.5	48.8	48.9
Incr Delay (d2), s/veh	2.4	9.0	0.5	9.0	0.2	0.0	0.5	0.0	1.2	0.3	0.6	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	11.3	2.9	12.0	3.1	0.3	2.1	0.0	8.7	0.3	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.5	58.3	43.4	43.6	9.9	8.6	39.7	0.0	22.6	48.8	49.4	49.9
LnGrp LOS	E	E	D	D	A	A	D	A	C	D	D	D
Approach Vol, veh/h		798			1633			995			47	
Approach Delay, s/veh		56.6			27.3			25.3			49.5	
Approach LOS		E			C			C			D	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	35.7	39.3	32.5	22.5	8.0	63.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.0	43.5	31.5	18.0	8.5	66.5
Max Q Clear Time (g_c+I1), s	25.0	32.1	25.5	3.5	3.3	12.3
Green Ext Time (p_c), s	0.0	2.7	2.4	0.1	0.0	6.5

Intersection Summary	
HCM 6th Ctrl Delay	33.8
HCM 6th LOS	C

Notes

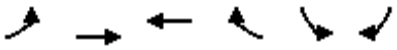
User approved volume balancing among the lanes for turning movement.

HCM 6th Edition does not recognize the approach geometry.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	1144	1138	0
Future Volume (veh/h)	0	0	0	1144	1138	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			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	1900	1900	1900	1870	1841	1900
Adj Flow Rate, veh/h	0	0	0	1230	1224	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	2	4	0
Cap, veh/h	5	2	3	3308	3255	1499
Arrive On Green	0.00	0.00	0.00	0.93	0.93	0.00
Sat Flow, veh/h	3510	1610	1810	3647	3589	1610
Grp Volume(v), veh/h	0	0	0	1230	1224	0
Grp Sat Flow(s),veh/h/ln	1755	1610	1810	1777	1749	1610
Q Serve(g_s), s	0.0	0.0	0.0	2.4	2.4	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.4	2.4	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	5	2	3	3308	3255	1499
V/C Ratio(X)	0.00	0.00	0.00	0.37	0.38	0.00
Avail Cap(c_a), veh/h	972	446	139	3308	3255	1499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.2	0.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.1	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.6	0.6	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	0			1230	1224	
Approach Delay, s/veh	0.0			0.6	0.6	
Approach LOS				A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		65.0		0.0	0.0	65.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		38.0		18.0	5.0	28.5
Max Q Clear Time (g_c+I1), s		4.4		0.0	0.0	4.4
Green Ext Time (p_c), s		11.7		0.0	0.0	10.2

Intersection Summary			
HCM 6th Ctrl Delay		0.6	
HCM 6th LOS		A	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1115	243	369	34	41	1088
Future Volume (veh/h)	1115	243	369	34	41	1088
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	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	1796	1841	1856	1796	1841
Adj Flow Rate, veh/h	1212	264	401	37	45	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	7	4	3	7	4
Cap, veh/h	1209	2151	452	386	998	
Arrive On Green	0.58	1.00	0.25	0.25	0.30	0.00
Sat Flow, veh/h	3456	3503	1841	1572	3319	2745
Grp Volume(v), veh/h	1212	264	401	37	45	0
Grp Sat Flow(s),veh/h/ln	1728	1706	1841	1572	1659	1373
Q Serve(g_s), s	45.5	0.0	27.3	2.4	1.2	0.0
Cycle Q Clear(g_c), s	45.5	0.0	27.3	2.4	1.2	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1209	2151	452	386	998	
V/C Ratio(X)	1.00	0.12	0.89	0.10	0.05	
Avail Cap(c_a), veh/h	1209	2665	729	623	998	
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.68	0.68	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.0	0.0	47.3	37.9	32.2	0.0
Incr Delay (d2), s/veh	21.8	0.0	8.0	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.5	0.0	13.5	0.9	0.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.8	0.0	55.3	38.0	32.3	0.0
LnGrp LOS	F	A	E	D	C	
Approach Vol, veh/h		1476	438		45	A
Approach Delay, s/veh		40.1	53.8		32.3	
Approach LOS		D	D		C	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		86.4		43.6	50.0	36.4
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		101.5		19.5	45.5	51.5
Max Q Clear Time (g_c+I1), s		2.0		3.2	47.5	29.3
Green Ext Time (p_c), s		1.9		0.1	0.0	2.6

Intersection Summary	
HCM 6th Ctrl Delay	43.0
HCM 6th LOS	D

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations								
Traffic Vol, veh/h	0	0	2	35	0	0	0	85
Future Vol, veh/h	0	0	2	35	0	0	0	85
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	0	0	0	5	0	0	0	4
Mvmt Flow	0	0	3	45	0	0	0	109
Number of Lanes	1	1	0	2	1	0	1	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	3	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	2	0
HCM Control Delay	0	7.6	6.7
HCM LOS	-	A	A

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	0%	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	100%	100%	100%	100%	100%
Vol Right, %	0%	0%	0%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	14	23	0	0	0	0	43	43
LT Vol	0	0	0	0	0	0	0	0
Through Vol	14	23	0	0	0	0	43	43
RT Vol	0	0	0	0	0	0	0	0
Lane Flow Rate	18	30	0	0	0	0	54	54
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.023	0.039	0	0	0	0	0.07	0.043
Departure Headway (Hd)	4.644	4.729	4.644	4.786	4.786	4.565	4.633	2.865
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	771	758	0	0	0	0	773	1245
Service Time	2.369	2.454	2.369	2.559	2.559	2.293	2.362	0.593
HCM Lane V/C Ratio	0.023	0.04	0	0	0	0	0.07	0.043
HCM Control Delay	7.5	7.6	7.4	7.6	7.6	7.3	7.7	5.7
HCM Lane LOS	A	A	N	N	N	N	A	A
HCM 95th-tile Q	0.1	0.1	0	0	0	0	0.2	0.1

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (veh/h)	2	4	563	147	794	619	7	71	8	1012	21	19	16
Future Volume (veh/h)	2	4	563	147	794	619	7	71	8	1012	21	19	16
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No			No			No			No	
Adj Sat Flow, veh/h/ln		1900	1885	1885	1900	1870	1900	1885	1722	1885	1752	1900	1900
Adj Flow Rate, veh/h		4	586	153	827	645	7	80	0	1054	22	20	17
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		0	1	1	0	2	0	1	12	1	10	0	0
Cap, veh/h		18	681	304	909	1577	715	901	0	1629	250	285	242
Arrive On Green		0.01	0.19	0.19	0.43	0.74	0.74	0.25	0.00	0.25	0.15	0.15	0.15
Sat Flow, veh/h		3510	3582	1598	3510	3554	1610	3591	0	3195	1668	1900	1610
Grp Volume(v), veh/h		4	586	153	827	645	7	80	0	1054	22	20	17
Grp Sat Flow(s),veh/h/ln		1755	1791	1598	1755	1777	1610	1795	0	1598	1668	1900	1610
Q Serve(g_s), s		0.1	19.0	10.3	26.5	8.1	0.1	2.0	0.0	29.0	1.4	1.1	1.1
Cycle Q Clear(g_c), s		0.1	19.0	10.3	26.5	8.1	0.1	2.0	0.0	29.0	1.4	1.1	1.1
Prop In Lane		1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h		18	681	304	909	1577	715	901	0	1629	250	285	242
V/C Ratio(X)		0.22	0.86	0.50	0.91	0.41	0.01	0.09	0.00	0.65	0.09	0.07	0.07
Avail Cap(c_a), veh/h		237	761	339	1156	1685	763	901	0	1629	250	285	242
HCM Platoon Ratio		1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	0.92	0.92	0.92	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		59.4	47.0	43.5	32.8	9.7	8.7	34.4	0.0	21.5	43.9	43.8	43.8
Incr Delay (d2), s/veh		5.9	9.1	1.3	8.5	0.2	0.0	0.2	0.0	2.0	0.7	0.5	0.6
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.1	9.3	4.2	10.7	2.6	0.1	0.9	0.0	11.0	0.6	0.6	0.5
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh		65.3	56.1	44.8	41.2	9.8	8.7	34.6	0.0	23.5	44.6	44.3	44.4
LnGrp LOS		E	E	D	D	A	A	C	A	C	D	D	D
Approach Vol, veh/h			743			1479			1134			59	
Approach Delay, s/veh			53.8			27.4			24.3			44.4	
Approach LOS			D			C			C			D	

Timer - Assigned Phs	2	3	4		6	7	8
Phs Duration (G+Y+Rc), s	34.6	35.6	27.3		22.5	5.1	57.8
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s	19.0	39.5	25.5		18.0	8.1	56.9
Max Q Clear Time (g_c+I1), s	31.0	28.5	21.0		3.4	2.1	10.1
Green Ext Time (p_c), s	0.0	2.6	1.8		0.1	0.0	5.2

Intersection Summary	
HCM 6th Ctrl Delay	32.4
HCM 6th LOS	C

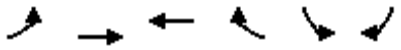
Notes

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

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	1152	1103	0
Future Volume (veh/h)	0	0	0	1152	1103	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			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	1900	1900	1900	1870	1870	1900
Adj Flow Rate, veh/h	0	0	0	1200	1149	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	2	2	0
Cap, veh/h	3	1	2	3420	3420	1550
Arrive On Green	0.00	0.00	0.00	0.96	0.96	0.00
Sat Flow, veh/h	3510	1610	1810	3647	3647	1610
Grp Volume(v), veh/h	0	0	0	1200	1149	0
Grp Sat Flow(s),veh/h/ln	1755	1610	1810	1777	1777	1610
Q Serve(g_s), s	0.0	0.0	0.0	2.3	2.2	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.3	2.2	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	3	1	2	3420	3420	1550
V/C Ratio(X)	0.00	0.00	0.00	0.35	0.34	0.00
Avail Cap(c_a), veh/h	746	342	188	3420	3420	1550
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.1	0.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.1	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.4	0.4	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	0			1200	1149	
Approach Delay, s/veh	0.0			0.4	0.4	
Approach LOS				A	A	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	120.0		0.0	0.0	120.0
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s	85.5		25.5	12.5	68.5
Max Q Clear Time (g_c+I1), s	4.3		0.0	0.0	4.2
Green Ext Time (p_c), s	13.0		0.0	0.0	11.9

Intersection Summary	
HCM 6th Ctrl Delay	0.4
HCM 6th LOS	A



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1156	503	399	49	34	996
Future Volume (veh/h)	1156	503	399	49	34	996
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	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	1885	1870	1811	1767	1870
Adj Flow Rate, veh/h	1168	508	403	49	34	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	1	2	6	9	2
Cap, veh/h	1204	2260	458	376	960	
Arrive On Green	0.58	1.00	0.25	0.25	0.29	0.00
Sat Flow, veh/h	3456	3676	1870	1535	3264	2790
Grp Volume(v), veh/h	1168	508	403	49	34	0
Grp Sat Flow(s),veh/h/ln	1728	1791	1870	1535	1632	1395
Q Serve(g_s), s	38.9	0.0	24.9	3.0	0.9	0.0
Cycle Q Clear(g_c), s	38.9	0.0	24.9	3.0	0.9	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1204	2260	458	376	960	
V/C Ratio(X)	0.97	0.22	0.88	0.13	0.04	
Avail Cap(c_a), veh/h	1224	2761	709	582	960	
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.67	0.67	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.5	0.0	43.6	35.3	30.2	0.0
Incr Delay (d2), s/veh	14.5	0.0	8.1	0.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.6	0.0	12.5	1.1	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.0	0.0	51.7	35.5	30.3	0.0
LnGrp LOS	D	A	D	D	C	
Approach Vol, veh/h		1676	452		34	A
Approach Delay, s/veh		27.2	49.9		30.3	
Approach LOS		C	D		C	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			80.2		39.8	46.3	33.9
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			92.5		18.5	42.5	45.5
Max Q Clear Time (g_c+I1), s			2.0		2.9	40.9	26.9
Green Ext Time (p_c), s			3.9		0.0	0.9	2.5

Intersection Summary		
HCM 6th Ctrl Delay		32.0
HCM 6th LOS		C

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations								
Traffic Vol, veh/h	52	0	2	92	100	0	0	42
Future Vol, veh/h	52	0	2	92	100	0	0	42
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	0	0	0	2	0	0	0	12
Mvmt Flow	71	0	3	126	137	0	0	58
Number of Lanes	1	1	0	2	1	0	1	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	3	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	2	0
HCM Control Delay	9.2	7.8	7.4
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	100%	0%	0%	0%	0%
Vol Thru, %	100%	100%	0%	0%	100%	100%	100%	100%
Vol Right, %	0%	0%	100%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	33	61	100	52	0	0	21	21
LT Vol	0	0	0	52	0	0	0	0
Through Vol	33	61	0	0	0	0	21	21
RT Vol	0	0	100	0	0	0	0	0
Lane Flow Rate	45	84	137	71	0	0	29	29
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.06	0.114	0.158	0.114	0	0	0.043	0.028
Departure Headway (Hd)	4.844	4.878	4.142	5.744	5.244	5.206	5.411	3.5
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	741	737	868	625	0	0	663	1023
Service Time	2.559	2.593	1.856	3.468	2.968	2.927	3.132	1.221
HCM Lane V/C Ratio	0.061	0.114	0.158	0.114	0	0	0.044	0.028
HCM Control Delay	7.9	8.2	7.6	9.2	8	7.9	8.4	6.3
HCM Lane LOS	A	A	A	A	N	N	A	A
HCM 95th-tile Q	0.2	0.4	0.6	0.4	0	0	0.1	0.1

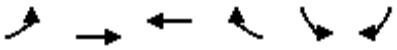
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	683	92	792	717	38	120	64	816	8	34	51
Future Volume (veh/h)	94	683	92	792	717	38	120	64	816	8	34	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1841	1856	1870	1900	1870	1722	1722	1737
Adj Flow Rate, veh/h	106	767	103	890	806	43	104	116	917	9	38	57
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	4	3	2	0	2	12	12	11
Cap, veh/h	155	831	371	960	1645	740	369	394	1545	227	238	204
Arrive On Green	0.05	0.24	0.24	0.47	0.79	0.79	0.21	0.21	0.21	0.14	0.14	0.14
Sat Flow, veh/h	3428	3526	1572	3428	3497	1572	1781	1900	3170	1640	1722	1472
Grp Volume(v), veh/h	106	767	103	890	806	43	104	116	917	9	38	57
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1714	1749	1572	1781	1900	1585	1640	1722	1472
Q Serve(g_s), s	4.0	27.6	7.0	31.7	10.4	0.8	6.4	6.7	26.9	0.6	2.5	4.5
Cycle Q Clear(g_c), s	4.0	27.6	7.0	31.7	10.4	0.8	6.4	6.7	26.9	0.6	2.5	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	155	831	371	960	1645	740	369	394	1545	227	238	204
V/C Ratio(X)	0.68	0.92	0.28	0.93	0.49	0.06	0.28	0.29	0.59	0.04	0.16	0.28
Avail Cap(c_a), veh/h	224	854	381	1147	1789	804	369	394	1545	227	238	204
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.70	0.70	0.70	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.1	48.5	40.6	33.4	8.5	7.5	43.4	43.5	24.0	48.5	49.3	50.2
Incr Delay (d2), s/veh	5.2	15.1	0.4	8.6	0.2	0.0	1.9	1.9	1.7	0.3	1.4	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	13.9	2.8	12.4	3.0	0.3	3.0	3.4	10.4	0.3	1.2	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.3	63.7	41.0	41.9	8.7	7.5	45.3	45.4	25.7	48.8	50.8	53.6
LnGrp LOS	E	E	D	D	A	A	D	D	C	D	D	D
Approach Vol, veh/h		976			1739			1137			104	
Approach Delay, s/veh		61.6			25.7			29.5			52.1	
Approach LOS		E			C			C			D	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	31.4	40.9	35.1	22.5	10.4	65.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.0	43.5	31.5	18.0	8.5	66.5
Max Q Clear Time (g_c+I1), s	28.9	33.7	29.6	6.5	6.0	12.4
Green Ext Time (p_c), s	0.0	2.7	1.0	0.2	0.1	7.2

Intersection Summary	
HCM 6th Ctrl Delay	36.3
HCM 6th LOS	D

Notes

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



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	165	1353	1462	22	9	93
Future Volume (veh/h)	165	1353	1462	22	9	93
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	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	1900	1856	1841	1900	1900	1900
Adj Flow Rate, veh/h	183	1503	1624	24	10	103
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	3	4	0	0	0
Cap, veh/h	243	1889	2171	696	715	1272
Arrive On Green	0.05	0.36	0.43	0.43	0.40	0.40
Sat Flow, veh/h	3510	3618	5191	1610	1810	3220
Grp Volume(v), veh/h	183	1503	1624	24	10	103
Grp Sat Flow(s),veh/h/ln	1755	1763	1675	1610	1810	1610
Q Serve(g_s), s	6.7	49.7	35.3	1.1	0.4	2.6
Cycle Q Clear(g_c), s	6.7	49.7	35.3	1.1	0.4	2.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	243	1889	2171	696	715	1272
V/C Ratio(X)	0.75	0.80	0.75	0.03	0.01	0.08
Avail Cap(c_a), veh/h	419	2698	3073	985	715	1272
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.83	0.83	1.00	1.00
Uniform Delay (d), s/veh	60.9	35.3	31.0	21.3	23.9	24.6
Incr Delay (d2), s/veh	3.1	0.7	0.5	0.0	0.0	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	3.1	22.5	14.2	0.4	0.2	3.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	64.0	36.0	31.5	21.3	24.0	24.7
LnGrp LOS	E	D	C	C	C	C
Approach Vol, veh/h		1686	1648		113	
Approach Delay, s/veh		39.0	31.4		24.6	
Approach LOS		D	C		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	74.1	55.9	13.5	60.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	99.5	21.5	15.5	79.5
Max Q Clear Time (g_c+I1), s	51.7	4.6	8.7	37.3
Green Ext Time (p_c), s	17.9	0.3	0.3	18.3

Intersection Summary	
HCM 6th Ctrl Delay	34.9
HCM 6th LOS	C

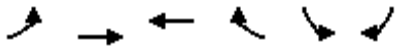
Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	115	20	31	1144	1138	212
Future Volume (veh/h)	115	20	31	1144	1138	212
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			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	1900	1900	1900	1870	1841	1900
Adj Flow Rate, veh/h	124	22	33	1230	1224	228
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	2	4	0
Cap, veh/h	251	115	62	2808	2400	1105
Arrive On Green	0.07	0.07	0.03	0.79	0.69	0.69
Sat Flow, veh/h	3510	1610	1810	3647	3589	1610
Grp Volume(v), veh/h	124	22	33	1230	1224	228
Grp Sat Flow(s),veh/h/ln	1755	1610	1810	1777	1749	1610
Q Serve(g_s), s	2.2	0.8	1.2	7.2	11.0	3.4
Cycle Q Clear(g_c), s	2.2	0.8	1.2	7.2	11.0	3.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	251	115	62	2808	2400	1105
V/C Ratio(X)	0.49	0.19	0.53	0.44	0.51	0.21
Avail Cap(c_a), veh/h	972	446	139	2808	2400	1105
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	28.4	30.9	2.2	4.9	3.7
Incr Delay (d2), s/veh	1.5	0.8	6.8	0.5	0.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.8	0.6	1.0	2.9	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.6	29.2	37.6	2.7	5.7	4.1
LnGrp LOS	C	C	D	A	A	A
Approach Vol, veh/h	146			1263	1452	
Approach Delay, s/veh	30.4			3.6	5.5	
Approach LOS	C			A	A	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	55.9		9.1	6.7	49.1
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s	38.0		18.0	5.0	28.5
Max Q Clear Time (g_c+I1), s	9.2		4.2	3.2	13.0
Green Ext Time (p_c), s	11.1		0.3	0.0	8.7

Intersection Summary	
HCM 6th Ctrl Delay	5.9
HCM 6th LOS	A



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1115	252	391	65	61	1088
Future Volume (veh/h)	1115	252	391	65	61	1088
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	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	1796	1841	1856	1796	1841
Adj Flow Rate, veh/h	1212	274	425	71	66	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	7	4	3	7	4
Cap, veh/h	1183	2173	478	409	976	
Arrive On Green	0.57	1.00	0.26	0.26	0.29	0.00
Sat Flow, veh/h	3456	3503	1841	1572	3319	2745
Grp Volume(v), veh/h	1212	274	425	71	66	0
Grp Sat Flow(s),veh/h/ln	1728	1706	1841	1572	1659	1373
Q Serve(g_s), s	44.5	0.0	28.9	4.6	1.9	0.0
Cycle Q Clear(g_c), s	44.5	0.0	28.9	4.6	1.9	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1183	2173	478	409	976	
V/C Ratio(X)	1.02	0.13	0.89	0.17	0.07	
Avail Cap(c_a), veh/h	1183	2665	743	635	976	
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.67	0.67	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.8	0.0	46.3	37.3	33.1	0.0
Incr Delay (d2), s/veh	27.9	0.0	8.4	0.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.3	0.0	14.3	1.8	0.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	55.7	0.0	54.7	37.5	33.2	0.0
LnGrp LOS	F	A	D	D	C	
Approach Vol, veh/h		1486	496		66	A
Approach Delay, s/veh		45.5	52.3		33.2	
Approach LOS		D	D		C	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			87.3		42.7	49.0	38.3
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			101.5		19.5	44.5	52.5
Max Q Clear Time (g_c+I1), s			2.0		3.9	46.5	30.9
Green Ext Time (p_c), s			2.0		0.1	0.0	2.9

Intersection Summary		
HCM 6th Ctrl Delay		46.7
HCM 6th LOS		D

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	11.9
Intersection LOS	B

Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations								
Traffic Vol, veh/h	235	1	2	34	178	0	1	84
Future Vol, veh/h	235	1	2	34	178	0	1	84
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	0	0	0	5	0	0	0	4
Mvmt Flow	301	1	3	44	228	0	1	108
Number of Lanes	1	1	0	2	1	0	1	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	3	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	2	0
HCM Control Delay	14.8	10.1	8.6
HCM LOS	B	B	A

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	100%	100%	0%	0%	0%	0%	100%	100%
Vol Right, %	0%	0%	100%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	13	23	178	235	1	1	42	42
LT Vol	0	0	0	235	0	1	0	0
Through Vol	13	23	0	0	0	0	42	42
RT Vol	0	0	178	0	1	0	0	0
Lane Flow Rate	17	29	228	301	1	1	54	54
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.028	0.048	0.327	0.505	0.002	0.002	0.094	0.067
Departure Headway (Hd)	5.865	5.951	5.155	6.033	4.837	6.692	6.253	4.458
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	614	605	703	600	741	535	573	802
Service Time	3.565	3.651	2.855	3.756	2.56	4.425	3.986	2.191
HCM Lane V/C Ratio	0.028	0.048	0.324	0.502	0.001	0.002	0.094	0.067
HCM Control Delay	8.7	9	10.3	14.8	7.6	9.4	9.6	7.5
HCM Lane LOS	A	A	B	B	A	A	A	A
HCM 95th-tile Q	0.1	0.2	1.4	2.8	0	0	0.3	0.2

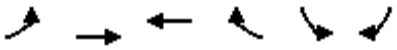
Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (veh/h)	2	111	653	146	893	747	17	71	68	1084	33	100	158
Future Volume (veh/h)	2	111	653	146	893	747	17	71	68	1084	33	100	158
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No			No			No			No	
Adj Sat Flow, veh/h/ln		1900	1885	1885	1900	1870	1900	1885	1722	1885	1752	1900	1900
Adj Flow Rate, veh/h		116	680	152	930	778	18	72	73	1129	34	104	165
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		0	1	1	0	2	0	1	12	1	10	0	0
Cap, veh/h		171	744	332	1003	1580	716	371	356	1573	250	285	242
Arrive On Green		0.05	0.21	0.21	0.48	0.74	0.74	0.21	0.21	0.21	0.15	0.15	0.15
Sat Flow, veh/h		3510	3582	1598	3510	3554	1610	1795	1722	3195	1668	1900	1610
Grp Volume(v), veh/h		116	680	152	930	778	18	72	73	1129	34	104	165
Grp Sat Flow(s),veh/h/ln		1755	1791	1598	1755	1777	1610	1795	1722	1598	1668	1900	1610
Q Serve(g_s), s		3.9	22.3	10.0	29.8	10.7	0.4	4.0	4.2	24.8	2.1	5.9	11.6
Cycle Q Clear(g_c), s		3.9	22.3	10.0	29.8	10.7	0.4	4.0	4.2	24.8	2.1	5.9	11.6
Prop In Lane		1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h		171	744	332	1003	1580	716	371	356	1573	250	285	242
V/C Ratio(X)		0.68	0.91	0.46	0.93	0.49	0.03	0.19	0.21	0.72	0.14	0.36	0.68
Avail Cap(c_a), veh/h		237	761	339	1156	1685	763	371	356	1573	250	285	242
HCM Platoon Ratio		1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		56.2	46.5	41.6	30.2	9.9	8.6	39.3	39.4	23.9	44.3	45.9	48.3
Incr Delay (d2), s/veh		4.7	15.3	1.0	10.6	0.2	0.0	1.2	1.3	2.8	1.1	3.6	14.6
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.8	11.5	4.0	12.0	3.2	0.1	1.9	1.9	12.9	1.0	3.1	5.7
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh		60.8	61.8	42.6	40.8	10.2	8.6	40.5	40.7	26.8	45.4	49.4	62.9
LnGrp LOS		E	E	D	D	B	A	D	D	C	D	D	E
Approach Vol, veh/h			948			1726			1274			303	
Approach Delay, s/veh			58.6			26.7			28.3			56.3	
Approach LOS			E			C			C			E	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	29.3	38.8	29.4	22.5	10.3	57.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.0	39.5	25.5	18.0	8.1	56.9
Max Q Clear Time (g_c+I1), s	26.8	31.8	24.3	13.6	5.9	12.7
Green Ext Time (p_c), s	0.0	2.5	0.6	0.5	0.1	6.6

Intersection Summary	
HCM 6th Ctrl Delay	36.4
HCM 6th LOS	D

Notes

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



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	173	1662	1376	9	27	236
Future Volume (veh/h)	173	1662	1376	9	27	236
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	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	1900	1885	1870	1900	1900	1900
Adj Flow Rate, veh/h	180	1731	1433	9	28	246
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	1	2	0	0	0
Cap, veh/h	241	2091	2439	769	618	1099
Arrive On Green	0.07	0.58	0.48	0.48	0.34	0.34
Sat Flow, veh/h	3510	3676	5274	1610	1810	3220
Grp Volume(v), veh/h	180	1731	1433	9	28	246
Grp Sat Flow(s),veh/h/ln	1755	1791	1702	1610	1810	1610
Q Serve(g_s), s	6.0	46.7	24.5	0.4	1.2	6.5
Cycle Q Clear(g_c), s	6.0	46.7	24.5	0.4	1.2	6.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	241	2091	2439	769	618	1099
V/C Ratio(X)	0.75	0.83	0.59	0.01	0.05	0.22
Avail Cap(c_a), veh/h	366	2701	3127	986	618	1099
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.59	0.59	0.87	0.87	1.00	1.00
Uniform Delay (d), s/veh	54.9	20.1	22.8	16.5	26.4	28.2
Incr Delay (d2), s/veh	2.7	1.1	0.2	0.0	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	18.7	9.7	0.1	0.6	6.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	57.6	21.2	23.0	16.5	26.6	28.7
LnGrp LOS	E	C	C	B	C	C
Approach Vol, veh/h		1911	1442		274	
Approach Delay, s/veh		24.6	22.9		28.4	
Approach LOS		C	C		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	74.5	45.5	12.7	61.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	90.5	20.5	12.5	73.5
Max Q Clear Time (g_c+I1), s	48.7	8.5	8.0	26.5
Green Ext Time (p_c), s	21.3	0.8	0.2	15.5

Intersection Summary	
HCM 6th Ctrl Delay	24.2
HCM 6th LOS	C

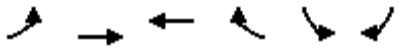
Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	381	100	95	1130	1084	279
Future Volume (veh/h)	381	100	95	1130	1084	279
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			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	1900	1900	1900	1870	1870	1900
Adj Flow Rate, veh/h	397	104	99	1177	1129	291
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	2	2	0
Cap, veh/h	484	222	124	2797	2420	1097
Arrive On Green	0.14	0.14	0.07	0.79	0.68	0.68
Sat Flow, veh/h	3510	1610	1810	3647	3647	1610
Grp Volume(v), veh/h	397	104	99	1177	1129	291
Grp Sat Flow(s),veh/h/ln	1755	1610	1810	1777	1777	1610
Q Serve(g_s), s	13.2	7.1	6.5	12.7	17.8	8.4
Cycle Q Clear(g_c), s	13.2	7.1	6.5	12.7	17.8	8.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	484	222	124	2797	2420	1097
V/C Ratio(X)	0.82	0.47	0.80	0.42	0.47	0.27
Avail Cap(c_a), veh/h	746	342	188	2797	2420	1097
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.3	47.7	55.1	4.1	8.9	7.5
Incr Delay (d2), s/veh	4.3	1.5	12.9	0.5	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	6.5	3.4	3.9	6.6	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.5	49.2	67.9	4.5	9.6	8.0
LnGrp LOS	D	D	E	A	A	A
Approach Vol, veh/h	501			1276	1420	
Approach Delay, s/veh	53.4			9.5	9.3	
Approach LOS	D			A	A	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	98.9		21.1	12.7	86.2
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s	85.5		25.5	12.5	68.5
Max Q Clear Time (g_c+I1), s	14.7		15.2	8.5	19.8
Green Ext Time (p_c), s	12.5		1.4	0.1	13.1

Intersection Summary	
HCM 6th Ctrl Delay	16.3
HCM 6th LOS	B



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1165	521	401	113	107	1003
Future Volume (veh/h)	1165	521	401	113	107	1003
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	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	1885	1870	1811	1767	1870
Adj Flow Rate, veh/h	1177	526	405	114	108	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	1	2	6	9	2
Cap, veh/h	1210	2275	463	380	946	
Arrive On Green	0.58	1.00	0.25	0.25	0.29	0.00
Sat Flow, veh/h	3456	3676	1870	1535	3264	2790
Grp Volume(v), veh/h	1177	526	405	114	108	0
Grp Sat Flow(s),veh/h/ln	1728	1791	1870	1535	1632	1395
Q Serve(g_s), s	39.4	0.0	25.0	7.2	2.9	0.0
Cycle Q Clear(g_c), s	39.4	0.0	25.0	7.2	2.9	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1210	2275	463	380	946	
V/C Ratio(X)	0.97	0.23	0.87	0.30	0.11	
Avail Cap(c_a), veh/h	1224	2761	709	582	946	
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.4	0.0	43.4	36.7	31.3	0.0
Incr Delay (d2), s/veh	15.7	0.0	7.8	0.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.9	0.0	12.5	2.8	1.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	40.1	0.0	51.1	37.1	31.5	0.0
LnGrp LOS	D	A	D	D	C	
Approach Vol, veh/h		1703	519		108	A
Approach Delay, s/veh		27.7	48.1		31.5	
Approach LOS		C	D		C	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		80.7		39.3	46.5	34.2
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		92.5		18.5	42.5	45.5
Max Q Clear Time (g_c+I1), s		2.0		4.9	41.4	27.0
Green Ext Time (p_c), s		4.1		0.2	0.7	2.8

Intersection Summary	
HCM 6th Ctrl Delay	32.4
HCM 6th LOS	C

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations								
Traffic Vol, veh/h	52	0	2	96	100	0	0	45
Future Vol, veh/h	52	0	2	96	100	0	0	45
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	0	0	0	2	0	0	0	12
Mvmt Flow	71	0	3	132	137	0	0	62
Number of Lanes	1	1	0	2	1	0	1	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	3	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	2	0
HCM Control Delay	9.2	7.9	7.4
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	100%	0%	0%	0%	0%
Vol Thru, %	100%	100%	0%	0%	100%	100%	100%	100%
Vol Right, %	0%	0%	100%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	64	100	52	0	0	23	23
LT Vol	0	0	0	52	0	0	0	0
Through Vol	34	64	0	0	0	0	23	23
RT Vol	0	0	100	0	0	0	0	0
Lane Flow Rate	47	88	137	71	0	0	31	31
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.063	0.119	0.158	0.114	0	0	0.046	0.03
Departure Headway (Hd)	4.85	4.884	4.148	5.764	5.264	5.216	5.42	3.509
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	741	736	867	623	0	0	662	1020
Service Time	2.566	2.6	1.864	3.491	2.991	2.938	3.143	1.232
HCM Lane V/C Ratio	0.063	0.12	0.158	0.114	0	0	0.047	0.03
HCM Control Delay	7.9	8.3	7.6	9.2	8	7.9	8.4	6.3
HCM Lane LOS	A	A	A	A	N	N	A	A
HCM 95th-tile Q	0.2	0.4	0.6	0.4	0	0	0.1	0.1

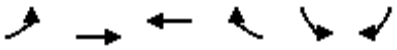
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	750	104	1012	763	41	131	67	1036	9	37	52
Future Volume (veh/h)	96	750	104	1012	763	41	131	67	1036	9	37	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1841	1856	1870	1900	1870	1722	1722	1737
Adj Flow Rate, veh/h	108	843	117	1137	857	46	111	125	1164	10	42	58
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	4	3	2	0	2	12	12	11
Cap, veh/h	157	854	381	1147	1857	835	260	278	1524	227	238	204
Arrive On Green	0.05	0.24	0.24	0.56	0.89	0.89	0.15	0.15	0.15	0.14	0.14	0.14
Sat Flow, veh/h	3428	3526	1572	3428	3497	1572	1781	1900	3170	1640	1722	1472
Grp Volume(v), veh/h	108	843	117	1137	857	46	111	125	1164	10	42	58
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1714	1749	1572	1781	1900	1585	1640	1722	1472
Q Serve(g_s), s	4.0	31.0	7.9	42.6	6.1	0.5	7.4	7.8	19.0	0.7	2.8	4.6
Cycle Q Clear(g_c), s	4.0	31.0	7.9	42.6	6.1	0.5	7.4	7.8	19.0	0.7	2.8	4.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	157	854	381	1147	1857	835	260	278	1524	227	238	204
V/C Ratio(X)	0.69	0.99	0.31	0.99	0.46	0.06	0.43	0.45	0.76	0.04	0.18	0.28
Avail Cap(c_a), veh/h	224	854	381	1147	1857	835	260	278	1524	227	238	204
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.68	0.68	0.68	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.1	49.0	40.3	28.5	3.8	3.5	50.5	50.7	27.7	48.5	49.5	50.2
Incr Delay (d2), s/veh	5.2	27.4	0.5	19.8	0.1	0.0	5.0	5.2	3.7	0.4	1.6	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	16.8	3.1	17.3	1.6	0.2	3.7	4.1	15.4	0.3	1.3	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.3	76.5	40.8	48.2	3.9	3.5	55.6	55.9	31.4	48.9	51.1	53.7
LnGrp LOS	E	E	D	D	A	A	E	E	C	D	D	D
Approach Vol, veh/h		1068			2040			1400			110	
Approach Delay, s/veh		71.5			28.6			35.5			52.3	
Approach LOS		E			C			D			D	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	23.5	48.0	36.0	22.5	10.5	73.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.0	43.5	31.5	18.0	8.5	66.5
Max Q Clear Time (g_c+I1), s	21.0	44.6	33.0	6.6	6.0	8.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.1	7.8

Intersection Summary	
HCM 6th Ctrl Delay	41.2
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	165	1641	1733	22	9	93
Future Volume (veh/h)	165	1641	1733	22	9	93
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	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	1900	1856	1841	1900	1900	1900
Adj Flow Rate, veh/h	183	1823	1926	24	10	103
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	3	4	0	0	0
Cap, veh/h	242	2159	2558	820	576	1025
Arrive On Green	0.07	0.61	0.51	0.51	0.32	0.32
Sat Flow, veh/h	3510	3618	5191	1610	1810	3220
Grp Volume(v), veh/h	183	1823	1926	24	10	103
Grp Sat Flow(s),veh/h/ln	1755	1763	1675	1610	1810	1610
Q Serve(g_s), s	6.7	53.9	39.7	1.0	0.5	2.9
Cycle Q Clear(g_c), s	6.7	53.9	39.7	1.0	0.5	2.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	242	2159	2558	820	576	1025
V/C Ratio(X)	0.76	0.84	0.75	0.03	0.02	0.10
Avail Cap(c_a), veh/h	419	2698	3073	985	576	1025
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.47	0.47	0.67	0.67	1.00	1.00
Uniform Delay (d), s/veh	59.5	20.2	25.4	15.9	30.4	31.2
Incr Delay (d2), s/veh	2.3	1.0	0.6	0.0	0.1	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	3.0	21.3	15.6	0.4	0.2	3.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	61.8	21.2	26.0	15.9	30.4	31.4
LnGrp LOS	E	C	C	B	C	C
Approach Vol, veh/h		2006	1950		113	
Approach Delay, s/veh		24.9	25.9		31.3	
Approach LOS		C	C		C	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		84.1		45.9	13.5	70.7
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		99.5		21.5	15.5	79.5
Max Q Clear Time (g_c+I1), s		55.9		4.9	8.7	41.7
Green Ext Time (p_c), s		23.7		0.3	0.3	22.1

Intersection Summary	
HCM 6th Ctrl Delay	25.6
HCM 6th LOS	C

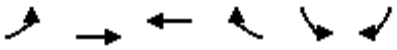
Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	115	20	31	1201	1195	212
Future Volume (veh/h)	115	20	31	1201	1195	212
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			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	1900	1900	1900	1870	1841	1900
Adj Flow Rate, veh/h	124	22	33	1291	1285	228
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	2	4	0
Cap, veh/h	251	115	62	2808	2400	1105
Arrive On Green	0.07	0.07	0.03	0.79	0.69	0.69
Sat Flow, veh/h	3510	1610	1810	3647	3589	1610
Grp Volume(v), veh/h	124	22	33	1291	1285	228
Grp Sat Flow(s),veh/h/ln	1755	1610	1810	1777	1749	1610
Q Serve(g_s), s	2.2	0.8	1.2	7.8	11.8	3.4
Cycle Q Clear(g_c), s	2.2	0.8	1.2	7.8	11.8	3.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	251	115	62	2808	2400	1105
V/C Ratio(X)	0.49	0.19	0.53	0.46	0.54	0.21
Avail Cap(c_a), veh/h	972	446	139	2808	2400	1105
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	28.4	30.9	2.2	5.1	3.7
Incr Delay (d2), s/veh	1.5	0.8	6.8	0.5	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.8	0.6	1.1	3.1	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.6	29.2	37.6	2.8	5.9	4.1
LnGrp LOS	C	C	D	A	A	A
Approach Vol, veh/h	146			1324	1513	
Approach Delay, s/veh	30.4			3.7	5.6	
Approach LOS	C			A	A	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	55.9		9.1	6.7	49.1
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s	38.0		18.0	5.0	28.5
Max Q Clear Time (g_c+I1), s	9.8		4.2	3.2	13.8
Green Ext Time (p_c), s	11.7		0.3	0.0	8.7

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



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1171	568	706	70	78	1142
Future Volume (veh/h)	1171	568	706	70	78	1142
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	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	1796	1841	1856	1796	1841
Adj Flow Rate, veh/h	1273	617	767	76	85	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	7	4	3	7	4
Cap, veh/h	1209	2665	729	623	498	
Arrive On Green	0.58	1.00	0.40	0.40	0.15	0.00
Sat Flow, veh/h	3456	3503	1841	1572	3319	2745
Grp Volume(v), veh/h	1273	617	767	76	85	0
Grp Sat Flow(s),veh/h/ln	1728	1706	1841	1572	1659	1373
Q Serve(g_s), s	45.5	0.0	51.5	4.0	2.9	0.0
Cycle Q Clear(g_c), s	45.5	0.0	51.5	4.0	2.9	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1209	2665	729	623	498	
V/C Ratio(X)	1.05	0.23	1.05	0.12	0.17	
Avail Cap(c_a), veh/h	1209	2665	729	623	498	
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.60	0.60	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.0	0.0	39.3	24.9	48.2	0.0
Incr Delay (d2), s/veh	35.5	0.0	47.8	0.1	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.8	0.0	32.5	1.5	1.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	62.5	0.0	87.0	25.0	48.9	0.0
LnGrp LOS	F	A	F	C	D	
Approach Vol, veh/h		1890	843		85	A
Approach Delay, s/veh		42.1	81.4		48.9	
Approach LOS		D	F		D	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		106.0		24.0	50.0	56.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		101.5		19.5	45.5	51.5
Max Q Clear Time (g_c+I1), s		2.0		4.9	47.5	53.5
Green Ext Time (p_c), s		5.0		0.2	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	54.1
HCM 6th LOS	D

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	11.9
Intersection LOS	B

Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations								
Traffic Vol, veh/h	235	1	2	38	178	0	1	87
Future Vol, veh/h	235	1	2	38	178	0	1	87
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	0	0	0	5	0	0	0	4
Mvmt Flow	301	1	3	49	228	0	1	112
Number of Lanes	1	1	0	2	1	0	1	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	3	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	2	0
HCM Control Delay	14.9	10.1	8.6
HCM LOS	B	B	A

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	100%	100%	0%	0%	0%	0%	100%	100%
Vol Right, %	0%	0%	100%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	25	178	235	1	1	44	44
LT Vol	0	0	0	235	0	1	0	0
Through Vol	15	25	0	0	0	0	44	44
RT Vol	0	0	178	0	1	0	0	0
Lane Flow Rate	19	32	228	301	1	1	56	56
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.031	0.054	0.328	0.507	0.002	0.002	0.097	0.069
Departure Headway (Hd)	5.876	5.963	5.167	6.059	4.863	6.709	6.271	4.475
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	613	604	701	597	737	534	572	799
Service Time	3.576	3.663	2.867	3.78	2.584	4.443	4.004	2.208
HCM Lane V/C Ratio	0.031	0.053	0.325	0.504	0.001	0.002	0.098	0.07
HCM Control Delay	8.8	9	10.4	14.9	7.6	9.5	9.7	7.5
HCM Lane LOS	A	A	B	B	A	A	A	A
HCM 95th-tile Q	0.1	0.2	1.4	2.9	0	0	0.3	0.2

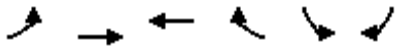
Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (veh/h)	2	111	712	164	1107	799	19	75	70	1312	35	102	159
Future Volume (veh/h)	2	111	712	164	1107	799	19	75	70	1312	35	102	159
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No			No			No			No	
Adj Sat Flow, veh/h/ln		1900	1885	1885	1900	1870	1900	1885	1722	1885	1752	1900	1900
Adj Flow Rate, veh/h		116	742	171	1153	832	20	76	76	1367	36	106	166
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		0	1	1	0	2	0	1	12	1	10	0	0
Cap, veh/h		171	761	339	1156	1752	794	284	273	1558	250	285	242
Arrive On Green		0.05	0.21	0.21	0.55	0.82	0.82	0.16	0.16	0.16	0.15	0.15	0.15
Sat Flow, veh/h		3510	3582	1598	3510	3554	1610	1795	1722	3195	1668	1900	1610
Grp Volume(v), veh/h		116	742	171	1153	832	20	76	76	1367	36	106	166
Grp Sat Flow(s),veh/h/ln		1755	1791	1598	1755	1777	1610	1795	1722	1598	1668	1900	1610
Q Serve(g_s), s		3.9	24.7	11.3	39.3	8.1	0.3	4.5	4.7	19.0	2.2	6.0	11.7
Cycle Q Clear(g_c), s		3.9	24.7	11.3	39.3	8.1	0.3	4.5	4.7	19.0	2.2	6.0	11.7
Prop In Lane		1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h		171	761	339	1156	1752	794	284	273	1558	250	285	242
V/C Ratio(X)		0.68	0.97	0.50	1.00	0.47	0.03	0.27	0.28	0.88	0.14	0.37	0.69
Avail Cap(c_a), veh/h		237	761	339	1156	1752	794	284	273	1558	250	285	242
HCM Platoon Ratio		1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		56.2	46.9	41.7	27.0	6.1	5.4	44.4	44.5	27.5	44.3	45.9	48.3
Incr Delay (d2), s/veh		4.7	26.4	1.2	23.6	0.2	0.0	2.3	2.5	7.3	1.2	3.7	14.8
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.8	13.7	4.6	16.8	2.3	0.1	2.2	2.2	18.5	1.0	3.1	5.7
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh		60.8	73.3	42.9	50.5	6.3	5.4	46.7	47.0	34.9	45.5	49.6	63.2
LnGrp LOS		E	E	D	D	A	A	D	D	C	D	D	E
Approach Vol, veh/h			1029			2005			1519			308	
Approach Delay, s/veh			66.9			31.7			36.1			56.4	
Approach LOS			E			C			D			E	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	23.5	44.0	30.0	22.5	10.3	63.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.0	39.5	25.5	18.0	8.1	56.9
Max Q Clear Time (g_c+I1), s	21.0	41.3	26.7	13.7	5.9	10.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.1	7.3

Intersection Summary	
HCM 6th Ctrl Delay	42.1
HCM 6th LOS	D

Notes

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



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	173	1950	1647	9	27	236
Future Volume (veh/h)	173	1950	1647	9	27	236
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	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	1900	1885	1870	1900	1900	1900
Adj Flow Rate, veh/h	180	2031	1716	9	28	246
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	1	2	0	0	0
Cap, veh/h	241	2369	2835	894	477	849
Arrive On Green	0.07	0.66	0.56	0.56	0.26	0.26
Sat Flow, veh/h	3510	3676	5274	1610	1810	3220
Grp Volume(v), veh/h	180	2031	1716	9	28	246
Grp Sat Flow(s),veh/h/ln	1755	1791	1702	1610	1810	1610
Q Serve(g_s), s	6.0	53.2	27.0	0.3	1.4	7.3
Cycle Q Clear(g_c), s	6.0	53.2	27.0	0.3	1.4	7.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	241	2369	2835	894	477	849
V/C Ratio(X)	0.75	0.86	0.61	0.01	0.06	0.29
Avail Cap(c_a), veh/h	366	2701	3127	986	477	849
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.39	0.39	0.73	0.73	1.00	1.00
Uniform Delay (d), s/veh	54.9	15.9	17.9	11.9	33.0	35.2
Incr Delay (d2), s/veh	1.8	1.1	0.2	0.0	0.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	20.1	10.3	0.1	0.6	7.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	56.7	17.0	18.1	11.9	33.3	36.1
LnGrp LOS	E	B	B	B	C	D
Approach Vol, veh/h		2211	1725		274	
Approach Delay, s/veh		20.2	18.1		35.8	
Approach LOS		C	B		D	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	83.9	36.1	12.7	71.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	90.5	20.5	12.5	73.5
Max Q Clear Time (g_c+I1), s	55.2	9.3	8.0	29.0
Green Ext Time (p_c), s	24.1	0.8	0.2	20.2

Intersection Summary	
HCM 6th Ctrl Delay	20.3
HCM 6th LOS	C

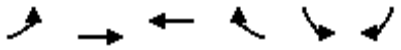
Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	381	100	95	1188	1139	279
Future Volume (veh/h)	381	100	95	1188	1139	279
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			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	1900	1900	1900	1870	1870	1900
Adj Flow Rate, veh/h	397	104	99	1238	1186	291
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	2	2	0
Cap, veh/h	484	222	124	2797	2420	1097
Arrive On Green	0.14	0.14	0.07	0.79	0.68	0.68
Sat Flow, veh/h	3510	1610	1810	3647	3647	1610
Grp Volume(v), veh/h	397	104	99	1238	1186	291
Grp Sat Flow(s),veh/h/ln	1755	1610	1810	1777	1777	1610
Q Serve(g_s), s	13.2	7.1	6.5	13.7	19.2	8.4
Cycle Q Clear(g_c), s	13.2	7.1	6.5	13.7	19.2	8.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	484	222	124	2797	2420	1097
V/C Ratio(X)	0.82	0.47	0.80	0.44	0.49	0.27
Avail Cap(c_a), veh/h	746	342	188	2797	2420	1097
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.3	47.7	55.1	4.2	9.2	7.5
Incr Delay (d2), s/veh	4.3	1.5	12.9	0.5	0.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	6.5	3.4	4.2	7.1	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.5	49.2	67.9	4.7	9.9	8.0
LnGrp LOS	D	D	E	A	A	A
Approach Vol, veh/h	501			1337	1477	
Approach Delay, s/veh	53.4			9.4	9.5	
Approach LOS	D			A	A	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	98.9		21.1	12.7	86.2
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s	85.5		25.5	12.5	68.5
Max Q Clear Time (g_c+I1), s	15.7		15.2	8.5	21.2
Green Ext Time (p_c), s	13.6		1.4	0.1	14.0

Intersection Summary		
HCM 6th Ctrl Delay		16.1
HCM 6th LOS		B



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1223	849	705	125	113	1053
Future Volume (veh/h)	1223	849	705	125	113	1053
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	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	1885	1870	1811	1767	1870
Adj Flow Rate, veh/h	1235	858	712	126	114	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	1	2	6	9	2
Cap, veh/h	1224	2761	709	582	503	
Arrive On Green	0.59	1.00	0.38	0.38	0.15	0.00
Sat Flow, veh/h	3456	3676	1870	1535	3264	2790
Grp Volume(v), veh/h	1235	858	712	126	114	0
Grp Sat Flow(s),veh/h/ln	1728	1791	1870	1535	1632	1395
Q Serve(g_s), s	42.5	0.0	45.5	6.7	3.7	0.0
Cycle Q Clear(g_c), s	42.5	0.0	45.5	6.7	3.7	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1224	2761	709	582	503	
V/C Ratio(X)	1.01	0.31	1.00	0.22	0.23	
Avail Cap(c_a), veh/h	1224	2761	709	582	503	
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.5	0.0	37.3	25.2	44.5	0.0
Incr Delay (d2), s/veh	22.5	0.0	34.8	0.2	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.0	0.0	27.2	2.5	1.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	47.0	0.0	72.0	25.4	45.5	0.0
LnGrp LOS	F	A	F	C	D	
Approach Vol, veh/h		2093	838		114	A
Approach Delay, s/veh		27.8	65.0		45.5	
Approach LOS		C	E		D	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		97.0		23.0	47.0	50.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		92.5		18.5	42.5	45.5
Max Q Clear Time (g_c+I1), s		2.0		5.7	44.5	47.5
Green Ext Time (p_c), s		7.7		0.2	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	38.7
HCM 6th LOS	D

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations								
Traffic Vol, veh/h	0	0	3	96	0	0	0	45
Future Vol, veh/h	0	0	3	96	0	0	0	45
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	0	0	0	2	0	0	0	12
Mvmt Flow	0	0	4	132	0	0	0	62
Number of Lanes	1	1	0	2	1	0	1	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	3	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	2	0
HCM Control Delay	0	7.8	6.9
HCM LOS	-	A	A

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	0%	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	100%	100%	100%	100%	100%
Vol Right, %	0%	0%	0%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	64	0	0	0	0	23	23
LT Vol	0	0	0	0	0	0	0	0
Through Vol	35	64	0	0	0	0	23	23
RT Vol	0	0	0	0	0	0	0	0
Lane Flow Rate	48	88	0	0	0	0	31	31
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.061	0.112	0	0	0	0	0.042	0.026
Departure Headway (Hd)	4.581	4.615	4.581	4.99	4.99	4.681	4.885	2.98
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	783	778	0	0	0	0	726	1178
Service Time	2.302	2.336	2.302	2.69	2.69	2.458	2.662	0.756
HCM Lane V/C Ratio	0.061	0.113	0	0	0	0	0.043	0.026
HCM Control Delay	7.6	7.9	7.3	7.7	7.7	7.5	7.9	5.8
HCM Lane LOS	A	A	N	N	N	N	A	A
HCM 95th-tile Q	0.2	0.4	0	0	0	0	0.1	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	655	104	972	709	41	131	31	966	9	19	19
Future Volume (veh/h)	32	655	104	972	709	41	131	31	966	9	19	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1841	1856	1870	1900	1870	1722	1722	1737
Adj Flow Rate, veh/h	36	736	117	1092	797	46	91	113	1085	10	21	21
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	4	3	2	0	2	12	12	11
Cap, veh/h	96	813	363	1127	1858	835	292	311	1561	227	238	204
Arrive On Green	0.03	0.23	0.23	0.55	0.89	0.89	0.16	0.16	0.16	0.14	0.14	0.14
Sat Flow, veh/h	3428	3526	1572	3428	3497	1572	1781	1900	3170	1640	1722	1472
Grp Volume(v), veh/h	36	736	117	1092	797	46	91	113	1085	10	21	21
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1714	1749	1572	1781	1900	1585	1640	1722	1472
Q Serve(g_s), s	1.3	26.4	8.0	39.9	5.4	0.5	5.9	6.9	21.3	0.7	1.4	1.6
Cycle Q Clear(g_c), s	1.3	26.4	8.0	39.9	5.4	0.5	5.9	6.9	21.3	0.7	1.4	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	96	813	363	1127	1858	835	292	311	1561	227	238	204
V/C Ratio(X)	0.38	0.91	0.32	0.97	0.43	0.06	0.31	0.36	0.69	0.04	0.09	0.10
Avail Cap(c_a), veh/h	224	854	381	1147	1858	835	292	311	1561	227	238	204
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.84	0.84	0.84	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.1	48.6	41.6	28.7	3.7	3.5	47.9	48.3	25.4	48.5	48.8	48.9
Incr Delay (d2), s/veh	2.4	12.8	0.5	17.3	0.1	0.0	2.8	3.3	2.6	0.4	0.7	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	13.0	3.2	16.1	1.5	0.2	2.8	3.6	13.3	0.3	0.6	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.5	61.4	42.1	46.0	3.9	3.5	50.7	51.6	28.0	48.9	49.6	50.0
LnGrp LOS	E	E	D	D	A	A	D	D	C	D	D	D
Approach Vol, veh/h		889			1935			1289			52	
Approach Delay, s/veh		59.0			27.6			31.7			49.6	
Approach LOS		E			C			C			D	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	25.8	47.2	34.5	22.5	8.1	73.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.0	43.5	31.5	18.0	8.5	66.5
Max Q Clear Time (g_c+I1), s	23.3	41.9	28.4	3.6	3.3	7.4
Green Ext Time (p_c), s	0.0	0.8	1.6	0.1	0.0	7.1

Intersection Summary	
HCM 6th Ctrl Delay	35.9
HCM 6th LOS	D

Notes

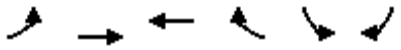
User approved volume balancing among the lanes for turning movement.

HCM 6th Edition does not recognize the approach geometry.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	1201	1195	0
Future Volume (veh/h)	0	0	0	1201	1195	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			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	1900	1900	1900	1870	1841	1900
Adj Flow Rate, veh/h	0	0	0	1291	1285	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	2	4	0
Cap, veh/h	5	2	3	3308	3255	1499
Arrive On Green	0.00	0.00	0.00	0.93	0.93	0.00
Sat Flow, veh/h	3510	1610	1810	3647	3589	1610
Grp Volume(v), veh/h	0	0	0	1291	1285	0
Grp Sat Flow(s),veh/h/ln	1755	1610	1810	1777	1749	1610
Q Serve(g_s), s	0.0	0.0	0.0	2.6	2.6	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.6	2.6	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	5	2	3	3308	3255	1499
V/C Ratio(X)	0.00	0.00	0.00	0.39	0.39	0.00
Avail Cap(c_a), veh/h	972	446	139	3308	3255	1499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.2	0.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.2	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.6	0.6	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	0			1291	1285	
Approach Delay, s/veh	0.0			0.6	0.6	
Approach LOS				A	A	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	65.0		0.0	0.0	65.0
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s	38.0		18.0	5.0	28.5
Max Q Clear Time (g_c+I1), s	4.6		0.0	0.0	4.6
Green Ext Time (p_c), s	12.5		0.0	0.0	10.8

Intersection Summary	
HCM 6th Ctrl Delay	0.6
HCM 6th LOS	A



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1171	559	684	39	58	1142
Future Volume (veh/h)	1171	559	684	39	58	1142
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	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	1796	1841	1856	1796	1841
Adj Flow Rate, veh/h	1273	608	743	42	63	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	7	4	3	7	4
Cap, veh/h	1209	2665	729	623	498	
Arrive On Green	0.58	1.00	0.40	0.40	0.15	0.00
Sat Flow, veh/h	3456	3503	1841	1572	3319	2745
Grp Volume(v), veh/h	1273	608	743	42	63	0
Grp Sat Flow(s),veh/h/ln	1728	1706	1841	1572	1659	1373
Q Serve(g_s), s	45.5	0.0	51.5	2.2	2.1	0.0
Cycle Q Clear(g_c), s	45.5	0.0	51.5	2.2	2.1	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1209	2665	729	623	498	
V/C Ratio(X)	1.05	0.23	1.02	0.07	0.13	
Avail Cap(c_a), veh/h	1209	2665	729	623	498	
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.0	0.0	39.3	24.4	47.9	0.0
Incr Delay (d2), s/veh	36.1	0.0	38.2	0.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.9	0.0	30.6	0.8	0.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	63.1	0.0	77.4	24.4	48.4	0.0
LnGrp LOS	F	A	F	C	D	
Approach Vol, veh/h		1881	785		63	A
Approach Delay, s/veh		42.7	74.6		48.4	
Approach LOS		D	E		D	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		106.0		24.0	50.0	56.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		101.5		19.5	45.5	51.5
Max Q Clear Time (g_c+I1), s		2.0		4.1	47.5	53.5
Green Ext Time (p_c), s		4.9		0.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	52.0
HCM 6th LOS	D

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations								
Traffic Vol, veh/h	0	0	2	39	0	0	0	88
Future Vol, veh/h	0	0	2	39	0	0	0	88
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	0	0	0	5	0	0	0	4
Mvmt Flow	0	0	3	50	0	0	0	113
Number of Lanes	1	1	0	2	1	0	1	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	3	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	2	0
HCM Control Delay	0	7.6	6.7
HCM LOS	-	A	A

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	0%	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	100%	100%	100%	100%	100%
Vol Right, %	0%	0%	0%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	26	0	0	0	0	44	44
LT Vol	0	0	0	0	0	0	0	0
Through Vol	15	26	0	0	0	0	44	44
RT Vol	0	0	0	0	0	0	0	0
Lane Flow Rate	19	33	0	0	0	0	56	56
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.025	0.044	0	0	0	0	0.073	0.045
Departure Headway (Hd)	4.65	4.735	4.65	4.803	4.803	4.571	4.639	2.871
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	770	756	0	0	0	0	771	1241
Service Time	2.377	2.462	2.377	2.583	2.583	2.304	2.372	0.603
HCM Lane V/C Ratio	0.025	0.044	0	0	0	0	0.073	0.045
HCM Control Delay	7.5	7.7	7.4	7.6	7.6	7.3	7.7	5.7
HCM Lane LOS	A	A	N	N	N	N	A	A
HCM 95th-tile Q	0.1	0.1	0	0	0	0	0.2	0.1

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	2	4	622	165	1008	671	9	75	10	1240	23	21
Future Volume (veh/h)	2	4	622	165	1008	671	9	75	10	1240	23	21
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No			No			No			No
Adj Sat Flow, veh/h/ln		1900	1885	1885	1900	1870	1900	1885	1722	1885	1752	1900
Adj Flow Rate, veh/h		4	648	172	1050	699	9	85	0	1292	24	22
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		0	1	1	0	2	0	1	12	1	10	0
Cap, veh/h		18	725	323	1102	1816	823	660	0	1590	250	285
Arrive On Green		0.01	0.20	0.20	0.52	0.85	0.85	0.18	0.00	0.18	0.15	0.15
Sat Flow, veh/h		3510	3582	1598	3510	3554	1610	3591	0	3195	1668	1900
Grp Volume(v), veh/h		4	648	172	1050	699	9	85	0	1292	24	22
Grp Sat Flow(s),veh/h/ln		1755	1791	1598	1755	1777	1610	1795	0	1598	1668	1900
Q Serve(g_s), s		0.1	21.1	11.5	34.1	5.1	0.1	2.4	0.0	22.0	1.5	1.2
Cycle Q Clear(g_c), s		0.1	21.1	11.5	34.1	5.1	0.1	2.4	0.0	22.0	1.5	1.2
Prop In Lane		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h		18	725	323	1102	1816	823	660	0	1590	250	285
V/C Ratio(X)		0.22	0.89	0.53	0.95	0.38	0.01	0.13	0.00	0.81	0.10	0.08
Avail Cap(c_a), veh/h		237	761	339	1156	1816	823	660	0	1590	250	285
HCM Platoon Ratio		1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	0.89	0.89	0.89	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		59.4	46.6	42.8	27.7	4.7	4.3	41.0	0.0	25.4	44.0	43.9
Incr Delay (d2), s/veh		5.9	12.6	1.4	14.8	0.1	0.0	0.4	0.0	4.7	0.8	0.5
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.1	10.7	4.7	13.8	1.5	0.0	1.1	0.0	16.0	0.7	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		65.3	59.2	44.2	42.6	4.8	4.3	41.4	0.0	30.1	44.7	44.4
LnGrp LOS		E	E	D	D	A	A	D	A	C	D	D
Approach Vol, veh/h			824			1758			1377			64
Approach Delay, s/veh			56.1			27.3			30.8			44.5
Approach LOS			E			C			C			D

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	26.5	42.2	28.8	22.5	5.1	65.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.0	39.5	25.5	18.0	8.1	56.9
Max Q Clear Time (g_c+I1), s	24.0	36.1	23.1	3.5	2.1	7.1
Green Ext Time (p_c), s	0.0	1.5	1.2	0.1	0.0	5.8

Intersection Summary	
HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C

Notes

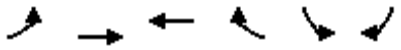
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

HCM 6th Edition does not recognize the approach geometry.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	1210	1158	0
Future Volume (veh/h)	0	0	0	1210	1158	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			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	1900	1900	1900	1870	1870	1900
Adj Flow Rate, veh/h	0	0	0	1260	1206	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	2	2	0
Cap, veh/h	3	1	2	3420	3420	1550
Arrive On Green	0.00	0.00	0.00	0.96	0.96	0.00
Sat Flow, veh/h	3510	1610	1810	3647	3647	1610
Grp Volume(v), veh/h	0	0	0	1260	1206	0
Grp Sat Flow(s),veh/h/ln	1755	1610	1810	1777	1777	1610
Q Serve(g_s), s	0.0	0.0	0.0	2.5	2.3	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.5	2.3	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	3	1	2	3420	3420	1550
V/C Ratio(X)	0.00	0.00	0.00	0.37	0.35	0.00
Avail Cap(c_a), veh/h	746	342	188	3420	3420	1550
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.1	0.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.1	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.4	0.4	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	0			1260	1206	
Approach Delay, s/veh	0.0			0.4	0.4	
Approach LOS				A	A	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	120.0		0.0	0.0	120.0
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s	85.5		25.5	12.5	68.5
Max Q Clear Time (g_c+I1), s	4.5		0.0	0.0	4.3
Green Ext Time (p_c), s	14.2		0.0	0.0	12.9

Intersection Summary	
HCM 6th Ctrl Delay	0.4
HCM 6th LOS	A



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1214	831	703	61	40	1046
Future Volume (veh/h)	1214	831	703	61	40	1046
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	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	1885	1870	1811	1767	1870
Adj Flow Rate, veh/h	1226	839	710	62	40	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	1	2	6	9	2
Cap, veh/h	1224	2761	709	582	503	
Arrive On Green	0.59	1.00	0.38	0.38	0.15	0.00
Sat Flow, veh/h	3456	3676	1870	1535	3264	2790
Grp Volume(v), veh/h	1226	839	710	62	40	0
Grp Sat Flow(s),veh/h/ln	1728	1791	1870	1535	1632	1395
Q Serve(g_s), s	42.5	0.0	45.5	3.1	1.3	0.0
Cycle Q Clear(g_c), s	42.5	0.0	45.5	3.1	1.3	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1224	2761	709	582	503	
V/C Ratio(X)	1.00	0.30	1.00	0.11	0.08	
Avail Cap(c_a), veh/h	1224	2761	709	582	503	
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.57	0.57	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.5	0.0	37.3	24.1	43.5	0.0
Incr Delay (d2), s/veh	19.8	0.0	34.1	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.5	0.0	27.0	1.2	0.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.3	0.0	71.3	24.2	43.8	0.0
LnGrp LOS	F	A	F	C	D	
Approach Vol, veh/h		2065	772		40	A
Approach Delay, s/veh		26.3	67.5		43.8	
Approach LOS		C	E		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			97.0		23.0	47.0	50.0
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			92.5		18.5	42.5	45.5
Max Q Clear Time (g_c+I1), s			2.0		3.3	44.5	47.5
Green Ext Time (p_c), s			7.4		0.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	37.6
HCM 6th LOS	D

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

INTERSECTION SUMMARY

Site: 3 [Mbest Drive/University Drive]

Existing Plus Project Conditions - AM Peak Hour
Roundabout

Intersection Performance - Hourly Values				
Performance Measure	**Vehicles**		**Persons**	
Travel Speed (Average)	34.2	mph	34.2	mph
Travel Distance (Total)	246.2	veh-mi/h	295.4	pers-mi/h
Travel Time (Total)	7.2	veh-h/h	8.6	pers-h/h
Demand Flows (Total)	393	veh/h	472	pers/h
Percent Heavy Vehicles (Demand)	2.0	%		
Degree of Saturation	0.076			
Practical Spare Capacity	1012.9	%		
Effective Intersection Capacity	5152	veh/h		
Control Delay (Total)	0.37	veh-h/h	0.44	pers-h/h
Control Delay (Average)	3.3	sec	3.3	sec
Control Delay (Worst Lane)	3.6	sec		
Control Delay (Worst Movement)	3.6	sec	3.6	sec
Geometric Delay (Average)	0.0	sec		
Stop-Line Delay (Average)	3.3	sec		
Idling Time (Average)	2.5	sec		
Intersection Level of Service (LOS)	LOS A			
95% Back of Queue - Vehicles (Worst Lane)	0.3	veh		
95% Back of Queue - Distance (Worst Lane)	8.1	ft		
Queue Storage Ratio (Worst Lane)	0.01			
Total Effective Stops	28	veh/h	33	pers/h
Effective Stop Rate	0.07	per veh	0.07	per pers
Proportion Queued	0.17		0.17	
Performance Index	9.0		9.0	
Cost (Total)	100.04	$/h	100.04	$/h
Fuel Consumption (Total)	9.6	gal/h		
Carbon Dioxide (Total)	85.7	kg/h		
Hydrocarbons (Total)	0.008	kg/h		
Carbon Monoxide (Total)	0.109	kg/h		
NOx (Total)	0.102	kg/h		

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Intersection LOS value for Vehicles is based on average delay for all vehicle movements.
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Intersection Performance - Annual Values				
Performance Measure	**Vehicles**		**Persons**	
Demand Flows (Total)	188,870	veh/y	226,644	pers/y
Delay	176	veh-h/y	211	pers-h/y
Effective Stops	13,355	veh/y	16,026	pers/y
Travel Distance	118,156	veh-mi/y	141,787	pers-mi/y
Travel Time	3,455	veh-h/y	4,146	pers-h/y
Cost	48,018	$/y	48,018	$/y
Fuel Consumption	4,601	gal/y		
Carbon Dioxide	41,141	kg/y		
Hydrocarbons	4	kg/y		
Carbon Monoxide	52	kg/y		
NOx	49	kg/y		

INTERSECTION SUMMARY

Site: 3 [Mbest Drive/University Drive]

Existing Plus Project Conditions - PM Peak Hour
Roundabout

Intersection Performance - Hourly Values				
Performance Measure	**Vehicles**		**Persons**	
Travel Speed (Average)	33.6	mph	33.6	mph
Travel Distance (Total)	362.8	veh-mi/h	435.3	pers-mi/h
Travel Time (Total)	10.8	veh-h/h	13.0	pers-h/h
Demand Flows (Total)	578	veh/h	694	pers/h
Percent Heavy Vehicles (Demand)	2.0	%		
Degree of Saturation	0.162			
Practical Spare Capacity	423.2	%		
Effective Intersection Capacity	3559	veh/h		
Control Delay (Total)	0.63	veh-h/h	0.76	pers-h/h
Control Delay (Average)	3.9	sec	3.9	sec
Control Delay (Worst Lane)	4.3	sec		
Control Delay (Worst Movement)	4.3	sec	4.3	sec
Geometric Delay (Average)	0.0	sec		
Stop-Line Delay (Average)	3.9	sec		
Idling Time (Average)	2.8	sec		
Intersection Level of Service (LOS)	LOS A			
95% Back of Queue - Vehicles (Worst Lane)	0.8	veh		
95% Back of Queue - Distance (Worst Lane)	19.7	ft		
Queue Storage Ratio (Worst Lane)	0.02			
Total Effective Stops	77	veh/h	92	pers/h
Effective Stop Rate	0.13	per veh	0.13	per pers
Proportion Queued	0.25		0.25	
Performance Index	14.4		14.4	
Cost (Total)	152.71	$/h	152.71	$/h
Fuel Consumption (Total)	14.4	gal/h		
Carbon Dioxide (Total)	128.7	kg/h		
Hydrocarbons (Total)	0.011	kg/h		
Carbon Monoxide (Total)	0.163	kg/h		
NOx (Total)	0.153	kg/h		

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Intersection LOS value for Vehicles is based on average delay for all vehicle movements.
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Intersection Performance - Annual Values				
Performance Measure	**Vehicles**		**Persons**	
Demand Flows (Total)	277,565	veh/y	333,078	pers/y
Delay	304	veh-h/y	365	pers-h/y
Effective Stops	36,974	veh/y	44,369	pers/y
Travel Distance	174,130	veh-mi/y	208,956	pers-mi/y
Travel Time	5,181	veh-h/y	6,218	pers-h/y
Cost	73,300	$/y	73,300	$/y
Fuel Consumption	6,908	gal/y		
Carbon Dioxide	61,772	kg/y		
Hydrocarbons	5	kg/y		
Carbon Monoxide	78	kg/y		
NOx	73	kg/y		

INTERSECTION SUMMARY

Site: 3 [Mbest Drive/University Drive]

General Plan Build Out Plus Project Conditions - AM Peak Hour
Roundabout

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Hydrocarbons (Total)	0.011	kg/h		
Carbon Monoxide (Total)	0.163	kg/h		
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Hydrocarbons	5	kg/y		
Carbon Monoxide	78	kg/y		
NOx	73	kg/y		

APPENDIX D

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE CALIFORNIA NATURAL DIVERSITY DATABASE RESULTS

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Multiple Occurrences per Page

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Marina (3612167))

Ambystoma californiense **Element Code:** AAAAA01180

California tiger salamander

Listing Status:	**Federal:**	Threatened	**CNDDB Element Ranks:**	**Global:**	G2G3
	State:	Threatened		**State:**	S2S3
	Other:	CDFW_WL-Watch List, IUCN_VU-Vulnerable			
Habitat:	**General:**	CENTRAL VALLEY DPS FEDERALLY LISTED AS THREATENED. SANTA BARBARA AND SONOMA COUNTIES DPS FEDERALLY LISTED AS ENDANGERED.			
	Micro:	NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.			

Occurrence No.	168	**Map Index:**	24440	**EO Index:**	6589	**Element Last Seen:**	2017-02-09
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2017-02-09
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-10-09

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.64564 / -121.75821	**Accuracy:**	specific area
UTM:	Zone-10 N4056281 E611003	**Elevation (ft):**	287
PLSS:	T15S, R02E, Sec. 4, SW (M)	**Acres:**	15.0

Location: SE SIDE OF WATKINS GATE RD BETWEEN HENNEKENS RANCH RD & JERRY SMITH ACCESS CORRIDOR, FORT ORD NATIONAL MONUMENT.

Detailed Location: 2003: COMANCHE POND. 2017: COUNTY-MANAGED UPLAND MITIGATION SITE ADJACENT TO FORT ORD NATIONAL MONUMENT.

Ecological: 1992: LARGE VERNAL POOL (~5 ACRES); 80% COVER, MAINLY EMERGENT VASCULAR PLANTS; MUD BOTTOM; 36"DEEP; IN GRASSLAND/OAK WOODLAND. 2003: VERNAL POOLS IN GRASSLAND/OAK WOODLAND. 2017: CTS OBSERVED MIGRATING TO/FROM BREEDING POOLS.

General: LARVAE OBSERVED IN APR 1992. 25 JUVENILES OBSERVED ON 13 FEB 2003. 18 JUVENILES OBSERVED JAN-FEB 2017.

Owner/Manager: BLM-FORT ORD, MNT COUNTY

Occurrence No.	250	**Map Index:**	26012	**EO Index:**	1758	**Element Last Seen:**	1995-02-24
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1995-02-24
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	1996-04-23

Quad Summary: Salinas (3612166), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.63829 / -121.75223	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4055473 E611548	**Elevation (ft):**	430
PLSS:	T15S, R02E, Sec. 09 (M)	**Acres:**	8.1

Location: WESTERN-MOST POOL ON MACHINE GUN FLATS, FORT ORD MILITARY RESERVATION.

Detailed Location: IN 1995-WATER DEPTH: 29 INCHES, SURFACE AREA: ABOUT 20,000 SQ FEET.

Ecological: HABITAT CONSISTS OF A LARGE VERNAL POOL WITHIN A VERNAL POOL COMPLEX; UPLAND HABITAT CONSISTS OF OAK WOODLAND & COASTAL SCRUB.

General: 5/28/1991-CTS PRESENT AT SHAFFER SITE #252, NUMBER AND LIFESTAGE UNKNOWN; 1992-CTS OBSERVED BY JSA, MAPPED BASED ON PROVIDED GRAPHICS IN REPORT, WILDLIFE TEXT MISSING FROM REPORT; 2/24/1995-CTS LARVAE PRESENT DURING SURVEY FOR FAIRY SHRIMP.

Owner/Manager: BLM-FORT ORD

Occurrence No.	520	**Map Index:**	44930	**EO Index:**	44930	**Element Last Seen:**	2000-06-15
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2000-06-15
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2002-05-02

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.63174 / -121.75686	**Accuracy:**	1/10 mile
UTM:	Zone-10 N4054741 E611143	**Elevation (ft):**	580
PLSS:	T15S, R02E, Sec. 09 (M)	**Acres:**	0.0

Location:	ELLIOTT HILL, FORT ORD MILIARY RESERVATION.
Detailed Location:	SITE IS LOCATED 0.6 MILE SW OF THE M2299AIN WETLAND AT MACHINE GUN FLATS.
Ecological:	HABITAT CONSISTS OF A VERNAL POOL (MAXIMUM SURFACE AREA=0.82 ACRES), LOCATED AT THE TOP OF THE RIDGE; SURROUNDED BY COAST LIVE OAK WOODLAND, CENTRAL MARITIME CHAPARRAL, AND NON-NATIVE GRASSLAND.
General:	13 LARVAE FOUND IN 8" OF WATER, IN THE NE CORNER OF THE POOL, ON 15 JUN 2000.
Owner/Manager:	BLM-FORT ORD

Occurrence No.	742	**Map Index:**	53624	**EO Index:**	53624	**Element Last Seen:**	2003-02-13
Occ. Rank:	Excellent			**Presence:**	Presumed Extant	**Site Last Seen:**	2003-02-13
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2003-12-18

Quad Summary:	Salinas (3612166), Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.64291 / -121.75148	**Accuracy:**	specific area
UTM:	Zone-10 N4055986 E611607	**Elevation (ft):**	357
PLSS:	T15S, R02E, Sec. 09 (M)	**Acres:**	4.0

Location:	0.6 MILE NW OF MACHINE GUN FLATS, FORT ORD.
Detailed Location:	POOL NAME GIVEN AS "LONG".
Ecological:	HABITAT CONSISTS OF A VERNAL POOL WITHIN GRASSLAND/OAK WOODLAND.
General:	23 JUVENILES OBSERVED ON 13 FEB 2003.
Owner/Manager:	BLM-FORT ORD

Occurrence No.	753	**Map Index:**	53671	**EO Index:**	53671	**Element Last Seen:**	2003-04-26
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2003-04-26
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2003-12-22

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.62615 / -121.77823	**Accuracy:**	80 meters
UTM:	Zone-10 N4054096 E609239	**Elevation (ft):**	450
PLSS:	T15S, R02E, Sec. 17 (M)	**Acres:**	0.0

Location:	ALONG GRANT EWING RIDGE, 0.6 MILE NW OF CAMP HUFFMAN, FORT ORD.
Detailed Location:	"10-ALPHA" POOL. SITE IS LOCATED "ACROSS" FROM BLM OFFICE.
Ecological:	HABITAT CONSISTS OF A VERNAL POOL SURROUNDED BY GRASSLAND/CHAPARRAL; SITE HAS EXPERIENCED A RECENT FIRE.
General:	18 JUVENILES OBSERVED ON 26 APR 2003.
Owner/Manager:	BLM-FORT ORD

Occurrence No.	918	**Map Index:**	68165	**EO Index:**	68317	**Element Last Seen:**	2005-02-04
Occ. Rank:	Poor			**Presence:**	Presumed Extant	**Site Last Seen:**	2005-02-04
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2007-02-21

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.65690 / -121.75836	**Accuracy:**	80 meters
UTM:	Zone-10 N4057531 E610972	**Elevation (ft):**	225
PLSS:	T15S, R02E, Sec. 04, NW (M)	**Acres:**	0.0

Location: SOUTHEAST OF MARINA, ABOUT 0.9 MI ENE OF INTERSECTION OF OLD COUNTRY RD AND INTER-GARRISON RD.

Detailed Location: MAPPED ACCORDING TO COORDINATES PROVIDED BY SOURCE & ATTACHED MAP. CTS FOUND IN A WATER METER BOX ON PATCH COURT, NORTH OF INTER-GARRISON RD.

Ecological: RESIDENTIAL NEIGHBORHOOD WITH AN OAK WOODLAND AND MARITIME CHAPARRAL MATRIX ON THE FORMER FT. ORD MILITARY RESERVATION.

General: 1 FEMALE ADULT FOUND AND MOVED TO CLOSEST KNOWN CTS BREEDING SITE (CTS OCC #168 SITE) ON 4 FEB 2005.

Owner/Manager: PVT

Rana draytonii

Element Code: AAABH01022

California red-legged frog

Listing Status:	**Federal:**	Threatened	**CNDDB Element Ranks:**	**Global:**	G2G3
	State:	None		**State:**	S2S3
	Other:	CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable			
Habitat:	**General:**	LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.			
	Micro:	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.			

Occurrence No.	997	**Map Index:**	71515	**EO Index:**	72411	**Element Last Seen:**	2009-05-04
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2009-05-04
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2009-05-12

Quad Summary: Salinas (3612166), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.70870 / -121.74997	**Accuracy:**	specific area
UTM:	Zone-10 N4063287 E611647	**Elevation (ft):**	15
PLSS:	T14S, R02E, Sec. 16, SE (M)	**Acres:**	10.0

Location: LAS SALINAS, ON THE SALINAS RIVER, 248 METERS NORTH OF RIVER MARKER MILE 5 (TOPO), SALINAS.

Detailed Location: ON THE EAST BANK (ON TOPO APPEARS TO BE WEST BANK, BUT CHANNEL SHIFTED) IN STREAMSIDE EMERGENT VEGETATION. PROJECT SITE FOR SALINAS RIVER DIVERSION FACILITY. 4 MAY 2009 FROG OBSERVED IN RAINWATER POOL FORMED WITHIN DIVERSION FACILITY.

Ecological: HABITAT (2008): STREAMSIDE/EMERGENT JUNCUS VEGETATION & ASSOC LITTER PROVIDE HABITAT FOR SPECIES. UPLAND HERBACEOUS VEG DOM BY NETTLE, POISON OAK; DOM CANOPY COAST LIVE OAK/WILLOW; ARUNDO STANDS PRESENT. 2009: SITE ALMOST DENUDEDED OF VEG.

General: 5 SUBADULTS OBS 28 APR 2008 ADJ TO PROJECT SITE. ONE SUBADULT WAS RELOCATED OUTSIDE OF POTENTIAL IMPACT AREA BY D. KEEGAN. 1 SUBADULT CAPT/REMOVED JUL '08. 1 SUBADULT OBS 4 MAY 2009 - RELOCATED 75M UPSTREAM TO APPROPRIATE HABITAT,EAST BANK.

Owner/Manager: MNT WATER RESOURCES AGENCY

Buteo regalis **Element Code:** ABNKC19120

ferruginous hawk

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G4
	State:	None		**State:**	S3S4
	Other:	CDFW_WL-Watch List, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern			
Habitat:	**General:**	OPEN GRASSLANDS, SAGEBRUSH FLATS, DESERT SCRUB, LOW FOOTHILLS AND FRINGES OF PINYON AND JUNIPER HABITATS.			
	Micro:	EATS MOSTLY LAGOMORPHS, GROUND SQUIRRELS, AND MICE. POPULATION TRENDS MAY FOLLOW LAGOMORPH POPULATION CYCLES.			

Occurrence No.	9	**Map Index:** 56409	**EO Index:** 56426	**Element Last Seen:**	2004-03-XX
Occ. Rank:	Good		**Presence:** Presumed Extant	**Site Last Seen:**	2004-03-XX
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2004-08-18

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.69631 / -121.78494	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4061872 E608541	**Elevation (ft):**	85
PLSS:	T14S, R02E, Sec. 19 (M)	**Acres:**	350.3

Location: EAST OF HWY 1 & CONTINUING SE TOWARD THE MARINA CORPORATE BOUNDARY, NE OF MARINA.

Detailed Location: LOCATION SHOWN IS PROJECT SITE. PROJECT IS MAINLY WITHIN SECTION 19 BUT INCLUDES THE EDGES OF SECTIONS 20, 24 AND 30.

Ecological: HABITAT ON PROJECT SITE CONSISTS OF GRAZED GRASSLANDS AND COASTAL DUNE SCRUB. WINTERING BURROWING OWLS ALSO OCCURR IN AREA. CURRENT SURROUNDING LAND USE IS RESIDENTIAL, GRAZING, & ROW CROP AGRICULTURE.

General: 4 WINTERING ADULTS OBSERVED JAN - MAR OF 2004.

Owner/Manager: PVT

Charadrius alexandrinus nivosus **Element Code:** ABNNB03031

western snowy plover

Listing Status:	**Federal:**	Threatened	**CNDDB Element Ranks:**	**Global:**	G3T3
	State:	None		**State:**	S2S3
	Other:	CDFW_SSC-Species of Special Concern, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern			
Habitat:	**General:**	SANDY BEACHES, SALT POND LEVEES & SHORES OF LARGE ALKALI LAKES.			
	Micro:	NEEDS SANDY, GRAVELLY OR FRIABLE SOILS FOR NESTING.			

Occurrence No.	56	**Map Index:**	37729	**EO Index:**	13033	**Element Last Seen:**	1978-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1978-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	1998-10-19

Quad Summary: Marina (3612167)

County Summary: Monterey, Pacific Ocean

Lat/Long:	36.68999 / -121.81002	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4061142 E606310	**Elevation (ft):**	10
PLSS:	T14S, R01E, Sec. 25 (M)	**Acres:**	180.6

Location: MARINA BEACH, JUST NORTH OF FORT ORD.

Detailed Location:

Ecological:

General: 12 PAIRS OBSERVED DURING MAY-JUNE OF THE 1978 STUDY. AREA ALSO USED BY WINTERING BIRDS.

Owner/Manager: CITY OF MONTEREY

Occurrence No.	111	**Map Index:**	10433	**EO Index:**	25719	**Element Last Seen:**	1986-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1986-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	1989-08-10

Quad Summary: Marina (3612167), Moss Landing (3612177)

County Summary: Monterey, Pacific Ocean

Lat/Long:	36.76363 / -121.80073	**Accuracy:**	1 mile
UTM:	Zone-10 N4069322 E607038	**Elevation (ft):**	10
PLSS:	T13S, R01E (M)	**Acres:**	0.0

Location: SALINAS RIVER STATE BEACH, 2 MI W OF CASTROVILLE.

Detailed Location:

Ecological:

General: IN 1986, 13 CLUTCHES (54 %) HATCHED, AND 16 (59%) OF THE 27 CHICKS FLEDGED. OVERALL SUCCESS WAS 0.67 FLEDGLINGS PER NEST. VARIOUS CAUSES OF NEST DESTRUCTION: PEOPLE (3), VEHICLES (1), HORSE (1), COYOTE/FOX (2), CAT (1), TIDE (1), UNK (2).

Owner/Manager: DPR-SALINAS RIVER SB

Occurrence No.	113	**Map Index:**	10411	**EO Index:**	25717	**Element Last Seen:**	1986-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1986-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	1997-02-06

Quad Summary: Marina (3612167), Moss Landing (3612177)

County Summary: Monterey, Pacific Ocean

Lat/Long:	36.74332 / -121.80455	**Accuracy:**	1 mile
UTM:	Zone-10 N4067064 E606725	**Elevation (ft):**	10
PLSS:	T14S, R01E, Sec. 01 (M)	**Acres:**	0.0

Location: SALINAS RIVER WILDLIFE AREA, 4 MILES SOUTH OF MOSS LANDING.

Detailed Location:

Ecological:

General: IN 1986, ONLY 15% OF 40 CLUTCHES HATCHED; AT LEAST 50% OF RESULTING 18 CHICKS FLEDGED (0.23 YOUNG PER NEST). COYOTES AND FOXES TOOK 16 NESTS AND PROBABLY MOST OF THE REMAINING 10 NESTS WHICH DISAPPEARED FOR UNKNOWN REASONS.

Owner/Manager: USFWS-SALINAS RIVER NWR, PVT

Occurrence No.	114	**Map Index:**	16030	**EO Index:**	25716	**Element Last Seen:**	1986-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1986-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	1997-02-06

Quad Summary: Marina (3612167)

County Summary: Monterey, Pacific Ocean

Lat/Long:	36.71349 / -121.80404	**Accuracy:**	1 mile
UTM:	Zone-10 N4063756 E606812	**Elevation (ft):**	10
PLSS:	T14S, R01E, Sec. 13 (M)	**Acres:**	0.0

Location: LONE STAR BEACH, APPROX 2 MILES NORTH OF MARINA.

Detailed Location:

Ecological:

General: IN 1986, OF 44 CLUTCHES, 36% HATCHED, PRODUCING AT LEAST 44 YOUNG; ONLY 5 (11%) FLEDGED (0.11 PER NEST). CHICK LOSS DUE TO COYOTE/FOX (16), VEHICLES (7), DESERTION (2), GULLS (1), UNKNOWN CAUSES (1).

Owner/Manager: PVT-LONE STAR IND

Occurrence No.	115	**Map Index:**	10265	**EO Index:**	25715	**Element Last Seen:**	1988-05-09
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1988-05-09
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	1995-10-27

Quad Summary: Seaside (3612157), Marina (3612167)

County Summary: Monterey, Pacific Ocean

Lat/Long:	36.62637 / -121.84359	**Accuracy:**	1/5 mile
UTM:	Zone-10 N4054048 E603396	**Elevation (ft):**	5
PLSS:	T15S, R01E, Sec. 15 (M)	**Acres:**	0.0

Location: MONTEREY BAY DUNES, W/OF HWY 1, 0.25 MI S OF SOUTHERN BOUNDARY OF FORT ORD MILITARY RESERVATION.

Detailed Location:

Ecological: HABITAT IS AN ISOLATED SANDY BEACH AT THE BASE OF MONTEREY DUNES.

General:

Owner/Manager: PVT-FARGO INDUSTRIES

Occurrence No.	144	**Map Index:**	99121	**EO Index:**	100644	**Element Last Seen:**	2015-08-31
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2015-08-31
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2016-02-16

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.64387 / -121.83181	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4056003 E604425	**Elevation (ft):**	80
PLSS:	T15S, R01E, Sec. 11, NW (M)	**Acres:**	300.0

Location: THE BEACH AT FORT ORD DUNES STATE PARK, FROM THE S END OF BEACH RANGE RD N TO THE VICINITY OF LAKE CT, SEASIDE & MARINA.

Detailed Location: BIRDS NEST ON ABOUT 4 MILES OF BEACH AT THE DUNES SP.

Ecological: SANDY BEACH IN STATE PARK. SITE DISTURBED BY RECREATIONAL USE OF BEACH.

General: NESTING COLONY OF 30-44 OBSERVED IN 2013 AND 2014. BREEDING COLONY OF 34, INCLUDING SEVERAL BREEDING PAIRS, MULTIPLE NESTS AND CHICKS MONITORED 23 FEB TO 31 AUG 2015.

Owner/Manager: DPR-FORT ORD DUNES STATE PARK

Athene cunicularia **Element Code:** ABNSB10010

burrowing owl

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G4
	State:	None		**State:**	S3
	Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern			
Habitat:	**General:**	OPEN, DRY ANNUAL OR PERENNIAL GRASSLANDS, DESERTS, AND SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.			
	Micro:	SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.			

Occurrence No.	513	**Map Index:** 56409	**EO Index:**	57916	**Element Last Seen:** 2004-03-XX
Occ. Rank:	Good		**Presence:**	Presumed Extant	**Site Last Seen:** 2004-03-XX
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:** 2004-11-04

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.69631 / -121.78494	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4061872 E608541	**Elevation (ft):**	85
PLSS:	T14S, R02E, Sec. 19 (M)	**Acres:**	350.3

Location: EAST OF HIGHWAY 1 & CONTINUING SE TOWARD THE MARINA CORPORATE BOUNDARY, NE OF MARINA.

Detailed Location: LOCATION SHOWN IS PROJECT SITE. PROJECT IS MAINLY WITHIN SECTION 19 BUT INCLUDES THE EDGES OF SECTIONS 20, 24 AND 30.

Ecological: HABITAT ON PROJECT SITE CONSISTS OF GRAZED GRASSLANDS AND COASTAL DUNE SCRUB. CURRENT/SURROUNDING LAND USE: RESIDENTIAL, GRAZED, AND ROW CROP AGRICULTURE.

General: 7 WINTERING ADULTS PRESENT FROM JAN-MAR 2004.

Owner/Manager: PVT

Occurrence No.	579	**Map Index:** 39025	**EO Index:**	51271	**Element Last Seen:** 1965-07-26
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:** 1965-07-26
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:** 2003-05-13

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.68276 / -121.79205	**Accuracy:**	1 mile
UTM:	Zone-10 N4060360 E607925	**Elevation (ft):**	100
PLSS:	T14S, R02E, Sec. 30 (M)	**Acres:**	0.0

Location: MARINA.

Detailed Location:

Ecological: BURROW IN OPEN VALLEY FIELDS.

General: 4 YOUNG, BUT ALMOST ADULT SIZED BIRDS OBSERVED SITTING NEXT TO THE BURROW 26 JUL 1965.

Owner/Manager: UNKNOWN, UCNR-FORT ORD NR

Occurrence No.	1958	**Map Index:**	A0202	**EO Index:**	101765	**Element Last Seen:**	2017-10-04
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2017-10-04
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2019-06-13

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.70596 / -121.78974	**Accuracy:**	specific area
UTM:	Zone-10 N4062936 E608100	**Elevation (ft):**	43
PLSS:	T14S, R02E, Sec. 19, NW (M)	**Acres:**	10.0

Location:	W SIDE OF LAPIS RD, ABOUT 1.0-1.3 MI S OF HWY 1 AT DEL MONTE BLVD & 1.0-1.2 MI NE OF RESERVATION RD AT DUNES RD, MARINA.
Detailed Location:	MAPPED TO PROVIDED COORDINATES. 2016 DETECTION IS SOUTH, 2017 DETECTION IS NORTH.
Ecological:	2016: GRASSLAND AND AGRICULTURAL LAND. 2017: GRAZED OPEN FIELD WITH HIGHWAY 1 & PROTECTED DUNES TO WEST, SITE QUALITY DESCRIBED AS FAIR.
General:	2 TERRITORIAL BIRDS OBSERVED AT BURROW SITE ON 16 FEB 2016. 1 ADULT FLUSHED FROM BURROW ON 4 OCT 2017.
Owner/Manager:	UNKNOWN

Eremophila alpestris actia **Element Code:** ABPAT02011

California horned lark

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G5T4Q
	State:	None		**State:**	S4
	Other:	CDFW_WL-Watch List, IUCN_LC-Least Concern			
Habitat:	**General:**	COASTAL REGIONS, CHIEFLY FROM SONOMA COUNTY TO SAN DIEGO COUNTY. ALSO MAIN PART OF SAN JOAQUIN VALLEY AND EAST TO FOOTHILLS.			
	Micro:	SHORT-GRASS PRAIRIE, "BALD" HILLS, MOUNTAIN MEADOWS, OPEN COASTAL PLAINS, FALLOW GRAIN FIELDS, ALKALI FLATS.			

Occurrence No.	65	**Map Index:**	55925	**EO Index:**	55941	**Element Last Seen:**	1992-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1992-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2004-06-25

Quad Summary:	Salinas (3612166), Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.68281 / -121.75643	**Accuracy:**	2/5 mile
UTM:	Zone-10 N4060407 E611108	**Elevation (ft):**	120
PLSS:	T14S, R02E, Sec. 28, SW (M)	**Acres:**	0.0

Location:	0.75 MILE NE OF THE INTERSECTION OF THE SALINAS RIVER AND BLANCO ROAD, JUST EAST OF THE SALINAS RIVER, WEST OF MARINA.
Detailed Location:	
Ecological:	HABITAT CONSISTS OF GRASSLAND.
General:	UNKNOWN NUMBER OBSERVED DURING 1992.
Owner/Manager:	BLM-FORT ORD

Occurrence No.	69	**Map Index:**	56409	**EO Index:**	56427	**Element Last Seen:**	2004-06-XX
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2004-06-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2004-10-13

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.69631 / -121.78494	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4061872 E608541	**Elevation (ft):**	85
PLSS:	T14S, R02E, Sec. 19 (M)	**Acres:**	350.3

Location:	EAST OF HWY 1 & CONTINUING SE TOWARD THE MARINA CORPORATE BOUNDARY, NE OF MARINA.
Detailed Location:	LOCATION SHOWN IS PROJECT SITE. PROJECT IS MAINLY WITHIN SECTION 19 BUT INCLUDES THE EDGES OF SECTIONS 20, 24 AND 30.
Ecological:	HABITAT ON PROJECT SITE CONSISTS OF GRAZED GRASSLANDS AND COASTAL DUNE SCRUB. WINTERING BURROWING OWLS ALSO OCCURR IN AREA. CURRENT/SURR. LAND USE: RESIDENTIAL, GRAZED, ROW CROP AGRICULTURE.
General:	23 NESTING/WINTERING ADULTS OBSERVED DURING SURVEYS CONDUCTED JAN - JUN OF 2004.
Owner/Manager:	PVT

Riparia riparia **Element Code:** ABPAU08010

bank swallow

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G5
	State:	Threatened		**State:**	S2
	Other:	BLM_S-Sensitive, IUCN_LC-Least Concern			
Habitat:	**General:**	COLONIAL NESTER; NESTS PRIMARILY IN RIPARIAN AND OTHER LOWLAND HABITATS WEST OF THE DESERT.			
	Micro:	REQUIRES VERTICAL BANKS/CLIFFS WITH FINE-TEXTURED/SANDY SOILS NEAR STREAMS, RIVERS, LAKES, OCEAN TO DIG NESTING HOLE.			

Occurrence No.	291 **Map Index:** 84355	**EO Index:**	85388	**Element Last Seen:**	2012-06-11
Occ. Rank:	Unknown	**Presence:**	Presumed Extant	**Site Last Seen:**	2012-06-11
Occ. Type:	Natural/Native occurrence	**Trend:**	Unknown	**Record Last Updated:**	2013-07-11

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.64131 / -121.82863	**Accuracy:**	1 mile
UTM:	Zone-10 N4055722 E604713	**Elevation (ft):**	100
PLSS:	T15S, R01E, Sec. 11 (M)	**Acres:**	0.0

Location: BEACH AREA ABOUT 2.5 MILES NORTH OF SEASIDE.

Detailed Location: LOCATIONS STATED AS "SEASIDE 2 MI N," "SEASIDE 3 MI N," AND "MONTEREY 5 MI N." NESTS LOCATED IN SAND BANK BY THE BEACH. EXACT LOCATIONS UNKNOWN AND SO MAPPED TO INCLUDE SPECIFIED DISTANCES FROM MONTEREY AND SEASIDE.

Ecological: NORTHERN ROUGH-WINGED SWALLOWS ALSO OBSERVED IN THE AREA.

General: 3 EGG SETS COLLECTED 5 JUN 1897. 1 EGG SET COLLECTED 28 MAY 1898. 5 EGG SETS COLLECTED 8 JUN 1898. 12 NESTS ESTIMATED JUN 2008. 10-15 PAIRS ESTIMATED WITH SOME FLEDGED YOUNG CHASING ADULTS OBSERVED JUN 2010. 4 BIRDS USING BURROWS JUN 2012.

Owner/Manager: UNKNOWN

Agelaius tricolor

Element Code: ABPBXB0020

tricolored blackbird

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G2G3
	State:	Threatened		**State:**	S1S2
	Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern			
Habitat:	**General:**	HIGHLY COLONIAL SPECIES, MOST NUMEROUS IN CENTRAL VALLEY & VICINITY. LARGELY ENDEMIC TO CALIFORNIA.			
	Micro:	REQUIRES OPEN WATER, PROTECTED NESTING SUBSTRATE, AND FORAGING AREA WITH INSECT PREY WITHIN A FEW KM OF THE COLONY.			

Occurrence No.	396	**Map Index:** 55210	**EO Index:**	55210	**Element Last Seen:** 2001-XX-XX
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:** 2015-XX-XX
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:** 2016-11-01

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.6897 / -121.80086	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4061121 E607129	**Elevation (ft):**	18
PLSS:	T14S, R02E, Sec. 30, NE (M)	**Acres:**	21.0

Location: LOCKE PADDEN POND IN LOCKE PADDEN PARK, NNW OF THE INTERSECTION OF RESERVATION ROAD & DEL MONTE BLVD, MARINA.

Detailed Location: MAPPED TO GENERAL EXTENT OF LOCKE-PADDEN WETLANDS PARK POND. COLONY DATA STORED IN THE UC DAVIS TRICOLORED BLACKBIRD PORTAL; SITE NAME WAS "LOCKE PADDEN POND."

Ecological: HABITAT COMPOSED OF TULE/BULRUSHES.

General: 50 BIRDS OBS ON 23 APR 1994; POSSIBLY NESTING. 20 SINGING MALES OBS ON 22 APR 1995; REPORTED AS NESTING SINCE 1990. 150 BIRDS OBS ON 20 APR 1996. 8 BIRDS OBS ON 22 APR 2000. COLONY OF 35 BIRDS OBS IN 2001. 0 BIRDS OBS IN 2014 & 2015.

Owner/Manager: UNKNOWN

Occurrence No.	943	**Map Index:** A1808	**EO Index:**	103402	**Element Last Seen:** 2008-07-01
Occ. Rank:	Good		**Presence:**	Presumed Extant	**Site Last Seen:** 2008-07-01
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:** 2016-09-12

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.69533 / -121.8014	**Accuracy:**	specific area
UTM:	Zone-10 N4061745 E607073	**Elevation (ft):**	14
PLSS:	T14S, R01E, Sec. 24, SW (M)	**Acres:**	4.0

Location: ON N SIDE OF BEACH RD AT INTERSECTION WITH RESERVATION RD, 0.2 MI ESE OF HWY 1 AT BEACH RD, MARINA.

Detailed Location: MAPPED TO PROVIDED COORDINATES AND LOCATION DESCRIPTION OF "AT THE INTERSECTION OF RESERVATION AND BEACH DRIVE."

Ecological: FRESHWATER MARSH/POND SURROUNDED BY DENSE LAYERS OF CALIFORNIA TULES AND CATTAILS, AND RIPARIAN WOODLAND. THE UPLANDS AREAS ARE DOMINATED BY NON-NATIVE GRASSES AND SHRUBS, INCLUDING BLACKBERRY. FOOT TRAFFIC ALONG SOUTHERN SIDE.

General: ABOUT 12 ADULTS AND 4 JUVENILES OBSERVED ON 1 JUL 2008; ADULTS OBSERVED FEEDING YOUNG FLEDGLING WHILE OTHERS RETURNED TO THE NESTS WITH FOOD. THE COLONY APPEARED VERY SMALL.

Owner/Manager: CITY OF MARINA

Eucyclogobius newberryi **Element Code:** AFCQN04010

tidewater goby

Listing Status:	**Federal:**	Endangered	**CNDDB Element Ranks:**	**Global:**	G3
	State:	None		**State:**	S3
	Other:	AFS_EN-Endangered, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable			
Habitat:	**General:**	BRACKISH WATER HABITATS ALONG THE CALIFORNIA COAST FROM AGUA HEDIONDA LAGOON, SAN DIEGO COUNTY TO THE MOUTH OF THE SMITH RIVER.			
	Micro:	FOUND IN SHALLOW LAGOONS AND LOWER STREAM REACHES, THEY NEED FAIRLY STILL BUT NOT STAGNANT WATER AND HIGH OXYGEN LEVELS.			

Occurrence No.	36	**Map Index:** 10507	**EO Index:** 13129	**Element Last Seen:**	1951-08-23
Occ. Rank:	None		**Presence:** Possibly Extirpated	**Site Last Seen:**	1984-XX-XX
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	1997-11-13

Quad Summary: Marina (3612167), Moss Landing (3612177)

County Summary: Monterey, Pacific Ocean

Lat/Long:	36.74104 / -121.79536	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4066822 E607549	**Elevation (ft):**	5
PLSS:	T14S, R02E, Sec. 06 (M)	**Acres:**	138.5

Location: SALINAS RIVER, FROM MOUTH TO 1.0 MILE UPSTREAM, AT HWY 1 CROSSING.

Detailed Location:

Ecological:

General: CAS 48290 COLLECTED IN 1951.

Owner/Manager: USFWS-SALINAS RIVER NWR, PVT

Sorex ornatus salarius

Element Code: AMABA01105

Monterey shrew

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G5T1T2
	State:	None		**State:**	S1S2
	Other:	CDFW_SSC-Species of Special Concern			
Habitat:	**General:**	RIPARIAN, WETLAND & UPLAND AREAS IN THE VICINITY OF THE SALINAS RIVER DELTA.			
	Micro:	PREFERS MOIST MICROHABITATS. FEEDS ON INSECTS & OTHER INVERTEBRATES FOUND UNDER LOGS, ROCKS & LITTER.			

Occurrence No.	1	**Map Index:**	B1320	**EO Index:**	113226	**Element Last Seen:**	1939-06-15
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	1939-06-15
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2019-03-01

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.73964 / -121.79663	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4066666 E607438	**Elevation (ft):**	6
PLSS:	T14S, R02E, Sec. 6 (M)	**Acres:**	402.0

Location: MOUTH OF THE SALINAS RIVER, ABOUT 3 MILES SW OF CASTROVILLE.

Detailed Location: COLLECTION LOCATION DESCRIBED AS "SALT MARSH, MOUTH OF SALINAS RIVER." EXACT LOCATION OF COLLECTIONS UNKNOWN. MAPPED TO MARSH AT THE MOUTH OF THE SALINAS RIVER, AREA WEST OF HIGHWAY 1.

Ecological: AREA IS SURROUNDED BY AGRICULTURE AND APPEARS RELATIVELY UNCHANGED FROM 1941 AERIAL IMAGES.

General: TYPE LOCALITY FOR S. O. SALARIUS SUBSPECIES. 1 COLLECTED ON 11 JUN 1936. 2 COLLECTED ON 13 AUG 1937. 3 COLLECTED ON 16 JUN 1939.

Owner/Manager: USFWS-SALINAS RIVER NWR

Reithrodontomys megalotis distichlis

Element Code: AMAFF02032

Salinas harvest mouse

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G5T1
	State:	None		**State:**	S1
	Other:				
Habitat:	**General:**	KNOWN ONLY FROM THE MONTEREY BAY REGION.			
	Micro:	OCCURS IN FRESH AND BRACKISH WATER WETLANDS AND PROBABLY IN THE ADJACENT UPLANDS AROUND THE MOUTH OF THE SALINAS RIVER.			

Occurrence No.	2	**Map Index:**	10414	**EO Index:**	23885	**Element Last Seen:**	1939-06-15
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1939-06-15
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2006-01-30

Quad Summary: Marina (3612167), Moss Landing (3612177)

County Summary: Monterey, Pacific Ocean

Lat/Long:	36.74949 / -121.79998	**Accuracy:**	2/5 mile
UTM:	Zone-10 N4067754 E607124	**Elevation (ft):**	15
PLSS:	T13S, R01E, Sec. 36 (M)	**Acres:**	0.0

Location: MOUTH OF SALINAS RIVER.

Detailed Location:

Ecological:

General: MVZ #74683 (HOLOTYPE MALE), #108415 (MALE) & 108416 (FEMALE) COLLECTED 10 JUN 1936, #108417-108418 (MALES) COLLECTED 14 AUG 1937, & #108419 (MALE) COLLECTED 15 JUN 1939.

Owner/Manager: UNKNOWN

Occurrence No.	5	**Map Index:**	10568	**EO Index:**	23884	**Element Last Seen:**	1937-05-30
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1937-05-30
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2006-01-30

Quad Summary: Salinas (3612166), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.68466 / -121.75605	**Accuracy:**	1 mile
UTM:	Zone-10 N4060612 E611139	**Elevation (ft):**	100
PLSS:	T14S, R02E, Sec. 28 (M)	**Acres:**	0.0

Location: CAMP ORD, 3.5 MILES EAST OF MARINA (MAPPED AT EAST BOUNDARY OF FORT ORD, ABOUT 2.5 MILES EAST OF MARINA).

Detailed Location:

Ecological:

General: MVZ #108408 (FEMALE) COLLECTED 10 JAN 1937 AND #108409 (FEMALE) COLLECTED 30 MAY 1937.

Owner/Manager: UNKNOWN

Occurrence No.	6	**Map Index:**	39025	**EO Index:**	63906	**Element Last Seen:**	1936-08-14
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1936-08-14
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2006-01-30

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.68276 / -121.79205	**Accuracy:**	1 mile
UTM:	Zone-10 N4060360 E607925	**Elevation (ft):**	100
PLSS:	T14S, R02E, Sec. 30 (M)	**Acres:**	0.0

Location: MARINA.

Detailed Location: MAPPED TO INCLUDE THE LAT-LONG GIVEN BY MVZ WITH A MAXIMUM ERROR DISTANCE OF 0.5 MI.

Ecological:

General: MVZ #108410 (MALE) COLLECTED 14 AUG 1936.

Owner/Manager: PVT, UNKNOWN, UCNR-FORT ORD

Occurrence No.	7	**Map Index:**	10586	**EO Index:**	23883	**Element Last Seen:**	1936-06-02
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1936-06-02
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2006-01-30

Quad Summary:	Salinas (3612166), Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.67384 / -121.74690	**Accuracy:**	1 mile
UTM:	Zone-10 N4059422 E611972	**Elevation (ft):**	50
PLSS:	T14S, R02E, Sec. 33 (M)	**Acres:**	0.0

Location:	WEST SIDE OF THE SALINAS RIVER, 5 MILES WEST OF SALINAS.
Detailed Location:	
Ecological:	
General:	MVZ #108420 (FEMALE) COLLECTED 2 JUN 1936.
Owner/Manager:	UNKNOWN

Taxidea taxus

Element Code: AMAJF04010

American badger

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G5
	State:	None		**State:**	S3
	Other:	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern			
Habitat:	**General:**	MOST ABUNDANT IN DRIER OPEN STAGES OF MOST SHRUB, FOREST, AND HERBACEOUS HABITATS, WITH FRIABLE SOILS.			
	Micro:	NEEDS SUFFICIENT FOOD, FRIABLE SOILS AND OPEN, UNCULTIVATED GROUND. PREYS ON BURROWING RODENTS. DIGS BURROWS.			

Occurrence No.	246	**Map Index:**	57174	**EO Index:**	57190	**Element Last Seen:**	1992-05-21
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	1992-05-21
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2004-10-01

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.65418 / -121.76585	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4057220 E610307	**Elevation (ft):**	260
PLSS:	T15S, R02E, Sec. 05 (M)	**Acres:**	164.9

Location:	2.8 MILES EAST OF HIGHWAY 1, NORTH AND SOUTH OF INTER-GARRISON ROAD, FORT ORD.
Detailed Location:	1 DETECTION NORTH AND 1 SOUTH OF INTER-GARRISON ROAD.
Ecological:	HABITAT CONSISTS OF A GRASSY SPOT WITHIN COASTAL OAK WOODLAND.
General:	BADGER DENS AND DIGGINGS OBSERVED AT 2 LOCATIONS ON 21 MAY 1992 DURING A SURVEY OF FORT ORD BY JONES AND STOKES.
Owner/Manager:	BLM-FORT ORD

Emys marmorata

Element Code: ARAAD02030

western pond turtle

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G3G4
	State:	None		**State:**	S3
	Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable, USFS_S-Sensitive			
Habitat:	**General:**	A THOROUGHLY AQUATIC TURTLE OF PONDS, MARSHES, RIVERS, STREAMS AND IRRIGATION DITCHES, USUALLY WITH AQUATIC VEGETATION, BELOW 6000 FT ELEVATION.			
	Micro:	NEEDS BASKING SITES AND SUITABLE (SANDY BANKS OR GRASSY OPEN FIELDS) UPLAND HABITAT UP TO 0.5 KM FROM WATER FOR EGG-LAYING.			

Occurrence No.	1015	**Map Index:**	32709	**EO Index:**	1158	**Element Last Seen:**	1992-04-23
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	1992-04-23
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	1995-12-27

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.69487 / -121.80132	**Accuracy:**	1/5 mile
UTM:	Zone-10 N4061693 E607080	**Elevation (ft):**	18
PLSS:	T14S, R01E, Sec. 24 (M)	**Acres:**	0.0

Location: CITY OF MARINA; POND ON WEST SIDE OF BEACH ROAD X RESERVATION ROAD.

Detailed Location: POND RESTORATION SITE.

Ecological: BRACKISH-WATER POND WITH EMERGENT WETLAND, VEGETATION AROUND MARGIN; WILLOWS, COASTAL SCRUB AND RUDERAL VEGETATION ALSO PRESENT; WATER GREENISH COLOR; SUBSTRATE SANDY AROUND MARGIN.

General: 2 ADULTS OBSERVED.

Owner/Manager: CITY OF MARINA

Anniella pulchra

Element Code: ARACC01020

northern California legless lizard

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G3
	State:	None		**State:**	S3
	Other:	CDFW_SSC-Species of Special Concern, USFS_S-Sensitive			
Habitat:	**General:**	SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION.			
	Micro:	SOIL MOISTURE IS ESSENTIAL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.			

Occurrence No.	26	**Map Index:**	33832	**EO Index:**	1027	**Element Last Seen:**	1984-04-17
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	1984-04-17
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-08-02

Quad Summary:	Marina (3612167), Moss Landing (3612177)
County Summary:	Monterey

Lat/Long:	36.74904 / -121.79936	**Accuracy:**	1/10 mile
UTM:	Zone-10 N4067705 E607179	**Elevation (ft):**	30
PLSS:	T13S, R01E, Sec. 36, SW (M)	**Acres:**	0.0

Location:	MULLIGAN HILL, N SIDE OF SALINAS RIVER NEAR WHERE IT MEETS THE PACIFIC OCEAN AND OLD SALINAS RIVER, SW OF CASTROVILLE.
Detailed Location:	BURY'S SITE #15. FORMERLY A. P. NIGRA EO #10.
Ecological:	HABITAT CONSISTED OF AN ISOLATED DUNE (20 M HIGH) LOCATED ABOUT 500 M INLAND. NATIVE VEGETATION DOMINATED AND PROVIDES SUITABLE HABITAT, BUT AREA IS SURROUNDED BY AGRICULTURAL LAND.
General:	ONE INDIVIDUAL FOUND IN 0.5 HOUR OF SEARCHING ON 17 APR 1984.
Owner/Manager:	PVT

Occurrence No.	27	**Map Index:**	10419	**EO Index:**	27415	**Element Last Seen:**	2017-04-17
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2017-04-17
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2019-01-23

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.72501 / -121.80187	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4065037 E606989	**Elevation (ft):**	10
PLSS:	T14S, R01E, Sec. 12 (M)	**Acres:**	284.0

Location:	S END OF SALINAS NWR AND N OF CEMEX LAPIS PROPERTY, W OF HWY 1, 1.5 MILES N OF RESERVATION RD AT HWY 1, N OF MARINA.
Detailed Location:	MOST OF SECTION 12 & N SECTION 13. THE AREA N OF THE LONE STAR PLANT (NOW CEMEX) TO THE SALINAS NWR IS THE BEST & LARGEST AREA OF CONTINUOUS BLACK LEGLESS LIZARD HABITAT. HCP TO BE DEVELOPED. BURY'S SITE #16. FORMERLY A. P. NIGRA EO #11.
Ecological:	HABITAT CONSISTED OF COASTAL DUNES/COASTAL STRAND, DOMINATED BY ARTEMISIA PYCNOCEPHALA, LUPINUS CHAMISSONIS, AND ERICAMERIA ERICOIDES. FOUND UNDER LEAF LITTER & NATIVE VEGETATION IN THE SAND. COAST HORNED LIZARD ALSO PRESENT AT THIS SITE.
General:	LIKELY COLLECTED HERE IN 1980. COLLECTED IN JAN 1982. 4 FOUND/1 COLL. ON 15 APR 1984. 3 FOUND/1 COLL. DURING 1987 SURVEYS. 6 FOUND DURING 15 MAY-28 JUL 1997 SURVYES. 2 FOUND IN 2000. 1 FOUND ON 24 MAY 2006. 1 COLLECTED 17 APR 2017.
Owner/Manager:	BIG SUR LAND TRUST, USFWS, PVT

Occurrence No.	28	**Map Index:**	34136	**EO Index:**	27414	**Element Last Seen:**	2008-04-22
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2008-04-22
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-08-11

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.70578 / -121.80553	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4062899 E606689	**Elevation (ft):**	45
PLSS:	T14S, R01E, Sec. 24, N (M)	**Acres:**	124.0

Location:	DUNES N OF SANCTUARY BEACH RESORT & S OF CEMEX, 0.5 MI N OF RESERVATION RD AT HWY 1, MARINA DUNES PRESERVE, N OF MARINA.
Detailed Location:	PART OF THIS AREA WAS FORMERLY KNOWN AS GRANIT ROCK DUNES, AND WAS FORMERLY CNDDB A. P. NIGRA EO #12.
Ecological:	HABITAT ON AVERAGE WAS GOOD TO EXCELLENT; SOME ICEPLANT. SAND MINING HAS OCCURRED IN THE AREA. SOUTH PORTION OF FEATURE PRESERVED BY MONTEREY PENINSULA REGIONAL PARK DISTRICT (MARINA DUNES PRESERVE/GRANITE ROCK DUNES).
General:	7 FOUND (4 COLLECTED) DURING 1987 SURVEYS. 27 FOUND 15 MAY-28 JUL 1997. 1 JUVENILE FOUND IN FEB 2008. 3 ADULTS & 3 JUVENILES RELOCATED TO GRANITE ROCK DUNES IN APR 2008 FROM EMPTY LOT AT DUNES COURT (AREA TO BE DEVELOPED).
Owner/Manager:	MONTEREY PENINSULA RPD, PVT

Occurrence No.	29	**Map Index:**	10291	**EO Index:**	27410	**Element Last Seen:**	1996-11-07
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	1996-11-07
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-08-09

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.63278 / -121.83718	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4054766 E603961	**Elevation (ft):**	100
PLSS:	T15S, R01E, Sec. 10, SE (M)	**Acres:**	58.0

Location:	SAND DUNES W OF HWY 1 IN THE SOUTHERN END OF FORMER FORT ORD, 0.5 MILES N OF FREMONT BLVD AT HWY1, FORT ORD DUNES SP.
Detailed Location:	VICINITY OF FORMER BEACH TRAINFIRE RANGES 1 AND 2. BURY'S SITE #18. FORMERLY A. P. NIGRA EO #13.
Ecological:	ENTIRE AREA WAS HEAVILY VEGETATED WITH ICEPLANT AND DEGRADED DUE TO PAST OPERATION OF MILITARY VEHICLES. THERE WAS A SMALL (2 HA) ECOLOGICAL RESERVE IN THE SOUTHERN PORTION OF THE AREA THAT STILL CONTAINED NATIVE VEGETATION.
General:	SEVEN FOUND (4 COLLECTED) DURING 0.5 HOUR SURVEY ON 21 APR 1984. TWO FOUND DURING RAKING SURVEY BETWEEN TRAINFIRE RANGES 1 & 2 ON 7 NOV 1996.
Owner/Manager:	DPR-FORT ORD DUNES SP

Occurrence No.	30	**Map Index:**	10542	**EO Index:**	27397	**Element Last Seen:**	1971-08-26
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1971-08-26
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-08-11

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.67135 / -121.76761	**Accuracy:**	1/5 mile
UTM:	Zone-10 N4059122 E610126	**Elevation (ft):**	145
PLSS:	T14S, R02E, Sec. 32, NE (M)	**Acres:**	70.0

Location:	VICINITY OF RESERVATION RD AT IMJIN RD, FORMER FORT ORD MILITARY RESERVATION, NOW FORT ORD NATURAL RESERVE, MARINA.
Detailed Location:	LOCATION GIVEN AS 2 MILES EAST OF HWY 1 ALONG RESERVATION ROAD (G17). AT THE TIME OF THIS COLLECTION DEL MONTE BLVD WAS HWY 1 AND RESERVATION RD DID NOT EXTEND WEST OF DEL MONTE BLVD. FORMER A. P. NIGRA EO #28.
Ecological:	
General:	ONE COLLECTED 26 AUG 1971; USED AS GENETIC SAMPLE IN EARLY CHROMOSOME ARTICLE. BURY SEARCHED 3 DIFFERENT INLAND SITES ON FORT ORD (LOCATIONS NOT STATED) IN APR 1984 & DID NOT FIND ANY LEGLESS LIZARDS IN 1.5 HOURS OF SEARCHING.
Owner/Manager:	UCNR-FORT ORD NR, PVT

Occurrence No.	31	**Map Index:**	10349	**EO Index:**	27395	**Element Last Seen:**	1926-11-15
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1992-05-22
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-08-17

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.64950 / -121.82116	**Accuracy:**	2/5 mile
UTM:	Zone-10 N4056638 E605370	**Elevation (ft):**	160
PLSS:	T15S, R01E, Sec. 02 (M)	**Acres:**	0.0

Location:	GIGLING (GIGLING SIDING), FORT ORD.
Detailed Location:	DUNES NW OF LIGHTFIGHTER DR AT HWY 1, NEAR TRAINFIRE RANGES 5 & 6. GIGLING (LATER GIGLING SIDING) WAS A RAIL STOP JUST SW OF THE MAIN FACILITIES OF FORT ORD MILITARY RES, FORMERLY CAMP GIGLING AND CAMP CLAYTON. FORMERLY A. P. NIGRA EO #29.
Ecological:	COASTAL SAND DUNES. OTHER SPECIMENS COLLECTED IN THE 1940S INCLUDED HERE, BUT COULD HAVE BEEN COLLECTED ANYWHERE AT, OR IN THE VICINITY OF FORT ORD.
General:	ONE COLLECTED ON 15 NOV 1926. COLLECTED IN THE VICINITY OF FORT ORD IN 1943, 1944, & 1945. IT APPEARS THAT BASELINE WILDLIFE/REPTILE SURVEYS WERE CONDUCTED IN THIS AREA ON 1 TO 3 DAYS IN MAY 1992, BUT NONE WERE FOUND OR REPORTED.
Owner/Manager:	BLM-FORT ORD

Occurrence No.	32	**Map Index:**	32575	**EO Index:**	1388	**Element Last Seen:**	2007-06-19
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2007-06-19
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-08-14

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.68446 / -121.78626	**Accuracy:**	specific area
UTM:	Zone-10 N4060556 E608441	**Elevation (ft):**	105
PLSS:	T14S, R02E, Sec. 30, E (M)	**Acres:**	47.0

Location:	JUST EAST OF RESERVATION RD AT CRESCENT AVE, FORMER FORT ORD MILITARY RESERVATION, NOW FORT ORD NATURAL RESERVE, MARINA.
Detailed Location:	UCNR NORTH RESERVE PROPERTY; OFFICE AND ACCESS AT IMJIN RD. FORMERLY A. P. NIGRA EO #32 AND A. P. PULCHRA EO #59.
Ecological:	COASTAL SCRUB/MARITIME CHAPARRAL WITH SCATTERED LIVE OAKS AND SANDY, LOAMY SOIL.
General:	ONE JUVENILE FOUND UNDER LIVE OAK, JUST UNDER LEAVES AND DUFF, ON 20 MAY 1992. TWO COLLECTED ON 8 MAY 1997; FOUND UNDER COVERBOARD. ONE INCIDENTALLY FOUND NEAR WELL FOR CARBON TETRACHLORIDE PLUME MONITORING PROJECT ON 19 JUN 2007.
Owner/Manager:	UCNR-FORT ORD NR

Occurrence No.	33	**Map Index:**	72470	**EO Index:**	34032	**Element Last Seen:**	2006-05-10
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2006-05-10
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-08-14

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.68817 / -121.77850	**Accuracy:**	80 meters
UTM:	Zone-10 N4060976 E609128	**Elevation (ft):**	100
PLSS:	T14S, R02E, Sec. 29, NW (M)	**Acres:**	0.0

Location:	0.75 MI ENE OF RESERVATION RD AT CRESCENT AVE FORMER FORT ORD MILITARY RESERVATION, NOW FORT ORD NATURAL RESERVE, MARINA
Detailed Location:	MAPPED TO PROVIDED COORDINATES. FORMERLY A. P. NIGRA EO #37.
Ecological:	HABITAT CONSISTED OF COASTAL MARINE SCRUB/SANDY DUNES, DOMINATED BY ARTEMISIA CALIFORNICA, BACCHARIS PILULARIS, AND ARCTOSTAPHYLOS SPP.
General:	ONE ADULT FOUND ON 10 MAY 2006.
Owner/Manager:	CITY OF MARINA, UCNR-FORT ORD

Occurrence No.	34	**Map Index:**	65378	**EO Index:**	65457	**Element Last Seen:**	2006-06-16
Occ. Rank:	None			**Presence:**	Extirpated	**Site Last Seen:**	2006-07-20
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-08-10

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.69185 / -121.79969	**Accuracy:**	specific area
UTM:	Zone-10 N4061360 E607230	**Elevation (ft):**	44
PLSS:	T14S, R01E, Sec. 25, NE (M)	**Acres:**	4.0

Location:	SOUTH SIDE OF SEASIDE CIRCLE 0.15 MILES EAST OF RESERVATION RD, NORTH OF LOCKE PADDON PARK, MARINA.
Detailed Location:	MARINA LIBRARY SITE, WEST OF RAILROAD TRACKS AND DEL MONTE BLVD. THERE APPEARS TO BE REMNANT HABITAT ADJACENT IN LOCKE-PADDON PARK AND BETWEEN WALMART AND DEL MONTE BLVD, THOUGH LIKELY MARGINAL HABITAT. FORMERLY A. P. NIGRA EO #39.
Ecological:	WAS FOUND IN DETRITUS UNDER A DATE PALM; SURROUNDING HABITAT CONSISTED OF NON-NATIVE GRASSLAND AND ICEPLANT (POOR HABITAT). IMMEDIATE SITE WAS DEVELOPED AS THE MARINA LIBRARY AND PARKING LOT (ABOUT 3.75 ACRES).
General:	1 ADULT OBSERVED ON 16 JUN 2006 JUST AS CONSTRUCTION WORK FOR THE NEW LIBRARY WAS BEGINNING.
Owner/Manager:	MNT COUNTY

Occurrence No.	35	**Map Index:**	79237	**EO Index:**	80215	**Element Last Seen:**	2006-09-20
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2006-09-20
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-08-10

Quad Summary:	Seaside (3612157), Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.6251 / -121.81623	**Accuracy:**	specific area
UTM:	Zone-10 N4053937 E605845	**Elevation (ft):**	361
PLSS:	T15S, R01E, Sec. 14, NE (M)	**Acres:**	2.0

Location:	WEST SIDE OF GENERAL JIM MOORE BLVD ABOUT 0.25 MILES NNE OF COE AVE, SEASIDE.
Detailed Location:	ADJACENT TO SEASIDE MIDDLE SCHOOL. MAPPED TO LOCATION AND HABITAT DESCRIPTION WITH RESPECT TO PROVIDED COORDINATES. FORMERLY A. P. NIGRA EO #40.
Ecological:	MARITIME CHAPARRAL, CONSOLIDATED SANDS, & LITTER LAYERS OF ADENSTOMA FASCICULATUM OR MIMULUS AURANTIACUS. HIGH DENSITY OF FIELD MICE IN AREA. INDIVIDUALS CAPTURED & RELOCATED TO DUNES AT FORMER TRAINFIRE RANGES WEST OF HWY 1 NEAR EO #29.
General:	THREE JUVENILES AND 1 ADULT CAPTURED AND RELOCATED DURING JUNE 2006. TWO ADULTS CAPTURED AND RELOCATED DURING SEP 2006. THESE INDIVIDUALS WERE RELOCATED TO "REMEDIATED FORMER RIFLE RANGES," MOST LIKELY THE VICINITY OF EO #29 WEST OF HWY 1.
Owner/Manager:	UNKNOWN

Occurrence No.	36	**Map Index:**	79364	**EO Index:**	80347	**Element Last Seen:**	2009-06-12
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2009-06-12
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-08-14

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.66041 / -121.79676	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4057876 E607536	**Elevation (ft):**	160
PLSS:	T15S, R02E, Sec. 06, NW (M)	**Acres:**	23.0

Location:	PARCEL NW OF 8TH ST AT IMJIN RD, ABOUT 0.7 MILES E OF 2ND AVE AT 8TH ST, FORMER FORT ORD MILITARY RESERVATION, MARINA.
Detailed Location:	LOCATION MAPPED TO PROVIDED PARCEL BOUNDARY. FORMERLY A. P. NIGRA EO #41.
Ecological:	MARITIME CHAPARRAL, DUNE SCRUB, COASTAL DUNE/SCRUB, OAK WOODLAND, AND RUDERAL VEGETATION. PARCEL SUBJECTED TO DEGREES OF PAST DISTURBANCE. SOME BUILDING FOUNDATIONS REMAIN ON PARCEL. UNDEVELOPED PARCEL LOCATED TO THE NORTH.
General:	1 JUVENILE OBSERVED UNDER ERICAMERIA ERICOIDES ON 12 JUNE 2009. AREA TO BE CONVERTED TO A CANINE TRAINING CAMPUS, BUT UNCHANGED IN 2017 AERIALS COMPARED TO 2009.
Owner/Manager:	FORT ORD REUSE AUTHORITY

Occurrence No.	37	**Map Index:**	83390	**EO Index:**	84399	**Element Last Seen:**	1984-06-23
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	1987-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-08-10

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.69411 / -121.80821	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4061602 E606465	**Elevation (ft):**	55
PLSS:	T14S, R01E, Sec. 24, S (M)	**Acres:**	27.0

Location:	JUST SOUTH OF RESERVATION RD AND WEST OF HWY 1, NORTH END OF MARINA STATE BEACH, MARINA.
Detailed Location:	AREA 250 METERS SOUTHEAST TO 600 METERS DIRECTLY SOUTH OF THE MARINA STATE BEACH PARKING LOT AT THE WEST END OF RESERVATION ROAD. BURY'S SITE #17. FORMERLY A. P. NIGRA EO #42.
Ecological:	FORE DUNES HEAVILY USED AND IN "BLOW OUT" STATE (OPEN SAND); INNER DUNES IN RELATIVELY NATURAL STATE. GROUND COVER: 45% ICE PLANT, 15% COAST BUCKWHEAT, 10% BEACH SAGEWORT, 10% BUSH LUPINE, 5% BEACH AND NATIVE GRASS, 15% OPEN SAND (1984).
General:	1 COLLECTED ON 18 MAR 1940. 10 FOUND (5 COLLECTED) ON 15 APR 1984, AND 1 COLLECTED 23 JUN 1984. DURING REMOVAL OF INVASIVE ICE PLANT IN 1987, NONE WERE FOUND (BUT NO SURVEY EFFORT IN GOOD OR EXPECTED HABITAT).
Owner/Manager:	DPR-MARINA SB

Occurrence No.	131	**Map Index:**	A5888	**EO Index:**	107633	**Element Last Seen:**	1992-07-XX
Occ. Rank:	None			**Presence:**	Possibly Extirpated	**Site Last Seen:**	1992-07-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-08-11

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.69257 / -121.8049	**Accuracy:**	specific area
UTM:	Zone-10 N4061434 E606764	**Elevation (ft):**	34
PLSS:	T14S, R01E, Sec. 24, S (M)	**Acres:**	2.0

Location:	ABOUT 0.13 MILES W OF RESERVATION RD AT SEASIDE CIRCLE, 0.3 MILES S OF RESERVATION RD AT HWY 1, MARINA.
Detailed Location:	CALVARY BAPTIST CHURCH, 160 SEASIDE CT.
Ecological:	FOUND UNDER DEBRIS NEXT TO A HAYBALE USED FOR ARCHERY PRACTICE AT THE BASE OF A SAND DUNE. LOT WAS PAVED AND DEVELOPED BY 1998. EXTENSIVE DUNE OF ABOUT 10 ACRES, BUT OF UNKNOWN QUALITY EXISTS IMMEDIATELY ADJACENT & W TO HWY 1.
General:	ONE WAS FOUND IN JULY 1992; SITE DEVELOPED BY 1998.
Owner/Manager:	PVT

Occurrence No.	132	**Map Index:**	A5897	**EO Index:**	107644	**Element Last Seen:**	2014-06-15
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2014-06-15
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2019-01-16

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.65751 / -121.75843	**Accuracy:**	80 meters
UTM:	Zone-10 N4057597 E610966	**Elevation (ft):**	209
PLSS:	T15S, R02E, Sec. 4, NW (M)	**Acres:**	5.0

Location:	ALONG SCHOONOVER RD BETWEEN DEVERS COURT AND PATCH COURT, FORMER FORT ORD MILITARY RESERVATION, MARINA.
Detailed Location:	ABOUT 0.6 MILES SOUTH OF RESERVATION RD AT W BLANCO RD. MAPPED TO PROVIDED COORDINATES. APPARENTLY WITHIN CSU MONTEREY BAY'S EAST CAMPUS HOUSING COMPLEX.
Ecological:	
General:	ONE FOUND DEAD ON ROAD ON 15 JUN 2014.
Owner/Manager:	CSU-MONTEREY BAY

Occurrence No.	133	**Map Index:**	A5899	**EO Index:**	107646	**Element Last Seen:**	2004-04-XX
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2004-04-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-08-14

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.68483 / -121.77503	**Accuracy:**	80 meters
UTM:	Zone-10 N4060610 E609443	**Elevation (ft):**	127
PLSS:	T14S, R02E, Sec. 29, W (M)	**Acres:**	5.0

Location:	ONE MILE NNW OF RESERVATION RD AT IMJIN RD, FORMER FORT ORD MILITARY RESERVATION, NOW FORT ORD NATURAL RESERVE, MARINA.
Detailed Location:	AREA IS PART OF THE TRICHLOROETHENE (TCE) REMEDIATION AREA IN OPERABLE UNIT-1 (OU-1) OF THE FORMER FORT ORD MILITARY RES. SINCE 1996 THIS AREA IS THE FORT ORD NATURAL RESERVE.
Ecological:	THE DOMINANT HABITATS IN THIS AREA INCLUDE COAST LIVE OAK WOODLAND, MARITIME CHAPARRAL, AND ANNUAL GRASSLAND. SEVERAL RARE PLANT POPULATIONS ARE IN THE AREA, AND COAST HORNED LIZARDS WERE DETECTED NEARBY.
General:	ONE FOUND DURING RARE PLANT SURVEYS IN APR 2004.
Owner/Manager:	UCNR-FORT ORD NR

Occurrence No.	134	**Map Index:**	A5900	**EO Index:**	107647	**Element Last Seen:**	2009-05-21
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2009-05-21
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-08-14

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.64097 / -121.77121	**Accuracy:**	80 meters
UTM:	Zone-10 N4055748 E609848	**Elevation (ft):**	399
PLSS:	T15S, R02E, Sec. 8, N (M)	**Acres:**	5.0

Location:	0.9 MI ESE OF 8TH AVE AT GIGLING RD, 2.3 MI WSW OF E GARRISON FORMER FORT ORD MILITARY RESERVATION, 4.5 MI NE OF SEASIDE
Detailed Location:	AREA REFERRED TO AS THE PARKER FLATS MUNITIONS RESPONSE AREA (MRA), WHICH ACCORDING TO THE REPORT IS WITHIN THE JURISDICTION OF THE CITY OF SEASIDE AND MONTEREY CO. FOUND DURING ACTIVITIES RELATING TO REMEDIATION OF THE FORMER FORT.
Ecological:	AREA WAS DESCRIBED AS SANDY, SOFT, AND BARE SOIL WITH SURROUNDING AREA OF OAK WOODLAND NEAR INTERFACE WITH CHAPARRAL INCLUDING SOME POISON OAK AND BLACK SAGE (SOME PREVIOUS CLEARING OF VEGETATION).
General:	ONE WAS FOUND WHILE EXCAVATING FOR A "MUNITIONS AND EXPLOSIVES CONCERN (MEC) INVESTIGATION" ON 21 MAY 2009; THE INDIVIDUAL WAS UNINJURED, NOT HANDLED AND ESCAPED ON ITS OWN INTO THE SOIL ("INSTRUMENT-AIDED SURFACE MEC CLEARANCE").
Owner/Manager:	FORT ORD REUSE AUTHORITY

Occurrence No.	135	**Map Index:**	A5901	**EO Index:**	107648	**Element Last Seen:**	2007-06-19
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2007-06-19
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-08-14

Quad Summary:	Seaside (3612157), Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.62451 / -121.77432	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4053919 E609592	**Elevation (ft):**	450
PLSS:	T15S, R02E, Sec. 17, NW (M)	**Acres:**	86.0

Location:	JUST N OF CAMP HUFFMAN RANGER STATION (NOW BLM OFFICES), NW OF EUCALYPTUS RD AT PARKER FLATS RD, FORMER FORT ORD.
Detailed Location:	MAPPED NON-SPECIFICALLY TO THE BOUNDARY OF SITE MRS-16 (MUNITIONS RESPONSE SITE 16). THIS IS ADJACENT TO THE NATIONAL MONUMENT, BUT CURRENTLY CLOSED TO THE PUBLIC DUE TO HAZARDS OF PRIOR MILITARY ACTIVITIES.
Ecological:	SITE PART OF ENVIORNMENTAL CLEANUP INCLUDING MUNITIONS REMOVAL, SOIL REMEDIATION, AND GROUNDWATER REMEDIATION. SITE WAS CONTROL BURNED TO CLEAR MARITIME CHAPARRAL VEGETATION TO FACILITATE REMEDIATION OF MUNITIONS & EXPLOSIVES IN NOV 2006.
General:	ONE FOUND WHILE HAND DIGGING FOR MUNITIONS ON 19 JAN 2007. IT APPEARS THAT MOST OF THE BIOLOGICAL SURVEYS IN THIS AREA ARE FOR FEDERALLY LISTED RARE PLANTS, NOT REPTILES.
Owner/Manager:	FORT ORD REUSE AUTHORITY

Occurrence No.	137	**Map Index:**	A5904	**EO Index:**	107651	**Element Last Seen:**	1998-XX-XX
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	1998-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-08-14

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.67811 / -121.81312	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4059822 E606050	**Elevation (ft):**	95
PLSS:	T14S, R01E, Sec. 25, SW (M)	**Acres:**	63.0

Location:	COASTAL DUNES WEST OF HWY 1 FROM VICINITY OF LAKE CT TO ABOUT 0.5 MILES SOUTH, NORTH END OF FORT ORD DUNES STATE PARK.
Detailed Location:	FORT ORD CLEANUP/DECOMMISION SITE 3, BEACH TRAINFIRE RANGES 15, & 17. FROM THE 1940S UNTIL 1991 THIS AREA WAS USED FOR HANDHELD WEAPONS FIRING WHERE SPENT BULLELLTS ACCUMULATED ON THE LEEWARD SLOPE OF THE DUNES.
Ecological:	COASTAL SAND DUNES RANGING IN HEIGHT FROM 40 TO 100 FEET. SITE REMEDIATION STARTED IN THE 1990S AND THE ARMY TRANSFERRED 979 COASTAL ACRES TO THE STATE PARKS IN 2009.
General:	ONE EACH FOUND UNDER DIFFERNT COVERBOARDS ON 24 SEP & 7 NOV 1996. ONE EACH FOUND WHILE RAKING THROUGH THE SAND ON 8 OCT & 16 OCT 1996. ONE WAS FOUND IN A BLOWOUT BETWEEN REMEDIATION ZONES AND RELOCATED TO ADJACENT NATIVE HABITAT IN 1998.
Owner/Manager:	DPR-FORT ORD DUNES SP

Occurrence No.	138	**Map Index:**	A5905	**EO Index:**	107652	**Element Last Seen:**	1996-10-14
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	1996-10-14
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-08-14

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.67031 / -121.8167	**Accuracy:**	1/10 mile
UTM:	Zone-10 N4058951 E605741	**Elevation (ft):**	97
PLSS:	T14S, R01E, Sec. 35, E (M)	**Acres:**	18.0

Location:	COASTAL DUNES WEST OF HWY 1 AT IMJIN PKWY, FORT ORD DUNES STATE PARK, MARINA.
Detailed Location:	FORT ORD CLEANUP/DECOMMISION SITE 3, BEACH TRAINFIRE RANGE 11. FROM THE 1940S UNTIL 1991 THIS AREA WAS USED FOR HANDHELD WEAPONS FIRING WHERE SPENT BULLELLTS ACCUMULATED ON THE LEEWARD SLOPE OF THE DUNES.
Ecological:	COASTAL SAND DUNES RANGING IN HEIGHT FROM 40 TO 100 FEET. SITE REMEDIATION STARTED IN THE 1990S AND THE ARMY TRANSFERRED 979 COASTAL ACRES TO THE STATE PARKS IN 2009.
General:	ONE EACH FOUND UNDER DIFFERENT COVERBOARDS ON 24 SEP AND 14 OCT, 1996.
Owner/Manager:	DPR-FORT ORD DUNES SP

Occurrence No.	139	**Map Index:**	A5906	**EO Index:**	107653	**Element Last Seen:**	1996-11-06
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	1996-11-06
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-08-14

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.64148 / -121.83153	**Accuracy:**	1/10 mile
UTM:	Zone-10 N4055738 E604454	**Elevation (ft):**	65
PLSS:	T15S, R01E, Sec. 11, NW (M)	**Acres:**	18.0

Location:	COASTAL DUNES WEST OF HWY 1 ABOUT 0.9 MILES SW OF LIGHT FIGHTER DR AT HWY 1, FORT ORD DUNES STATE PARK, MARINA.
Detailed Location:	FORT ORD CLEANUP SITE 3, BEACH TRAINFIRE RANGE REFERENCE SITE (BR3) JUST NORTH OF RANGE 3. FROM THE 1940S UNTIL 1991 THIS AREA WAS USED FOR HANDHELD WEAPONS FIRING WHERE SPENT BULLELLTS ACCUMULATED ON THE LEEWARD SLOPE OF THE DUNES.
Ecological:	COASTAL SAND DUNES RANGING IN HEIGHT FROM 40 TO 100 FEET. SITE REMEDIATION STARTED IN THE 1990S AND THE ARMY TRANSFERRED 979 COASTAL ACRES TO THE STATE PARKS IN 2009.
General:	ONE FOUND UNDER A COVERBOARD ON 6 NOV 1996.
Owner/Manager:	DPR-FORT ORD DUNES SP

Occurrence No.	376	**Map Index:**	B1995	**EO Index:**	113918	**Element Last Seen:**	2018-05-12
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2018-05-12
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2019-01-16

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.67947 / -121.77651	**Accuracy:**	80 meters
UTM:	Zone-10 N4060013 E609319	**Elevation (ft):**	121
PLSS:	T14S, R02E, Sec. 29, SW (M)	**Acres:**	5.0

Location: ABOUT 0.2 MI NE OF RESERVATION RD AT BAYER ST AND 0.75 MI NW OF IMJIN PKWY AT RESERVATION RD, FORT ORD NATURAL RESERVE.

Detailed Location: NORTH RESERVE AREA, ABOUT 0.3 MILES WSW FROM MAIN ENTRANCE GATE, SURVEY POLYGON F3.

Ecological: MARITIME CHAPARRAL.

General: ONE FOUND AND PHOTOGRAPHED BY SEVERAL OBSERVERS ON 12 MAY 2018.

Owner/Manager: UCNR-FORT ORD NR

Occurrence No.	377	**Map Index:**	B1996	**EO Index:**	113919	**Element Last Seen:**	2008-06-02
Occ. Rank:	Excellent			**Presence:**	Presumed Extant	**Site Last Seen:**	2008-06-02
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2019-01-16

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.74519 / -121.8044	**Accuracy:**	1/10 mile
UTM:	Zone-10 N4067273 E606736	**Elevation (ft):**	4
PLSS:	T14S, R01E, Sec. 1, N (M)	**Acres:**	18.0

Location: SOUTH SIDE OF THE SALINAS RIVER MOUTH, ABOUT 1.5 MILES NW OF HWY 1 BRIDGE OVER SALINAS RIVER, SALINAS RIVER NWR.

Detailed Location:

Ecological: COASTAL SAND DUNE.

General: ONE FOUND AND PHOTOGRAPHED ON 2 JUL 2008.

Owner/Manager: USFWS

Occurrence No.	382	**Map Index:**	B2064	**EO Index:**	113990	**Element Last Seen:**	2015-XX-XX
Occ. Rank:	Poor			**Presence:**	Presumed Extant	**Site Last Seen:**	2015-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2019-01-23

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.68004 / -121.78525	**Accuracy:**	1/10 mile
UTM:	Zone-10 N4060067 E608537	**Elevation (ft):**	109
PLSS:	T14S, R02E, Sec. 30, SE (M)	**Acres:**	18.0

Location: ALONG CALIFORNIA AVE JUST SOUTH OF RESERVATION RD, MARINA.

Detailed Location: LOCATION STATED AS A RESIDENTIAL SITE NEAR THE CORNER OF CALIFORNIA AVE AND RESERVATION RD.

Ecological: FOUND DURING CONSTRUCTION AT A RESIDENCE AND GIVEN TO UC NATURAL RESERVE FORT ORD AS A TEACHING SPECIMEN.

General: 1 FOUND IN THIS AREA AT A RESIDENCE AROUND 2015 (SPECIFICALLY NOTED AS "A FEW YEARS AGO" IN 2018).

Owner/Manager: PVT

Phrynosoma blainvillii **Element Code:** ARACF12100

coast horned lizard

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G3G4
	State:	None		**State:**	S3S4
	Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern			
Habitat:	**General:**	FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.			
	Micro:	OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.			

Occurrence No.	591	**Map Index:** 39863	**EO Index:** 34865	**Element Last Seen:**	1992-05-21
Occ. Rank:	Fair		**Presence:** Presumed Extant	**Site Last Seen:**	1992-05-21
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	1998-09-30

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.66455 / -121.77401	**Accuracy:**	80 meters
UTM:	Zone-10 N4058361 E609563	**Elevation (ft):**	150
PLSS:	T14S, R02E, Sec. 32 (M)	**Acres:**	0.0

Location: FORMER FORT ORD MILITARY RESERVATION, ABOUT 0.75 MI SW OF RESERVATION ROAD GATE, 2.6 MILES E OF INDIAN HEAD BEACH.

Detailed Location: WHERE 14S/15S TOWNSHIP BOUNDARY INTERSECTS THE MARINA CORPORATE BOUNDARY.

Ecological: SMALL POCKET OF COASTAL SCRUB ~5 ACRE SURROUNDED BY HOUSING AND ROADS. INSIDE SMALL DEPRESSION. SCATTERED SMALL ROCKS. SANDY SOIL.

General: 1 INDIVIDUAL OBSERVED 21 MAY 1992.

Owner/Manager: UNKNOWN

Occurrence No.	592	**Map Index:** 39866	**EO Index:** 34868	**Element Last Seen:**	1992-05-21
Occ. Rank:	Good		**Presence:** Presumed Extant	**Site Last Seen:**	1992-05-21
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	1998-09-30

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.67647 / -121.77374	**Accuracy:**	80 meters
UTM:	Zone-10 N4059683 E609570	**Elevation (ft):**	140
PLSS:	T14S, R02E, Sec. 32 (M)	**Acres:**	0.0

Location: FORMER FORT ORD MR, 1.6 MILES SE OF JCT DEL MONTE BLVD & RESERVATION RD, & 0.1 MILE NE (0.5 MILE SW OF AIRFIELD).

Detailed Location: FORAGING ON SANDY SOILS IN ROAD AND TAKES COVER IN NEARBY BRUSH. FLAT AREA.

Ecological: ANNUAL GRASSLAND, COASTAL SCRUB.

General: 3 INDIVIDUALS OBSERVED, 1992.

Owner/Manager: UNKNOWN

Occurrence No.	615	**Map Index:**	42490	**EO Index:**	42490	**Element Last Seen:**	1999-05-13
Occ. Rank:	Excellent			**Presence:**	Presumed Extant	**Site Last Seen:**	1999-05-13
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2000-03-02

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.66776 / -121.76148	**Accuracy:**	1/10 mile
UTM:	Zone-10 N4058731 E610678	**Elevation (ft):**	150
PLSS:	T14S, R02E, Sec. 33 (M)	**Acres:**	0.0

Location: SOUTH SIDE OF RESERVATION ROAD, 1 MILE EAST OF MARINA.

Detailed Location:

Ecological: HABITAT CONSISTS OF A SANDY SUBSTRATE IN COAST LIVE OAK/MARITIME CHAPARRAL; DENSE VEGETATION WITH PATCHES OF OPEN AREAS WITH GRASSES AND HERBS.

General: 1 SUBADULT OBSERVED SUNNING AT THE EDGE OF A MANZANITA SHRUB ON 13 MAY 1999.

Owner/Manager: UCNR-FORT ORD NR, BLM

Occurrence No.	632	**Map Index:**	56409	**EO Index:**	56425	**Element Last Seen:**	2004-06-07
Occ. Rank:	Excellent			**Presence:**	Presumed Extant	**Site Last Seen:**	2004-06-07
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2006-01-30

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.69631 / -121.78494	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4061872 E608541	**Elevation (ft):**	85
PLSS:	T14S, R02E, Sec. 19 (M)	**Acres:**	350.3

Location: EAST OF HWY 1 & CONTINUING SE TOWARD THE MARINA CORPORATE BOUNDARY, NE OF MARINA.

Detailed Location: LOCATION SHOWN IS PROJECT SITE. PROJECT IS MAINLY WITHIN SECTION 19 BUT INCLUDES THE EDGES OF SECTIONS 20, 24 AND 30.

Ecological: HABITAT CONSISTS PRIMARILY OF GRAZED ANNUAL GRASSLANDS AND COASTAL DUNE SCRUB ON SANDY SOILS. WINTERING BURROWING OWLS ALSO OCCUR IN THE AREA. CURRENT SURROUNDING LAND USE IS RESIDENTIAL, GRAZING, AND AG (ROW CROPS).

General: 4 ADULT HORNED LIZARDS OBSERVED MAR-JUN OF 2004. 1 ADULT OBSERVED ON 7 JUN 2004.

Owner/Manager: PVT

Occurrence No.	643	**Map Index:**	33880	**EO Index:**	66136	**Element Last Seen:**	2006-05-01
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2006-05-01
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2006-08-24

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.68819 / -121.77854	**Accuracy:**	80 meters
UTM:	Zone-10 N4060978 E609124	**Elevation (ft):**	70
PLSS:	T14S, R02E, Sec. 29, NW (M)	**Acres:**	0.0

Location: FORT ORD NATURAL RESERVE, 0.6 MI NE OF RESERVATION RD, 0.6 MI NW OF MARINA AIRPORT.

Detailed Location:

Ecological: CALIFORNIA COASTAL MARITIME SCRUB, SANDY DUNES. A. CALIFORNICA, B. PILULARIS, ARCTOSTAPHYLOS SPP.

General: 1 ADULT OBSERVED ON 1 MAY 2006.

Owner/Manager: CITY OF MARINA, UCNR-FORT ORD

Central Dune Scrub **Element Code:** CTT21320CA

Central Dune Scrub

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G2
	State:	None		**State:**	S2.2
	Other:				
Habitat:	**General:**				
	Micro:				

Occurrence No.	24	**Map Index:** 10417	**EO Index:** 13423	**Element Last Seen:**	1986-07-XX
Occ. Rank:	Good		**Presence:** Presumed Extant	**Site Last Seen:**	1986-07-XX
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	1998-07-13

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.71794 / -121.80329	**Accuracy:**	specific area
UTM:	Zone-10 N4064250 E606872	**Elevation (ft):**	
PLSS:	T14S, R01E, Sec. 13 (M)	**Acres:**	263.4

Location: DUNES SOUTH OF SALINAS RIVER BETWEEN SALINAS RIVER WILDLIFE MANAGEMENT AREA & CITY OF MARINA.

Detailed Location: BOUNDARY INCLUDES PATCHES OF SMITH'S BLUE HABITAT FROM HARRIS ET AL. 1985. MORE SCRUB MAY BE PRESENT THAN USED BY BUTTERFLY.

Ecological: DENSE SCRUB INCLUDING MANY RARE PLANTS & SMITH'S BLUE BUTTERFLY, WHICH USES ERIOGONUM PARVIFOLIUM & E. LATIFOLIUM AS HOST PLANT.

General: LANDOWNERS PROTECTING PART. BETTER DATA ON COMPOSITION, CONDITION NEEDED. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

Owner/Manager: PVT-LONE STAR IND

Central Maritime Chaparral **Element Code:** CTT37C20CA

Central Maritime Chaparral

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G2
	State:	None		**State:**	S2.2
	Other:				
Habitat:	**General:**				
	Micro:				

Occurrence No.	3	**Map Index:** 10517	**EO Index:** 16309	**Element Last Seen:**	1985-03-20
Occ. Rank:	Unknown		**Presence:** Presumed Extant	**Site Last Seen:**	1985-03-20
Occ. Type:	Natural/Native occurrence		**Trend:** Decreasing	**Record Last Updated:**	1998-07-14

Quad Summary: Spreckels (3612156), Seaside (3612157), Salinas (3612166), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.60981 / -121.76825	**Accuracy:**	specific area
UTM:	Zone-10 N4052295 E610156	**Elevation (ft):**	
PLSS:	T15S, R02E, Sec. 20 (M)	**Acres:**	10314.6

Location: FORT ORD GUNNERY RANGE & VICINITY. (INCL FORMER OCCS #03-06 AT FORT ORD BOTANICAL RESERVES 1,2,5,8).

Detailed Location: SMALL BOTANICAL RESERVES W/IN 16000 ACRE BOUNDARY FROM 1982 CDF AERIALS.

Ecological: KNEE-SHOULDER HIGH, OPEN DENSE CHAP W/ CHAMISE, ARCTOSTAPHYLOS MONTEREYENSIS, A. TOMENTOSA SSP. CRUSTACEA, A. PUMILA, A. TOMENTOSA SSP. TOMENTOSA, CEANOTHUS RIGIDUS, C. DENTATUS, QUERCUS AGRIFOLIA.

General: SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

Owner/Manager: BLM-FORT ORD

Northern Coastal Salt Marsh

Element Code: CTT52110CA

Northern Coastal Salt Marsh

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G3
	State:	None		**State:**	S3.2
	Other:				
Habitat:	**General:**				
	Micro:				

Occurrence No.	47	**Map Index:** 10411	**EO Index:** 26182	**Element Last Seen:**	1978-01-XX
Occ. Rank:	Unknown		**Presence:** Presumed Extant	**Site Last Seen:**	1978-01-XX
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	1998-07-20

Quad Summary: Marina (3612167), Moss Landing (3612177)

County Summary: Monterey, Pacific Ocean

Lat/Long:	36.74332 / -121.80455	**Accuracy:**	1 mile
UTM:	Zone-10 N4067064 E606725	**Elevation (ft):**	15
PLSS:	T14S, R01E, Sec. 01 (M)	**Acres:**	0.0

Location: SALINAS RIVER MOUTH & ESTUARY; ABOUT 7 KM NORTH OF MARINA.

Detailed Location:

Ecological: DOMINANT COVER BY SALICORNIA SPP. DURING A PORTION OF THE YEAR THE RIVER MOUTH IS BLOCKED CREATING A BRACKISH CONDITION. RIVER FLOW IS LARGELY TREATED SEWAGE EFFLUENT & AG RUNOFF.

General: PORTIONS OF MARSH INCLUDED IN SALINAS RIVER WILDLIFE AREA. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

Owner/Manager: USFWS-SALINAS RIVER NWR, PVT

Linderiella occidentalis **Element Code:** ICBRA06010

California linderiella

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G2G3
	State:	None		**State:**	S2S3
	Other:	IUCN_NT-Near Threatened			
Habitat:	**General:**	SEASONAL POOLS IN UNPLOWED GRASSLANDS WITH OLD ALLUVIAL SOILS UNDERLAIN BY HARDPAN OR IN SANDSTONE DEPRESSIONS.			
	Micro:	WATER IN THE POOLS HAS VERY LOW ALKALINITY, CONDUCTIVITY, AND TOTAL DISSOLVED SOLIDS.			

Occurrence No.	70 **Map Index:** 26012	**EO Index:**	1759	**Element Last Seen:**	1995-02-24
Occ. Rank:	Unknown	**Presence:**	Presumed Extant	**Site Last Seen:**	1995-02-24
Occ. Type:	Natural/Native occurrence	**Trend:**	Unknown	**Record Last Updated:**	1995-11-21

Quad Summary: Salinas (3612166), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.63829 / -121.75223	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4055473 E611548	**Elevation (ft):**	420
PLSS:	T15S, R02E, Sec. 09 (M)	**Acres:**	8.1

Location: WESTERNMOST POOL IN MACHINE GUN FLAT; FORT ORD MILITARY RESERVATION.

Detailed Location: MIDDLE MACHINE GUN FLATS; WATER DEPTH: 29 INCHES; SURFACE AREA: ABOUT 20,000 SQ FT.

Ecological: VERNAL POOL IN VERNAL POOL COMPLEX; SOIL/VEGETATION SUBSTRATE; VEGETATIVE TOTAL COVER: 50% OF WATER AREA (5% ALGAE, 5% FLOATING PLANTS, 85% EMERGENT PLANTS), UPLAND HABITAT CONSISTS OF OAK WOODLAND & COASTAL SCRUB; SITE SLIGHTLY TRAMPLED.

General: LOW ABUNDANCE OF ADULTS AT EDGE OF POOL BECAUSE OF MANY PEOPLE NETTING, BUT HIGH ABUNDANCE IN MIDDLE; CA TIGER SALAMANDER LARVAE OBS; PACIFIC TREE FROG ADULTS & LARVAE OBS; MALLARDS AND KILLDEER PRESENT.

Owner/Manager: BLM-FORT ORD

Bombus occidentalis

Element Code: IIHYM24250

western bumble bee

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G2G3
	State:	Candidate Endangered		**State:**	S1
	Other:	USFS_S-Sensitive, XERCES_IM-Imperiled			
Habitat:	**General:**	ONCE COMMON & WIDESPREAD, SPECIES HAS DECLINED PRECIPITOUSLY FROM CENTRAL CA TO SOUTHERN B.C., PERHAPS FROM DISEASE.			
	Micro:	□			

Occurrence No.	268	**Map Index:** 10411	**EO Index:**	100383	**Element Last Seen:** 1983-09-08
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:** 1983-09-08
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:** 2016-01-21

Quad Summary:	Marina (3612167), Moss Landing (3612177)
County Summary:	Monterey, Pacific Ocean

Lat/Long:	36.74332 / -121.80455	**Accuracy:**	1 mile
UTM:	Zone-10 N4067064 E606725	**Elevation (ft):**	10
PLSS:	T14S, R01E, Sec. 01 (M)	**Acres:**	0.0

Location:	SALINAS RIVER NATIONAL WILDLIFE REFUGE, NW OF THE CITY OF SALINAS.
Detailed Location:	A COLLECTION FROM "SAND DUNES AT THE MOUTH OF THE SALINAS RIVER" IS ALSO ATTRIBUTED HERE.
Ecological:	COASTAL DUNES.
General:	COLLECTED 9 NOV 1977 AND 8 SEP 1983.
Owner/Manager:	USFWS-SALINAS RIVER NWR

Euphilotes enoptes smithi

Element Code: IILEPG2026

Smith's blue butterfly

Listing Status:	**Federal:**	Endangered	**CNDDB Element Ranks:**	**Global:**	G5T1T2
	State:	None		**State:**	S1S2
	Other:	XERCES_CI-Critically Imperiled			
Habitat:	**General:**	MOST COMMONLY ASSOCIATED WITH COASTAL DUNES & COASTAL SAGE SCRUB PLANT COMMUNITIES IN MONTEREY & SANTA CRUZ COUNTIES.			
	Micro:	HOSTPLANT: ERIOGONUM LATIFOLIUM AND ERIOGONUM PARVIFOLIUM ARE UTILIZED AS BOTH LARVAL AND ADULT FOODPLANTS.			

Occurrence No.	4	**Map Index:**	10378	**EO Index:**	23044	**Element Last Seen:**	1992-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1992-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	1999-01-06

Quad Summary: Marina (3612167)

County Summary: Monterey, Pacific Ocean

Lat/Long:	36.67982 / -121.81259	**Accuracy:**	1/5 mile
UTM:	Zone-10 N4060011 E606094	**Elevation (ft):**	100
PLSS:	T14S, R01E, Sec. 25 (M)	**Acres:**	0.0

Location: FORT ORD MILITARY RESERVATION BETWEEN HWY 1 & THE OCEAN. NORTH PRESERVE.

Detailed Location:

Ecological: HABITAT CONSISTS OF A GENTLY-SLOPING, NORTH-FACING DUNE, WHICH WAS FORMERLY A GRENADE-TOSSING PRACTICE FIELD.

General: AREA IS SET ASIDE AS A PRESERVE FOR ENDANGERED SPECIES. SPECIES OBSERVED SPRING 1992.

Owner/Manager: BLM-FORT ORD

Occurrence No.	5	**Map Index:**	52110	**EO Index:**	23041	**Element Last Seen:**	1987-08-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1987-08-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Decreasing	**Record Last Updated:**	2011-09-23

Quad Summary: Seaside (3612157), Monterey (3612158), Marina (3612167)

County Summary: Monterey, Pacific Ocean

Lat/Long:	36.61370 / -121.85552	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4052630 E602346	**Elevation (ft):**	100
PLSS:	T15S, R01E, Sec. 21 (M)	**Acres:**	603.7

Location: FROM AREA OF NAVY POSTGRADUATE SCHOOL ALONG IMMEDIATE COAST THROUGH SAND CITY TO FORT ORD DUNES.

Detailed Location:

Ecological: COASTAL DUNES. AUTHOR STATES SEASIDE DUNES ARE ALMOST ENTIRELY DEGRADED.

General: A TOTAL OF 2,778 MALES AND 2,071 FEMALES MARKED DURING CAPTURE-RECAPTURE STUDIES AT FORT ORD NORTH & SOUTH PRESERVES IN 1977-1979. 213 OBSERVED JUL-AUG 1987.

Owner/Manager: UNKNOWN

Occurrence No.	15	**Map Index:**	10406	**EO Index:**	14468	**Element Last Seen:**	1986-08-06
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1986-08-06
Occ. Type:	Natural/Native occurrence			**Trend:**	Decreasing	**Record Last Updated:**	2011-01-07

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.70423 / -121.80530	**Accuracy:**	specific area
UTM:	Zone-10 N4062727 E606712	**Elevation (ft):**	100
PLSS:	T14S, R01E, Sec. 24 (M)	**Acres:**	51.7

Location: MARINA DUNES, 3 MI S OF MOUTH OF SALINAS RIVER.

Detailed Location:

Ecological: HABITAT IS DESCRIBED AS OPEN SPACE WITH DUNE VEGETATION INVADED BY THE NON-NATIVE ICEPLANT. LAND USES INCLUDE STATE PARK, QUARRY, ORV.

General: IN 1985, BUTTERFLIES WERE ABUNDANT ON PARTS OF MARINA DUNES THAT WERE NOT DEGRADED. BOUNDED AREA IS SUITABLE HABITAT. SURVEY TOOK PLACE FROM 9 JULY TO AUG 6; NUMBERS OBSERVED IN 1986 UNEXPECTEDLY LOW.

Owner/Manager: CITY OF MONTEREY

Occurrence No.	16	**Map Index:** 10422	**EO Index:**	12408	**Element Last Seen:**	1986-08-06
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:**	1986-08-06
Occ. Type:	Natural/Native occurrence		**Trend:**	Decreasing	**Record Last Updated:**	2011-01-07

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.72301 / -121.80180	**Accuracy:**	specific area
UTM:	Zone-10 N4064814 E606998	**Elevation (ft):**	40
PLSS:	T14S, R01E, Sec. 12 (M)	**Acres:**	191.5

Location: MARINA DUNES & SALINAS RIVER NATIONAL WILDLIFE AREA. 1.5 TO 2.5 MI S OF SALINAS RIVER MOUTH.

Detailed Location: BOUNDED AREA IS SUITABLE HABITAT AND INCLUDES DUNE AREA SOUTH OF POND IN SW CORNER OF THE WILDLIFE AREA; ELEV 30-100 FT.

Ecological: HABITAT IS DESCRIBED AS OPEN SPACE WITH DUNE VEGETATION INVADED BY THE NON-NATIVE ICEPLANT. LAND USES INCLUDE STATE PARK, QUARRY, ORV.

General: SURVEYED FROM 9 JUL TO 6 AUG; NUMBER OF BUTTERFLIES OBSERVED UNEXPECTEDLY LOW. IN 1986, NO SMITH'S BLUE OBSERVED IN SOUTHERN PART OF THE HABITAT WHERE THEY WERE FOUND IN 1985.

Owner/Manager: PVT-LONE STAR IND, DFG, USFWS

Occurrence No.	49	**Map Index:** 40516	**EO Index:**	35523	**Element Last Seen:**	1992-XX-XX
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:**	1992-XX-XX
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:**	1999-01-06

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.65130 / -121.82582	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4056833 E604951	**Elevation (ft):**	80
PLSS:	T15S, R01E, Sec. 02 (M)	**Acres:**	47.4

Location: ABOUT 0.5 MILE WEST OF GIGLING SIDING, 1 MILE SOUTH OF INDIAN HEAD BEACH, BETWEEN HIGHWAY 1 AND PACIFIC OCEAN.

Detailed Location: FORMER FORT ORD MILITARY RESERVATION, WEST OF MAIN ENTRANCE AND MAIN GARRISON.

Ecological: COASTAL DUNE, HOST PLANT: ERIOGONUM PARVIFOLIUM.

General: SPECIES OBSERVED SPRING OF 1992.

Owner/Manager: DPR-FORT ORD DUNES SP

Ericameria fasciculata

Element Code: PDAST3L080

Eastwood's goldenbush

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G2
	State:	None		**State:**	S2
	Other:	Rare Plant Rank - 1B.1, BLM_S-Sensitive			
Habitat:	**General:**	CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL (MARITIME), COASTAL SCRUB, COASTAL DUNES.			
	Micro:	IN SANDY OPENINGS. 30-215 M.			

Occurrence No.	4	**Map Index:**	05666	**EO Index:**	16537	**Element Last Seen:**	1908-08-27
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1908-08-27
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-10-24

Quad Summary:	Seaside (3612157), Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.61820 / -121.84350	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4053141 E603415	**Elevation (ft):**	100
PLSS:	T15S, R01E, Sec. 15 (M)	**Acres:**	84.7

Location:	ALONG RAILROAD TRACKS ABOUT 2 MILES NORTHEAST OF DEL MONTE (DELMONTE).
Detailed Location:	EXACT LOCATION NOT KNOWN; SITE MAPPED NEAR RR TRACKS IN SEASIDE.
Ecological:	SAND HILLS.
General:	TYPE LOCALITY. PLANTS ABUNDANT IN 1906. INCLUDES 1908 BRANDEGEE COLLECTIONS FROM "SEASIDE STATION NEAR MONTEREY" AND "ALONG THE RAILWAY 3 MILES N OF MONTEREY."
Owner/Manager:	UNKNOWN

Occurrence No.	6	**Map Index:**	06777	**EO Index:**	16538	**Element Last Seen:**	2015-XX-XX
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2015-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-10-30

Quad Summary:	Seaside (3612157), Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.61215 / -121.80116	**Accuracy:**	specific area
UTM:	Zone-10 N4052517 E607209	**Elevation (ft):**	500
PLSS:	T15S, R01E, Sec. 24 (M)	**Acres:**	3439.0

Location:	FORT ORD MILITARY RESERVATION; FROM S BOUNDARY RD NORTH TO WATKINS GATE ROAD.
Detailed Location:	MANY POLYGONS MAPPED ACCORDING TO A 1977 GRIFFIN LOCATION DESCRIPTION ("SEASIDE, HIGHLAND ST/KIMBALL AVE INTERSECTION"), A 1992 USACE MAP, 2014 COFFMAN ASSOCIATES MAP, AND 2016 PIERCE MAP.
Ecological:	MARITIME CHAPARRAL WITH ERICAMERIA ERICOIDES, ARCTOSTAPHYLOS TOMENTOSA, A. PUMILA, A. HOOKERI, HETEROMELES ARBUTIFOLIA, CEANOTHUS CUNEATUS VAR. RIGIDUS, C. DENTATUS, ETC.
General:	67 PLANTS IN 1987. MAIN SOURCE OF INFORMATION IS 1992 MAP DETAIL PROVIDED BY USACE. FAR SW AIRPORT POLYGONS OBSERVED IN 2014. OBSERVED IN PARKER FLATS AREA IN 2004 AND 2015. INCLUDES FORMER OCCURRENCES #11, 12, 16, 17, 18.
Owner/Manager:	BLM-FORT ORD

Occurrence No.	13	**Map Index:**	67988	**EO Index:**	68116	**Element Last Seen:**	2003-07-03
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2003-07-03
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-10-25

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.66627 / -121.79783	**Accuracy:**	specific area
UTM:	Zone-10 N4058525 E607431	**Elevation (ft):**	
PLSS:	T14S, R01E, Sec. 36 (M)	**Acres:**	407.0

Location:	NORTHWEST CORNER OF FORT ORD MILITARY RESERVATION.
Detailed Location:	EAST OF HWY 1, SW OF REINDOLLAR AVE, NW OF IMJIN ROAD.
Ecological:	MARTITIME CHAPARRAL ON STABILIZED REAR DUNE RIDGELINE WITH NATIVE AND NON-NATIVE GRASSES/FORBS. OTHER RARE SPECIES INCLUDE PIPERIA MICHAELII, ARCTOSTAPHYLOS PUMILA, CEANOTHUS CUNEATUS VAR. RIGIDUS, "AMONG OTHERS."
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1992, 2002, AND 2003. COLLECTIONS FROM "MARINA" ALSO ATTRIBUTED TO THIS OCCURRENCE.
Owner/Manager:	BLM-FORT ORD, PVT?

Occurrence No.	23	**Map Index:**	67989	**EO Index:**	68117	**Element Last Seen:**	1995-07-20
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1995-07-20
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-10-26

Quad Summary:	Salinas (3612166), Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.67103 / -121.76883	**Accuracy:**	specific area
UTM:	Zone-10 N4059086 E610017	**Elevation (ft):**	150
PLSS:	T14S, R02E, Sec. 32 (M)	**Acres:**	421.0

Location:	NORTH END OF FORT ORD MILITARY RESERVATION; VICINITY OF THE JUNCTION OF RESERVATION ROAD WITH IMJIN ROAD.
Detailed Location:	7 POLYGONS FROM SOUTH OF LANDING FIELD (NORTH OF RESERVATION RD.) TO NORTH OF INTER-GARRISON ROAD. MAPPED ACCORDING TO A 1992 USACE MAP AND A 1995 COLLECTION LABEL DESCRIPTION ("FORT ORD, UC RESERVE SITE: H2.").
Ecological:	
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1992 AND 1995.
Owner/Manager:	BLM-FORT ORD

Occurrence No.	24	**Map Index:** 67990	**EO Index:**	68118	**Element Last Seen:**	1992-XX-XX
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:**	1992-XX-XX
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:**	2017-10-26

Quad Summary: Spreckels (3612156), Seaside (3612157), Salinas (3612166), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.62521 / -121.72867	**Accuracy:**	specific area
UTM:	Zone-10 N4054050 E613674	**Elevation (ft):**	400
PLSS:	T15S, R02E, Sec. 15 (M)	**Acres:**	2197.0

Location: EASTERN PORTION OF FORT ORD MILITARY RESERVATION.

Detailed Location: MAPPED AS SEVERAL POLYGONS ACCORDING TO A 1992 USACE MAP.

Ecological: IN SANDY SOIL IN MARITIME CHAPARRAL WITH ARCTOSTAPHYLOS, CEANOTHUS, AND GARRYA.

General: SMALL PORTION OF SITE OBSERVED IN 1983. MAIN SOURCE OF INFORMATION IS 1992 MAP DETAIL FROM USACE. A 1989 MORGAN COLLECTION FROM "E OF BARLEY CANYON RD (FORT ORD)" IS ALSO ATTRIBUTED TO THIS SITE.

Owner/Manager: BLM-FORT ORD

Lasthenia conjugens

Element Code: PDAST5L040

Contra Costa goldfields

Listing Status:	**Federal:**	Endangered	**CNDDB Element Ranks:**	**Global:**	G1
	State:	None		**State:**	S1
	Other:	Rare Plant Rank - 1B.1, SB_UCBG-UC Botanical Garden at Berkeley			
Habitat:	**General:**	VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS, ALKALINE PLAYAS, CISMONTANE WOODLAND.			
	Micro:	VERNAL POOLS, SWALES, LOW DEPRESSIONS, IN OPEN GRASSY AREAS. 1-450 M.			

Occurrence No.	41	**Map Index:** 69193	**EO Index:**	69970	**Element Last Seen:**	2016-05-27
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:**	2016-05-27
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:**	2018-10-17

Quad Summary: Seaside (3612157), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.6241 / -121.76483	**Accuracy:**	specific area
UTM:	Zone-10 N4053884 E610442	**Elevation (ft):**	450
PLSS:	T15S, R02E, Sec. 17, NE (M)	**Acres:**	10.0

Location: MARYS VALLEY, ABOUT 0.25 MILE NORTHEAST OF BLM OFFICE AND EUCALYPTUS RD JCT WITH PARKER FLATS RD, FORT ORD.

Detailed Location: MAPPED IN THE SOUTH HALF OF THE NE 1/4 OF SECTION 17. MARY'S VALLEY CONTAINS 8 VERNAL POOLS, 6 OF WHICH ARE KNOWN TO HARBOR LASTHENIA CONJUGENS. 2 POLYGONS MAPPED ACCORDING TO A 2009 TANNOURJU MAP AND 2016 TAYLOR COORDINATES.

Ecological: VERNAL POOLS. SURROUNDING VEGETATION IS COAST LIVE OAK, COASTAL SCRUB. ASSOCIATED WITH CALLITRICHE HETEROPHYLLA BOLANDERI, ERYNGIUM ARMATUM, LASTHENIA GLABERRIMA, AND PLAGIOBOTHRYS CHORISIANUS HICKMANII.

General: PLANTS SEEN IN 2007, 2008, & 2016. 1999 FORBES COLLECTION FROM "1/2 MI NE OF BLM OFFICE AND EUCALYPTUS RD JCT WITH PARKER FLATS," 2009 SOLOMESHCH COLLECTION MARY'S VALLEY, AND 2010 KEIL COLLECTION FROM "NEAR BLM HEADQUARTERS" ATTRIB HERE.

Owner/Manager: DOD-FORT ORD NM

Microseris paludosa

Element Code: PDAST6E0D0

marsh microseris

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G2
	State:	None		**State:**	S2
	Other:	Rare Plant Rank - 1B.2, SB_SBBG-Santa Barbara Botanic Garden, SB_UCSC-UC Santa Cruz			
Habitat:	**General:**	CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.			
	Micro:	3-610 M.			

Occurrence No.	34	**Map Index:** 95100	**EO Index:** 96233	**Element Last Seen:**	2009-05-08
Occ. Rank:	Unknown		**Presence:** Presumed Extant	**Site Last Seen:**	2009-05-08
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2015-02-03

Quad Summary: Seaside (3612157), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.62430 / -121.76578	**Accuracy:**	80 meters
UTM:	Zone-10 N4053905 E610356	**Elevation (ft):**	500
PLSS:	T15S, R02E, Sec. 17, NE (M)	**Acres:**	0.0

Location: MARYS VALLEY; APPROXIMATELY 0.4 AIR MILE NE OF CAMP HUFFMAN, FORT ORD.

Detailed Location: MAPPED BY CNDDB ACCORDING TO 2009 SOLOMESHCH COORDINATES, IN THE SOUTH 1/2 OF THE NE 1/4 OF SECTION 17.

Ecological: VERNAL POOLS SURROUNDED BY COAST LIVE OAK AND COASTAL SCRUB WITH CALLITRICHE HETEROPHYLLA BOLANDERI, ERYNGIUM ARMATUM, LASTHENIA GLABERRIMA, L. CONJUGENS, AND PLAGIOBOTHRYS CHORISIANUS HICKMANII.

General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2009 SOLOMESHCH ET AL. COLLECTION.

Owner/Manager: UNKNOWN

Occurrence No.	36	**Map Index:** 95102	**EO Index:** 96235	**Element Last Seen:**	2007-04-21
Occ. Rank:	Good		**Presence:** Presumed Extant	**Site Last Seen:**	2007-04-21
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2015-02-04

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.63864 / -121.75317	**Accuracy:**	80 meters
UTM:	Zone-10 N4055511 E611462	**Elevation (ft):**	360
PLSS:	T15S, R02E, Sec. 09, NW (M)	**Acres:**	0.0

Location: OSTROPOD POND, JUST NW OF MACHINE GUN FLATS, FORT ORD.

Detailed Location: MAPPED BY CNDDB ACCORDING TO 2007 KEELAN COORDINATES, IN THE SE 1/4 OF THE NW 1/4 OF SECTION 9.

Ecological: VERNAL WETLAND IN SANDY SOIL. WITH BRODIAEA TERRESTRIS, CASTILLEJA AMBIGUA SSP. INSALUTATA, CICENDIA QUADRANGULARIS, ISOLEPIS CARINATA, LASTHENIA GLABERRIMA, LEPTOSIPHON PARVIFLORUS, LUPINUS BICOLOR, PSEUDOGNAPHALIUM CALIFORNICUM, ETC.

General: UNKNOWN NUMBER OF PLANTS OBSERVED IN 2007.

Owner/Manager: BLM

Erysimum ammophilum

Element Code: PDBRA16010

sand-loving wallflower

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G2
	State:	None		**State:**	S2
	Other:	Rare Plant Rank - 1B.2, BLM_S-Sensitive, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, SB_SBBG-Santa Barbara Botanic Garden			

Habitat:	**General:**	CHAPARRAL (MARITIME), COASTAL DUNES, COASTAL SCRUB.
	Micro:	SANDY OPENINGS. 3-320 M.

Occurrence No.	6	**Map Index:**	28681	**EO Index:**	29999	**Element Last Seen:**	1992-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1992-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	1997-01-06

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.63344 / -121.83597	**Accuracy:**	specific area
UTM:	Zone-10 N4054840 E604068	**Elevation (ft):**	75
PLSS:	T15S, R01E, Sec. 10 (M)	**Acres:**	8.7

Location:	ALONG COAST ABOUT 1 MILE NORTH OF SEASIDE, FORT ORD DUNES STATE PARK.
Detailed Location:	MAPPED JUST NORTH OF SAND CITY AND WEST OF HIGHWAY 1. THIS IS SITE #10 "BUTTERFLY RESERVE AREA", AS DESCRIBED IN ENDEMIC PLANT PRESERVATION AREAS REPORT FOR FORT ORD.
Ecological:	COASTAL DUNE SCRUB AND MARITIME CHAPARRAL WITH ERIOGONUM. THE RARE SMITH'S BLUE BUTTERFLY ALSO OCCURS AT THIS SITE.
General:	100+ PLANTS OBSERVED IN 1983. POPULATION DENSITY DESCRIBED AS LOW IN 1992. A 1940 COLLECTION BY WOLF IS ALSO ATTRIBUTED TO THIS OCCURRENCE. SITE IS REPORTEDLY DESIGNATED AS AN ENDANGERED SPECIES PRESERVATION AREA.
Owner/Manager:	DPR-FORT ORD DUNES SP

Occurrence No.	7	**Map Index:**	28682	**EO Index:**	29998	**Element Last Seen:**	1992-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1992-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2012-10-19

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.65585 / -121.82470	**Accuracy:**	specific area
UTM:	Zone-10 N4057339 E605044	**Elevation (ft):**	100
PLSS:	T15S, R01E, Sec. 02 (M)	**Acres:**	49.0

Location:	FORT ORD, ALONG COAST JUST SOUTH OF INDIAN HEAD BEACH AND NORTHWEST OF GIGLING SIDING.
Detailed Location:	
Ecological:	COASTAL DUNES.
General:	POPULATION DENSITY DESCRIBED AS LOW IN 1992.
Owner/Manager:	BLM-FORT ORD

Occurrence No.	8	**Map Index:**	28683	**EO Index:**	29997	**Element Last Seen:**	1992-XX-XX
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	1992-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2012-10-19

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.67626 / -121.80681	**Accuracy:**	specific area
UTM:	Zone-10 N4059623 E606615	**Elevation (ft):**	100
PLSS:	T14S, R01E, Sec. 36 (M)	**Acres:**	221.0

Location:	ALONG EITHER SIDE OF HIGHWAY 1 IN MARINA STATE BEACH, FORT ORD DUNES STATE PARK, AND PARTS OF FORT ORD/MARINA.
Detailed Location:	MAPPED AS SEVERAL COLONIES FROM INDIAN HEAD BEACH NORTH TO BM 144 AND EAST TO WASHINGTON CIRCLE.
Ecological:	COASTAL DUNES, SAND BARRENS, AND COASTAL DUNE SCRUB. ASSOCIATED WITH LUPINUS CHAMISSONIS, ERIOGONUM FASCICULATUM, CARPOBROTUS AEQUILATERUS, AND C. EDULIS.
General:	~500 TOTAL PLANTS OBSERVED BETWEEN NORTHERN END OF EO#8 AND EO#10 IN 1985. 1992 POPULATION DENSITY FOR REMAINDER OF OCCURRENCE VARIED FROM LOW TO HIGH, HIGHEST DENSITY IN NORTH-CENTRAL PORTION. 1979 YADON COLLECTION ALSO ATTRIBUTED HERE.
Owner/Manager:	DPR-FORT ORD DUNES SP, OTHERS

Occurrence No.	9	**Map Index:**	28685	**EO Index:**	30031	**Element Last Seen:**	2014-03-30
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2014-03-30
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-11-08

Quad Summary:	Salinas (3612166), Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.6694 / -121.76614	**Accuracy:**	specific area
UTM:	Zone-10 N4058908 E610260	**Elevation (ft):**	150
PLSS:	T14S, R02E, Sec. 32 (M)	**Acres:**	363.0

Location:	FORT ORD, JUST EAST OF MARINA ALONG RESERVATION ROAD AND SOUTH OF AIRFIELD.
Detailed Location:	SEVERAL COLONIES ALONG EITHER SIDE OF RESERVATION ROAD FROM SEASIDE EAST ABOUT TWO MILES. INCLUDES PORTIONS OF THE UC FORT ORD NATURAL RESERVE.
Ecological:	GROWING IN COASTAL DUNES AND COASTAL DUNE SCRUB. OTHER RARE PLANTS IN THIS AREA INCLUDE GILIA TENUIFLORA ARENARIA, CHORIZANTHE PUNGENS PUNGENS, ARCTOSTAPHYLOS PUMILA, AND ERIASTRUM VIRGATUM.
General:	1992 POPULATION DENSITY VARIED FROM LOW TO HIGH, DEPENDING ON THE COLONY. ~25 PLANTS OBSERVED IN 1994. TWO UNDATED ANONYMOUS COLLECTIONS, 2012 MCSTAY OBSERVATION, 2013 STYER COLLECTION, AND 2014 COLLECTION ARE ALSO ATTRIBUTED TO THIS SITE.
Owner/Manager:	UCNR-FORT ORD NR, BLM-FORT ORD

Occurrence No.	10	**Map Index:**	28684	**EO Index:**	29996	**Element Last Seen:**	1995-02-15
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	1995-02-15
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2012-10-19

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.69237 / -121.80842	**Accuracy:**	specific area
UTM:	Zone-10 N4061408 E606449	**Elevation (ft):**	40
PLSS:	T14S, R01E, Sec. 24, SW (M)	**Acres:**	4.0

Location:	MARINA STATE BEACH, JUST WEST OF HIGHWAY 1, ABOUT 0.4 MILE SOUTH OF FREEWAY EXIT FOR RESERVATION ROAD.
Detailed Location:	MODERATE SLOPES AMONG LOW COASTAL SCRUB VEGETATION IN THE REAR DUNE.
Ecological:	COASTAL DUNE SCRUB WITH LUPINUS CHAMISSONIS, ERIOGONUM FASCICULATUM, CARPOBROTUS AEQUILATERUS, AND C. EDULIS.
General:	~500 TOTAL PLANTS OBSERVED BETWEEN NORTHERN END OF EO#8 AND EO#10 IN 1985. A 1995 TAYLOR OBSERVATION FROM "MARINA SB, ON DUNES ~0.3 MI S OF PARKING AREA AT STATE BEACH" IS ALSO ATTRIBUTED TO THIS OCCURRENCE.
Owner/Manager:	DPR-MARINA SB

Occurrence No.	15	**Map Index:**	69226	**EO Index:**	70006	**Element Last Seen:**	2015-03-16
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2015-03-16
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-11-08

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.71281 / -121.80494	**Accuracy:**	specific area
UTM:	Zone-10 N4063679 E606733	**Elevation (ft):**	35
PLSS:	T14S, R01E, Sec. 13 (M)	**Acres:**	14.0

Location:	NORTH OF MARINA, ABOUT 0.4 & 0.75 AIR MILE WSW OF LAPIS SIDING.
Detailed Location:	MAPPED AS 3 POLYGONS BY CNDDB. EAST TWO POLYGONS BASED ON 2006 HACKER MAP; WEST POLYGON BASED ON 2015 KING OBSERVATION IN CALFLORA.
Ecological:	HISTORICALLY DISTURBED SANDY SOIL WITH DUNE SCRUB SPECIES SUCH AS ERIOGONUM LATIFOLIUM, DUDLEYA FARINOSA. THE RARE CHROIZANTHE PUNGENS VAR. PUNGENS ALSO OCCURS HERE.
General:	EAST TWO POLYGONS: UNKNOWN NUMBER OF PLANTS OBSERVED IN 2006 DURING SURVEY FOR C. PUNGENS. WEST POLYGON: 11-50 PLANTS OBSERVED IN 2015.
Owner/Manager:	PVT

Occurrence No.	32	**Map Index:**	97254	**EO Index:**	87958	**Element Last Seen:**	1992-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1992-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-11-16

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.73983 / -121.80001	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4066683 E607134	**Elevation (ft):**	
PLSS:	T14S, R01E, Sec. 01 (M)	**Acres:**	380.0

Location:	SALINAS LAGOON WILDLIFE REFUGE.
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED BY CNDDB TO ENCOMPASS SALINAS RIVER NATIONAL WILDLIFE REFUGE.
Ecological:	COASTAL DUNE SCRUB.
General:	OCCURRENCE IS BASED ON TWO 1980 PAVLIK COLLECTIONS FROM "SALINAS LAGOON WILDLIFE REFUGE" AND A 2006 AREA CHECKLIST BY PITTMAN, PLANTS SEEN IN 1992 OR LATER. NEEDS FIELDWORK.
Owner/Manager:	USFWS-SALINAS RIVER NWR

Occurrence No.	54	**Map Index:**	A7077	**EO Index:**	108799	**Element Last Seen:**	2013-05-22
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2013-05-22
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-12-01

Quad Summary:	Seaside (3612157), Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.6249 / -121.7905	**Accuracy:**	1/10 mile
UTM:	Zone-10 N4053944 E608145	**Elevation (ft):**	425
PLSS:	T15S, R02E, Sec. 18, NW (M)	**Acres:**	18.0

Location:	FORT ORD; RANGE 44, 0.75 AIR MILE SOUTH OF ARTILLERY HILL, EAST OF MARINA.
Detailed Location:	MAPPED BY CNDDB FROM 2013 CARROLL COORDINATES, IN THE SE 1/4 NW 1/4 PROJECTED SECTION 18.
Ecological:	SANDY SOILS OF FLATS ON GENTLE SOUTH-FACING SLOPE. ASSOCIATES INCLUDE FRANGULA CALIFORNICA, ADENOSTOMA FASCICULATUM, LUPINUS CHAMISSONIS, HORKELIA CUNEATA, AND HELIANTHEMUM SCOPARIUM.
General:	ABOUT 65 PLANTS OBSERVED IN 2013.
Owner/Manager:	PVT

Occurrence No.	55	**Map Index:**	A7080	**EO Index:**	108800	**Element Last Seen:**	2010-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2015-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-11-28

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.63626 / -121.77508	**Accuracy:**	specific area
UTM:	Zone-10 N4055222 E609508	**Elevation (ft):**	330
PLSS:	T15S, R02E, Sec. 8, SW (M)	**Acres:**	4.0

Location:	FORT ORD; PARKER FLATS, ABOUT 1.2 AIR MILES WNW OF ELLIOTT HILL.
Detailed Location:	MAPPED BY CNDDB FROM 2007 KEELAN COORDINATES AND 2016 PIERCE MAP, IN THE NORTH HALF OF THE SW 1/4 OF PROJECTED SECTION 8.
Ecological:	SANDY FLATS. ASSOCIATES INCLUDE AGOSERIS APARGIOIDES VAR. APARGIOIDES, CAMISSONIA CONTORTA, CAULANTHUS LASIOPHYLLUS, CHORIZANTHE PUNGENS, CLAYTONIA RUBRA SSP. DEPRESSA, CRYPTANTHA MICROMERES, FESTUCA BROMOIDES, GILIA TENUIFLORA, ETC.
General:	WEST POLYGON: UNKNOWN NUMBER OF PLANTS OBSERVED IN 2007. EAST POLYGON: 9 PLANTS OBSERVED IN 2006 & 2007, 4 PLANTS IN 2010, NO PLANTS FOUND IN 2015. PLANTS NOT KNOWN FROM THIS AREA UNTIL AFTER 2006 BURN.
Owner/Manager:	PVT

Occurrence No.	56	**Map Index:**	A7092	**EO Index:**	108802	**Element Last Seen:**	2012-05-17
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2012-05-17
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-11-16

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.70723 / -121.80699	**Accuracy:**	specific area
UTM:	Zone-10 N4063059 E606558	**Elevation (ft):**	25
PLSS:	T14S, R01E, Sec. 24, N (M)	**Acres:**	9.0

Location:	NORTH OF MARINA STATE BEACH, AND ABOUT 0.6-0.8 AIR MILE NNW OF HWY 1/RESERVATION RD INTERCHANGE.
Detailed Location:	MAPPED AS 3 POLYGONS BY CNDDB BASED ON 2014 ESA DIGITAL DATA, IN THE NORTH HALF OF SECTION 24 AND THE SOUTH HALF OF SECTION 13.
Ecological:	CENTRAL DUNE SCRUB, SOUTH OF ACTIVE SAND MINE.
General:	ABOUT 951 PLANTS OBSERVED IN 2012. 1938 ROSSBACH COLLECTION FROM "BARDIN, OUTERMOST COASTAL DUNES NEAR SEA" ATTRIBUTED TO THIS SITE.
Owner/Manager:	PVT-CEMEX INC

Occurrence No.	57	**Map Index:** A7095	**EO Index:**	108803	**Element Last Seen:**	2012-09-20
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:**	2012-09-20
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:**	2017-11-07

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.72559 / -121.80068	**Accuracy:**	specific area
UTM:	Zone-10 N4065102 E607095	**Elevation (ft):**	60
PLSS:	T14S, R01E, Sec. 12, S (M)	**Acres:**	16.0

Location: NW OF LAPIS SIDING AND SOUTH OF MARTIN DUNES, 0.5-1.0 AIR MILE WEST OF HWY 1/DEL MONTE BLVD INTERCHANGE.

Detailed Location: MAPPED AS 3 POLYGONS BY CNDDB, BASED ON ESA DIGITAL DATA, IN THE SOUTH HALF OF PROJECTED SECTION 12.

Ecological: CENTRAL DUNE SCRUB.

General: 10 PLANTS OBSERVED IN SW POLYGON, UNKNOWN NUMBER OF PLANTS OBSERVED IN NW AND EAST POLYGONS IN 2012.

Owner/Manager: PVT

Erysimum menziesii

Element Code: PDBRA160R0

Menzies' wallflower

Listing Status:	**Federal:**	Endangered	**CNDDB Element Ranks:**	**Global:**	G1
	State:	Endangered		**State:**	S1
	Other:	Rare Plant Rank - 1B.1, SB_RSABG-Rancho Santa Ana Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley			
Habitat:	**General:**	COASTAL DUNES.			
	Micro:	LOCALIZED ON DUNES AND COASTAL STRAND. 1-25 M.			

Occurrence No.	16	**Map Index:** 23584	**EO Index:**	26492	**Element Last Seen:**	1979-06-19
Occ. Rank:	None		**Presence:**	Possibly Extirpated	**Site Last Seen:**	1980-XX-XX
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:**	2013-03-05

Quad Summary: Marina (3612167)

County Summary: Monterey, Pacific Ocean

Lat/Long:	36.74560 / -121.80480	**Accuracy:**	1/5 mile
UTM:	Zone-10 N4067317 E606699	**Elevation (ft):**	30
PLSS:	T14S, R01E, Sec. 01, N (M)	**Acres:**	0.0

Location: DUNES SOUTH OF THE MOUTH OF SALINAS RIVER, BETWEEN MONTEREY AND MOSS LANDING.

Detailed Location:

Ecological: FOREDUNES WITH CAMISSONIA CHEIRANTHIFOLIA AND AMBROSIA CHAMISSONIS.

General: FORMER SSP. YADONII EO #1. POPULATION LAST SEEN IN LATE 1970'S. ACCORDING TO ZOGER AND PAVLIK, THIS OCCURRENCE WAS EXTIRPATED IN 1980 DUE TO STORM WAVES AND CHANGES IN THE RIVER MOUTH. INCLUDES FORMER E. MENZIESII SSP. MENZIESII EO #11.

Owner/Manager: USFWS-SALINAS RIVER NWR

Occurrence No.	17	**Map Index:**	10404	**EO Index:**	27226	**Element Last Seen:**	2012-XX-XX
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2012-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2018-08-06

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.72091 / -121.80575	**Accuracy:**	specific area
UTM:	Zone-10 N4064578 E606649	**Elevation (ft):**	20
PLSS:	T14S, R01E, Sec. 12, SW (M)	**Acres:**	34.0

Location:	ON COAST WEST OF LAPIS SIDING ALONG WEST FACE OF DUNES, FROM RR TRACKS TO ABOUT 0.9 MI NORTH OF RR TRACKS, NW OF MARINA.
Detailed Location:	SITE ON LAND OWNED BY RMC CEMEX, FORMER LONESTAR CEMENT. MAPPED AS 5 POLYGONS.
Ecological:	GROWING WITHIN DUNE STRAND CLOSE TO THE HIGHEST HIGH TIDE LINE IN ASSOCIATION WITH CAMISSONIA CHEIRANTHIFOLIA, CALYSTEGIA SOLDANELLA, CAKILE MARITIMA, AMBROSIA CHAMISSONIS, AND CARPOBROTUS SP.
General:	FORMER SSP. YADONII EO #2 (& #3). 13,900 PLANTS IN 1987 & 1997. LARGE # LOST DURING WINTER STORMS OF 1998. IN 2006, DIXON NOTED POP REMAINS LARGE (YEAR SEEN UNK). ~63,100 IN 2007. SEEN IN 2012. INCL FORMER SSP. MENZIESII OCC #10 AND #32.
Owner/Manager:	PVT

Occurrence No.	18	**Map Index:**	23585	**EO Index:**	7910	**Element Last Seen:**	2012-XX-XX
Occ. Rank:	Excellent			**Presence:**	Presumed Extant	**Site Last Seen:**	2012-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2018-08-06

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.70696 / -121.80754	**Accuracy:**	specific area
UTM:	Zone-10 N4063028 E606508	**Elevation (ft):**	30
PLSS:	T14S, R01E, Sec. 24, N (M)	**Acres:**	12.0

Location:	DUNES WEST OF MARINA, 0.6 MILE SOUTH OF RAILROAD TRACKS, NORTH OF MONTEREY.
Detailed Location:	DUE W OF DEAD END OF DUNES DR & MARINA DUNES TRAILER PARK. MAPPED AS 3 POLYGONS ACCORDING TO 2007 PHILLIPS MAP & 2014 ESA DIGITAL DATA. 1991 KUNIN FIELD SURVEY FORM INCLUDES VAGUE MAP FROM AREA BUT SITE MAY HAVE BEEN FURTHER E TOWARD CA-1.
Ecological:	GROWING IN SAND DUNES ALONG DUNE SLOPES AND HOLLOWS.
General:	FORMER SSP. YADONII EO #4. ~500 HEALTHY AND WELL ESTABLISHED PLANTS IN 1991. KUNIN NOTES THIS COLONY MAY BE THE RESULT OF DUNE RESTORATION PROJECT REPORTED IN "MARINA DUNES SMITH'S BLUE (BUTTERFLY) SURVEY". 3097 IN 2007. ~950 IN 2012.
Owner/Manager:	MONTEREY PENINSULA RPD, PVT?

Occurrence No.	19	**Map Index:**	10394	**EO Index:**	8312	**Element Last Seen:**	2007-09-24
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2007-09-24
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2018-08-21

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.69535 / -121.80955	**Accuracy:**	specific area
UTM:	Zone-10 N4061737 E606345	**Elevation (ft):**	40
PLSS:	T14S, R01E, Sec. 24, SW (M)	**Acres:**	23.0

Location:	MARINA STATE BEACH, FROM RESERVATION ROAD AND SOUTH FOR 0.5 MILE, JUST NW OF MARINA, NORTH OF MONTEREY.
Detailed Location:	MAPPED AS 3 POLYGONS. SITE HAS BEEN SUPPLEMENTED WITH PROPAGATED PLANTS SINCE 1986; 8000 PLANTS ADDED TO POPULATION IN 1986, AN ADDITIONAL 5000 PLANTS ADDED IN 1987, 700 PLANTS OUTPLANTED IN 2003-2004 (61% SURVIVED BY 2005).
Ecological:	ON COASTAL STRAND AND FOREDUNES ASSOCIATED WITH ABRONIA LATIFOLIA, A. MARITIMA, AMBROSIA CHAMISSONIS, CAKILE MARITIMA, CALYSTEGIA SOLDANELLA, POA DOUGLASII, CARPOBROTUS SP. AND CAMISSONIA CHEIRANTHIFOLIA.
General:	FORMER SSP. YADONII OCC #5 & 6 AND FORMER E. MENZIESII SSP. MENZIESII OCC #9. ~300 PLANTS IN 1985, 7000 SEEN AT MARINA SB IN 1994, 9925 IN 2001, ~61,348 IN 2007. DUNE RESTORATION BEGAN IN 1986.
Owner/Manager:	DPR-MARINA SB

Arctostaphylos hookeri ssp. hookeri

Element Code: PDERI040J1

Hooker's manzanita

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G3T2
	State:	None		**State:**	S2
	Other:	Rare Plant Rank - 1B.2, BLM_S-Sensitive			
Habitat:	**General:**	CHAPARRAL, COASTAL SCRUB, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND.			
	Micro:	SANDY SOILS, SANDY SHALES, SANDSTONE OUTCROPS. 30-550 M.			

Occurrence No.	5	**Map Index:**	28441	**EO Index:**	21097	**Element Last Seen:**	2012-12-16
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2012-12-16
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-01-11

Quad Summary: Spreckels (3612156), Seaside (3612157), Salinas (3612166), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.61233 / -121.75808	**Accuracy:**	specific area
UTM:	Zone-10 N4052586 E611062	**Elevation (ft):**	
PLSS:	T15S, R02E, Sec. 21 (M)	**Acres:**	5309.7

Location: FORT ORD, MONTEREY.

Detailed Location: LARGE OCCURRENCE MAPPED BETWEEN HWY 68 TO THE SOUTH, INTER-GARRISON ROAD TO THE NORTH, UP TO 2 MILES EAST OF BARLOY CANYON ROAD AND UP TO 3 MILES WEST OF BARLOY CANYON ROAD.

Ecological: MARITIME CHAPARRAL WITH A. MONTEREYENSIS, A. PUMILA, AND A. TOMENTOSA. RARE TAMALIA GALLS PRESENT IN 2004.

General: MAIN SOURCE OF INFORMATION FOR THIS SITE IS MAP DETAIL PROVIDED BY USACE; UNKNOWN NUMBER OF PLANTS IN 1992. UNKNOWN NUMBER OF PLANTS OBSERVED AT FORT ORD IN 2007 AND 2010. FEWER THAN 50 PLANTS OBSERVED AT FAR NW END OF OCCURRENCE IN 2012.

Owner/Manager: DOD-ARMY

Occurrence No.	24	**Map Index:**	A3335	**EO Index:**	104967	**Element Last Seen:**	2016-02-16
Occ. Rank:	Poor			**Presence:**	Presumed Extant	**Site Last Seen:**	2016-02-16
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-01-11

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.63731 / -121.80965	**Accuracy:**	80 meters
UTM:	Zone-10 N4055299 E606416	**Elevation (ft):**	320
PLSS:	T15S, R01E, Sec. 12, NW (M)	**Acres:**	5.0

Location: NE SIDE OF JUNCTION OF NORMANDY ROAD AND GENERAL JIM MOORE BLVD, SEASIDE.

Detailed Location: IN FRONT OF THE PORTER YOUTH CENTER.

Ecological: RUDERAL GRASSY AREA AT SITE OF LIKELY HISTORICAL SAND DUNES. ASSOCIATED WITH CHORIZANTHE PUNGENS VAR. PUNGENS, SPERGULARIA, ERODIUM BOTRYS, E. CICUTARIUM, MEDICAGO POLYMORPHA, AIRA CARYOPHYLLA, EUPHORBIA PEPLUS, ETC.

General: 1 JUVENILE PLANT (PERHAPS SEVERAL YEARS OLD) OBSERVED IN 2016.

Owner/Manager: PVT

Arctostaphylos montereyensis

Element Code: PDERI040R0

Toro manzanita

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G2?
	State:	None		**State:**	S2?
	Other:	Rare Plant Rank - 1B.2, BLM_S-Sensitive, SB_SBBG-Santa Barbara Botanic Garden			

Habitat:	**General:**	CHAPARRAL, CISMONTANE WOODLAND, COASTAL SCRUB.
	Micro:	SANDY SOIL, USUALLY WITH CHAPARRAL ASSOCIATES. 45-765 M.

Occurrence No.	14	**Map Index:**	41985	**EO Index:**	20198	**Element Last Seen:**	2012-12-16
Occ. Rank:	Excellent			**Presence:**	Presumed Extant	**Site Last Seen:**	2012-12-16
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-03-03

Quad Summary:	Spreckels (3612156), Seaside (3612157), Salinas (3612166), Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.62586 / -121.74638	**Accuracy:**	specific area
UTM:	Zone-10 N4054100 E612089	**Elevation (ft):**	400
PLSS:	T15S, R02E, Sec. 16 (M)	**Acres:**	6237.0

Location:	FORT ORD; FROM JUNCTION OF INTERGARRISON RD AND GENERAL JIM MOORE RD EXTENDING SE TO RESERVATION BOUNDARY.
Detailed Location:	MAPPED AS SEVERAL POLYGONS, MOSTLY ACCORDING TO 1992 ARMY CORPS OF ENGINEERS MAP. NW-MOST POLYGON IS NON-SPECIFIC BASED ON 1996 COLLECTION. YADON'S 2000 COLLECTIONS FROM PARKER FLATS RD ARE IDENTIFIED AS A. PAJAROENSIS X A. MONTEREYENSIS.
Ecological:	MARITIME CHAPARRAL.
General:	THIS IS THE LARGEST KNOWN OCCURRENCE OF A. MONTEREYENSIS. PLANT DENSITY LOW TO HIGH IN 1992, DEPENDING ON COLONY. LARGE NUMBERS OBSERVED IN 2012. INCLUDES FORMER OCCURRENCE #5. COLLECTIONS FROM 1967-2008 ARE ATTRIBUTED HERE.
Owner/Manager:	BLM-FORT ORD

Occurrence No.	19	**Map Index:**	68092	**EO Index:**	68164	**Element Last Seen:**	1995-05-08
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1995-05-08
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-03-02

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.67591 / -121.77774	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4059617 E609214	**Elevation (ft):**	160
PLSS:	T14S, R02E, Sec. 32, NW (M)	**Acres:**	330.0

Location:	FORT ORD MILITARY RESERVATION, SE OF INTERSECTION OF RESERVATION RD AND SALINAS AVE; AND AT FORT ORD UC RESERVE.
Detailed Location:	MAPPED AS 2 POLYGONS ACCORDING TO MAP DETAIL BY USACE (SOUTHERN POLYGON) AND LOCATION DESCRIPTIONS OF "FORT ORD, UC RESERVE SITE D" AND "FORT ORD, UC RESERVE SITE G/5" (NORTHERN POLYGON).
Ecological:	MARITIME CHAPARRAL.
General:	LOW PLANT DENSITY OBSERVED IN SOUTHERN POLYGON IN 1992. NORTHERN POLYGON BASED ON TWO ANONYMOUS COLLECTIONS (ONE FROM 1995) FROM "FORT ORD, UC RESERVE SITE: D" AND "...SITE: G/5." NEEDS FIELDWORK.
Owner/Manager:	BLM-FORT ORD, UC

Occurrence No.	20	**Map Index:** 68093	**EO Index:**	68165	**Element Last Seen:**	1992-XX-XX
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:**	1992-XX-XX
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:**	2007-02-21

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.66871 / -121.76552	**Accuracy:**	specific area
UTM:	Zone-10 N4058832 E610315	**Elevation (ft):**	
PLSS:	T14S, R02E, Sec. 32, SE (M)	**Acres:**	52.0

Location: FORT ORD MILITARY RESERVATION, SE OF INTERSECTION OF RESERVATION ROAD AND IMJIN ROAD.

Detailed Location:

Ecological: MARITIME CHAPARRAL.

General: LOW PLANT DENSITY OBSERVED IN 1992. ONLY SOURCE OF INFORMATION IS MAP DETAIL PROVIDED BY USACE.

Owner/Manager: BLM-FORT ORD

Arctostaphylos pajaroensis

Element Code: PDERI04100

Pajaro manzanita

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G1
	State:	None		**State:**	S1
	Other:	Rare Plant Rank - 1B.1, BLM_S-Sensitive			
Habitat:	**General:**	CHAPARRAL.			
	Micro:	SANDY SOILS. 30-170 M.			

Occurrence No.	19	**Map Index:** 69459	**EO Index:**	70238	**Element Last Seen:**	2000-05-03
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:**	2000-05-03
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:**	2007-05-31

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.64681 / -121.81674	**Accuracy:**	2/5 mile
UTM:	Zone-10 N4056345 E605768	**Elevation (ft):**	
PLSS:	T15S, R01E, Sec. 02 (M)	**Acres:**	0.0

Location: NEAR MAIN ENTRANCE TO FORMER FORT ORD MILITARY RESERVATION.

Detailed Location: DESCRIPTION READS: "FT ORD, MAIN ENTRANCE EXIT OVERPASS HIGHWAY 1." EXACT LOCATION OF OCCURRENCE UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN THE VICINITY OF THE MAIN ENTRANCE AND THE HWY 101 OVERPASS, NEAR GIGLING SIDING.

Ecological: FILL.

General: ONLY SOURCE OF INFORMATION FOR THIS COLLECTION IS 2000 YADON COLLECTION. NEEDS FIELDWORK.

Owner/Manager: UNKNOWN

Arctostaphylos pumila

Element Code: PDERI04180

sandmat manzanita

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G1
	State:	None		**State:**	S1
	Other:	Rare Plant Rank - 1B.2, BLM_S-Sensitive, SB_SBBG-Santa Barbara Botanic Garden			
Habitat:	**General:**	CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, CISMONTANE WOODLAND, COASTAL DUNES, COASTAL SCRUB.			
	Micro:	ON SANDY SOIL WITH OTHER CHAPARRAL ASSOCIATES. 3-210 M.			

Occurrence No.	2	**Map Index:**	67536	**EO Index:**	20158	**Element Last Seen:**	2015-12-30
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2015-12-30
Occ. Type:	Natural/Native occurrence			**Trend:**	Increasing	**Record Last Updated:**	2017-07-21

Quad Summary: Spreckels (3612156), Seaside (3612157), Salinas (3612166), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.60986 / -121.78963	**Accuracy:**	specific area
UTM:	Zone-10 N4052276 E608244	**Elevation (ft):**	400
PLSS:	T15S, R02E, Sec. 19 (M)	**Acres:**	7569.0

Location: FORT ORD; ALONG SOUTHERN AND WESTERN BORDERS OF FORMER MILITARY RESERVE, NORTH TO PARKER FLATS AND EAST TO ELLIOTT HILL.

Detailed Location: EXTENSIVE OCCURRENCE MAPPED PRIMARILY ACCORDING TO A 1992 MAP FROM THE US ARMY CORPS OF ENGINEERS. ALSO INCLUDES TWO POLYGONS JUST WEST OF FORD ORD BOUNDARY IN DEL MONTE HEIGHTS/DEL REY OAKS AREA. INCLUDES VAGUE "FORT ORD" COLLECTIONS/OBS.

Ecological: MARITIME CHAPARRAL, COASTAL DUNE SCRUB. ASSOCIATED WITH A. TOMENTOSA SSP. TOMENTOSA, ADENOSTOMA FASCICULATUM, ERICAMERIA ERICOIDES, HETEROMELES ARBUTIFOLIA, CEANOTHUS RIGIDUS, ETC. PRESCRIBED FIRE WENT THROUGH THIS AREA IN 2005.

General: PLANT DENSITY REPORTED AS MEDIUM TO HIGH THROUGHOUT A MAJORITY OF THIS MAPPED AREA IN 1992. INCREASES IN A. PUMILA DENSITY FOUND FROM 2004 TO 2015. MANY HISTORIC COLLECTIONS ATTRIBUTED HERE. INCLUDES FORMER OCCURRENCES #18 AND 19.

Owner/Manager: BLM, CITY OF MONTEREY, PVT

Occurrence No.	15	**Map Index:**	A5169	**EO Index:**	106873	**Element Last Seen:**	2017-01-28
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2017-01-28
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-06-30

Quad Summary: Salinas (3612166), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.66828 / -121.78089	**Accuracy:**	specific area
UTM:	Zone-10 N4058767 E608944	**Elevation (ft):**	100
PLSS:	T14S, R02E, Sec. 31 (M)	**Acres:**	2073.0

Location: NORTH END OF FORT ORD IN VICINITY OF MARINA, AND ALONG WEST SIDE OF HIGHWAY 1 BETWEEN LAKE DR AND 8TH ST.

Detailed Location: SEVERAL POLYGONS MAPPED BY CNDDB, MOSTLY ACCORDING TO A 1992 USACE MAP AND 2014 DIGITAL DATA FROM ESA. INCLUDES VAGUE COLLECTIONS FROM MARINA, RESERVATION ROAD, "1 1/2 MI NNW OF GIGLING," "N RESERVE, FORT ORD," ETC.

Ecological: COASTAL DUNE SCRUB. SANDY SOIL ASSOCIATED WITH RHAMNUS CALIFORNICA, SALVIA MELLIFERA, BACCHARIS PILULARIS, ARTEMISIA CALIFORNICA, ERICAMERIA FASCICULATA, LOTUS SCOPARIUS, TOXICODENDRON DIVERSILOBUM, CEANOTHUS RIGIDUS, ETC.

General: DENSITY OF PLANTS ON FORD ORD RANGED FROM LOW TO HIGH IN 1992, HIGHEST DENSITY PORTIONS NEAR THE AIRPORT. 90+ PLANTS SEEN ON WEST SIDE OF HIGHWAY 1 IN 2013. SEEN IN 2008, 2015, 2016, & 2017. INCLUDES FORMER EO #17.

Owner/Manager: UCNR, CITY OF MARINA, DPR, UNK

Occurrence No.	21	**Map Index:**	A5171	**EO Index:**	106876	**Element Last Seen:**	1992-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1992-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-06-30

Quad Summary: Salinas (3612166), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.64814 / -121.74358	**Accuracy:**	specific area
UTM:	Zone-10 N4056575 E612307	**Elevation (ft):**	300
PLSS:	T15S, R02E, Sec. 4, SE (M)	**Acres:**	124.0

Location: SOUTH SIDE OF WATKINS GATE ROAD, JUST WEST OF EAST GARRISON AND NORTH OF MACHINE GUN FLATS, FORT ORD.

Detailed Location: MAPPED ACCORDING TO A 1992 USACE MAP.

Ecological:

General: LOW DENSITY OF PLANTS OBSERVED IN THIS AREA IN 1992.

Owner/Manager: BLM, MNT COUNTY

Occurrence No.	22	**Map Index:**	A5172	**EO Index:**	106877	**Element Last Seen:**	2013-03-06
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2013-03-06
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-06-30

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.65653 / -121.8175	**Accuracy:**	specific area
UTM:	Zone-10 N4057422 E605688	**Elevation (ft):**	113
PLSS:	T15S, R01E, Sec. 2, NE (M)	**Acres:**	1.0

Location: RAILROAD TRACKS NEAR BEACH RANGE RD, ACROSS HIGHWAY FROM 4TH STREET, BETWEEN SEASIDE AND MARINA.

Detailed Location: MAPPED IN THE EAST 1/2 OF THE NE 1/4 OF SECTION 2.

Ecological: CENTRAL DUNE SCRUB.

General: A FEW INDIVIDUALS OBSERVED IN 2013.

Owner/Manager: UNKNOWN

Occurrence No.	23	**Map Index:**	A5174	**EO Index:**	106878	**Element Last Seen:**	2012-05-17
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2012-05-17
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-06-30

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.70808 / -121.78966	**Accuracy:**	specific area
UTM:	Zone-10 N4063173 E608104	**Elevation (ft):**	45
PLSS:	T14S, R02E, Sec. 18, SW (M)	**Acres:**	1.0

Location: RAILROAD TRACKS ALONG LAPIS ROAD, ABOUT 0.2 MILE NORTH OF JUNCTION WITH DEL MONTE BLVD, NORTH OF MARINA.

Detailed Location: MAPPED IN THE SE 1/4 OF THE SW 1/4 OF SECTION 18.

Ecological: CENTRAL DUNE SCRUB.

General: 2 PLANTS OBSERVED IN 2012.

Owner/Manager: UNKNOWN

Occurrence No.	24	**Map Index:** 97259	**EO Index:**	107187	**Element Last Seen:**	1992-XX-XX
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:**	1992-XX-XX
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:**	2017-07-21

Quad Summary: Seaside (3612157), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.62518 / -121.83559	**Accuracy:**	specific area
UTM:	Zone-10 N4053925 E604112	**Elevation (ft):**	100
PLSS:	T15S, R01E, Sec. 15, NE (M)	**Acres:**	4.0

Location: BETWEEN HAYES ELEMENTARY SCHOOL AND SEASIDE HIGH SCHOOL, FORT ORD.

Detailed Location: MAPPED IN THE EAST 1/2 OF THE NE 1/4 OF SECTION 15 ACCORDING TO A 1992 ARMY CORPS OF ENGINEERS MAP.

Ecological:

General: MEDIUM TO HIGH DENSITY OF PLANTS OBSERVED IN THIS AREA IN 1992.

Owner/Manager: UNKNOWN

Trifolium buckwestiorum

Element Code: PDFAB402W0

Santa Cruz clover

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G2
	State:	None		**State:**	S2
	Other:	Rare Plant Rank - 1B.1, BLM_S-Sensitive, SB_SBBG-Santa Barbara Botanic Garden, SB_UCSC-UC Santa Cruz, SB_USDA-US Dept of Agriculture			
Habitat:	**General:**	COASTAL PRAIRIE, BROADLEAFED UPLAND FOREST, CISMONTANE WOODLAND.			
	Micro:	MOIST GRASSLAND. GRAVELLY MARGINS. 30-805 M.			

Occurrence No.	11	**Map Index:** 73141	**EO Index:**	74072	**Element Last Seen:**	1998-06-06
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:**	1998-06-06
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:**	2017-12-01

Quad Summary: Salinas (3612166), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.63817 / -121.74925	**Accuracy:**	3/5 mile
UTM:	Zone-10 N4055463 E611813	**Elevation (ft):**	
PLSS:	T15S, R02E, Sec. 09 (M)	**Acres:**	0.0

Location: EAST OF HENNEKIN'S (HENNEKEN'S) RANCH ROAD, FORMER FORT ORD MILITARY RESERVATION.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN THE VICINITY OF HENNEKEN RANCH ROAD AND TO THE EAST OF THE ROAD.

Ecological: GROWING IN VERNAL AREAS.

General: SITE BASED ON A 1998 YADON COLLECTION. ANOTHER 1998 YADON COLLECTION FROM "HENNIKEN RANCH ROAD, EAST OF HENNIKEN FLATS" AND A 1998 MORGAN COLLECTION FROM "ROADSIDE N? OF MACHINE GUN FLATS" ARE ATTRIBUTED TO THIS OCCURRENCE.

Owner/Manager: BLM

Monardella sinuata ssp. nigrescens

Element Code: PDLAM18162

northern curly-leaved monardella

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G3T2
	State:	None		**State:**	S2
	Other:	Rare Plant Rank - 1B.2, SB_SBBG-Santa Barbara Botanic Garden			
Habitat:	**General:**	COASTAL DUNES, COASTAL SCRUB, CHAPARRAL, LOWER MONTANE CONIFEROUS FOREST.			
	Micro:	SANDY SOILS. 10-245 M.			

Occurrence No.	2	**Map Index:**	91519	**EO Index:**	92552	**Element Last Seen:**	2013-08-26
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2013-08-26
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2014-02-24

Quad Summary: Seaside (3612157), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.61617 / -121.78718	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4052979 E608454	**Elevation (ft):**	
PLSS:	T15S, R02E, Sec. 18 (M)	**Acres:**	1725.0

Location: INLAND RANGES OF FORT ORD MILITARY RESERVATION.

Detailed Location: MAPPED BY CNDDB AS 5 POLYGONS. 4 NW POLYGONS ARE SPECIFIC BASED ON A 1992 US ARMY CORPS OF ENGINEERS MAP. SE-MOST POLYGON IS NON-SPECIFIC BASED ON A 2013 STYER MAP WHICH OUTLINES THE ROAD BOUNDARIES MONARELLA WAS OBSERVED WITHIN.

Ecological:

General: OBSERVED IN THIS AREA IN 1992, 2009-2013. STYER MENTIONS THAT THIS SPECIES IS "HARD TO MISS" IN THIS AREA. MOST LAND IN THIS AREA IS OWNED BY ARMY BUT SLATED TO GO TO BLM AND ARE PART OF FT ORD NATIONAL MONUMENT. NEED POPULATION INFO.

Owner/Manager: DOD

Occurrence No.	5	**Map Index:**	91522	**EO Index:**	92556	**Element Last Seen:**	1925-07-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1925-07-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2014-02-24

Quad Summary: Seaside (3612157), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.62064 / -121.84242	**Accuracy:**	2/5 mile
UTM:	Zone-10 N4053414 E603508	**Elevation (ft):**	
PLSS:	T15S, R01E, Sec. 15 (M)	**Acres:**	0.0

Location: PRATTCO, ABOUT 2 MILES NE OF DEL MONTE.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS AROUND THE FORMER RAILROAD STOP NAMED FOR PRATT BUILDING MATERIALS COMPANY IN SECTION 15.

Ecological:

General: SITE BASED ON A 1906 HELLER COLLECTION FROM "2 MILES NE OF DEL MONTE" AND A 1925 HOLLIS COLLECTION FROM "PRATTCO." MENTIONED AS "ABUNDANT" IN 1906. NEEDS FIELDWORK.

Owner/Manager: UNKNOWN

Occurrence No.	6	**Map Index:**	91526	**EO Index:**	92557	**Element Last Seen:**	1919-06-19
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1919-06-19
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2014-02-24

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.64760 / -121.81791	**Accuracy:**	3/5 mile
UTM:	Zone-10 N4056431 E605662	**Elevation (ft):**	
PLSS:	T15S, R01E, Sec. 02 (M)	**Acres:**	0.0

Location: GIGLING STATION.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS AROUND GIGLING SIDING.

Ecological: SANDY BANKS.

General: SITE BASED ON A 1919 FERGUSON COLLECTION. A 1903 ELMER COLLECTION FROM "GIGLING" AND A 1908 BRANDEGEE COLLECTION FROM "ALONG RAILWAY BETWEEN BARDIN'S SWITCH AND GIGLING STATION" ARE ALSO ATTRIBUTED TO THIS SITE. NEEDS FIELDWORK.

Owner/Manager: UNKNOWN

Occurrence No.	7	**Map Index:**	91527	**EO Index:**	92559	**Element Last Seen:**	2010-08-03
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2010-08-03
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2014-02-24

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.66959 / -121.76498	**Accuracy:**	specific area
UTM:	Zone-10 N4058930 E610362	**Elevation (ft):**	150
PLSS:	T14S, R02E, Sec. 32, E (M)	**Acres:**	93.0

Location: FORT ORD NATURAL RESERVE, NEAR MARINA.

Detailed Location: MAPPED BY CNDDB ACCORDING TO 1992 US ARMY CORPS OF ENGINEERS MAP. 1925 EPLING COLLECTION FROM "MARINA" AND ANONYMOUS COLLECTIONS FROM "LEFT OF FRITCHE ENTRANCE, FORT ORD" AND "W OF FRITCHE FIELD ENTRANCE, FORT ORD" ARE ATTRIBUTED HERE.

Ecological:

General: "LOW DENSITY" OF PLANTS OBSERVED AT THIS SITE IN 1992. OBSERVED WITHIN FORT ORD NATURAL RESERVE IN 2009 AND 2010.

Owner/Manager: UCNR-FORT ORD NR

Chorizanthe pungens var. pungens

Element Code: PDPGN040M2

Monterey spineflower

Listing Status:	**Federal:**	Threatened	**CNDDB Element Ranks:**	**Global:**	G2T2
	State:	None		**State:**	S2
	Other:	Rare Plant Rank - 1B.2, SB_SBBG-Santa Barbara Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley			
Habitat:	**General:**	COASTAL DUNES, CHAPARRAL, CISMONTANE WOODLAND, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.			
	Micro:	SANDY SOILS IN COASTAL DUNES OR MORE INLAND WITHIN CHAPARRAL OR OTHER HABITATS. 3-270 M.			

Occurrence No.	2	**Map Index:**	67825	**EO Index:**	29609	**Element Last Seen:**	2016-XX-XX
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2016-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2018-05-01

Quad Summary:	Spreckels (3612156), Seaside (3612157), Salinas (3612166), Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.6337 / -121.78075	**Accuracy:**	specific area
UTM:	Zone-10 N4054930 E609004	**Elevation (ft):**	400
PLSS:	T15S, R02E, Sec. 7 (M)	**Acres:**	10832.0

Location:	FORT ORD MILITARY RESERVATION; FROM MARINA EAST TO BARLOW CANYON ROAD AND SOUTH TO S BOUNDARY OF BASE (NEAR HWY 68).
Detailed Location:	LARGE OCCURRENCE ENCOMPASSING MOST OF FORT ORD. MAPPED PRIMARILY ACCORDING TO A 1992 ARMY CORPS OF ENGINEERS MAP. INCLUDES GENERAL "FORT ORD" COLLECTIONS/OBSERVATIONS. MOST RECENT OBSERVATIONS ARE FROM THE NORTHERN PORTION OF OCCURRENCE.
Ecological:	COASTAL DUNE/MARITIME CHAPARRAL; OAK WOODLAND TRANSITION. OPEN SANDY AREAS. ASSOCIATED WITH BROMUS DIANDRUS, LUPINUS BICOLOR, PLANTAGO CORONOPUS, LOTUS HUMISTRATUS, CARDIONEMA RAMOSISSIMUM, AVENA BARBATA, ERODIUM CICUTARIUM, ETC.
General:	POP NUMBERS FOR PARTS OF OCCURRENCE: SEEN THROUGHOUT OCC IN 1992, >200 PLANTS IN 1994, 19,700 IN 2003, 40,000 IN 2004, 1800 IN 2006, 5180+ IN 2009, >5000 IN 2011, SEEN IN 2012-2016. INCLUDES FORMER OCC #S 11, 22, 23, 24; C. ROBUSTA #22.
Owner/Manager:	BLM-FORT ORD, PVT

Occurrence No.	16	**Map Index:**	10421	**EO Index:**	22005	**Element Last Seen:**	2012-05-17
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2012-05-17
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2015-08-17

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.72557 / -121.80315	**Accuracy:**	specific area
UTM:	Zone-10 N4065097 E606874	**Elevation (ft):**	30
PLSS:	T14S, R01E, Sec. 12 (M)	**Acres:**	19.0

Location:	NORTH OF MARINA, AROUND 0.5 TO 0.9 AIR MILE WEST OF THE INTERSECTION OF HIGHWAY 1 AND DEL MONTE BLVD.
Detailed Location:	DUNE SCRUB NORTH OF CEMEX SAND QUARRY. 5 POLYGONS MAPPED ACCORDING TO A 1987 ZOGER MAP AND 2014 ESA DIGITAL DATA.
Ecological:	CENTRAL DUNE SCRUB.
General:	3 EASTERN POLYGONS: 43 PLANTS OBSERVED BETWEEN THESE SITES AND PORTIONS OF OCC #S 17 & 18 IN 1987. IN 2012, 60 PLANTS SEEN IN NW-MOST POLYGON AND 111 PLANTS IN SW-MOST POLYGON INCLUDES FORMER OCCURRENCE #25.
Owner/Manager:	PVT, BIG SUR LAND TRUST

Occurrence No.	17	**Map Index:**	10425	**EO Index:**	22003	**Element Last Seen:**	2006-04-21
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2006-04-21
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2007-01-23

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.71502 / -121.79967	**Accuracy:**	specific area
UTM:	Zone-10 N4063931 E607199	**Elevation (ft):**	60
PLSS:	T14S, R01E, Sec. 13, E (M)	**Acres:**	17.0

Location:	NORTH OF MARINA, 0.8 KM (0.5 MI) WEST OF LAPIS SIDING.
Detailed Location:	THREE POPULATIONS. HACKER STATED IN 2006: "POPULATION EXTENDS INTO DUNES TO NW, BEYOND AREA MAPPED." UNKNOWN IF THIS REFERS TO ZOGER OBSERVATION.
Ecological:	HISTORICALLY DISTURBED SANDY SOIL WITH DUNE SCRUB SPECIES SUCH AS ERIOGONUM LATIFOLIUM AND DUDLEYA FARINOSA. THE RARE ERYSIMUM AMMOPHILUM ALSO OCCURS HERE.
General:	NW-MOST POLYGON: 43 PLANTS OBSERVED BETWEEN THIS SITE AND PORTIONS OF OCC #S 16 & 18 IN 1987. 2 SE-MOST POLYGONS: 2300 PLANTS OBSERVED IN 2006.
Owner/Manager:	PVT

Occurrence No.	18	**Map Index:**	10401	**EO Index:**	22004	**Element Last Seen:**	2012-09-20
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2012-09-20
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2015-08-17

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.70223 / -121.80609	**Accuracy:**	specific area
UTM:	Zone-10 N4062505 E606643	**Elevation (ft):**	40
PLSS:	T14S, R01E, Sec. 24 (M)	**Acres:**	31.0

Location:	DUNES AT NORTH END OF MARINA STATE BEACH AND NORTH OF RESERVATION RD.
Detailed Location:	SOUTH OF CEMEX SAND QUARRY. 6 POLYGONS MAPPED ACCORDING TO A 1987 ZOGER MAP, 2004 HACKER MAP, 2013 KEELAN COORDINATES, AND 2014 ESA DIGITAL DATA. INCLUDES FORMER OCCURRENCE #35.
Ecological:	RUDERAL VEGETATION AND DUNE SCRUB ON SANDY HIGHWAY FILL; COASTAL STRAND DOMINATED BY ARTEMISIA PYCNOCEPHALA, ABRONIA LATIFOLIA, AMBROSIA CHAMISSONIS. OTHER RARE SPECIES INCLUDE ANNIEILLA PULCHRA NIGRA, GILIA TENUIFLORA SSP. ARENARIA.
General:	43 PLANTS OBSERVED BETWEEN PORTIONS OF EO #S 16, 17, & 18 IN 1987. 1000+ PLANTS SEEN IN MARINA STATE BEACH (S POLYGON) IN 1994, UNK # SEEN IN 2001 & 2012. 1200 PLANTS SEEN ALONG HWY 1 IN 2004. 849 PLANTS IN 3 N-MOST POLYGONS IN 2012.
Owner/Manager:	MNT PENINSULA RPD, DPR, PVT

Occurrence No.	47	**Map Index:**	97254	**EO Index:**	98518	**Element Last Seen:**	1980-05-13
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1980-05-13
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2015-08-18

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.73983 / -121.80001	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4066683 E607134	**Elevation (ft):**	
PLSS:	T14S, R01E, Sec. 01 (M)	**Acres:**	380.0

Location:	SALINAS LAGOON WILDLIFE AREA.
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED BY CNDDB TO ENCOMPASS SALINAS RIVER NATIONAL WILDLIFE REFUGE.
Ecological:	COASTAL DUNE SCRUB.
General:	MAIN SOURCE OF INFORMATION FOR THIS SITE IS A 1980 PAVLIK COLLECTION. A 1979 JOHNSON COLLECTION FROM "AT THE MARINA DUNES, IMMEDIATELY SOUTH OF THE MOUTH OF THE SALINAS RIVER" IS ALSO ATTRIBUTED HERE. NEEDS FIELDWORK.
Owner/Manager:	USFWS-SALINAS RIVER NWR

Occurrence No.	48	**Map Index:**	97257	**EO Index:**	98520	**Element Last Seen:**	2012-05-17
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2012-05-17
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2018-05-01

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.70386 / -121.78935	**Accuracy:**	specific area
UTM:	Zone-10 N4062704 E608138	**Elevation (ft):**	50
PLSS:	T14S, R02E, Sec. 19, N (M)	**Acres:**	22.0

Location:	ALONG LAPIS ROAD AND DEL MONTE BLVD NEAR THEIR INTERSECTION, BETWEEN MARINA AND LAPIS SIDING.
Detailed Location:	8 POLYGONS MAPPED ALONG RAILROAD TRACKS ACCORDING TO 2006 MORGAN MAPS AND 2012 ESA DIGITAL DATA.
Ecological:	CENTRAL DUNE SCRUB, ANNUAL GRASSLAND, COASTAL SCRUB WITH CROTON CALIFORNICUS, LOTUS SCOPARIUS, VULPIA, BROMUS DIANDRUS, AVENA, EHRHARTA CALYCINA, RUMEX ACETOSELLA, LUPINUS ALBIFRONS, ETC. IN CLOSE TURF ON THE INLAND SIDE OF THE SAND DUNES.
General:	POPULATION NUMBERS FOR PORTIONS OF SITE: ~120,500 PLANTS SEEN IN 2006, 3636 PLANTS SEEN IN 2012. A 1938 ROSSBACH COLLECTION FROM "BARDIN'S" IS ALSO ATTRIBUTED TO THIS SITE.
Owner/Manager:	PVT, UNKNOWN

Occurrence No.	49	**Map Index:**	97258	**EO Index:**	98521	**Element Last Seen:**	2009-06-03
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2009-06-03
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2015-08-18

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.63866 / -121.80769	**Accuracy:**	specific area
UTM:	Zone-10 N4055451 E606588	**Elevation (ft):**	300
PLSS:	T15S, R01E, Sec. 12, NW (M)	**Acres:**	2.0

Location: ORD MILITARY COMMUNITY, ON EAST SIDE OF CHAPEL DRIVE, OPPOSITE POST CHAPEL.

Detailed Location: MAPPED IN THE SE 1/4 OF THE NW 1/4 OF SECTION 12 ACCORDING TO A 2009 PRESTON MAP.

Ecological: OPEN SANDY BANK IN COAST LIVE OAK WOODLAND, WITH RUMEX ACETOSELLA, CASTILLEJA EXERTA, LUPINUS BICOLOR, BROMUS DIANDRUS, FILAGO GALLICA, AND ERODIUM BOTRYS.

General: FEWER THAN 100 PLANTS OBSERVED IN 2009.

Owner/Manager: DOD

Occurrence No.	50	**Map Index:**	97259	**EO Index:**	98522	**Element Last Seen:**	1992-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1992-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2015-08-19

Quad Summary: Seaside (3612157), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.62518 / -121.83559	**Accuracy:**	specific area
UTM:	Zone-10 N4053925 E604112	**Elevation (ft):**	100
PLSS:	T15S, R01E, Sec. 15, NE (M)	**Acres:**	4.0

Location: BETWEEN HAYES ELEMENTARY SCHOOL AND SEASIDE HIGH SCHOOL, FORT ORD.

Detailed Location: MAPPED IN THE EAST 1/2 OF THE NE 1/4 OF SECTION 15 ACCORDING TO A 1992 ARMY CORPS OF ENGINEERS MAP.

Ecological:

General: LOW DENSITY OF PLANTS OBSERVED IN THIS AREA IN 1992.

Owner/Manager: UNKNOWN

Occurrence No.	64	**Map Index:**	A9219	**EO Index:**	111059	**Element Last Seen:**	2006-09-14
Occ. Rank:	None			**Presence:**	Extirpated	**Site Last Seen:**	2006-09-14
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2018-05-02

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.71859 / -121.78352	**Accuracy:**	80 meters
UTM:	Zone-10 N4064345 E608637	**Elevation (ft):**	80
PLSS:	T14S, R02E, Sec. 18, NE (M)	**Acres:**	5.0

Location: ARMSTRONG RANCH ADJACENT TO SOUTH SIDE OF CHARLIE BENSON LANE TO LANDFILL.

Detailed Location: MAPPED ACCORDING TO 2006 MORGAN MAP, IN THE NE 1/4 OF THE NE 1/4 OF SECTION 18.

Ecological: ANNUAL GRASSLAND AND COASTAL SCRUB WITH RUMEX ACETOSELLA, ANNUAL GRASSES, AND LUPINUS CHAMISSONIS. SANDY SOIL. 10% SLOPE.

General: ~100,000 PLANTS OBSERVED IN 2006. SITE QUALITY WAS EXCELLENT IN 2006; SITE HAS SINCE BEEN EXTIRPATED BY AGRICULURE BASED ON AERIAL IMAGERY.

Owner/Manager: PVT

Chorizanthe minutiflora

Element Code: PDPGN04100

Fort Ord spineflower

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G1
	State:	None		**State:**	S1
	Other:	Rare Plant Rank - 1B.2, SB_SBBG-Santa Barbara Botanic Garden			
Habitat:	**General:**	COASTAL SCRUB, CHAPARRAL (MARITIME).			
	Micro:	SANDY, OPENINGS. 60-145 M.			

Occurrence No.	3	**Map Index:** A4903	**EO Index:** 106599	**Element Last Seen:**	2014-05-11
Occ. Rank:	Unknown		**Presence:** Presumed Extant	**Site Last Seen:**	2015-XX-XX
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2017-05-31

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.63944 / -121.76581	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4055585 E610332	**Elevation (ft):**	340
PLSS:	T15S, R02E, Sec. 8 (M)	**Acres:**	40.0

Location: ALONG WATKINS GATE RD, AS WELL AS AT INTERSECTION OF TRAIL 67 AND TRAIL 69, FORT ORD.

Detailed Location: MAPPED AS 2 POLYGONS BY CNDDB. NE POLYGON IS SPECIFIC; BASED ON COORDINATES PROVIDED BY STYER. SW POLYGON IS NONSPECIFIC; MAPPED AS BEST GUESS BY CNDDB ALONG WATKINS GATE RD IN VICINITY OF 2005 PARKER FLAT BURN AREA.

Ecological:

General: NE POLYGON: SITE FIRST REPORTED IN 2011, "HALF A DOZEN" PLANTS SEEN IN 2014, NONE FOUND IN 2015 DURING DROUGHT. SW POLYGON: PLANTS FOUND WITHIN BURN AREA IN 2010 BUT "AREA HAS SINCE SEEMED TOO OVERGROWN TO FIND THE PLANT AGAIN" (STYER).

Owner/Manager: BLM?

Occurrence No.	4	**Map Index:** A4904	**EO Index:** 106600	**Element Last Seen:**	201X-XX-XX
Occ. Rank:	Unknown		**Presence:** Presumed Extant	**Site Last Seen:**	201X-XX-XX
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2017-07-17

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.64381 / -121.77617	**Accuracy:**	80 meters
UTM:	Zone-10 N4056058 E609400	**Elevation (ft):**	340
PLSS:	T15S, R02E, Sec. 8, NW (M)	**Acres:**	5.0

Location: ALONG GIGLING RD WHERE POWERLINE CROSSES ROAD, ABOUT 0.9 AIR MILE ENE OF ARTILLERY HILL, FORT ORD.

Detailed Location: MAPPED BY CNDDB FROM COORDINATES PROVIDED BY STYER, IN THE NW 1/4 OF THE NW 1/4 OF PROJECTED SECTION 8.

Ecological: OPEN DISTURBED GROUND WITHIN MIXTURE OF MARITIME CHAPARRAL AND COAST LIVE OAK.

General: UNKNOWN WHEN SITE WAS VISITED; PRESUMABLY SOMETIME AFTER 2010. ACCORDING TO STYER, SITE APPEARS STABLE AND MAINTAINS A POPULATION OF ABOUT HALF AS MANY PLANTS AS OCCURRENCE #2.

Owner/Manager: UNKNOWN

Gilia tenuiflora ssp. arenaria

Element Code: PDPLM041P2

Monterey gilia

Listing Status:	**Federal:**	Endangered	**CNDDB Element Ranks:**	**Global:**	G3G4T2
	State:	Threatened		**State:**	S2
	Other:	Rare Plant Rank - 1B.2, SB_RSABG-Rancho Santa Ana Botanic Garden			

Habitat:	**General:**	COASTAL DUNES, COASTAL SCRUB, CHAPARRAL (MARITIME), CISMONTANE WOODLAND.
	Micro:	SANDY OPENINGS IN BARE, WIND-SHELTERED AREAS. OFTEN NEAR DUNE SUMMIT OR IN THE HIND DUNES; TWO RECORDS FROM PLEISTOCENE INLAND DUNES. 5-245 M.

Occurrence No.	4	**Map Index:**	10390	**EO Index:**	428	**Element Last Seen:**	2018-04-24
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2018-04-24
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2018-12-20

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.68475 / -121.81067	**Accuracy:**	specific area
UTM:	Zone-10 N4060560 E606259	**Elevation (ft):**	130
PLSS:	T14S, R01E, Sec. 25, W (M)	**Acres:**	33.0

Location:	MARINA STATE BEACH, W OF TOWN OF MARINA AND HWY 1, FROM 0.2 MI S OF RESERVATION RD TO JUST S OF LAKE RD.
Detailed Location:	MAPPED AS 6 POLYGONS ACCORDING TO MAP DATA FROM THE 1980S AND 1990S.
Ecological:	IN COASTAL DUNE SCRUB ON REAR DUNE WITH LARGE BLOWOUTS OF SAND. OTHER RARE SPECIES INCLUDE ERYSIMUM MENZIESII SSP. YADONII, ANNIELLA PULCHRA NIGRA, AND CHORIZANTHE PUNGENS VAR. PUNGENS.
General:	10,000+ IN 1985, 300 IN 1986, 6 IN 1988, 8 IN 1991, 600 IN 1992, 325 AT MARINA SB AND 350-400 AT MONTEREY SAND CO IN 1993, 61 IN 1994, UNK NUMBER IN 1998 & 2001. 2018 PHOTOS FROM FT ORD DUNES SP ATTRIB HERE. INCLUDES FORMER OCC #9 & #22.
Owner/Manager:	DPR-MARINA SB

Occurrence No.	18	**Map Index:**	27793	**EO Index:**	27411	**Element Last Seen:**	2009-05-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2009-05-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2018-12-24

Quad Summary:	Seaside (3612157), Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.61383 / -121.79623	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4052710 E607649	**Elevation (ft):**	
PLSS:	T15S, R02E, Sec. 19 (M)	**Acres:**	1291.0

Location:	SW EDGE OF FORT ORD MILITARY RESERVATION; FROM NORTH-SOUTH ROAD, EXTENDING EAST TO NEAR MERRILIS HILL.
Detailed Location:	MAPPED AS SEVERAL LARGE NON-SPECIFIC POLYGONS AND A COUPLE SPECIFIC POLYGONS AT NE PORTION OF OCCURRENCE.
Ecological:	
General:	MAIN SOURCE OF INFORMATION FOR THIS SITE IS VAGUE MAP IN "FLORA AND FAUNA BASELINE STUDY OF FORT ORD." FIELDWORK BY JONES AND STOKES ASSOC., INC. SEEN IN 2006. 1735 PLANTS OBSERVED IN 2007. SEEN IN 2009. INCLUDES FORMER EO #19.
Owner/Manager:	BLM-FORT ORD

Occurrence No.	20	**Map Index:**	27791	**EO Index:**	423	**Element Last Seen:**	2017-06-02
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2018-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2018-12-28

Quad Summary:	Salinas (3612166), Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.6734 / -121.76788	**Accuracy:**	specific area
UTM:	Zone-10 N4059349 E610099	**Elevation (ft):**	150
PLSS:	T14S, R02E, Sec. 32 (M)	**Acres:**	515.0

Location:	FORMERLY FORT ORD MR; FROM N SIDE OF INTER-GARRISON RD EXTENDING N WITHIN MILITARY BOUNDARY TO MARINA MUNICIPAL AIRPORT.
Detailed Location:	MAPPED AS MANY POLYGONS. MARINA MUNICIPAL AIRPORT FORMERLY CALLED FRITZSCHE AIRFIELD, LABELED "LANDING FIELD" ON TOPO MAPS. MONTEREY COUNTY PARKS IS ALSO PART OWNER. INCLUDES 2006 MORGAN COLLECTION FROM "FORT ORD, UC RESERVE SITE: P1 & P2."
Ecological:	OTHER RARE PLANTS IN THE AREA: CHORIZANTHE PUNGENS PUNGENS, ARCTOSTAPHYLOS PUMILA, ERIASTRUM VIRGATUM, & ERYSIMUM AMMOPHILUM.
General:	45,590 PLANTS IN 1993. 2 MILLION+ IN 1995. AVERAGE OF 59,300 PLANTS DURING 1999-2002 SURVEYS (NOT FULL CENSUSES). PORTIONS OF SITE: 25 IN 1994, 1320+ IN 2003, 2850+ IN 2004, 528 IN 2007, SEEN IN 2008-2013, 2015-2017, NONE IN 2018.
Owner/Manager:	UCNR-FORT ORD NR, PVT

Occurrence No.	21	**Map Index:**	27789	**EO Index:**	425	**Element Last Seen:**	1993-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1993-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2015-11-16

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.67512 / -121.80500	**Accuracy:**	specific area
UTM:	Zone-10 N4059498 E606779	**Elevation (ft):**	60
PLSS:	T14S, R01E, Sec. 36, NE (M)	**Acres:**	9.4

Location:	FORMERLY FORT ORD MILITARY RESERVATION; E SIDE OF DEL MONTE BLVD; 0.7-1.0 MI S OF JCT DEL MONTE BLVD & RESERVATION ROAD.
Detailed Location:	
Ecological:	
General:	515 PLANTS IN 1993 IN TWO POPULATIONS.
Owner/Manager:	CITY OF MARINA

Occurrence No.	23	**Map Index:**	27790	**EO Index:**	427	**Element Last Seen:**	1988-03-31
Occ. Rank:	None			**Presence:**	Extirpated	**Site Last Seen:**	2000-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2015-11-16

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.69238 / -121.80153	**Accuracy:**	80 meters
UTM:	Zone-10 N4061417 E607065	**Elevation (ft):**	40
PLSS:	T14S, R01E, Sec. 24, SE (M)	**Acres:**	0.0

Location: NE CORNER OF JUNCTION OF SEASIDE AVE AND RESERVATION ROAD.

Detailed Location:

Ecological: IN SAND ON SW-FACING SLOPE WITH LOTUS SCOPARIUS, ORTHOCARPUS SP., AND CARDIONEMA RAMOSISSIMUM.

General: FEWER THAN 1000 PLANTS IN 1988. SITE NOW EXTIRPATED BY CONSTRUCTION OF A HOLIDAY INN HOTEL AROUND THE YEAR 2000. AS PART OF MITIGATION, 1,600 SEEDLINGS WERE PLANTED AT ADJACENT LOCKE-PADDON PARK (NOT MAPPED BY CNDDB, NEED MORE INFORMATION).

Owner/Manager: PVT

Occurrence No.	24	**Map Index:**	27787	**EO Index:**	429	**Element Last Seen:**	1987-05-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1987-05-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2007-04-16

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.70707 / -121.80512	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4063043 E606723	**Elevation (ft):**	60
PLSS:	T14S, R01E, Sec. 24 (M)	**Acres:**	22.0

Location: 0.35 MILE AND 0.7 MILE NW OF JUNCTION OF HWY 1 AND RESERVATION ROAD.

Detailed Location:

Ecological: DUNE SCRUB.

General: UNKNOWN HOW MANY PLANTS SEEN IN 1987 AND 1998. MORE INFO AND BETTER MAP DETAIL NEEDED. INCLUDES FORMER OCCURRENCE #25.

Owner/Manager: UNKNOWN

Occurrence No.	26	**Map Index:**	27785	**EO Index:**	432	**Element Last Seen:**	1998-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1998-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2007-04-16

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.71448 / -121.80186	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4063868 E607005	**Elevation (ft):**	40
PLSS:	T14S, R01E, Sec. 13 (M)	**Acres:**	15.4

Location: 1.25 MILE NW OF JUNCTION OF HWY 1 AND RESERVATION ROAD.

Detailed Location:

Ecological: DUNE SCRUB.

General: UNKNOWN HOW MANY PLANTS SEEN IN 1998. BETTER MAP DETAIL NEEDED.

Owner/Manager: UNKNOWN

Occurrence No.	27	**Map Index:**	27784	**EO Index:**	431	**Element Last Seen:**	1998-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1998-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2007-04-16

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.72802 / -121.80354	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4065368 E606836	**Elevation (ft):**	20
PLSS:	T14S, R01E, Sec. 12 (M)	**Acres:**	20.0

Location:	1.85 MILES AND 2.2 MILES NW OF JUNCTION OF HWY 1 AND RESERVATION ROAD.
Detailed Location:	3 POPULATIONS: "LONE STAR PROPERTIES", "GRANITE ROCK PROPERTY", AND "MARTIN PROPERTY". EXACT LOCATIONS OF THESE PROPERTIES ARE UNKNOWN.
Ecological:	DUNE SCRUB.
General:	2295 PLANTS IN 3 POPULATIONS IN 1987. DORRELL-CANEPA SEARCHED THIS SITE IN 1993 AND ONLY FOUND ONE OF THE POPULATIONS REPORTED BY ZOGER & PAVLIK, WITH 1000 PLANTS. UNKNOWN NUMBER SEEN IN 1998. INCLUDES FORMER OCCURRENCE #28.
Owner/Manager:	PVT

Occurrence No.	29	**Map Index:**	10437	**EO Index:**	1025	**Element Last Seen:**	1993-05-XX
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	1993-05-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2007-04-12

Quad Summary:	Marina (3612167), Moss Landing (3612177)
County Summary:	Monterey

Lat/Long:	36.74939 / -121.79940	**Accuracy:**	1/5 mile
UTM:	Zone-10 N4067743 E607176	**Elevation (ft):**	30
PLSS:	T13S, R01E, Sec. 36 (M)	**Acres:**	0.0

Location:	MULLIGAN HILL; JUST NORTH OF THE OLD SALINAS RIVER MOUTH.
Detailed Location:	
Ecological:	
General:	4000 PLANTS OBSERVED IN 1993.
Owner/Manager:	PVT

Occurrence No.	31	**Map Index:**	34739	**EO Index:**	424	**Element Last Seen:**	2009-04-22
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2009-04-22
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2018-12-20

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.66123 / -121.78944	**Accuracy:**	specific area
UTM:	Zone-10 N4057975 E608189	**Elevation (ft):**	200
PLSS:	T15S, R02E, Sec. 6, N (M)	**Acres:**	35.0

Location:	FORT ORD MILITARY RESERVATION; NORTH OF INTER-GARRISON ROAD, BOTH SIDES OF IMJIN ROAD.
Detailed Location:	MAPPED AS 9 POLYGONS, MOSTLY ACCORDING TO A 1994 JONES AND STOKES ASSOCIATES MAP.
Ecological:	HIGHLY DISTURBED AREA WITHIN MATRIX OF DISTURBED MARITIME CHAPARRAL. SANDY AREA NEAR NATURALIZED TORREY AND MONTEREY PINES.
General:	698 PLANTS IN 1993. APPROXIMATELY 30 PLANTS OBSERVED IN A SMALL PORTION OF SITE IN 2009. 2001 YADON COLLECTION FROM "FT ORD NEAR CITY OF MARINA BOUNDARY - BELOW HAYES CIRCLE S OF 3RD ST W OF CARSWELL" ATTRIBUTED TO THIS OCCURRENCE.
Owner/Manager:	UC, CITY OF MARINA, PVT

Occurrence No.	34	**Map Index:**	68922	**EO Index:**	69546	**Element Last Seen:**	XXXX-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	XXXX-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2007-04-13

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.66932 / -121.81332	**Accuracy:**	1/10 mile
UTM:	Zone-10 N4058846 E606042	**Elevation (ft):**	
PLSS:	T14S, R01E, Sec. 36, W (M)	**Acres:**	0.0

Location:	FORT ORD MR, NEAR THE 12TH STREET GATE.
Detailed Location:	EXACT LOCATION OF GATE UNKNOWN. 12TH STREET ENTRANCE IS VAGUELY MARKED ON SMALL-SCALE MAP OF MONTEREY COUNTY. MAPPED AS BEST GUESS BY CNDDB NEAR HWY 1 AT 12TH STREET, NE OF INDIAN HEAD BEACH.
Ecological:	
General:	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS REPORT OF SIGHTING BY GRAY AT THE 1996 RECOVERY WORKSHOP. NEEDS FIELDWORK.
Owner/Manager:	BLM-FORT ORD

Occurrence No.	36	**Map Index:** 98177	**EO Index:**	99590	**Element Last Seen:**	2015-XX-XX
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:**	2015-XX-XX
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:**	2018-12-18

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.6363 / -121.77483	**Accuracy:**	specific area
UTM:	Zone-10 N4055226 E609530	**Elevation (ft):**	335
PLSS:	T15S, R02E, Sec. 8, SW (M)	**Acres:**	12.0

Location: FORT ORD; JUST EAST OF PARKER FLATS, ABOUT 1.3 AIR MILES EAST OF THE INTERSECTION OF PARKER FLATS RD AND NORMANDY RD.

Detailed Location: MAPPED AS 2 POLYGONS IN THE NORTH 1/2 OF THE SW 1/4 OF SECTION 8.

Ecological:

General: UNKNOWN NUMBER OF PLANTS SEEN IN WESTERN POLYGON IN 2007. UNKNOWN NUMBER OF PLANTS SEEN IN EASTERN POLYGON IN 2006, 2007, 2010, AND 2015; AFTER PERSCRIBED BURN, THE POPULATION & SIZE OF INDIVIDUAL PLANTS INCREASED DRAMATICALLY.

Owner/Manager: UNKNOWN

Horkelia cuneata var. sericea

Element Code: PDROS0W043

Kellogg's horkelia

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G4T1?
	State:	None		**State:**	S1?
	Other:	Rare Plant Rank - 1B.1, SB_UCSC-UC Santa Cruz, USFS_S-Sensitive			
Habitat:	**General:**	CLOSED-CONE CONIFEROUS FOREST, COASTAL SCRUB, COASTAL DUNES, CHAPARRAL.			
	Micro:	OLD DUNES, COASTAL SANDHILLS; OPENINGS. SANDY OR GRAVELLY SOILS. 5-430 M.			

Occurrence No.	13	**Map Index:** 28849	**EO Index:**	28373	**Element Last Seen:**	1992-XX-XX
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:**	1992-XX-XX
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:**	1997-02-05

Quad Summary: Seaside (3612157), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.62720 / -121.78364	**Accuracy:**	specific area
UTM:	Zone-10 N4054206 E608755	**Elevation (ft):**	400
PLSS:	T15S, R02E, Sec. 18 (M)	**Acres:**	594.6

Location: FORT ORD, ABOUT 3.5 MILES EAST OF SEASIDE JUST NORTHEAST OF MERRILLIS HILL.

Detailed Location:

Ecological: COASTAL SCRUB, MARITIME CHAPARRAL, AND CLOSED CONE CONIFEROUS FOREST.

General: PLANT DENSITY ESTIMATED TO BE LOW (1-100S PER ACRE) TO MEDIUM (100S TO 1000S PER ACRE) IN 1992.

Owner/Manager: BLM-FORT ORD

Occurrence No.	15	**Map Index:**	28848	**EO Index:**	30748	**Element Last Seen:**	1992-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1992-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	1997-02-05

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.64315 / -121.77778	**Accuracy:**	specific area
UTM:	Zone-10 N4055982 E609256	**Elevation (ft):**	350
PLSS:	T15S, R02E, Sec. 08, NW (M)	**Acres:**	13.3

Location: FORT ORD, SOUTH OF MARINA ABOUT 0.7 MILE SOUTH OF INTER-GARRISON ROAD AND 1.7 MILES EAST OF NORTH-SOUTH ROAD.

Detailed Location:

Ecological: COASTAL SCRUB, MARITIME CHAPARRAL, AND CLOSED CONE CONIFEROUS FOREST.

General: PLANT DENSITY ESTIMATED TO BE MEDIUM (100S TO 1000S PER ACRE) IN 1992.

Owner/Manager: BLM-FORT ORD

Occurrence No.	16	**Map Index:**	28846	**EO Index:**	30749	**Element Last Seen:**	1992-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1992-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	1997-02-05

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.65329 / -121.78015	**Accuracy:**	specific area
UTM:	Zone-10 N4057104 E609030	**Elevation (ft):**	350
PLSS:	T15S, R02E, Sec. 06, E (M)	**Acres:**	5.9

Location: FORT ORD, SOUTH OF MARINA, SOUTH SIDE OF INTER-GARRISON ROAD AND 1.2 MILES EAST OF NORTH-SOUTH ROAD.

Detailed Location:

Ecological: COASTAL SCRUB, MARITIME CHAPARRAL, AND CLOSED CONE CONIFEROUS FOREST.

General: PLANT DENSITY ESTIMATED TO BE LOW (1-100S PER ACRE) IN 1992.

Owner/Manager: BLM-FORT ORD

Occurrence No.	17	**Map Index:**	28847	**EO Index:**	30750	**Element Last Seen:**	1992-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1992-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	1997-02-05

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.64917 / -121.76863	**Accuracy:**	specific area
UTM:	Zone-10 N4056660 E610066	**Elevation (ft):**	320
PLSS:	T15S, R02E, Sec. 05, SE (M)	**Acres:**	52.3

Location: FORT ORD, SOUTH OF MARINA, ABOUT 0.5 MILE SOUTH OF INTER-GARRISON ROAD AND 2.2 MILES EAST OF NORTH-SOUTH ROAD.

Detailed Location:

Ecological: COASTAL SCRUB, MARITIME CHAPARRAL, AND CLOSED CONE CONIFEROUS FOREST.

General: PLANT DENSITY ESTIMATED TO BE LOW (1-100S PER ACRE) IN 1992.

Owner/Manager: BLM-FORT ORD

Occurrence No.	18	**Map Index:**	28845	**EO Index:**	30751	**Element Last Seen:**	1998-11-14
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	1998-11-14
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2006-04-27

Quad Summary: Salinas (3612166), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.66270 / -121.75304	**Accuracy:**	specific area
UTM:	Zone-10 N4058180 E611439	**Elevation (ft):**	160
PLSS:	T14S, R02E, Sec. 33, S (M)	**Acres:**	279.3

Location: FORT ORD, 2 MILES EAST OF MARINA ALONG SOUTH SIDE OF RESERVATION ROAD.

Detailed Location:

Ecological: SWALES BETWEEN MARITIME CHAPARRAL, QUERCUS AGRIFOLIA, AND/OR COASTAL SCRUB COMMUNITIES. DOMINANT: NASSELLA. ASSOCIATES: POLYGONUM PARONYCHIA, CROTON CALIFORNICA, LESSINGIA GLANDULIFERA VAR. PECTINATA, & ACAENA PINNATIFIDA VAR. CALIFORNICA.

General: PLANT DENSITY ESTIMATED TO BE LOW (1-100S PER ACRE) TO MEDIUM (100S TO 1000S PER ACRE) IN 1992. SEVERAL THOUSAND PLANTS OBSERVED IN 1998. INCLUDES FORMER OCCURRENCE #24.

Owner/Manager: UC-SANTA CRUZ, MNT COUNTY

Occurrence No.	19	**Map Index:**	28844	**EO Index:**	30747	**Element Last Seen:**	2004-04-28
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2004-04-28
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2016-12-14

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.67203 / -121.80881	**Accuracy:**	specific area
UTM:	Zone-10 N4059151 E606443	**Elevation (ft):**	60
PLSS:	T14S, R01E, Sec. 36, N (M)	**Acres:**	59.5

Location: FORT ORD, JUST SOUTH OF MARINA ALONG EAST SIDE OF HIGHWAY 1.

Detailed Location: INCLUDES COLLECTIONS FROM "FORMER BASE HOUSING AREA OF FORT ORD ON OUTSKIRTS OF MARINA," "HAYES CIRCLE NEAR RONDAVO AVE," AND "7 MILES NORTHEAST OF MONTEREY; NEAR SHORE OF MONTEREY BAY."

Ecological: COASTAL SCRUB, MARITIME CHAPARRAL, AND CLOSED CONE CONIFEROUS FOREST.

General: PLANT DENSITY ESTIMATED TO BE LOW (1-100S PER ACRE) IN 1992. A 1938 CLAUSEN COLLECTION, 2003 KEIL COLLECTION, AND A 2004 YADON COLLECTION ARE ALSO ATTRIBUTED TO THIS SITE.

Owner/Manager: BLM-FORT ORD

Occurrence No.	20	**Map Index:**	A3003	**EO Index:**	30317	**Element Last Seen:**	2013-03-26
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2013-03-26
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2016-12-14

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.64519 / -121.82148	**Accuracy:**	specific area
UTM:	Zone-10 N4056160 E605347	**Elevation (ft):**	100
PLSS:	T15S, R01E, Sec. 2, SE (M)	**Acres:**	2.0

Location:	RR TRACKS NEAR HIGHWAY 1 AND LIGHT FIGHTER DRIVE INTERCHANGE, BETWEEN MARINA AND SEASIDE.
Detailed Location:	MAPPED ACCORDING TO 2014 DIGITAL DATA.
Ecological:	CENTRAL DUNE SCRUB.
General:	500 PLANTS OBSERVED IN 2013. A 1935 BENSON COLLECTION FROM "5 MILES NORTH OF MONTEREY" IS ALSO ATTRIBUTED TO THIS SITE.
Owner/Manager:	DPR-FORT ORD DUNES SP?

Occurrence No.	21	**Map Index:**	28850	**EO Index:**	30752	**Element Last Seen:**	2012-05-17
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2012-05-17
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2016-12-14

Quad Summary:	Marina (3612167)
County Summary:	Monterey

Lat/Long:	36.7006 / -121.7917	**Accuracy:**	specific area
UTM:	Zone-10 N4062340 E607932	**Elevation (ft):**	100
PLSS:	T14S, R02E, Sec. 19, NW (M)	**Acres:**	2.0

Location:	RR TRACKS ALONG DEL MONTE BLVD JUST NORTH OF MARINA GREEN DRIVE INTERSECTION, MARINA.
Detailed Location:	MAPPED IN THE SE 1/4 OF THE NW 1/4 OF SECTION 19 ACCORDING TO 2014 DIGITAL DATA.
Ecological:	CENTRAL DUNE SCRUB.
General:	226 PLANTS OBSERVED IN 2012. A 1940 KECK COLLECTION FROM "1 MI N OF MARINA (1/2 WAY BETW CASTROVILLE AND SEASIDE)" IS ALSO ATTRIBUTED TO THIS SITE; SPECIMEN DETERMINED TO BE SSP. SERICEA VARYING TOWARDS SSP. CUNEATA (ERTTER 1993).
Owner/Manager:	UNKNOWN

Horkelia marinensis **Element Code:** PDROS0W0B0

Point Reyes horkelia

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G2
	State:	None		**State:**	S2
	Other:	Rare Plant Rank - 1B.2			
Habitat:	**General:**	COASTAL DUNES, COASTAL PRAIRIE, COASTAL SCRUB.			
	Micro:	SANDY FLATS AND DUNES NEAR COAST; IN GRASSLAND OR SCRUB PLANT COMMUNITIES. 2-775 M.			

Occurrence No.	28 **Map Index:** 98299	**EO Index:**	99716	**Element Last Seen:**	1968-04-11
Occ. Rank:	Unknown	**Presence:**	Presumed Extant	**Site Last Seen:**	1968-04-11
Occ. Type:	Natural/Native occurrence	**Trend:**	Unknown	**Record Last Updated:**	2015-11-25

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.68555 / -121.81111	**Accuracy:**	1/5 mile
UTM:	Zone-10 N4060649 E606219	**Elevation (ft):**	
PLSS:	T14S, R01E, Sec. 25, W (M)	**Acres:**	70.0

Location: ONE BLOCK WEST OF HIGHWAY 1 ON PALM AVE, MARINA.

Detailed Location: MAPPED AS BEST GUESS BY CNDDB WEST OF PALM AVE AND HIGHWAY 1, NORTHWEST OF LAKE COURT.

Ecological: IN SANDY FIELD TO NORTH OF ROAD.

General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1968 HOOVER COLLECTION; ANNOTATED TO HORKELIA MARINENSIS BY ERTTER IN 1992. NEEDS FIELDWORK.

Owner/Manager: DPR-MARINA SB?

Castilleja ambigua var. insalutata

Element Code: PDSCR0D403

pink Johnny-nip

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G4T2
	State:	None		**State:**	S2
	Other:	Rare Plant Rank - 1B.1			
Habitat:	**General:**	COASTAL BLUFF SCRUB, COASTAL PRAIRIE.			
	Micro:	WET OR MOIST COASTAL STRAND OR SCRUB HABITATS. 3-135 M.			

Occurrence No.	13	**Map Index:** 78467	**EO Index:** 79392	**Element Last Seen:**	1999-XX-XX
Occ. Rank:	Unknown		**Presence:** Presumed Extant	**Site Last Seen:**	1999-XX-XX
Occ. Type:	Natural/Native occurrence		**Trend:** Unknown	**Record Last Updated:**	2010-04-01

Quad Summary: Salinas (3612166), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.64529 / -121.75883	**Accuracy:**	4/5 mile
UTM:	Zone-10 N4056242 E610947	**Elevation (ft):**	300
PLSS:	T15S, R02E, Sec. 04 (M)	**Acres:**	0.0

Location: FORT ORD HENNEKEN FLATS.

Detailed Location: "MIMI MOUND AREA". EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS IN VICINITY OF HENNEKEN RANGER STATION IN FORT ORD.

Ecological:

General: ONLY SOURCE OF INFORMATION IS A 1982 YADON COLLECTION. GREENLAKE FOUND A SMALL POPULATION AT FT. ORD IN 1997 AND 1999. TAYLOR THINKS THIS MAY BE THE ONLY EXTANT LOCATION. NEEDS FIELDWORK.

Owner/Manager: BLM-FORT ORD

Cordylanthus rigidus ssp. littoralis

Element Code: PDSCR0J0P2

seaside bird's-beak

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G5T2
	State:	Endangered		**State:**	S2
	Other:	Rare Plant Rank - 1B.1, BLM_S-Sensitive, SB_RSABG-Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden			
Habitat:	**General:**	CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, CISMONTANE WOODLAND, COASTAL SCRUB, COASTAL DUNES.			
	Micro:	SANDY, OFTEN DISTURBED SITES, USUALLY WITHIN CHAPARRAL OR COASTAL SCRUB. 30-520 M.			

Occurrence No.	1	**Map Index:**	10284	**EO Index:**	17809	**Element Last Seen:**	1941-07-14
Occ. Rank:	None			**Presence:**	Possibly Extirpated	**Site Last Seen:**	1941-07-14
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2015-10-13

Quad Summary: Seaside (3612157), Marina (3612167)

County Summary: Monterey, Pacific Ocean

Lat/Long:	36.63295 / -121.83905	**Accuracy:**	1 mile
UTM:	Zone-10 N4054783 E603793	**Elevation (ft):**	
PLSS:	T15S, R01E, Sec. 10 (M)	**Acres:**	0.0

Location: 1 MILE NORTH OF SEASIDE, 5 MILES NORTHEAST OF MONTEREY.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED ALONG HIGHWAY 1 JUST NORTH OF SEASIDE.

Ecological: LIGHT, SANDY LOAM; OPEN SANDY PLACES IN CHAPARRAL. SAND DUNES.

General: SITE IS PRIMARILY BASED ON A 1935 ROSE COLLECTION AND A 1941 WOLF COLLECTION. ADDITIONAL COLLECTIONS FROM SEASIDE FROM 1925, 1927, AND 1932 ARE ALSO ATTRIBUTED TO THIS SITE. NEEDS FIELDWORK. INCLUDES FORMER OCCURRENCE #3.

Owner/Manager: UNKNOWN

Occurrence No.	46	**Map Index:**	37729	**EO Index:**	98977	**Element Last Seen:**	XXXX-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	XXXX-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2015-09-28

Quad Summary: Marina (3612167)

County Summary: Monterey, Pacific Ocean

Lat/Long:	36.68999 / -121.81002	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4061142 E606310	**Elevation (ft):**	
PLSS:	T14S, R01E, Sec. 25 (M)	**Acres:**	180.6

Location: MARINA STATE BEACH.

Detailed Location: EXACT LOCATION UNKNOWN, MAPPED BY CNDDB TO ENCOMPASS MARINA STATE BEACH.

Ecological:

General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1983 AREA CHECKLIST, UNKNOWN WHEN PLANTS SEEN. NEEDS FIELDWORK.

Owner/Manager: DPR-MARINA SB

Occurrence No.	47	**Map Index:**	97645	**EO Index:**	98978	**Element Last Seen:**	2012-08-03
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2012-08-03
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2015-09-28

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.67661 / -121.76921	**Accuracy:**	80 meters
UTM:	Zone-10 N4059704 E609974	**Elevation (ft):**	135
PLSS:	T14S, R02E, Sec. 32, NE (M)	**Acres:**	0.0

Location: FORT ORD NATURAL RESERVE, ABOUT 0.3 AIR MILE NNW OF THE INTERSECTION OF RESERVATION ROAD AND IMJIN ROAD.

Detailed Location: MAPPED IN THE NW 1/4 OF THE NE 1/4 OF SECTION 32 ACCORDING TO 2012 MCSTAY COORDINATES.

Ecological:

General: UNKNOWN NUMBER OF PLANTS SEEN IN 2012.

Owner/Manager: UCNR-FORT ORD NR

Occurrence No.	48	**Map Index:** 97646	**EO Index:**	98979	**Element Last Seen:**	2012-07-16
Occ. Rank:	Good		**Presence:**	Presumed Extant	**Site Last Seen:**	2012-07-16
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:**	2015-09-28

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.66889 / -121.75915	**Accuracy:**	80 meters
UTM:	Zone-10 N4058859 E610884	**Elevation (ft):**	1693
PLSS:	T14S, R02E, Sec. 33, SW (M)	**Acres:**	0.0

Location: FORT ORD NATURAL RESERVE; BETWEEN RESERVATION RD, BLANCO RD, MBEST DR, AND UNIVERSITY DR.

Detailed Location: MAPPED IN THE NW 1/4 OF THE SW 1/4 OF SECTION 33 ACCORDING TO 2012 AKULOVA COORDINATES.

Ecological: ASSOCIATED WITH QUERCUS AGRIFOLIA, BACCHARIS PILULARIS, TOXICODENDRON DIVERSILOBUM, CROTON CALIFORNICUS, AND FRANGULA CALIFORNICA. THE RARE ERYSIMUM AMMOPHILUM ALSO OCCURS AT THIS SITE.

General: ~200 PLANTS OBSERVED IN 2012.

Owner/Manager: UCNR-FORT ORD NR

Allium hickmanii

Element Code: PMLIL02140

Hickman's onion

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G2
	State:	None		**State:**	S2
	Other:	Rare Plant Rank - 1B.2, BLM_S-Sensitive, SB_SBBG-Santa Barbara Botanic Garden, USFS_S-Sensitive			
Habitat:	**General:**	CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB, COASTAL PRAIRIE, VALLEY AND FOOTHILL GRASSLAND.			
	Micro:	SANDY LOAM, DAMP GROUND AND VERNAL SWALES; MOSTLY IN GRASSLAND THOUGH CAN BE ASSOCIATED WITH CHAPARRAL OR WOODLAND. 5-200 M.			

Occurrence No.	18	**Map Index:** 10582	**EO Index:**	21834	**Element Last Seen:**	2009-04-08
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:**	2009-04-08
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:**	2016-09-29

Quad Summary: Salinas (3612166), Marina (3612167)

County Summary: Monterey

Lat/Long:	36.63699 / -121.74619	**Accuracy:**	specific area
UTM:	Zone-10 N4055335 E612089	**Elevation (ft):**	450
PLSS:	T15S, R02E, Sec. 9 (M)	**Acres:**	164.0

Location: VICINITY OF MACHINE GUN FLATS, SOUTHWEST OF EAST GARRISON AT FORMER FORT ORD MILITARY RESERVATION.

Detailed Location: MAPPED AS 3 POLYGONS ACCORDING TO A 1992 USACE MAP AND KEELAN COORDINATES.

Ecological: PLANTS IN LARGE VERNAL SWALE ASSOCIATED WITH CALOCHORTUS UNIFLORUS, BRODIAEA TERRESTRIS, ISOETES HOWELLII, PLAGIOBOTHRYS CHORISIANUS HICKMANII, LASTHENIA CONJUGENS, AND POGOGYNE SERPYLLOIDES.

General: MAIN SOURCE OF INFORMATION FOR THIS SITE IS MAP DETAIL PROVIDED BY USACE. UNKNOWN NUMBER OF PLANTS OBSERVED IN 2007-2009. 1984 YADON COLLECTION FROM "HENNIKEN FLATS - FORMERLY CALLED MACHINE GUN MEADOWS" ALSO ATTRIBUTED TO THIS SITE.

Owner/Manager: BLM

Piperia yadonii **Element Code:** PMORC1X070

Yadon's rein orchid

Listing Status:	**Federal:**	Endangered	**CNDDB Element Ranks:**	**Global:**	G1
	State:	None		**State:**	S1
	Other:	Rare Plant Rank - 1B.1			
Habitat:	**General:**	CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL BLUFF SCRUB.			
	Micro:	ON SANDSTONE AND SANDY SOIL, BUT POORLY DRAINED AND OFTEN DRY. 10-505 M.			

Occurrence No.	9 **Map Index:** 23715	**EO Index:**	20980	**Element Last Seen:**	1992-XX-XX
Occ. Rank:	None	**Presence:**	Possibly Extirpated	**Site Last Seen:**	2003-07-03
Occ. Type:	Natural/Native occurrence	**Trend:**	Unknown	**Record Last Updated:**	2006-01-12

Quad Summary: Marina (3612167)

County Summary: Monterey

Lat/Long:	36.67600 / -121.80516	**Accuracy:**	nonspecific area
UTM:	Zone-10 N4059595 E606763	**Elevation (ft):**	100
PLSS:	T14S, R01E, Sec. 36 (M)	**Acres:**	14.9

Location: SOUTH OF MARINA, ALONG HIGHWAY 1 SOUTH OF JUNCTION WITH REINDOLLAR AVE, FORMER FORT ORD MILITARY RESERVATION.

Detailed Location: MAPPED ALONG EAST SIDE OF HIGHWAY 1 AT NW CORNER OF FORT ORD.

Ecological: IN ISLAND OF HIGH QUALITY MARITIME CHAPARRAL. WITH ADENOSTOMA FASCICULATUM, ARCTOSTAPHYLOS PUMILA, CARPOBROTUS EDULIS AND DUDLEYA.

General: 6 PLANTS REPORTED IN 1992, NO PLANTS SEEN IN 1993, 1994, 1995. LAKE REPORTED OBSERVING 10 PIPERIA MICHAELII AT THIS SITE IN 1995. PLANTS NOT LOCATED IN 2003 NOR IN LAST 4 TRIES; HABITAT NOT TYPICAL FOR SPECIES.

Owner/Manager: CITY OF MARINA

APPENDIX E

JANUARY 28, 2013 MEMORANDUM ESTABLISHING THE BASIS FOR PREPARING AN ADDENDUM FOR THE MARINA AIRPORT BUSINESS PARK SPECIFIC PLAN

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M E M O R A N D U M

DATE: January 28, 2013 (Revised)

TO: Christine Di Iorio and Justin Meek, City of Marina
Graham Bice, UC Santa Cruz

FROM: Jill O'Connor

SUBJECT: Environmental Documentation for Marina Airport Business Park Specific Plan

The purpose of this memorandum is to provide a recommendation for the appropriate level of environmental analysis documentation under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) for the Marina Airport Business Park Specific Plan (Airport Specific Plan). The information contained herein is for deliberative consideration by City of Marina (City) special counsel Kathy Jenson, Rutan & Tucker,

Review of the background documentation and coordination with the Federal Aviation Administration (FAA) determined several plausible options for the environmental documentation for the Airport Specific Plan. This memorandum was originally drafted in October, 2012. As a result of subsequent discussions with City and University of California (UC) legal counsel, preparation of a draft Project Description and discovery of a Record of Decision by FAA on the prior NEPA document for the Airport conveyance to the City for civilian use, the recommended type of CEQA and NEPA documentation for the Specific Plan project has been identified.

PROJECT SUMMARY

The Airport Specific Plan will provide land use guidance and development standards for a 143.8-acre area, including a 71.2-acre portion of the Marina Airport Master Plan (2008) area currently owned by the City, and a 72.6-acre area within a 437-acre site owned by the UC and incorporated into the UC Monterey Bay Education, Science, and Technology Center (MBEST) Master Plan (1996). The 72.6-acre MBEST area included in the Specific Plan is the North Central Campus portion of the MBEST Master Plan. While the UC MBEST Central North Campus is adjacent to the southern boundary of the Marina Municipal Airport, a general aviation airport on 845.5 acres, the City-owned portion of the plan area is within the southeastern portion of the Airport. The Airport Specific Plan area is located east and adjacent to the airport taxi- and runways, northwest of the intersection of Blanco Road and Reservation Road (refer to Figure 1). The environmental document will address the impacts of development as proposed in the Specific Plan for the 143.8-acre site. The CEQA Lead Agency is the City of Marina and the FAA is the Lead Agency under NEPA. The prior environmental document (discussed further below) and UC MBEST Master Plan specify the maximum gross floor area on the City-owned portion of the Specific Plan to be 876,000 square feet and 790,178 square feet on the UC MBEST Central North Campus.

The MBEST West Campus (57.8 ac) is not included in the Airport Specific Plan area due to the pending sale of the property and the need for the future buyer to prepare a specific development plan for the property (Graham Bice, UC Santa Cruz [UCSC] email, August 21, 2012). However, the West Campus will be considered as part of the cumulative project study area and assumed to be built in accordance with the MBEST Master Plan.

DISCRETIONARY ACTIONS

The following provides a summary of the anticipated discretionary actions of the Responsible and Lead Agencies, the entities responsible for the approval of the Business Park Specific Plan.

City of Marina

1. Approval of a subdivision vesting tentative map by City Council;
2. Approval of the Specific Plan by City Planning Commission and City Council;
3. Approval of zone change for the Specific Plan area to "SP"; and
4. Specific development proposals in accordance with Specific Plan requirements and design guidelines.

University of California

1. Approval of the Specific Plan as it pertains to the UC MBEST Central North Campus portion;
2. Approval of specific development proposals on the UC MBEST Central North Campus;
3. Approval of potential ground leases and/or potential sale of one or more parcels on the UC MBEST Central North Campus; and
4. Approvals related to possible proposed amendments to the adopted UC MBEST Master Plan.

Monterey County Airport Land Use Commission

1. Finding of consistency of Specific Plan with the Marina Municipal Airport Comprehensive Land Use Plan (2006).

FAA

1. Release of City-owned Business Park property from the deed restrictions imposed by U.S. Army upon public benefit conveyance of military airfield to City for municipal airport use;
2. Approval of long-term lease for City use of Aviation Reserve land for aviation-related land uses;
3. Approval of Specific Plan development components (land use type, density, height limits); and
4. Approval of a NEPA document addressing the Specific Plan.

BACKGROUND DOCUMENTS

LSA Associates, Inc. (LSA) conducted a general overview of the background documents prepared for the Marina Airport and environs, with particular emphasis on the conclusions in these environmental documents:

- Final Environmental Assessment/Environmental Impact Report (FEA/EIR) on Marina Municipal Airport (June 23, 1995)
- Final Environmental Impact Report (FEIR), Fort Ord Reuse Plan Volume 4 (June 13, 1997)

Related planning documents were also generally reviewed for background information, including:

- Monterey Bay Education, Science and Technology Center Master Plan (December 1996)
- Monterey Bay Education, Science and Technology Center Master Plan EIR (1996)
- City of Marina General Plan (Adopted 2000, updated with amendments)
- Marina Airport Comprehensive Land Use Plan (2006)
- Marina Municipal Airport Master Plan Update (February 2008)

The following discussion summarizes the projects analyzed by the Marina Airport FEA/EIR and the Fort Ord Reuse Plan EIR and the environmental impact conclusions therein.

Marina Airport Final EA/EIR (1995)

The airport is on the site of the former Fritzsche Army Airfield, which served as the airport for the former Fort Ord, U.S. Army base. As one of the key elements for the initial Fort Ord Base Reuse Plan, the conversion of the airfield to civilian use was approved in April 1993 by Monterey County and local cities working together as the Fort Ord Reuse Group *(City of Marina Economic Development Services Department, Marina Airport Economic Development Area newsletter, January 2011*).

In 1995, the City of Marina and the FAA analyzed the potential environmental effects of the civilian reuse of the former Fritzsche Army Airfield. The FEA/EIR evaluated the 1995 Phase I Master Plan prepared for the Airport as a project under CEQA. The project included modified airport components for transition of the military airport to a civilian general aviation use airport, in addition to development of 876,000 square feet of aviation-compatible business park/commercial/industrial uses. Land uses included in the later phases of the Master Plan development included MBEST and related transportation and infrastructure improvements. The MBEST science and technology uses were analyzed in the 1995 FEA/EIR at a general plan (programmatic) level, pending more specific development planning to follow. The MBEST Central North Campus was planned for 790,178 square feet of light industrial/research and development uses. In August of 1995, the 845.5-acre site was officially conveyed by the Army to the City of Marina for use as a municipal airfield.

The FAA was the federal lead agency for NEPA compliance for the conveyance of the Airport project. The FAA's responsible actions for the Airport conveyance included:

1) Assessment of potential environmental impacts from conveyance of the military airfield to civilian municipal use;
2) Specification of terms and conditions (including mitigation measures) for conveyance for subsequent land use redevelopment;
3) Approval of FAA grant money for preparation of an Airport Master Plan and subsequent Airport Layout Plan (including proposed development areas);
4) Unconditional approval of the Airport Layout Plan;
5) Approval of the Airport Operating Certificate; and
6) Operation and maintenance of the ASR-8 radar leasehold site.

The FEA/EIR concluded that the proposed airport and adjacent business, science and industrial park uses would have environmental impacts that could be mitigated to below a level of significance, with the exception of **cumulative air quality impacts**. The project's cumulative air quality impacts, specifically reactive organic gases, nitrogen oxides (NO_x), and particulate matter less than 10 microns in size (PM_{10}) emissions from development of the UC MBEST and airport business park/commercial/ industrial area, were determined to exceed the thresholds of significance of the Monterey Bay Unified Air Pollution Control District (MBUAPCD), and there were no additional feasible mitigation measures that could be implemented besides the City's trip reduction ordinance to reduce potential 2015 emissions. The FAA issued a Record of Decision (ROD), July 1995, in conjunction with the ROD rendered by the U.S. Army for the Disposal and Reuse of Fort Ord. The FAA ROD summarized the purpose and need of the reuse of Base property (the former Fritzsche Army Airfield), the potential environmental impacts of reuse of the airfield, and approval of the Airport Layout Plan for use of by the City of Marina as the civilian sponsor.

Fort Ord Reuse Plan FEIR (1997)

The 1997 Fort Ord Reuse Plan FEIR addressed the reuse of 27,000 acres of the former Fort Ord Military Reservation, building upon the U.S. Army's Fort Ord Disposal and Reuse 1993 Final Environmental Impact Statement (FEIS) and the Fort Ord Disposal and Reuse 1995 Draft Supplemental EIR. The 1997 FEIR is a program level analysis of reuse of the military reservation with development of residential, business, commercial, science, and industrial uses, as well as the airfield and a multi-species open space conservation area. The Fort Ord Reuse Plan included policies and programs for each resource issue area to reduce environmental impacts and self-mitigate through amendments to local jurisdictions' boundaries and general plans.

The FEIR concluded that the reuse of Fort Ord would have the following significant unavoidable adverse impacts under CEQA:

- Project and cumulative public health and safety impacts from increased demand from **law enforcement and fire protection/emergency services;**
- Cumulative demand for local **water supply**;
- Project and cumulative **Traffic and Circulation** incremental demand on the regional transportation system; and
- Cumulative **visual impacts** from changes to the landscape along the State Route 1 (SR-1) corridor.

TYPE OF CEQA DOCUMENT FOR THE AIRPORT SPECIFIC PLAN

The Marina Airport Specific Plan will be prepared largely using the policies and programs set forth in the Fort Ord Reuse Plan in which it pertained to the Airport and adjacent business and technology development areas. As such, the majority of the environmental issue and resource analysis areas of the Airport Specific Plan CEQA document can be based upon the impacts and mitigation measures specified in the Fort Ord Reuse Authority (FORA) Fort Ord Reuse Plan FEIR and the Marina **A**irport FEA/EIR documents. Given the amount of time that has passed since these environmental documents were prepared, the availability of updated data, e.g., recent traffic counts and biological resources survey information, as well as the refined project description for the airport business park and technology uses to be contained in the Specific Plan, the existing settings and potential impacts for all or most of the environmental issue areas will likely require updating. However, where primary site conditions and applicable laws and policies have not changed substantively, the policies, conditions of approval**,** and mitigation measures prescribed in the prior environmental documents should remain largely applicable for the Specific Plan and associated CEQA document.

Notable Environmental Issue Areas

Certain environmental issue areas, including those determined to have significant unavoidable adverse impacts in the prior environmental documents, warrant specific discussion and/or a revised evaluation given changes in regulatory requirements, thresholds, local or regional conditions, and/or changes brought about through CEQA case law. These topics are discussed below. Additional topics may warrant further discussion after review with City and UC legal counsel.

- **Water Supply**. Water supply in areas within Monterey County has historically been insufficient, with varied and conflicting analyses for long-term development planning. City of Marina staff has had recent discussions with a local water expert regarding water supply for the Airport Business Park/MBEST (North Campus) development. As part of the dissemination of the Fort Ord Military installation to local jurisdictions, allocations of the water supply were also distributed to the recipients by the Monterey County Water Resources Agency through a 1996 agreement with the Marina Coast Water District. The allocations included 155 acre-feet per year (AFY) for the Marina Airport and 230 AFY for all MBEST lands.

  If the development level of the business park meets or exceeds the thresholds for preparation of a Water Supply Assessment (WSA), the latter will be required to be prepared (usually by the Marina Coast Water District [MCWD]) and would accompany the CEQA document. The thresholds for preparing a WSA for business and technology uses include either a proposed shopping center or business establishment of over 500,000 square feet, or a commercial office building having more than 250,000 square feet of space, or a proposed industrial/manufacturing or processing plant of more than 650,000 square feet, or all of these types of uses with at least 1,000 employees (source: Section 10912 of the California Water Code). The City further discussed the water allocations in terms of short and long-term supply with the MCWD. For purposes of planning the Airport Business Park, the City and UC have indicated that the water supply allocations noted above for the specific plan area will inform the level of development and the types of business, science, and technology uses included in the Specific Plan. The CEQA document will address water supply per the allocations from closure of the Base to both the City

and UC portions of the Airport Business Park and per further consultation with the MCWD and the results of a WSA prepared for the Specific Plan.

- **Global Climate Change**. The Fort Ord Reuse Plan FEIR and the Marina Airport FEA/EIR did not specifically analyze the potential for impacts of those project actions upon climate change and/or generation of greenhouse gases (GHGs) as Assembly Bill 32, the Global Warming Solutions Act, became law in 2006, and the majority of CEQA documents did not include such analyses until the mid-2000s. A new GHG analysis could be prepared for the Airport Business Park plan and addended to the FEA/EIR or the FEIR. In the 2011 CEQA case, CREED v. City of San Diego, the court held that a GHG analysis was not required to supplement an older document that did not assess global climate change/GHG and quoted the U.S. Supreme Court in a prior case that said "the effect of greenhouse gas emissions on climate could have been raised in 1994". However, preparation of a GHG emission analysis is recommended to ensure that the CEQA documentation is complete on this issue and fully defensible.
- **Public Services (Law Enforcement, Fire/Emergency).** The Fort Ord Reuse Plan FEIR concluded that there would be significant project and cumulative impacts to public health and safety from increased demand for law enforcement and fire protection/emergency services that the new uses would require. In the CEQA case, City of Hayward v. Board of Trustees (2012), the Court of Appeal confirmed that public services such as fire and police protection are not "environmental impacts" of the project such that CEQA would require the project proponent to mitigate. It is also noted, however, that public services are issues identified in the CEQA Appendix G checklist as topics to be evaluated. Based on the recent ruling, public service impact issues may not need to be analyzed in the Specific Plan project CEQA document.
- **Air Quality**. Ozone precursor emissions, NO_x, particulate matter (PM_{10}) and carbon monoxide (CO), for the 876,000 square feet of office park development contemplated in the Airport Master Plan FEA/EIR would exceed the operational thresholds of the MBUAPCD, using default values for vehicular trips. However, the quantity of emissions for the proposed project would be determined with current traffic data and a refined project description. As noted above, the project description/level of development may, in part, be defined by water supply allocations for the Airport and UC MBEST uses. These factors would need to be analyzed in order to determine whether the air quality significance conclusion from the Airport FEA/EIR would change or remain.
- **Traffic and Circulation/Regional System.** Relatively recent traffic counts (within 2 years) are available for the project area according to the City. The 2-year timetable is on the cusp of requiring further updates to define existing conditions, and selected intersection locations may require new counts for the Airport Specific Plan. Project-generated trips would be modeled based on the Project Description developed for the Specific Plan, and the ability to reduce potential traffic impacts will be dependent on the quantities of the business and technology uses and feasible mitigation measures, e.g., funding mechanisms and infrastructure improvement programs for area roadways.
- **Visual/Aesthetics.** The Airport Specific Plan area is approximately 2.4 miles inland from the SR-1 corridor. The land between the SR-1 corridor and the specific plan area is moderately hilly. The Fort Ord Reuse Plan FEIR concluded that the high density anticipated development within 0.5 mile of the scenic route corridor would reduce the intactness of the area's natural appearance although considerable existing development is currently visible from the highway. Specific discussion about the Marina Airport business park development area was not found in the FEIR. Given the distance from the visually sensitive SR-1 corridor, the Airport Specific Plan project

with intervening hilly terrain would not likely affect the sensitive coastal viewshed corridor. No specific aesthetics analysis was found in the Airport FEA/EIR.

CEQA DOCUMENT OPTIONS

Mitigated Negative Declaration or EIR

The FEIR for the Base Reuse Plan and the Airport FEA/EIR both concluded that significant air quality impacts would result from development on the Airport project site and larger Base redevelopment area,. Also, current default estimates for a new 876,000- square foot business park for the City's portion of the Specific Plan area (as included in the Airport FEA/EIR) and 790,178 square feet of industrial research and development uses for the Central North Campus of the MBEST Center for a total of 1,666,178 square feet of development would exceed the MBUAPCD thresholds. Therefore, a defined project description for the Specific Plan will be necessary to determine whether project impacts would trigger one or more significant unavoidable adverse impacts. The project description will include, among the components, the levels of development of the business park land uses including types, square footage, and associated trip generation, which would determine the potential operational air emissions generated by the project. The recommended approach is for the potential environmental constraints/impacts to inform the project development design, thereby enabling impacts to be mitigated below thresholds of significance, and preparation of a Mitigated Negative Declaration (MND) under CEQA. If the project components are defined, for example, without consideration of previously identified significant environmental impacts such as air quality and water supply (e.g., water allocations from the MCWD), an EIR would be required if significant impacts could not be mitigated below the thresholds of significance. An EIR is a higher level of CEQA documentation, typically more detailed in content and analysis and requiring more time to prepare, circulate, and respond to comments. Most notably, an EIR will require analysis of alternative designs and alternative project sites, which would not be required in a Mitigated Negative Declaration.

Addendum to Airport EA/EIR

As provided in the CEQA Guidelines Section 15164, an Addendum to a previously certified EIR could be prepared if some changes or additions are necessary but none of the following conditions described in Guidelines Section 15162 calling for preparation of a subsequent EIR have occurred (as paraphrased): (1) substantial changes are proposed in the project which will require major revisions to the previous EIR or negative declaration, (2) substantial changes occur with the circumstances under which the project is undertaken requiring major revisions to the previous EIR or negative declaration from new significant environmental effects or an increase in the severity of previously identified effects; or (3) new information of substantial importance is available that was not known at the time of the previous environmental document preparation that shows new or more severe significant impacts or new feasible mitigation measures.

The proposed action analyzed in the Airport EA/EIR among other alternatives included approximately 1,666,178 square feet of proposed business park/commercial/ industrial development within the 845.5-acre airport site (through 2015). The UC Santa Cruz Technology Center (as MBEST was termed at the time) is on an additional 436 acres and, although general land use types were identified in the EA/EIR, the MBEST technology center uses were analyzed at a program level under

CEQA because specific development definitions were not available at that time. Because the North Central Campus of MBEST is included in the Marina Airport Specific Plan project, further specification of those uses will need to be evaluated at a project level along with the City's business park uses. Therefore, an Addendum to the prior EA/EIR could be an appropriate CEQA document if the project-specific analysis concludes that the Airport Specific Plan uses would not constitute substantial changes or new information per the conditions listed above for preparation of an Addendum to a prior CEQA document.

CEQA Document Recommendation

Based on consideration of the information in the prior environmental documents for the airport conveyance, UC MBEST Master Plan and City General Plan, and deliberation between the City and UC legal counsel, an Addendum to the 1995 FEA/EIR will be prepared for the Airport Business Park Specific Plan. Applicable project plans and policies from the prior documents, in addition to a specific plan project description will be analyzed in the EIR Addendum. Supporting technical analysis for updated information for selected topical areas will be prepared.

FAA APPROVALS AND NEPA DOCUMENT

LSA contacted FAA environmental specialist Doug Pomeroy October 5, 2012, to verify FAA's responsible actions and any affiliated NEPA documentation that would be required for the Airport Business Park Specific Plan. The following information was provided by Mr. Pomeroy:

- If the City proposes to modify the Airport itself, they must seek to amend the Airport Layout Plan (ALP),which would require FAA approval, and an FAA NEPA document;
- The City must always comply with any "grant assurances" that it agreed to if it took federal money for airport improvements. Such assurances typically require the City to maintain land use compatibility with the airport on lands surrounding the airport;
- If the City obtained the non-airport land from Fort Ord with "restrictions" via deeds or other methods, then those would have to be met. If the City desires to seek relief from those restrictions, it would need to get them from the federal government agency that benefitted from the restriction, which is usually not the FAA. Such relief could trigger NEPA review depending on the nature of the restrictions;
- The FAA is generally concerned about recreation uses around the airport due to future potential 4(f) issues that would come up with airport expansion; and
- The FAA will expect the City to meet all its airport compatibility guidelines.

The following are the FAA actions that normally trigger NEPA review (Source: FAA Environmental Handbook Document, Section 5050.4B, Section 9 (g)). Note that items *(5)* or *(6)* which may particularly pertain to the proposed Specific Plan project would normally require FAA review:

> **(1)** Conditional, unconditional, or mixed approval (FAA Environmental Handbook references paragraph 202.c of Order 5050.4B for information on these approvals) of federal funding for airport planning and development projects, including separate funding of plans and specifications for those projects.

(2) Conditional, unconditional, or mixed approval of a location for a new, public use airport.

(3) Conditional, unconditional, or mixed approval of a first-time or changed airport layout plan (ALP).

(4) Authorizing an airport sponsor to impose and use Passenger Facility Charges (PFC).

(5) *Conditional, unconditional, or mixed approval of an airport sponsor's request under 49 United States Code (USC), Section 47125, to use or transfer federally-owned land to carry out an action under 49 USC Chapter 471, Subchapter I, at a public-use airport or to support the airport's operations.*

(6) *Conditional, unconditional, or mixed approval of an airport sponsor's request to release airport land from a federally-obligated, public-use airport when the land would be used for non-aeronautical purposes.*

(7) Conditional, unconditional, or mixed approval of the use of a facility as a public-use airport when the facility becomes available under the Surplus Property Act.

(8) Approving noise compatibility programs under 14 Code of Federal Regulations (CFR), Part 150.

(9) Approving an airport sponsor to restrict the use of Stage 3 aircraft at public-use airports under 14 CFR Part 161.

(10) Issuing a Part 139 certification; and

(11) Conditional, unconditional, or mixed approval of funding for measures in an FAA-approved Wildlife Hazard Management Plan or approving ALP changes to accommodate these measures.

As discussed previously under Background Documents, Airport FEA/EIR, FAA prepared a Record of Decision in 1995 upon completion of the FEA/EIR which approved the proposed action (project) of conveyance of Fritzsche Airfield to the City of Marina for civilian airport uses, approval of the Airport Layout Plan, approval of application and federal funding assistance of eligible airport development items, installation and operation of air traffic control and air navigation facilities and approval of a public benefit transfer of those base properties necessary for civilian airport operations. The proposed project is the development of business park uses on land fully outside of the airport ALP. At this time, it is anticipated that the project will not require modification to the airport itself, and that the City will comply with any grant assurances and/or restrictions that were attached to the conveyance. It is further anticipated that the Specific Plan will require future development to meet all applicable airport compatibility guidelines.

It is anticipated that pursuant to items 5 and 6 above, the FAA will prepare a NEPA document upon review of the Airport Business Park Specific Plan. A Categorical Exclusion is anticipated to be the applicable as the NEPA document for the Specific Plan approval. Should the FAA consider the 1995 FEA/EIR out of date as the prior federal environmental document for the Specific Plan, an Environmental Assessment would be prepared.

Attachment: Figure 1

e-copies: Kelly Drumm, UCSC;
Theresa Szymanis, City of Marina;
Kathy Jenson, Rutan & Tucker

APPENDIX F

WATER SUPPLY ASSESSMENT AND WRITTEN VERIFICATION OF SUPPLY

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WATER SUPPLY ASSESSMENT AND WRITTEN VERIFICATION OF SUPPLY

FOR THE

MARINA MUNICIPAL AIRPORT BUSINESS AND INDUSTRIAL PARK/UC MBEST CENTER

SPECIFIC PLAN

Prepared by

MARINA COAST WATER DISTRICT

and

Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS

April 2020

WATER SUPPLY ASSESSMENT AND WRITTEN VERIFICATION OF SUPPLY

FOR THE

MARINA MUNICIPAL AIRPORT BUSINESS AND INDUSTRIAL PARK/UC MBEST CENTER

Prepared by

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Table i. Acronyms Used in this Report

Acronym	Description
afy, ac-ft/yr	Acre-feet/year
ccf, hcf	Hundred cubic feet
gpd	Gallons per day
gpcd	Gallons per capita day, or gallons per person per day
mgd	Million gallons per day
sq-ft	Square feet
BMP	Best management practice
CAW, CalAm	California American Water Company
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CSUMB	California State University – Monterey Bay
CWC	California Water Code
DDW	SWRCB Division of Drinking Water
DMM	Demand management measure
DWR	California Department of Water Resources
FORA	Fort Ord Reuse Authority
LAFCO	Local Agency Formation Commission
M1W	Monterey One Water (formerly MRWPCA)
MCWD, District	Marina Coast Water District
MCWRA	Monterey County Water Resources Agency
MPWMD	Monterey Peninsula Water Management District
OMC	Ord Military Community
POM	Presidio of Monterey
PWM	Pure Water Monterey Project
SB	California Senate Bill
SRDP	Salinas River Diversion Project
SVBGSA	Salinas Valley Basin Groundwater Sustainability Agency
SVWP	Salinas Valley Water Project
SVGB	Salinas Valley Groundwater Basin
SWRCB	State Water Resources Control Board
UC MBEST	University of California Monterey Bay Education, Science and Technology Center
UWMP	Urban Water Management Plan
WSA	Water Supply Assessment
WVS	Written Verification of Supply

Table ii. Units of Measure Used in this Report

Unit	Equals
1 acre-foot	= 43,560 cubic feet = 325,851 gallons
1 cubic foot	= 7.48 gallons
1 CCF	= 100 cubic feet = 748 gallons
1 MGD	= 1,000,000 gallons/day = 1,120 acre-feet / year

Summary of Water Supply Assessment

Project: Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan, Marina, California

This Specific Plan was developed jointly by the City of Marina and the University of California. The University of California portion of the project requires both a water supply assessment and written verification of supply because they intend to record a tentative subdivision map. Pursuant to Section 10910 of the California Water Code (CWC), and based on the analysis detailed in this report and the representations by the Project's proponents, the Marina Coast Water District (the District) has determined that its currently projected water supplies are sufficient to meet the projected annual water demands of existing and previously approved uses and the University portion of the Marina Municipal Airport Business and Industrial Park / University of California MBEST Center Specific Plan (Airport Specific Plan) during normal, single-dry, and multiple-dry years. The projected water demand for the Airport Specific Plan area is 309.2 AFY, of which 145.2 AFY is within the City of Marina and 164.0 AFY is within the University of California. Both the City of Marina and the University of California have allocations of Salinas Valley Groundwater for use within the Ord Community. The University of California has an existing allocation of 230 AFY and is currently using 2 AFY, leaving 228 AFY available for this project.

The City of Marina does not intend to record a tentative map for their portion of the project, so only a Water Supply Assessment is required for that portion. The City of Marina has an existing allocation of 1,340 AFY and has previously sub-allocated 1,263.7 AFY to other projects, leaving 76.3 AFY available. Therefore, the currently projected water supplies are not sufficient to meet the projected annual water demands of existing and previously approved uses within the City portion of the Ord Community and the full implementation of the City portion of the Project during normal, single-dry, and multiple-dry years. The District can supply water to initial phases of the project, up to the amount sub-allocated by the City.

Both jurisdictions have additional redevelopment areas within the Ord Community outside of the Airport Specific Plan area, which should be considered before sub-allocating supply to this project. The District has two planned water supply projects it intends to implement in the next decade, the Recycled Water Project and the Desalination Project. These two projects are intended to develop 2,400 AFY of new supply for the Ord Community. The initial phase of the Recycled Water Project is currently coming on-line, and water will be available to customers by 2021. The City and University may choose to sub-allocate recycled water supply for the non-potable uses within the Airport Specific Plan. As additional portions of the water supply projects are completed, additional phases of the development may be approved.

Section 1 - Introduction

1.1 Project Overview

The City of Marina in Monterey County, California, is preparing the Marina Municipal Airport Business and Industrial Park/University of California Monterey Bay Education, Science and Technology (UC MBEST) Center Specific Plan (Airport Specific Plan). The Airport Specific Plan is a collaborative effort between the City of Marina and University of California for the future development of a 150-acre portion of the Marina Municipal Airport. Water supply for the City is provided by the Marina Coast Water District. Further description of the Project is given in Section 2.0.

1.2 Purpose of Water Supply Assessment

The California Water Code (§10910 et. seq.), based on Senate Bill 610 of 2001 (SB 610), requires a project proponent to assess the reliability of a project's water supply as part of the California Environmental Quality Act (CEQA) process. Under the California Government Code (§66473.7), based on Senate Bill 221 of 2001, proposed subdivisions adding 500 dwelling units or requiring the approval of a tentative map are also required to receive written verification of the available water supply from the project's water supplier. This project does not include residential dwelling units but does result in a tentative map for the UC MBEST portion, so both a water supply assessment and a written verification of supply are required.

This report is meant to serve as the Water Supply Assessment (WSA) and Written Verification of Supply (WVS) for the Project to meet the California Water and Government Code requirements. This WSA documents the District's existing and future water supplies for the Project area and compares them to the District's total projected water demands for the next twenty (20) years.

The SB 610 process requires the following several steps to identify the need and scope of a project's WSA:

1. Determine whether the project is subject to CEQA.
2. Determine whether the project meets the definition of a "project" per SB 610.
3. Determine the public water agency that will serve the project.
4. Determine whether any current Urban Water Management Plan considers the projected water demand for the project area.
5. Determine whether groundwater is used by the public water agency to serve the project area.

1.3 Project Subject to CEQA

CEQA applies to projects for which a public agency is directly responsible, funds, and/or requires the issuance of a permit. The City of Marina determined that the Project is subject to the requirements of CEQA. An Addendum to the Marina Airport Environmental Impact Report[1] (EIR) is currently being prepared, and this water supply analysis shall become a part of that EIR Addendum.

1.4 Project Requiring a Water Supply Assessment

CWC §10912(a) defines a Project for WSA purposes as including any of the following[2]:

- a proposed residential development of more than 500 dwelling units;
- a proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- a mixed-use project that includes one or more of the projects identified in this list;
- a proposed industrial park employing more than 1,000 persons, occupying more than 40 acres, or having more than 650,000 square feet of floor space;
- a project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

The Airport Specific Plan proposes the addition of up to 1,619,000 square feet of commercial, office and light industrial space, so a water supply assessment is required.

1.5 Requirements of a Written Verification of Supply

Government Code §66473.7(b)(1) requires:

> *The legislative body of a city or county or the advisory agency, to the extent that it is authorized by local ordinance to approve, conditionally approve, or disapprove the tentative map, shall include as a condition in any tentative map that includes a subdivision a requirement that a sufficient water supply shall be available. Proof of the availability of a sufficient water supply shall be requested by the subdivision applicant or local agency, at the discretion of the local agency, and shall be based on written verification from the applicable public water system within 90 days of a request.*

The public water system must determine if there is sufficient water supply for the subdivision, as defined in Government Code §66473.7(a)(2): *''Sufficient water supply'' means the total water supplies available during normal, single-dry, and multiple dry years within a 20- year projection*

[1] Marina Airport Permits/Plans and UC STEP Center EIR, February 1995

[2] There are additional uses that may qualify as a "project" under the CWC, but included here are the applicable categories.

that will meet the projected demand associated with the proposed subdivision, in addition to existing and planned future uses, including, but not limited to, agricultural and industrial uses.

The University of California is preparing a tentative map for the subdivision of their portion of the Airport Specific Plan, so a Written Verification of Supply is required.

1.6 Public Water Agency Serving the Project

The Marina Coast Water District, a county water district, serves the City of Marina and the former Fort Ord, which includes portions of the City of Marina, City of Seaside, City of Del Rey Oaks, City of Monterey and unincorporated Monterey County. The District has two service areas, Central Marina (outside the former Fort Ord) and the Ord Community. The Project is located in the Ord Community Service Area (see Figure 1.1). MCWD provides water and wastewater service to the Ord Community as outlined in the Water/ Wastewater Facilities Agreement between the Fort Ord Reuse Authority (FORA) and MCWD (1998) and as further described in the Assignment of Easements on Former Fort Ord and Ord Military Community, County of Monterey, and Quitclaim Deed for Water and Wastewater Systems, between FORA and MCWD, dated October 24, 2001. MCWD recently completed the Local Agency Formation Commission of Monterey County (LAFCO) annexation of the served portions of the Ord Community into the District's service area and sphere of influence (see Figure 1.2). A portion of the specific plan area was included in the annexation area, and a portion remains to be annexed.

Figure 1.1: Marina Coast Water District Service Areas

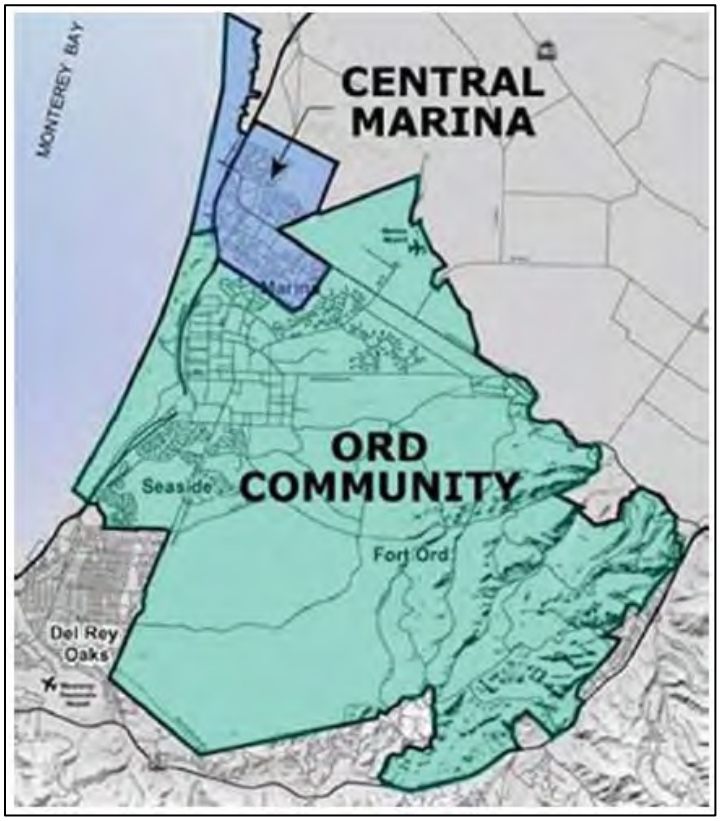
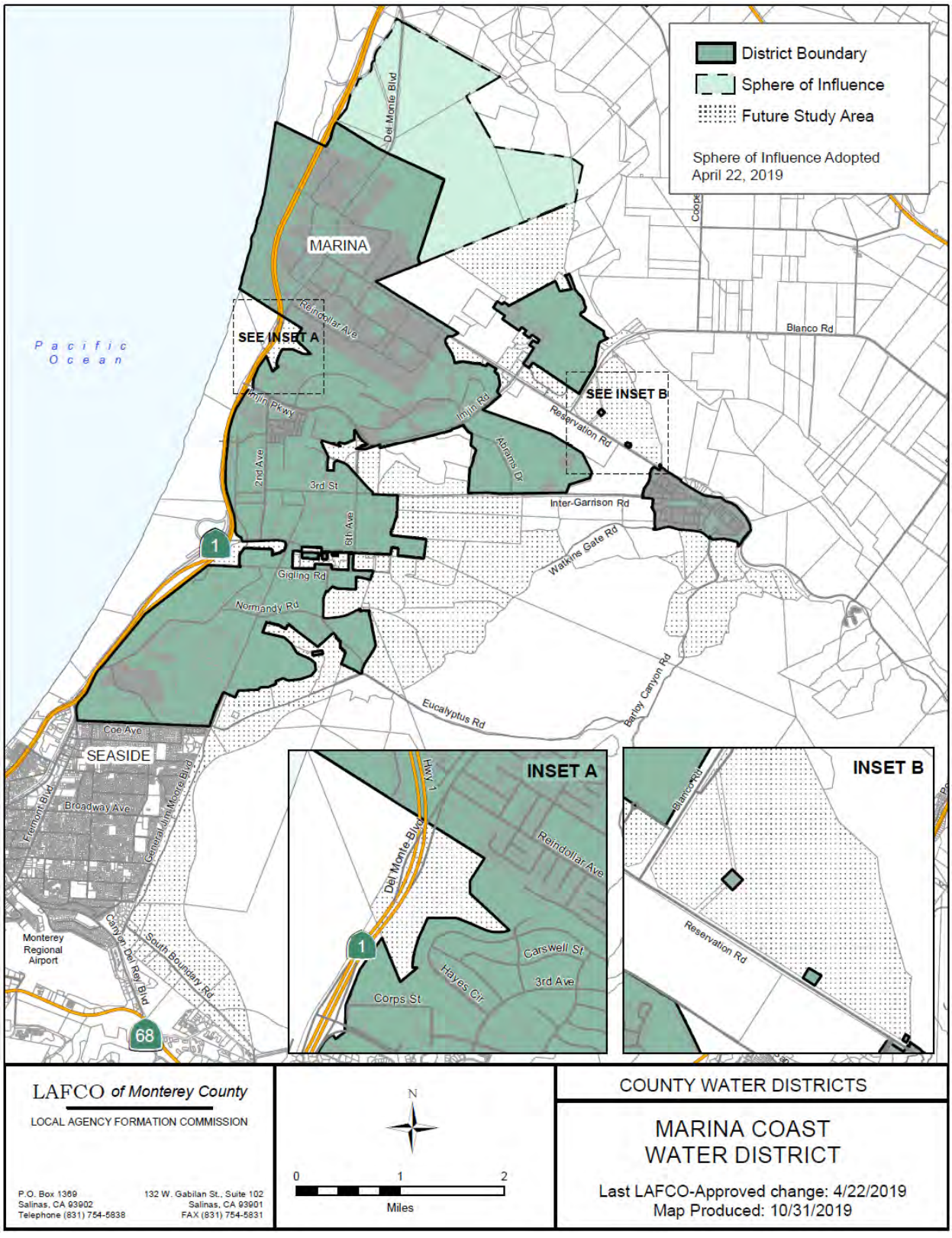


Figure 1.2: Marina Coast Water District LAFCO Service Boundary



1.7 Relationship of WSA to MCWD Urban Water Management Plan

The California Urban Water Management Planning Act (§10610 et. seq. of the CWC) requires urban water suppliers providing over 3,000 acre-feet per year (AFY) of water or having a minimum of 3,000 service connections to prepare plans (urban water management plans or UWMPs) on a five-year, ongoing basis. An UWMP must demonstrate the continued ability of the provider to serve customers with water supplies that meet current and future expected demands under normal, single dry, and multiple dry year scenarios. These plans must also include the assessment of urban water conservation measures and wastewater recycling. Pursuant to Section 10632 of the CWC, the plans must also include a water shortage contingency plan outlining how the water provider will manage water shortages, including shortages of up to fifty percent (50%) of their normal supplies, and catastrophic interruptions of water supply. The Marina Coast Water District is required to prepare Urban Water Management Plans. The District's most recent Urban Water Management Plan (2015 UWMP) was adopted in June 2016. The 2015 UWMP projected demands for 20 years through the year 2035.

As provided for in the State law, this WSA incorporates by reference and relies upon many of the planning assumptions and projections of the 2015 UWMP in assessing the water demands of the proposed Project relative to the overall increase in water demands expected within the entire District service area. The 2015 UWMP projected a significant increase in water demand within the Ord Community due to the planned redevelopment of the former Fort Ord, as documented in the Fort Ord Base Reuse Plan, the General Plans of the various land use jurisdictions, and the approved specific plans within the Ord Community. The 2015 UWMP found that the projected Ord Community water demand of 8,293 AFY in year 2035 exceeded the currently available supply of 6,600 AFY. Additionally, because the current water supply within the Ord Community has been allocated among the land use jurisdictions, some jurisdictions maintain a projected surplus, while others have projected shortages. Updated demand projections for the City of Marina and UC portions of the Ord Community are discussed in Section 3 of this report. The District is pursuing two water supply projects to address the projected shortfall. First, an urban recycled water system is being constructed, which will provide an initial 600 AFY for landscape irrigation, and ultimately provide up to 1,427 AFY of non-potable supply. Second, a seawater desalination project is proposed to provide up to 1,500 AFY of potable water supply. The District is currently considering alternative groundwater replenishment projects which, if feasible, may replace the desalination portion of the RUWAP.

Section 2 - Project Description and Water Demands

2.1 Project Description

The Airport Specific Plan for the City of Marina, California describes the planned development of the 150-acre Project Area, located along the southeast edge of the existing airport. The project location is shown in Figure 2.1, and the land use plan is shown in Figure 2.2. The airport is located within the District's Ord Community service area, with frontages along Blanco Road and Reservation Road. Three interior streets were constructed within the Specific Plan Area in 1999, University Drive, Research Drive and MBEST Drive, but only one building has been constructed to date (the MBEST Center at the corner of Imjin Parkway and Research Drive).

The Airport Specific Plan covers 77.5 acres of City of Marina land, currently zoned as Airport Business Park, and 72.5 acres of University of California Land, designated as the Central North Campus of the Monterey Bay Engineering, Science and Technology Center. The Project includes:

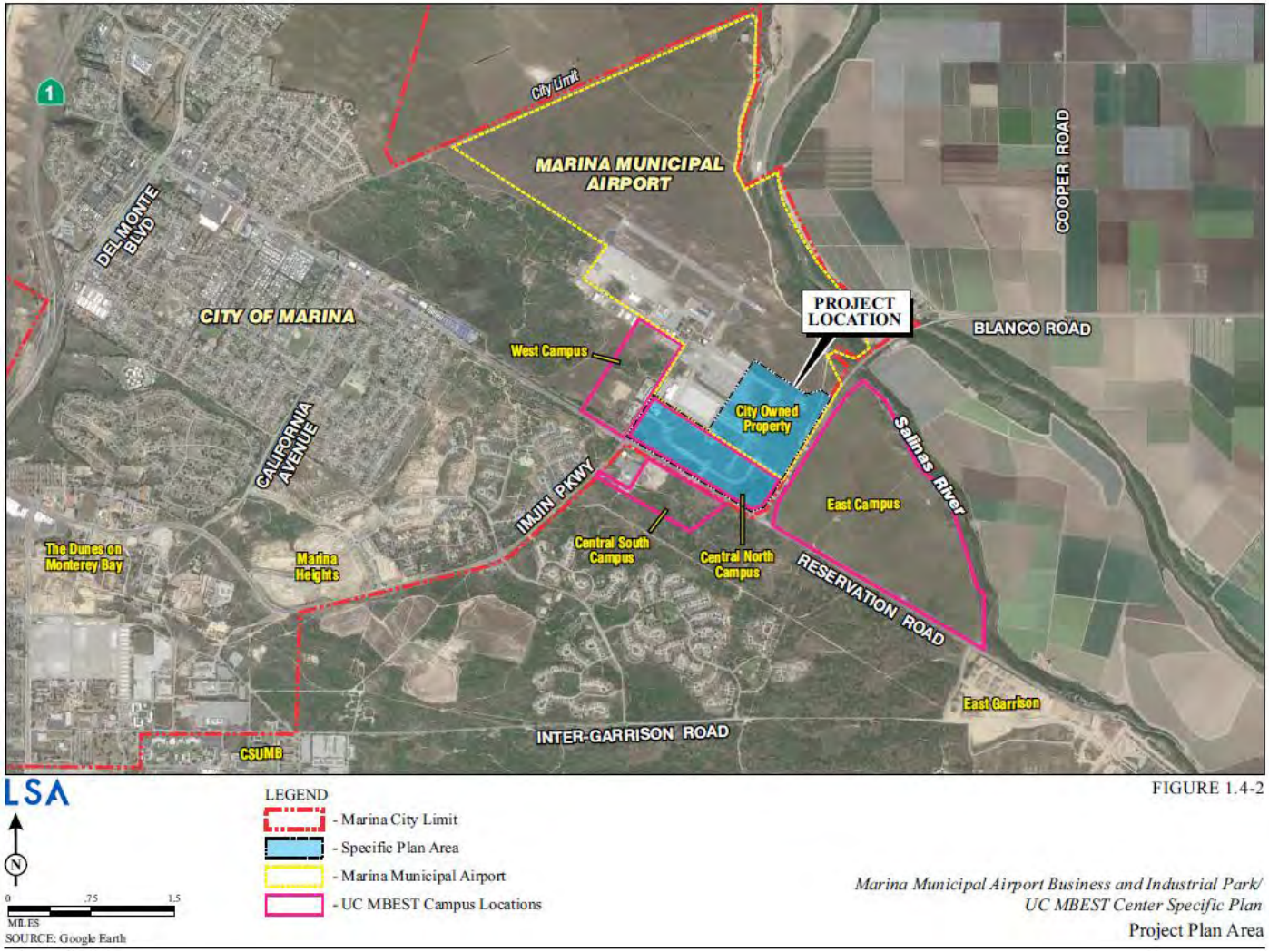
- A Business Park within the City-owned portion of the Project focused on aviation related industries;
- Research and development within the MBEST portion of the Project;
- Commercial mixed use within both areas along the major arterial streets;
- Open space along arterial frontages.

The project area includes no residential use, but visitor serving hotels are allowed in the commercial areas.

2.2 Proposed Land Uses and Water Demands

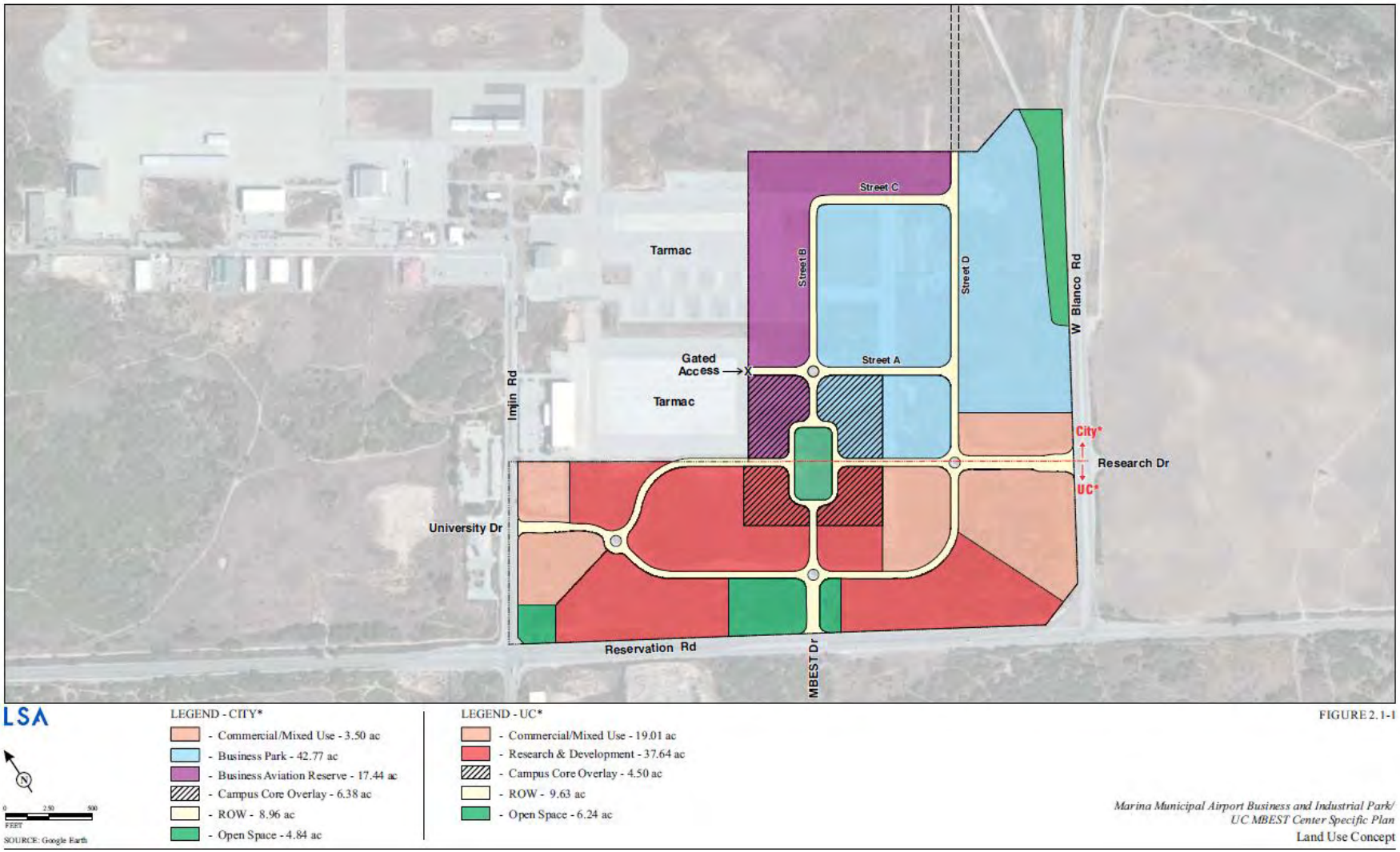
Proposed land uses are described below. A portion of the Project is designated as the Campus Core Overlay Area, which is intended to have a more urban look than the surrounding areas. This will result in higher density development within the Overlay areas. The projected water demand for the project is presented in Table 2-1.

Figure 2.1: Project Location[3]



[3] Source: Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan, Figure 1.4-2

Figure 2.2: Specific Plan Area[4]



[4] Source: Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan, Figure 2.1-1

2.2.1 Research and Development

Approximately 38 acres within the UC portion of the Project is designated as Research and Development use. This may be a mix of office, light industrial and manufacturing uses. Within this area, 33.1 acres are outside the Campus Core Overlay and will have a floorspace to area ratio (FAR) of 0.3, and 4.5 acres is within the Campus Core Overlay and will have a FAR of 0.4. Total building area is approximately 512,000 square-feet (SF). Water demand is estimated using the demand factor for Office/R&D from the 2015 UWMP, which was 0.000135 AFY/SF. Landscaping is assumed to cover 10% of the project area, with a non-turf demand factor of 2.1 AFY/AC.

2.2.2 Business Park

Approximately 43 acres within the City of Marina portion of the project is designated as Business Park. Allowed uses include office space, light industrial, manufacturing and business support services. Within this area, 39.6 acres are outside the Campus Core Overlay and will have a FAR of 0.3, and 3.2 acres are within the Campus Core Overlay and will have a FAR of 0.4. Total building area is approximately 573,000 SF. Water demand is estimated using the demand factor for Office/R&D from the 2015 UWMP, which was 0.000135 AFY/SF. Landscaping is assumed to cover 10% of the project area, with a non-turf demand factor of 2.1 AFY/AC.

2.2.3 Business Aviation Reserve

Approximately 17.5 acres within the City of Marina portion of the project is designated as Business Aviation Reserve. Business Aviation is tarmac frontage that directly supports the airport (aircraft servicing as well as concessions typical of airports). Within this area, 14.5 acres are outside the Campus Core Overlay and will have a floorspace to area ratio (FAR) of 0.3, and 2.9 acres are within the Campus Core Overlay and will have a FAR of 0.4. Total building area is approximately 241,000 SF. Water demand is estimated using the demand factor for Light Industrial from the 2015 UWMP, which was 0.00015 AFY/SF. Landscaping is assumed to cover 10% of the project area, with a non-turf demand factor of 2.1 AFY/AC.

2.2.4 Commercial / Mixed Use

Approximately 22.5 acres are designated as Commercial / Mixed Use (3.5 acres in the City and 19 acres on UC land). One 2.3-acre site within the UC portion has already been developed (approximately 25,500 SF of office space). Commercial Mixed Use may be general office, retail, dining, hotel or other visitor and business serving uses. All of this area is outside the Campus Core Overlay, so the FAR is 0.3. Total building area is approximately 294,000 SF. Water demand is estimated using the demand factor for Office/Commercial use from the 2015 UWMP, which was 0.0003 AFY/SF. Landscaping is assumed to cover 10% of the project area, with a non-turf demand factor of 2.1 AFY/AC.

2.2.5 Streetscape and Common Area Landscaping

Landscaped parkways are included along the proposed streets, and a two-acre central park is included in the site plan. Non-turf type landscaping is assumed for these areas, with a demand factor of 2.1 AFY/AC.

Landscaping for street medians, parks and commercial sites may be irrigated with recycled water. MCWD will begin delivering recycled water for urban irrigation in 2020. For this analysis, recycled water use for landscape irrigation is assumed for all sites. Indoor use for toilet flushing or manufacturing is also allowed under the plumbing code but is not included in this projection.

2.2.6 Open Space

Approximately 9 acres within the Project area will be left as open space with native vegetation. No irrigation will be installed in these areas.

2.2.7 Project Total Water Demands

The total water demand projected for the project is 309.2 AFY, as shown in Table 2-1, below. 270.7 AFY is potable demand, and 38.5 AFY is non-potable demand for landscape irrigation. The City of Marina demand total is 145.2 AFY, and the UC total is 164.0 AFY.

Table 2-1: Summary of Estimated Water Demand

Land Use	Lot Area	FAR	Maximum Floor Area	Landscape Area	Site Classification	Building Demand Factor	Landscape Factor	Potable Water Demand	Nonpotable Water Demand
	(AC)		(SF)	(AC)		(AFY/SF)	(AFY/AC)	(AFY)	(AFY)
City Property									
Commercial/Mixed Use	3.50	0.30	45,738	0.35	Office/Commercial	0.0003	2.1	13.7	0.7
Business Aviation Reserve	14.53	0.30	189,878	1.45	Light Industrial	0.00015	2.1	28.5	3.1
Business Aviation Reserve /Overlay	2.91	0.40	50,704	0.29	Light Industrial	0.00015	2.1	7.6	0.6
Business Park	39.57	0.30	517,101	3.96	Office/Research & Development	0.000135	2.1	69.8	8.3
Business Park /Overlay	3.20	0.40	55,757	0.32	Office/Research & Development	0.000135	2.1	7.5	0.7
Roadway Landscape	8.96		N/A	1.24	Non-Turf Landscape	N/A	2.1	0.0	2.6
Central Park	1.00		N/A	1.00	Non-Turf Landscape	N/A	2.1	0.0	2.1
Natural Open Space	3.84		N/A	0.00	N/A	N/A	N/A	0.0	0.0
Subtotal:	77.51		859,177					127.1	18.1
UC Property									
Research & Development	33.14	0.30	433,074	3.31	Office/Research & Development	0.000135	2.1	58.5	7.0
Research & Development /Overlay	4.50	0.40	78,408	0.45	Office/Research & Development	0.000135	2.1	10.6	0.9
Commercial/Mixed Use (Note 1)	19.01	0.30	248,423	1.90	Office/Commercial	0.0003	2.1	74.5	4.0
Roadway Landscape	9.63		N/A	3.05	Non-Turf Landscape	N/A	2.1	0.0	6.4
Central Park	1.00		N/A	1.00	Non-Turf Landscape	N/A	2.1	0.0	2.1
Natural Open Space	5.24		N/A	0.00	N/A	N/A	N/A	0.0	0.0
Subtotal:	72.52		759,904					143.6	20.4
Totals:	**150.03**		**1,619,082**					**270.7**	**38.5**

Note 1: Approximately 2.25 acres of this area is already developed. Existing water use is under 2 AFY.

The City of Marina Municipal Code allows for increasing the FAR to 0.5 on a project by project basis, with approval of the Planning Commission and City Council. Although it is unlikely that the City would approve such increases for the entire project area, the calculated maximum water

demand within the City portion of the project is presented in Table 2-2. For the purposes of this WSA, the values from Table 2-1 are used for the supply availability analysis.

Table 2-2: Maximum Water Demand within the City of Marina Portion

Land Use	Lot Area (AC)	FAR	Maximum Floor Area (SF)	Landscape Area (AC)	Site Classification	Building Demand Factor (AFY/SF)	Landscape Factor (AFY/AC)	Potable Water Demand (AFY)	Nonpotable Water Demand (AFY)
City Property									
Commercial/Mixed Use	3.50	0.50	76,230	0.35	Office/Commercial	0.0003	2.1	22.9	0.7
Business Aviation Reserve	14.53	0.50	316,463	1.45	Light Industrial	0.00015	2.1	47.5	3.1
Business Aviation Reserve /Overlay	2.91	0.40	50,704	0.29	Light Industrial	0.00015	2.1	7.6	0.6
Business Park	39.57	0.50	861,835	3.96	Office/Research & Development	0.000135	2.1	116.3	8.3
Business Park /Overlay	3.20	0.40	55,757	0.32	Office/Research & Development	0.000135	2.1	7.5	0.7
Roadway Landscape	8.96		N/A	1.24	Non-Turf Landscape	N/A	2.1	0.0	2.6
Central Park	1.00		N/A	1.00	Non-Turf Landscape	N/A	2.1	0.0	2.1
Natural Open Space	3.84		N/A	0.00	N/A	N/A	N/A	0.0	0.0
Subtotal:	77.51							201.8	18.1

Section 3 - District Water Demands

3.1 Historic and Current Water Demands

Table 3-1 shows the District's water production over the period 2010-2019. The District's average production over that period was 3,690 AFY, with 1,582 AFY in the Central Marina service area and 2,107 AFY in the Ord Community service area.

Table 3-1: Water Production by Service Area (AF)[5]

Year	Central Marina	Ord Community	Total
2010	1,744	2,389	4,133
2011	1,698	2,348	4,047
2012	1,814	2,360	4,174
2013	1,467	2,964	4,431
2014	1,619	2,407	4,026
2015	1,420	1,808	3,228
2016	1,303	1,722	3,025
2017	1,587	1,651	3,238
2018	1,744	1,661	3,405
2019	1,425	1,764	3,189

The City of Marina is made up of six sub-areas used for planning. Central Marina is divided into the three parties to the 1996 Zone 2/2A Annexation Agreement with MCWRA, which were the City of Marina (outside the former Fort Ord), the Armstrong Ranch and the RMC-Lonestar (now CEMEX) property. Armstrong Ranch is undeveloped land north of the City and east of Highway 1. CEMEX is north of the City and west of Highway 1. Each party to the annexation agreement has a separate allocation of Salinas Valley groundwater, so development and use is tracked by sub-area. Similarly, the former Fort Ord was annexed into MCWRA Zones 2/2A and has an allocation of Salinas Valley Groundwater. The City portion of the Ord Community includes three land use jurisdictions, the City of Marina, the University of California and California State University. Each jurisdiction was allocated a portion of the existing groundwater supply by the Fort Ord Reuse Authority and is tracked as a separate entity.

For this WSA, we only assess the City of Marina and UC portions of the Ord Community. Significant redevelopment is occurring in the City portion of the Ord Community, although at a slower pace than what was projected in the 2015 UWMP.

Water use for UC and Marina in the Ord Community is shown in Figure 3.1. Use declined in 2015 due to mandated water conservation measures imposed during the drought of record (2012-2016) but is steadily increasing in Marina as redevelopment occurs. Approximately 500 housing

[5] Source: District Operations Staff

units and a new commercial center have been added during the period 2015 to 2019. Table 3-2 breaks out the water use by major subdivisions within Marina's Ord Community. Use within UC MBEST has been steady, with no added development over the last decade.

Figure 3.1: Ord Community Water Use (Marina and UC only)[6] (acre-feet)

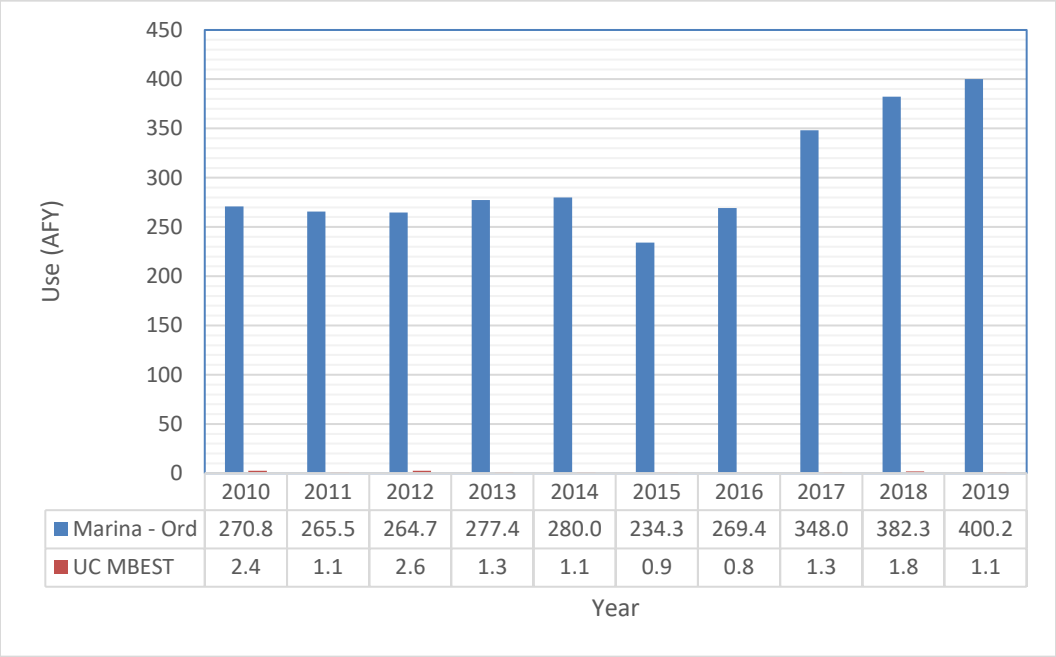


Table 3-2: Water Use by Sub-Area (AF)

Subdivision or Area	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Dunes (Univ. Villages)	45.1	52.1	37.5	38.1	55.9	61.9	68.3	113.0	132.1	129.3
Sea Haven (M. Heights)	8.7	9.4	9.0	13.6	7.5	7.3	10.0	23.4	37.7	61.9
Abrams/Preston Parks	176.4	173.6	187.1	181.7	160.0	113.8	111.0	128.0	138.3	122.8
Airport	9.8	6.9	5.3	4.1	2.8	2.3	2.0	2.8	7.5	3.5
All Other Areas	30.8	23.6	25.9	39.9	53.9	48.9	78.1	81.0	66.7	82.7

3.2 Future Demands

Table 3-3 shows projected water demands for the District through 2035. The projection is based on Table 3.5 of the 2015 UWMP, with updates to the City of Seaside portion of the Ord Community made under a previous WSA[7]. The projected water demand for the Ord Community portion of Marina was 1,704 AFY by 2035, based upon the projected buildout of all specific plan areas. This projection includes some development within the Airport Specific Plan area. The projected demand within UC MBEST is 515 AFY in 2035, based on build-out of the entire campus. Each jurisdiction is discussed further below.

[6] Source: MCWD Quarterly Water Consumption Reports
[7] See the WSA/WSV for the Campus Town Specific Plan

Table 3-3: Water Demand Projection by Service Area (AF)[8]

	Jurisdiction	2012*	2015**	2020	2025	2030	2035	Notes	Allocation
Ord	U.S. Army	620	633	663	825	825	825		1,577
	CSUMB	404	404	442	632	755	779		1,035
	Del Rey Oaks	0	0	186	551	551	551		243
	City of Monterey	0	0	0	130	130	130		65
	County of Monterey	8	52	377	539	539	539		720
	UCMBEST	3	3	94	299	515	515	4	230
	City of Seaside	657	657	*592*	*783*	*1,097*	*1,560*	1, 2	1,012
	State Parks and Rec.	0	0	12	18	20	25		45
	Marina Ord Comm.	264	285	901	1,572	1,702	1,704	3	*1,325*
	Assumed Line Loss	395	348	348	348	348	348		348
Marina	Armstrong Ranch	0	0	0	680	680	680		920
	Cemex	0	0	0	0	0	500		500
	Marina Central	1,823	1,823	2,184	2,491	2,606	2,725		3,020
	Subtotal - Ord	2,351	2,382	3,616	5,698	6,482	6,976		6,600
	Subtotal - Marina	1,823	1,823	2,184	3,171	3,286	3,905		4,440
	Total	4,174	4,204	5,800	8,868	9,768	10,881		11,040

*Actual demands from calendar year 2012 used to represent a non-drought year.

** Projected demands. Actual use was lower due to mandatory drought restrictions.

1 Includes Seaside Resort Golf Course use in 2012 and 2015 (temporary use).

2. Revised values shown initalics. Removes Monterey Downs project.

3. Revised allocation to reflect groundwater only. Supply from existing pilot desalination plant removed.

4. MBEST commented that they may develop up to 230 AFY as soon as the market allows it.

3.2.1 Demands within Marina – Ord Community

The 2015 UWMP used the actual water use from 2012 as the baseline for the demand projection because mandatory drought reductions were imposed in 2015. The projection then added the estimated demands for infill development in each period. As can be seen in Figure 3.1, actual use declined in 2015, and the pace of infill development was slower than anticipated. Use in 2020 will be about half of what was projected in the UWMP.

The projected demand included 546,400 SF of light industrial development at the Marina Airport over the planning period, with an associated water demand of 82 AFY. The Airport Specific Plan projects 859,200 SF of development at the Airport, with a total water demand of 145.2 AFY (127.1 AFY potable and 18.1 AFY non-potable). Assuming this would occur over the same planning period, it represents a 55% increase in projected water demand for that area.

The Fort Ord Reuse Authority tracks projected development as part of their Capital Improvement Program. The most recent projection for the period 2019 to 2030 shows three main

[8] Source: Table 3-3 of the WSA/WSV for the Campus Town Specific Plan. Marina-Ord allocation revised per note 3.

redevelopment areas in Marina (Dunes on Monterey Bay, Seahaven and Cypress Knolls) being completed during the forecast period. Two are currently under construction, but Cypress Knolls has not progressed beyond the Specific Plan adopted in 2006. Table 3-4 updates the demand projection for the Marina-Ord area. The Marina-Ord values reflect the revised FORA development projection. Items listed in the 2015 UWMP but not included in the FORA projection are moved to the 2031-2035 time step. The previous projection for the Airport Economic Development Area is removed and replaced with the Airport Specific Plan projection (shown on a separate line). The development within the Airport Specific Plan area is assumed to occur uniformly over 20-years. The projected total demand is lower than in the 2015 UWMP due to removing several double-counted areas within the Dunes on Monterey Bay forecast[9], as well as permanent water reductions within existing housing areas due to water saving fixtures installed over the past decade.

Table 3-4: Revised Marina-Ord Water Demand Projection

	2020	2025	2030	2035	2040
Marina-Ord	477.1	791.2	1,190.3	1,327.5	1,379.5
Airport SP	0	36.3	72.6	108.9	145.2
Total Marina-Ord	**477.1**	**827.5**	**1,262.9**	**1,436.4**	**1,524.7**

3.2.2 Demands within UC MBEST

The 2015 UWMP projected the water demands for UC MBEST to increase to 94 AFY by 2020 and 515 AFY by 2030. No development has occurred during the last five years. The total in 2035 reflected adding 1,656,000 SF of office, R&D and commercial space and 400 hotel rooms across the entire MBEST complex (East, West, North Central and South Central areas, as shown on Figure 2.1, and an 8th Street Campus located along 6th Avenue), plus 550 residential dwelling units in the East Campus. The Airport Specific Plan covers only the North Central Campus area. The Airport Specific Plan projects 760,000 SF of development just within the North Central Campus, with a combined demand of 164.0 AFY (143.6 AFY potable and 20.6 AFY non-potable). This is a higher density of development than previously projected but is within the total projected usage for the UC MBEST campus.

The FORA development projection for the period 2019 to 2030 shows only 1.1 million square feet of development plus 240 residential units within UC MBEST. The projection does not break out the usage by campus area, but it may be assumed that the majority of development will occur in the North Central Campus which has existing streets and utilities. The residential development is slated to occur in the East Campus Area. Table 3-5 updates demand projection for UC MBEST. The period 2020-2030 reflects the existing use plus projected development in the

[9] The big box retail and CHOMP Wellness Center were existing at the time of the 2015 UWMP, but included in the projected future development as well.

FORA forecast, which is assumed to include the Airport Specific Plan Area. The period 2031-2040 reflects the remaining development from the 2015 UWMP. A portion of the previously projected development moves beyond the 20-year planning horizon, so the 20-year total is lower than the previous 20-year projection.

Table 3-5: Revised UC MBEST Demand Projection

	2020	2025	2030	2035	2040
UC MBEST	2	134.75	267.5	342.5	417.5

3.3 Dry-Year Demands

Section 10631 of the Water Code requires that water demands be estimated for an average water year, a single dry water year and multiple dry water years. As discussed in the District's 2015 Urban Water Management Plan, the MCWD service area has a cool summer-type Mediterranean climate, with rain occurring in October through May, and advection fog enveloping the coast in the summer in response to inland heating. Due to these cool summer conditions, the area does not experience the significant increases in summer irrigation demands common to areas further inland in the Salinas River Valley. Periods of below normal rainfall do not reduce the coastal fog, resulting in very minor demand fluctuations between average and dry years.

During the drought of 2012-2016, Ord Community water demand increased by 6% in the first dry year (2013) compared with the use in 2012[10]. Demands then declined to 83% of the pre-drought use in the second year and 77% in the next two years due to mandatory drought restrictions. The projected demands for the Airport Specific Plan (combined potable and recycled) during normal, single dry years and multiple dry years are provided in Table 3-6, with the maximum demand being 327.8 AFY.

Table 3-6: Dry Year Demand Projections

	Average Year	Single Dry Year	1st Dry Year	2nd Dry Year	3rd Dry Year	4th Dry Year	5th Dry Year
Factor		1.06	1.06	0.83	0.77	0.77	0.77
Projected Demand (AFY)	309.2	327.8	327.8	256.6	238.1	238.1	238.1

MCWD has sufficient supply and well capacity to meet all customer demands during peak (dry year) conditions.

[10] Values based on MCWD Quarterly Water Consumption Reports, adjusted to remove golf course irrigation that was not provided after 2015.

Section 4 - Water Supply

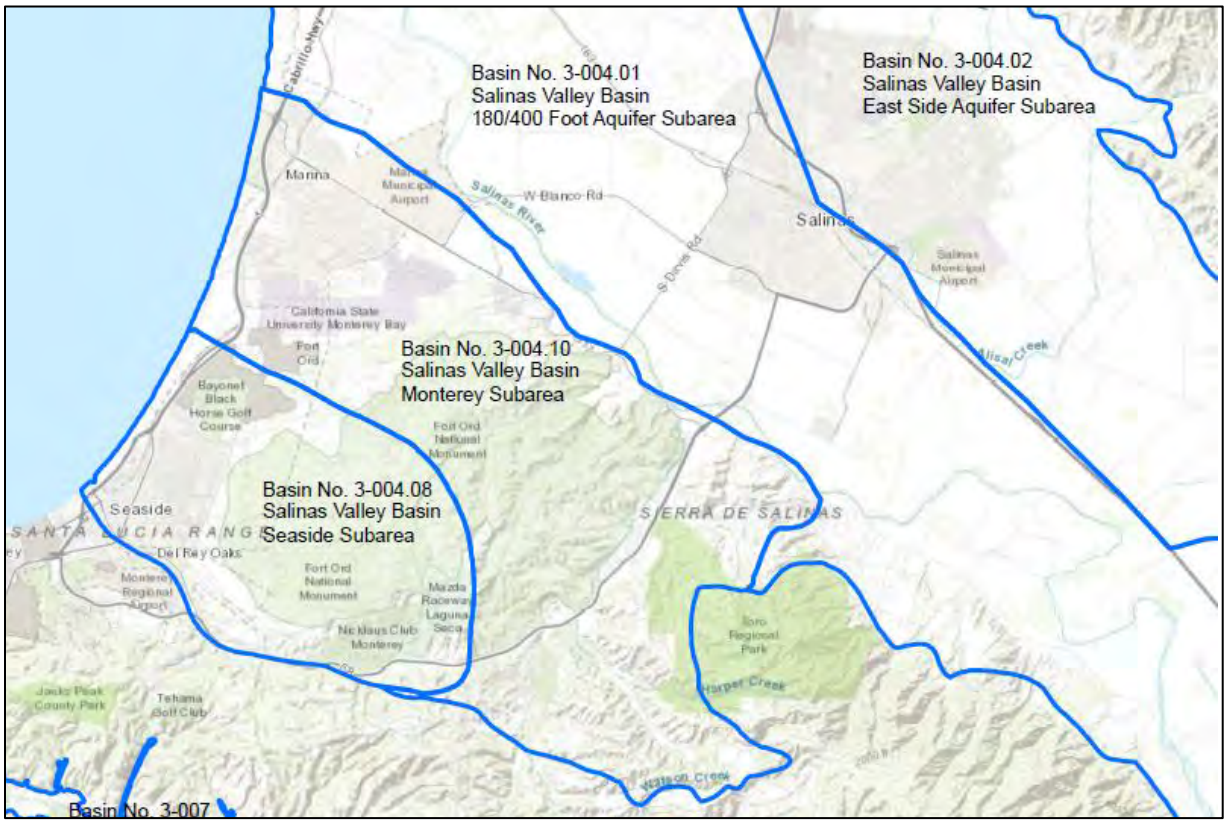
4.1 Current Water Supply

The District's primary source of water supply is the Salinas Valley Groundwater Basin, and it also has a small desalination plant in the Central Marina Service Area. Under the Regional Urban Water Augmentation Project, the District is working to develop recycled water and a larger desalination plant to meet the projected demands of the Ord Community. None of the District's current supply is purchased under wholesale contract.

4.1.1 Groundwater

The District supplies groundwater from the Salinas Valley Groundwater Basin. In 2016, the California Department of Water Resources (DWR) published an Interim Update to Bulletin 118, California's Groundwater. Bulletin 118 defines groundwater basin and sub-basin boundaries used for planning and groundwater management. The update reflects changes submitted to and approved by DWR under the Sustainable Groundwater Management Act. Within northern Monterey County, the changes include redefining the boundaries of the Seaside and Corral De Tierra sub-areas to reflect the defined boundary of the adjudicated Seaside Groundwater Basin, and merge the remaining portion of the Seaside sub-area with the Corral de Tierra sub-area (renamed the Monterey sub-area). The revised boundaries are shown in Figure 4.1.

Figure 4.1: Groundwater Basins



All of the District's wells are located within the Monterey Sub-Basin of the Salinas Valley Groundwater Basin. MCWD has been designated as an exclusive Groundwater Sustainability Agency (GSA) within its LAFCO service area, and it participates in the Salinas Valley Basin GSA as a member of the Advisory Committee. A portion of the District's Ord Community service area overlays the Seaside Sub-Basin of the Salinas Valley Groundwater Basin, which is an adjudicated basin managed by the Seaside Water Master Board.

Under the "Agreement between the United States of America and the Monterey County Water Resources Agency concerning Annexation of Fort Ord into Zones 2 and 2A of the Monterey County Water Resources Agency, Agreement No. A-06404", dated September 21, 1993, the District (successor to the United States) may withdraw up to 6,600 acre-feet per year from the Salinas Valley Groundwater Basin for use in the District's Ord Community service area. Under the "Annexation Agreement and Groundwater Mitigation Framework for Marina Area Lands" dated March 1996, by and between the MCWRA, the Marina Coast Water District, J.G. Armstrong Family Members, RMC Lonestar, and the City of Marina, the District may withdraw up to 3,020 AFY from the Salinas Valley Groundwater Basin for use in the District's Central Marina service area. Under that agreement, additional groundwater supply will be made available to the District for use within the Armstrong Ranch and the RMC Lonestar properties north of Marina, if and when the City annexes and develops those areas. The City and the District annexed the Marina Station portion of the Armstrong Ranch in 2007. That subdivision has not yet been constructed.

There are three defined aquifers within the Marina Coast Water District service area, the 180-foot, the 400-foot and the 900-foot or Deep Aquifer. The District operates eight wells, with three in Central Marina and five in the Ord Community. The service areas are interconnected for reliability, with meters at the points of connection to facilitate managing the two well-fields to ensure each service area remains within its authorized withdrawal limit. Table 4-1 summarizes the existing pumping capacity of the District wells. As can be seen, the District has sufficient well capacity to meet the maximum day demands with the largest well out-of-service.

Table 4-1: Existing Pumping Capacity

Location	Well #	Aquifer	Estimated Capacity	
			(AFY)	(GPM)
Marina	10	Deep	2,352	1,458
	11	Deep	3,266	2,025
	12	Deep	3,262	2,022
Ord	29	400 foot	2,420	1,500
	30	400 foot	2,465	1,528
	31	400 foot	3,734	2,315
	34	Deep	4,000	2,480
	35	400 foot	4,023	2,494

4.1.2 Desalinated Water

The District has a desalination plant located near Marina State Beach, which was designed to contribute up to 300 AFY of potable water supply to the Central Marina service area. The plant was constructed in 1997 as a pilot project but is not currently in use. Supply from this facility is not included in this water supply assessment, although the District may elect to reinstate the plant at some point in the future.

4.2 Future Water Supply

The District is working towards developing new sources of water supply to meet projected demand increases due to redevelopment within the Ord Community, as well as taking actions to address groundwater wells impacted by seawater intrusion. The two major water supply projects described below are (i) reclaimed wastewater, and (ii) desalinated water, which make up the Regional Urban Water Augmentation Project. MCWD is investigating alternative sources of potable supply, which may be less costly than desalination.

4.2.1 Recycled Water

Recycled water refers to sanitary sewage which undergoes treatment and disinfection, typically for non-potable uses such as agricultural and landscape irrigation. The Monterey One Water (M1W, formerly Monterey Regional Water Pollution Control Agency) operates a regional wastewater treatment facility in north Marina and produces reclaimed water for agricultural irrigation in the Castroville area. Through prior agreements with the M1W, the District is entitled to receive recycled water from the regional plant, up to the volume of wastewater generated within the District and sent to the plant. In 2007, MCWD began detailed design of the recycled water distribution system, and constructed several portions of the transmission main in conjunction with road improvement projects. In 2012, M1W began planning the Pure Water Monterey Groundwater Replenishment Project, which will develop additional sources of water supply and produce advanced treated water for injection into the Seaside Groundwater Basin for indirect potable reuse. In 2016, MCWD and M1W entered into an agreement allowing MCWD to participate in the Pure Water Monterey Project. MCWD has now completed construction of the transmission main, which will be used to deliver advanced treated water for both groundwater injection and for urban irrigation.

Under the initial phase of the project, MCWD will receive up to 600 AFY of advanced treated water for urban irrigation use. In later phases, the project may be expanded and MCWD's share would increase to 1,427 AFY, which was the amount of non-potable demand in the Ord Community analyzed in the RUWAP EIR.

4.2.2 Desalinated Water

Given readily available saline and brackish waters near the District's service area, desalinated water has been considered as another potential water supply. The Regional Urban Water

Augmentation Project EIR includes a 1,500 AFY desalination facility for the District. The facility was sized to provide 1,200 AFY of new supply to the Ord Community and 300 AFY to Central Marina.

4.2.3 Conservation

The Marina Coast Water District has an active water conservation program. Under the District's water conservation ordinance, all new construction is required to incorporate water saving devices over and above the requirements of the state building code. Additionally, the District has adopted the State's Model Water Efficient Landscape Ordinance. The District requires developers to install water conserving fixtures during construction, landscapes which require high irrigation are discouraged, and a tiered water rate structure discourages water waste. The District offers rebate incentives to replace less efficient water fixtures, for installing smart irrigation controllers, and for replacing lawns and sprinklers.

The State of California has established a goal of reducing per person water use by 20% by the year 2020, compared to the 2008 baseline demands. Toward that end, the California Building Code was updated in 2010, with the goal of reducing indoor water use to 55 gallons per person per day. In the 2010 UWMP, the District identified a year 2020 conservation target of 117 gallons per person per day (system-wide potable average). Within Airport Specific Plan area, it is anticipated that all outdoor irrigation will be met using recycled water, and all indoor plumbing fixtures will meet or exceed the plumbing code efficiency requirements.

4.3 Regulatory Permits Necessary for Supply Delivery

The Marina Coast Water District is a public water system, permitted by the State Water Resources Control Board, Division of Drinking Water, System No. 2710017. The recycled water distribution system is permitted as System No. 2790009. Permits required for the construction and operation of new facilities are obtained on a project-by-project basis.

Section 5 - Supply Sufficiency Analysis

5.1 Comparison of Project Demands to Projected Supply

Within the Ord Community, the 6,600 AFY of existing Salinas Valley groundwater supply has been allocated among the land use jurisdictions by the Fort Ord Reuse Authority (FORA), as shown in Table 5-1, below. The municipal jurisdictions (Cities and Monterey County) formally sub-allocate this supply to developments. Until additional water supplies are developed and allocated within the Ord Community, MCWD will only allow new service connections up to the usage totals allocated by the respective jurisdictions. FORA has also formally allocated the recycled water supply from the Phase 1 Recycled Water Project. Those allocations are included in Table 5-1.

Table 5-1: FORA Allocations in the Ord Community

Land Use Jurisdiction	Existing Groundwater Allocation (AFY)	Future Recycled Allocation (AFY)
City of Del Rey Oaks	243	280
City of Marina (Ord)	1,325	345
City of Monterey	65	0
City of Seaside	1,012	453
County of Monterey	710	134
Marina Sphere (existing use)	10	0
CA State Parks and Rec.	45	0
CSU Monterey Bay	1,035	87
Univ. of California MBEST	230	60
U.S. Army	1,577	0
Assumed Line Loss	348	68
Total – Ord Community	6,600	1,427

5.1.1 Analysis within Marina-Ord

The City of Marina has sub-allocated portion of their existing groundwater allocation, as detailed in Table 5-2. This table reflects several updates from the version included in the 2015 UWMP:

- The FORA allocation is increased from 1,325 AFY to 1,340 AFY. The U.S. Army transferred 15 AFY of supply through FORA to the City in 2018 to support the Veterans Transition Center Housing project.
- The Existing Use amount is decreased from 233.1 AFY to 146.7 AFY. The previous estimate was based upon assumed use in the existing housing areas (Abrams Park and Preston Park) and other facilities which were not metered at the time the base closed. All Marina-Ord customers had meters installed by 2015. The revised total reflects the

maximum usage out of the last five years. A Technical Memorandum is provided at Appendix D detailing this analysis.

Table 5-2: City of Marina Sub-Allocations

Sub-allocations To	Suballocation Amount	Resolution No.	Date	Notes:
	(AFY)			
Existing Use	146.7			Preston Park, Abrams Park, Airport, Veterans Housing, Imjin Office Park, etc.
Marina Heights	292.4	2004-41	3/3/2004	renamed Sea Haven
University Villages	593.0	2005-129	5/31/2005	renamed Dunes on Monterey Bay
Cypress Knolls	156.1	2006-289	11/8/2006	
MPC - 12th St Campus	7.0	2007-xx	2/6/2007	
Rock Rose Gardens	4.9	PC2011-07	6/9/2011	Planning commission, existing demand formalized as allocation
Promontory Apartments	33.3	2013-86	7/2/2013	
Veterans Transition Center	15.0	Agreement	1/5/2018	Army transferred supply for VTC expansion in 2018
Joby Aero	15.3	2020-xx	3/3/2020	May be increased to 26.5 AFY
Marina-Ord Total:	**1,263.7**			
FORA Allocation:	1,340.0			
Marina-Ord Unallocated:	**76.3**			

The City's remaining unallocated groundwater supply is 76.3 AFY. The City has not yet allocated any recycled water to projects. The projected water demand for the City's portion of the Airport Specific Plan is 145.2 AFY (127.1 AFY potable and 18.1 AFY non-potable). The City does not have sufficient groundwater supply available to fully meet the projected potable demands in the specific plan area but does have sufficient recycled water available to meet the projected non-potable demand.

If recycled water is provided to other developments within Marina-Ord, the City may then reallocate the offset groundwater use to other projects. Projected irrigation demands within the major Marina developments[11] are:

- 11.8 AFY for parks and streetscapes in Marina Heights (Seahaven);
- 25.9 AFY for parks and streetscapes in University Villages (Dunes);
- 65 AFY for landscapes on commercial properties in University Villages (Dunes); and
- 45 AFY for parks and streetscapes in Cypress Knolls.

The total projected irrigation demand in these areas is 147.7 AFY. The existing irrigation demand within Marina Heights and University Villages was 67 AFY in 2017, or about 82% of the 80.7 AFY shortfall in groundwater supply for the Airport Specific Plan area. The system in Marina Heights will be connected to the District's recycled water transmission main within the

[11] Values from the project water supply assessments

next year. Additional in-tract pipelines would be required to connect the University Villages demand areas to the recycled water transmission system.

Another option for the City is to develop the Specific Plan area in Phases, and only allocate water to the initial Phase. A logical division would be areas fronting on existing streets and areas requiring the construction of additional streets.

5.1.2 Analysis within UC MBEST

The University of California has an allocation of 230 AFY of existing groundwater supply and 60 AFY of recycled water supply. As shown in the 2015 UWMP, this amount of supply is not sufficient to meet the projected demands of the full campus. However, it is sufficient to meet the demands of the updated development projection over the next 20-years, which includes the Airport Specific Plan Area.

5.2 Plans for Acquiring Additional Water Supplies

Under the provisions of Section 10911 of the California Water Code, if the water supplier concludes that water supplies will be insufficient for the proposed project, the water supplier shall provide its plans for acquiring additional water supplies. The Marina Coast Water District is currently pursuing two water supply projects, the Recycled Water Project and the Desalination Project, which are intended to allow the District to develop 2,400 AFY of new supply to meet the projected Ord Community demand. Detailed descriptions of these projects are provided in Appendices B and C.

5.3 Reliability of Water Supply

The Salinas Valley Groundwater Basin has a large storage volume, and is recharged by the Salinas River, which is augmented by upstream reservoirs managed by MCWRA. Consequently, the aquifer does not experience wide level variations due to climatic conditions. Water levels vary by 20 to 30 feet seasonally and decline an additional 10 to 20 feet during drought periods. The District's demands accounted for less than one percent of the total groundwater pumped from the Salinas groundwater basin in 2018, the latest year reported. Therefore, the District's supply is considered reliable on a quantity basis. The upper aquifers in the Salinas Valley Groundwater Basin (180-foot aquifer and 400-foot aquifer) along the coast are experiencing high salinity due to seawater intrusion. The District's wells in Central Marina are in the Deep Aquifer, which has not experienced signs of seawater intrusion and is considered to have reliable quality. In the Ord Community, the District has one well in the deep aquifer and four wells in the upper aquifers, but outside the area currently affected by seawater intrusion. The District is closely monitoring the quality in these wells.

The planned additional sources of supply are recycled wastewater and seawater desalination. The source of supply for recycled water is wastewater return flows, which originate from indoor water use. Indoor water use is not subject to the same levels of curtailment during drought

periods as outdoor water use, so the source of recycled water supply is considered drought-proof. The SVRP treatment plant operated by the MRWPCA has reliably produced recycled water meeting the requirements of Title 22 for nearly two decades. The new Advanced Water Purification Plant supplying the Pure Water Monterey Project came on-line in 2020. Similarly, seawater desalination is considered a reliable source of supply. Reverse osmosis technology is a proven method of desalinating seawater and brackish groundwater.

5.4 Effect on Agricultural and Industrial Users Reliant on the Same Source

There are no agricultural water users within the MCWD service area, nor are there industrial users with privately-owned wells. Agricultural users in the Salinas Valley rely on the same basin-wide supply from the Salinas Valley Groundwater Basin, accounting for 92.9% of the groundwater pumping in 2015. In the local area, 12,000 acres of irrigated agriculture are supplied with recycled water from the Castroville Seawater Intrusion Project. These uses are taken into account in the basin planning of the MCWRA and SVBGSA as part of developing a water balance for the Basin. Additional demands in the Central Marina and Ord Community area are not expected to affect the agricultural users, provided that the District groundwater pumping to meet new demands remains consistent with the MCWRA agreements.

Section 6 - Conclusions

6.1 Sufficiency of Water Supply for the Project

The University of California has sufficient existing water supply within the Ord Community service area to achieve the complete build-out of the MBEST portion of the planned Airport Specific Plan. The available supply is sufficient to meet the existing and projected demands over the 20-year projection during normal, single-dry and multiple-dry water years.

The City of Marina does not have sufficient existing water supply within the Ord Community service area to achieve the complete build-out of the City portion of the Airport Specific Plan. If the project is Phased, the initial phase could be authorized up to 76.3 AFY from the existing Salinas groundwater allocation, and up to 18.1 AFY of recycled water supply. Later phases must be deferred until the District is able to develop additional sources of supply for the Ord Community. The City may choose to allocate water to individual projects within the Airport Specific Plan area on a case-by-case basis, rather than committing currently available supply to this one portion of the Ord Community[12]. It is likely that the buildout would occur by subarea over 20-years or longer, rather than coming as a single development. In so doing, the City's adoption of the specific plan should state that water will be allocated to projects within the Project area as they occur, up to the amount water supply available at the time.

Section 10911(b) of the Water Code states: "The City or County shall include the water assessment provided pursuant to Section 10910, in any environmental document prepared for the Project pursuant to [CEQA]." The City of Marina will need to adopt this WSA as part of the CEQA environmental review for the proposed Project, including the findings described above. The City of Marina may take certain additional actions to guarantee the availability of the water supplies for the Airport Specific Plan:

- The City may offset urban irrigation demands within the Marina portion of the Ord Community with recycled water and then apply the existing potable supply towards the Airport Specific Plan area. To do this, the project EIR should clearly describe that intent and the resulting allocation of potable and recycled water supply. The projected landscape irrigation demand within the previously approved specific plan areas is approximately 148 AFY, and current irrigation use is 67 AFY. These systems are currently fed with potable water, but recycled water will be available within the next year. Providing recycled water for irrigation of these areas would make potable supply available for reallocation to the Airport Specific Plan area.
- The City may determine that certain sub-allocation areas are fully developed, and reallocate the unused portion of existing allocations to a new project. In doing this, the

[12] Allocating supply to the project is only required if a tentative map is being adopted.

City should use the maximum water use from the preceding 5 years as the basis of comparison.

- The City may enter into an agreement with another land-use jurisdiction in the Ord Community to allocate currently unused water supply to a portion of this Project.

Because this is presented as a single project between the two jurisdictions, the overall conclusion is that there is not sufficient existing water supply within the Ord Community service area to achieve the complete build-out of the Airport Specific Plan.

Appendix A: Recycled Water Project Details

In 2004-2005, the District prepared engineering studies for the Regional Urban Water Augmentation Project (RUWAP). This project was intended to develop 2,400 AFY of additional water supply for the Ord Community, to meet projected demands identified in the Fort Ord Base Reuse Plan. The RUWAP has two components, urban use of recycled water and a desalination facility. The final capacity of the two components may be adjusted during final design, but the total amount of new supply will be 2,400 AFY.

In 2012, the Monterey One Water (M1W, formerly the Monterey Regional Water Pollution Control Agency) and the Monterey Peninsula Water Management District began planning the Pure Water Monterey Groundwater Replenishment Project, which includes the advanced treatment of recycled water for indirect potable reuse. On April 8, 2016, MCWD and M1W entered into an agreement which would provide up to 1,427 AFY of advanced treated water for urban landscape irrigation instead of the tertiary treated recycled water planned under the RUWAP. The Pure Water Monterey Project required a pipeline running parallel to MCWD's planned RUWAP pipeline, so the agencies agreed to share a single pipeline, realizing a cost savings to each project.

1. Source of Supply: Tertiary treated wastewater available at the MRWPCA Regional Wastewater Treatment Plant in North Marina. Under the annexation agreement between MCWD and MRWPCA, the District has the right to purchase recycled water, subject to annual and seasonal limits. The Advanced Water Purification Facility (AWPF) was constructed in 2018-2019, with a design capacity of 5.0 mgd. The plant produces advanced-treated recycled water meeting the Title 22 standards for indirect potable reuse (injection into a groundwater aquifer and recovery at other wells).

2. Expected Supply Capability: The Phase 1 project has an initial yield of 4,100 AFY, of which 600 AFY is available to MCWD. The remaining 3,500 AFY is conveyed to an injection wellfield in the Ord Community and stored in the Seaside Groundwater Basin. Future Phases of the project will increase MCWD's yield to 1,427 AFY.

3. Project Facilities:
    - Advanced water purification facility and pump station, located within the M1W plant in North Marina
    - Product water transmission and distribution pipelines within Marina and the Ord Community
    - Recycled water storage tank within the Ord Community

4. Historical Record:

   - MCWD operated a recycled water system from 1996 to 1998. Thereafter the Marina Wastewater Treatment Plant was retired and the local sanitary sewer system was connected to the Regional wastewater collection system.
   - MCWD prepared engineering studies for the Regional Urban Water Augmentation Project (RUWAP), which included a recycled water component. The District approved the CEQA EIR for the RUWAP in 2005, and amended the findings in 2006 and 2007 as detailed planning progressed.
   - In 2004, MCWD published standards for recycled water infrastructure and began requiring the construction of recycled water pipelines in new subdivisions.
   - MCWD constructed 3.5 miles of recycled water pipelines within the Ord Community during on-going road construction projects, in cooperation with the Fort Ord Reuse Authority and California State University Monterey Bay.
   - MCWD constructed the shared product water transmission main and storage reservoir in 2018. The transmission main connects the AWPF in north Marina to the injection wellfield in Seaside.
   - M1W constructed the Pure Water Monterey AWPF and the injection wellfield in 2018-2019.
   - Start-up and testing of the full Pure Water Monterey system is currently occurring (1st quarter 2020).
   - MCWD completed design of the recycled water distribution system in 2019, which connects customers to the transmission system. Construction will begin in 2020.
   - MCWD obtained a pipeline easement for the recycled water main across the Armstrong Ranch in 2007. MCWD obtained a pipeline easement from the City of Seaside for the recycled water main from Normandy Ave to the water tank site in 2010. The District obtained ownership of the recycled water tank site in 2010 (previously held as an exclusive easement). MCWD finalized the recycled water main easements with the Presidio of Monterey in 2012. MCWD finalized the recycled water main easements with CSUMB in 2018.

5. Written Contracts and Agreements:

   - In the annexation agreement between MCWD and MRWPCA, MCWD retained the right to obtain recycled water in an amount not to exceed the volume of wastewater flows originating from the District.
   - MCWD entered into an agreement with the Fort Ord Reuse Authority in 2005 to develop the RUWAP water supplies.
   - MCWD executed two memoranda of understanding with MRWPCA and MCWRA (one in 2009 and one in 2010) to work cooperatively towards the RUWAP, and to specify quantities, (seasonal) availability, and roles and responsibilities.
   - MCWD entered into the Pure Water Delivery and Supply Project Agreement with M1W in 2016 to participate in the Pure Water Monterey Project and receive advanced

treated water instead of tertiary treated and disinfected recycled water for the RUWAP.

- In agreements with developers of new subdivisions for the construction of water infrastructure, the District requires the installation of recycled water pipelines for the irrigation of public and commercial landscapes.

6. Estimated Costs and Financing: The Pure Water Monterey Project overall cost is approximately $70 million. This includes both the MCWD and M1W Facilities. Both agencies have received State Revolving Fund Loans to cover a majority of the construction costs. The Fort Ord Reuse Authority has budgeted $37 million for the Regional Urban Water Augmentation Project. A portion of that funding was applied to this project.

7. Timeframes: The District began constructing recycled water pipelines in conjunction with road construction projects by other jurisdictions (Fort Ord Reuse Authority and CSU Monterey Bay) and private developers beginning in 2004. Construction of the transmission main and water tank was completed in 2018. Construction of the AWPF and injection wellfield was completed in 2019, with start-up in 2020. Construction of the distribution laterals to customers will occur in 2020.

8. Federal, State and Local Permits for Construction:

   - The project is subject to the California Environmental Quality Act (CEQA) and also the National Environmental Policy Act (NEPA) because the SVRP facility is partially funded by the U.S. Department of the Interior, Bureau of Reclamation. The CEQA EIR for the RUWAP Phase 1 Project with supporting NEPA studies has been completed. CEQA actions for a future RUWAP Phase 2 expansion have not been initiated.
   - The CEQA EIR for the Pure Water Monterey Project with supporting NEPA studies has been completed.
   - The project pump stations and pipelines are outside the Coastal Zone and therefore a Coastal Commission Permit is not required.
   - Encroachment permits and easements for pipeline construction have been coordinated with the City of Marina, the City of Seaside, CSU Monterey Bay, Monterey Peninsula Unified School District and the Presidio of Monterey (Ord Military Community).
   - A Monterey County Conditional Use Permit was obtained for the pipeline crossing agricultural land (Armstrong Ranch).
   - M1W has obtained a Water System Permit with the California State Water Resources Control Board, Division of Drinking Water for the advanced treated water system.
   - MCWD has obtained a Recycled Water System Permit with the California State Water Resources Control Board, Division of Drinking Water.

Appendix B: Desalination Project Details

In 2004-2005, the District prepared engineering studies for the Regional Urban Water Augmentation Project (RUWAP). This project was intended to develop 2,400 AFY of additional water supply for the Ord Community, to meet projected demands identified in the Fort Ord Base Reuse Plan. The RUWAP has two components, urban use of recycled water and a desalination facility. The final capacity of the two components may be adjusted during final design, but the total amount of new supply will be 2,400 AFY.

The Desalination Project was originally studied as a stand-alone facility, located at the former Fort Ord Wastewater Treatment Plant. In 2008, the District began working cooperatively with California American Water, which was planning a larger desalination facility to serve their Monterey Service Area (adjacent to the Ord Community). The two agencies jointly planned a Regional Desalination Facility to be located in North Marina adjacent to the MRWPCA Regional Wastewater Treatment Plant. This location facilitated the use of the existing wastewater outfall pipeline for brine disposal from the desalination plant. In 2011, the agreement between MCWD, American Water and Monterey County Water Resources Agency was terminated. MCWD is now pursuing a smaller desalination facility, as sized in the RUWAP EIR, located on the North Marina site.

The following details are provided as required per Water Code §10911.

1. Source of Supply: Seawater-intruded groundwater in the 180-foot aquifer of the Salinas Valley Groundwater Basin, Pressure Sub-Area. Source wells will capture seawater within the aquifer which is currently migrating inland.

2. Expected Supply Capability: 1,500 AFY (average annual yield). Of this total, 1,200 AFY would be for the Ord Community, and 300 AFY would replace the capacity of the District's existing pilot desalination plant, which would then be retired.

3. Project Facilities:
    - Source wells in the intruded portion of the 180-ft aquifer
    - A reverse-osmosis desalination plant located in North Marina,
    - Product water pipeline from the plant to the MCWD service area,
    - Brine disposal pipeline from the plant to the Monterey One Water effluent disposal pipeline (deep ocean outfall)
    - Water storage tanks within the MCWD service area
4. Historical Record:

- MCWD constructed a pilot desalination plant in Marina in 1996.
- MCWD prepared engineering studies for the Regional Urban Water Augmentation Project (RUWAP), which included a seawater desalination component.
- The District approved the CEQA EIR for the RUWAP in 2005, and amended the findings in 2006 and 2007 as detailed planning progressed.
- CAWC prepared engineering studies for the Coastal Water Project (CWP) in 2005-2008, which included a seawater desalination facility, and submitted a CEQA EIR to the California Public Utilities Commission in 2009.
- MCWD and CAWC worked cooperatively to develop a regional desalination facility as an alternative to two separate facilities, as reflected in the CWP EIR.
- The CPUC approved the CWP EIR in 2010.
- The Water Purchase Agreement was terminated by CAWC in September 2011.
- MCWD issued an RFQ for Design-Build Services for the Desalination Project in September 2012, but did not award a contract. The project was placed on hold to focus on the recycled water project

5. Written Contracts and Agreements:

   - MCWD entered into an agreement with the Fort Ord Reuse Authority in 2005 to develop the RUWAP water supplies.
   - MCWD entered into an option agreement with the Armstrong Family Trust in 1998 to purchase land for a future water facility. The District executed that option in 2010 for the Regional Desalination Facility site.
   - MCWD entered into an agreement with MRWPCA in 2009 for shared use of the effluent disposal pipeline.
   - MCWD, CAWC and MCWRA entered in the Water Purchase Agreement in 2010. This agreement established project responsibilities between the three agencies. This agreement was terminated by CAWC in September 2011.

6. Estimated Costs and Financing: The Regional Desalination Project is estimated to cost approximately $80 million. The District will pursue State and Federal grants for portions of the project cost. The Fort Ord Reuse Authority has budgeted $37 million for the Regional Urban Water Augmentation Project. A portion of that funding will be applied to this project.

7. Timeframe: Preliminary studies are complete. Assuming a traditional design-bid-build delivery model, it would take from 4 to 6 years to complete design, permitting and construction.

8. Federal, State and Local Permits for Construction:

   - The project is subject to the California Environmental Quality Act (CEQA) and also the National Environmental Policy Act (NEPA) because the facility may be partially funded by the U.S. Department of the Interior, Bureau of Reclamation. CEQA EIRs

with supporting NEPA studies for the RUWAP Desalination Project and for the Regional Desalination Project have been completed. The RUWAP EIR must be amended to reflect the new MCWD facility location and brine disposal method.

- A Coastal Development Permit from the California Coastal Commission may be required for some project facilities if brackish water source wells are located in the Coastal Zone.
- Encroachment permits for pipelines will be required from Monterey County, City of Marina, and possibly CALTRANS.
- MCWD must amend their Water System Permit with the California Department of Public Health to add the desalination facility as a new source of supply before the system can be placed into operation.
- A Regional Water Quality Control Board discharge permit (NPDES) for the desalination plant will be required.
- A Monterey County Building Permit will be required for the desalination plant
- A permit from the Monterey Bay Unified Air Pollution Control District will be required for the desalination facility
- Monterey County Environmental Health must approve permits for (1) construction of the groundwater wells, and (2) construction of the desalination facility

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Appendix D: Technical Memorandum

Schaaf & Wheeler
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MEMORANDUM

TO: Brian True, PE, MCWD
DATE: February 28, 2020
FROM: Andrew Sterbenz, PE
JOB#: MCWD.46.17:009
SUBJECT: Marina Airport Specific Plan – Baseline Water Demand for the Ord Community

The purpose of this memorandum is to summarize the baseline water demand for the City of Marina portion of the Ord Community. Groundwater supply within the Ord Community was allocated by the Fort Ord Reuse Authority (FORA) to the various land use jurisdictions, which then sub-allocate supply to projects. Within the City of Marina, certain sub-areas which were occupied during the initial allocation process were accounted for as "existing use". Much of that area was unmetered at the time, and use was estimated based on housing unit counts. Since then, all units have been metered and many have been retrofitted with water-conserving fixtures, so the baseline demand needs to be reviewed and updated.

The City of Marina is divided among three Ord Community Land Use Jurisdictions (City, CSUMB and UC). The City was allocated 1,325 AFY of groundwater supply from FORA. The Army later transferred 15 AFY to the City for the Veterans Transition Center expansion, for a total groundwater allocation of 1,340 AFY. FORA also allocated the Phase 1 recycled water yield of the Regional Urban Water Augmentation Project among the jurisdictions. The City of Marina was allocated 345 AFY of recycled water supply.

The City's sub-allocations of water supply within the Ord Community are shown in Table 1. Of those listed, Marina Heights, University Villages, MPC and the Veterans Center are partially built, Cypress Knolls has not been started, and all of the other projects are complete. Water use within the Marina-Ord Community was 400 AFY in 2019, or 30% of the allocated total.

Table 1: Water Sub-allocations in Marina-Ord Community

Suballocations To	Suballocation Amount (AFY)	Resolution No.	Date	Notes:
Existing use	233.1			Preston Park, Abrams Park, Airport, Veterans Housing, etc.
Marina Heights	292.4	2004-41	3/3/2004	renamed Sea Haven
University Villages	593.0	2005-129	5/31/2005	renamed Dunes on Monterey Bay
Cypress Knolls	156.1	2006-289	11/8/2006	
MPC - 12th St Campus	7.0	2007-xx	2/6/2007	
Imjin Office Park	0.0			IS-MND projected 11.76 AFY. No formal allcoation made
CHOMP Wellness Center	0.0			21 AFY, Subset of University Villages
Rock Rose Gardens	4.9	PC2011-07	6/9/2011	Planning commission, existing demand formalized as allocation
Promontory Apartments	33.3	2013-86	7/2/2013	
Veterans Transition Center	15.0	Agreement	1/5/2018	Army transferred supply for VTC in 2018
Total:	1334.8			

The District publishes a Ten-Year Annual Water Consumption Report, which provides water use data by jurisdiction and subdivision. The most recent report is for the period ending December 31, 2019. Values from the last five years for the Marina-Ord Community are provided in Table 2, below. The "built-out" areas are aggregated under "All Other Areas" and subtotaled below the table. The subtotal includes the Existing Use areas, Rockrose Gardens (a subarea within Abrams Park) and Promontory Apartments (a subarea within Marina). The maximum use within these areas was 184.9 AFY in 2018. Subtracting the previous allocations for Rockrose Gardens and Promontory, the Existing Use allocation may be revised down to 146.7 AFY.

The difference of 86.4 AFY may be considered available for the City to reallocate other projects. Adding the 5.2 AFY of currently unallocated supply (remainder after subtracting Table 1 from 1,340 AFY), the City's unallocated total becomes 91.6 AFY.

Table 2. Water Use within Marina-Ord Community, 2015-2019 (AFY)

Subdivision	2015	2016	2017	2018	2019
Marina Heights (renamed Sea Haven)					
SeaHaven	7.34	10.02	23.37	37.67	61.92
University Villages (renamed Dunes on Monterey Bay)					
Dunes CHOMP	8.58	6.77	5.41	6.88	6.42
Dunes Comm	12.71	14.06	30.12	32.89	30.66
Dunes on MB Res	4.69	24.69	45.20	64.16	64.39
Dunes UV Apts	33.97	20.23	23.56	23.86	23.85
Dunes UVSpecPlan	1.98	2.45	3.24	2.25	1.34
Dunes VA DOD		0.09	5.42	2.08	2.61
MPC 12th Street Campus					
School	4.54	1.93	1.95	2.27	2.72
Construction (Hydrant Meter Use)					
MarinaConstruction	25.33	39.64	42.83	25.28	35.63
All Other Areas					
Abrams HAuthor	8.39	9.43	10.77	12.02	5.90
Abrams Interim	3.89	3.75	4.12	4.56	3.43
Abrams Park	44.20	39.54	50.92	54.50	52.45
Imjin Office Park	2.03	4.89	4.61	2.47	7.93
Marina	16.99	31.61	31.54	36.65	36.42
MarinaAirport	2.30	2.03	2.77	7.50	3.45
MarinaRecreation	-	-	0.05	-	-
Preston Park	51.93	51.63	56.31	61.31	55.97
Preston Shelter	5.43	6.63	5.83	5.92	5.06
Total FOMarina	**234.28**	**269.40**	**348.02**	**382.28**	**400.15**
Subtotal, All Other Areas	135.16	149.51	166.92	184.93	170.61

References:

1. Marina Coast Water District, 2015 Urban Water Management Plan, prepared by Schaaf & Wheeler, 2016

2. Marina Coast Water District, 10-Year Annual Consumption Report, Period Ending December 31, 2019

3. Water Transfer Agreements among the U.S. Army, City of Marina and Fort Ord Reuse Authority (15 AFY for Veterans Transition center), January 2018.

Appendix E: Board Resolution Approving the Water Supply Assessment

Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan

LSA

June 2020

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SPECIFIC PLAN

MARINA MUNICIPAL AIRPORT BUSINESS AND INDUSTRIAL PARK/UC MBEST CENTER

CITY OF MARINA, CALIFORNIA

UNIVERSITY OF CALIFORNIA

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June 2020

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EXECUTIVE SUMMARY

This Specific Plan provides a framework for development of the Marina Municipal Airport Business and Industrial Park/University of California Monterey Bay Education Science and Technology (UC MBEST) Center Specific Plan (Specific Plan) area. This Specific Plan provides project guidance for the review of specific development proposals at the parcel map and site plan approval stages, and is the reference for determining permitted uses, intensity of use, and development standards and requirements. This Specific Plan contains five chapters and seven appendices and is organized as follows:

- **Chapter 1.0, Introduction:** Chapter 1.0 of this Specific Plan provides the purpose of the Specific Plan as well as project goals and objectives; the authority and scope, project location, and surrounding land uses; conformance with applicable plans and zoning codes; and project background and history.
- **Chapter 2.0, Land Use:** Chapter 2.0 of this Specific Plan includes the overall concept of land uses proposed within the Specific Plan area; a description of each permitted land use, along with general development standards; regulations for the distribution of land use within the Specific Plan area; and standards for individual site development within the Specific Plan area. Also included in Chapter 2.0 is a set of design guidelines that provide the architectural and landscaping guidelines, signs and lighting standards, standards for walls and fences, and sustainability guidelines for each of the land use designations.
- **Chapter 3.0, Circulation and Mobility Concept:** Chapter 3.0 of this Specific Plan describes the circulation and transportation concepts and major components, including vehicular, public transportation, and pedestrian and bicycle facilities.
- **Chapter 4.0, Public Services, Utilities, and Community Facilities:** Chapter 4.0 of the Specific Plan provides plans for water, sewer, and storm water facilities; public utilities; and community facilities. This chapter identifies how the public services will be provided and who will provide them. In addition, this chapter outlines standards for flood control and the prevention of water pollution.
- **Chapter 5.0, Administration:** Chapter 5.0 of this Specific Plan describes the manner in which the Specific Plan will be implemented, including the processing of individual developments and procedures for amending the Specific Plan. It also provides information on the manner in which construction and maintenance of shared infrastructure will be financed.
- **Appendices:**
    - **Appendix A:** Specific Plan Development and Land Use Application Form
    - **Appendix B:** Long-Term Lease Application for City-Owned Airport Land
    - **Appendix C:** Land Purchase Process for UC-Owned Off-Airport Land
    - **Appendix D:** Long-Term Lease Process for UC-Owned Off-Airport Land
    - **Appendix E:** LEED v4 for Building Design and Construction
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D: LONG-TERM LEASE PROCESS FOR UC-OWNED OFF-AIRPORT LAND

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LIST OF ABBREVIATIONS AND ACRONYMS

AB	Assembly Bill
ACRP	Airport Cooperative Research Program
ADA	Americans with Disabilities Act
afy	acre-feet per year
Airport	Marina Municipal Airport
ALUC	Airport Land Use Commission
BOD	Board of Directors
Caltrans	California Department of Transportation
CASP	California Aviation System Plan
CBC	California Building Code
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
City	City of Marina
CLUP	Comprehensive Land Use Plan
Corridor Conceptual Plan	*Marina-Salinas Multimodal Corridor Conceptual Plan*
County	Monterey County
CSUMB	California State University, Monterey Bay
DBH	diameter at breast height
DU	dwelling unit
EA	Environmental Assessment
EA/EIR	Environmental Assessment/Environmental Impact Report
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
FAA	Federal Aviation Administration
FAR	floor-to-area ratio
FORA	Fort Ord Reuse Authority
gpd	gallons per day
IPM	integrated pest management
kV	Kilovolt

LED	light-emitting diode
LEED	Leadership in Energy and Environmental Design
MCWD	Marina Coast Water District
mph	miles per hour
MRWPCA	Monterey Regional Water Pollution Control Agency
MST	Monterey-Salinas Transit
NAVD 88	North American Vertical Datum of 1988
NPIAS	National Plan of Integrated Airport Systems
OFZ	object free zone
Overlay Area	Campus Core Overlay Area
PG&E	Pacific Gas and Electric Company
psi	pounds per square inch
ROFA	runway object free area
RPZ	runway protection zone
RUDGs	Regional Urban Design Guidelines
SB	Senate Bill
Specific Plan	Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan
SR-1	State Route 1
SR-68	State Route 68
TAMC	Transportation Agency for Monterey County
UC	University of California
UC MBEST	University of California Monterey Bay Education Science and Technology
US-101	United States Route 101
VMT	vehicle miles traveled
WSA	Water Supply Assessment and Written Verification of Supply

1.0 INTRODUCTION

1.1 PURPOSE

The Marina Municipal Airport Business and Industrial Park/University of California Monterey Bay Education Science and Technology (UC MBEST) Center Specific Plan (Specific Plan) represents a collaborative effort between the City of Marina (City) and the University of California (UC) to create an integrated development and implementation plan for the lands on and directly adjacent to the southern portion of the Marina Municipal Airport (Airport). The Specific Plan will guide the development of these lands in a way that encourages the creation of a cohesive collection of buildings and activities reflective of: (a) the City's General Plan goals and policies; (b) UC's mission and values; (c) the unique land use types and standards for property next to a General Aviation Airport, (d) the prospect of generating revenue to support the viability of the Airport; and (e) the potential for economic development and employment growth that takes advantage of research, manufacturing, and aviation activities.

When the former Fort Ord was closed, the Fritzsche Army Airfield site lands were divided between the City and UC for a municipal airport and for developing a technology center, respectively. Each entity proceeded with separate, yet roughly parallel planning strategies that have converged in this Specific Plan. Through this joint planning effort, the Specific Plan will realize the shared vision of expanding a general aviation facility and business park complemented by an adjoining university-related research and development business park. The Specific Plan will stimulate and sustain a synergistic relationship between the City and the UC MBEST Center; promote collaborative interaction and strategic alliances among research and educational institutions, private aviation, and non-aviation businesses; provide shared infrastructure; and enhance development and employment opportunities on both the City-owned portion of the Specific Plan area and the UC MBEST Central North Campus.

Moreover, the Specific Plan will prescribe and adopt policies and standards that provide for a mix of industrial, manufacturing, research, and commercial land uses. Those land uses would include both aviation and non-aviation-related uses, all of which would be compatible with existing and future Airport operations.

1.2 GOALS AND OBJECTIVES

The following objectives provide the framework on which the Specific Plan is based and address the Specific Plan's function, market responsiveness, environmental sensitivity, and identifying image:

- Create an attractive image for the entire Airport/UC MBEST Center area that will attract desired uses and enhance the 85037226 area's economic viability and employment opportunities.
- Provide details regarding the location, mix, and intensity of land uses and the development standards that will guide the physical planning and design of lands within the Specific Plan area.

- Provide a cohesive pattern of land uses within the Specific Plan area that are compatible with the existing and future Airport operations.
- Develop a flexible plan that may accommodate a fluctuating business market while assuring compliance with high development standards.
- Provide a plan for roadways, infrastructure, and utilities to support on-site land uses.
- Take advantage of its location in pursuing the long-term goal and feasibility of public transit.
- Provide a plan that can accommodate the continued growth of aviation while minimizing Airport-related environmental and safety hazards.
- Provide for a balanced mix of uses that complement each other, supported by common transportation and infrastructure systems, and a general set of design guidelines.
- Provide for a clear development submittal, review, and approval process.
- Provide a clear process for prospective developers to enter into a long-term lease for approved uses on City-owned Airport land.
- Provide a clear process for prospective developers to purchase or enter into a long-term lease for approved uses on UC-owned off-Airport land.
- Establish a framework to maximize land use compatibility and shared infrastructure resources on UC and City lands.

1.3 AUTHORITY AND SCOPE

California law authorizes cities and counties to adopt Specific Plans in designated areas to implement their General Plans. This Specific Plan has been prepared in accordance with California Government Code Sections 65450 et seq. and the applicable ordinances of the City of Marina, will be consistent with the City's General Plan land use designations, and will establish the zoning districts for the Specific Plan area. Land use standards and regulations contained in this document shall govern future development within the boundaries of this Specific Plan. The establishment of specific performance, design, and land use guidelines will direct future development within the Specific Plan area while maintaining a high degree of development flexibility. The Specific Plan will ensure consistent and sensitive land usage, landscape design, lighting, signs, and architectural treatment, as well as adequate and efficient provision of public services over the life of the development plan.

The Specific Plan is intended to implement the polices outlined in the City of Marina General Plan, the Marina Municipal Airport Master Plan Update, the Draft Marina Municipal Airport Comprehensive Land Use Plan, the Fort Ord Base Reuse Plan, and the UC MBEST Center Master Plan. In addition, the Specific Plan establishes site development standards that replace the development regulations of Chapter 17 of the City Municipal Code for the Specific Plan project area. In the event of conflict between the provisions of this document and the City Municipal Code or other City development regulations, the provisions of the Specific Plan shall take precedence. Any issue not directly or specifically covered by this Specific Plan shall be subject to the on-conflicting regulations and procedures in the City of Marina Municipal Code.

1.4 LOCATION AND LOCAL LAND USES

The Specific Plan area is approximately 150 acres. The Specific Plan area is part of the former Fritzsche Army Airfield site that was divided between lands deeded to the City and to UC. Approximately 75 acres of the Specific Plan area is owned by the City and is referred to as the Marina Municipal Airport Business and Industrial Park, while another approximately 75 acres is owned by UC and is referred to as the UC MBEST Central North Campus. The City-owned portion of the Specific Plan area is within the southeastern portion of the Marina Municipal Airport, while the UC MBEST Central North Campus is adjacent to the southern boundary of the Airport. The Specific Plan area is bounded on the north and west by the Airport and its associated uses, on the east by West Blanco Road, on the south by Reservation Road, and on the west by Imjin Road (refer to Figures 1.4-1, 1.4-2, and 1.4-3).

The general land uses immediately surrounding the Specific Plan area include a mix of aeronautical, public facility, commercial, and undeveloped land uses. Many of the properties in the general vicinity are undeveloped. Farther north and across the Salinas River is agricultural land, to the west is undeveloped UC land and habitat preserve land, to the east is undeveloped UC land, and to the south is undeveloped UC land, habitat preserve land, and former military dwelling units used now for faculty and student housing (refer to Figure 1.4-4).

1.4.1 City Land

The City-owned land in the Specific Plan area is largely undeveloped, with the exception of one-half of the Research Drive right-of-way improvements and various paved areas associated with Airport taxiway and tarmac areas. In addition, an unimproved road that provides access to Airport facilities (e.g., radar) and agricultural land north of the Specific Plan area parallels the eastern border of the City-owned Business Park-designated land before intersecting West Blanco Road.

1.4.2 UC MBEST Central North Campus

A small portion of the northwest corner of the UC MBEST Central North Campus is developed with the UC MBEST Center Headquarters complex (refer to Figure 1.4-3). The UC MBEST Central North Campus also includes roads that provide circulation and connectivity through the Specific Plan area. These roads (including University Drive, which traverses the UC MBEST Center property from Imjin Road to the west and terminates at Research Drive to the east; Research Drive, which extends along the boundary between City- and UC-owned lands to West Blanco Road; and MBEST Drive, which provides a link between Reservation Road to the south and University Drive) were developed as the initial part of a larger planned road network.

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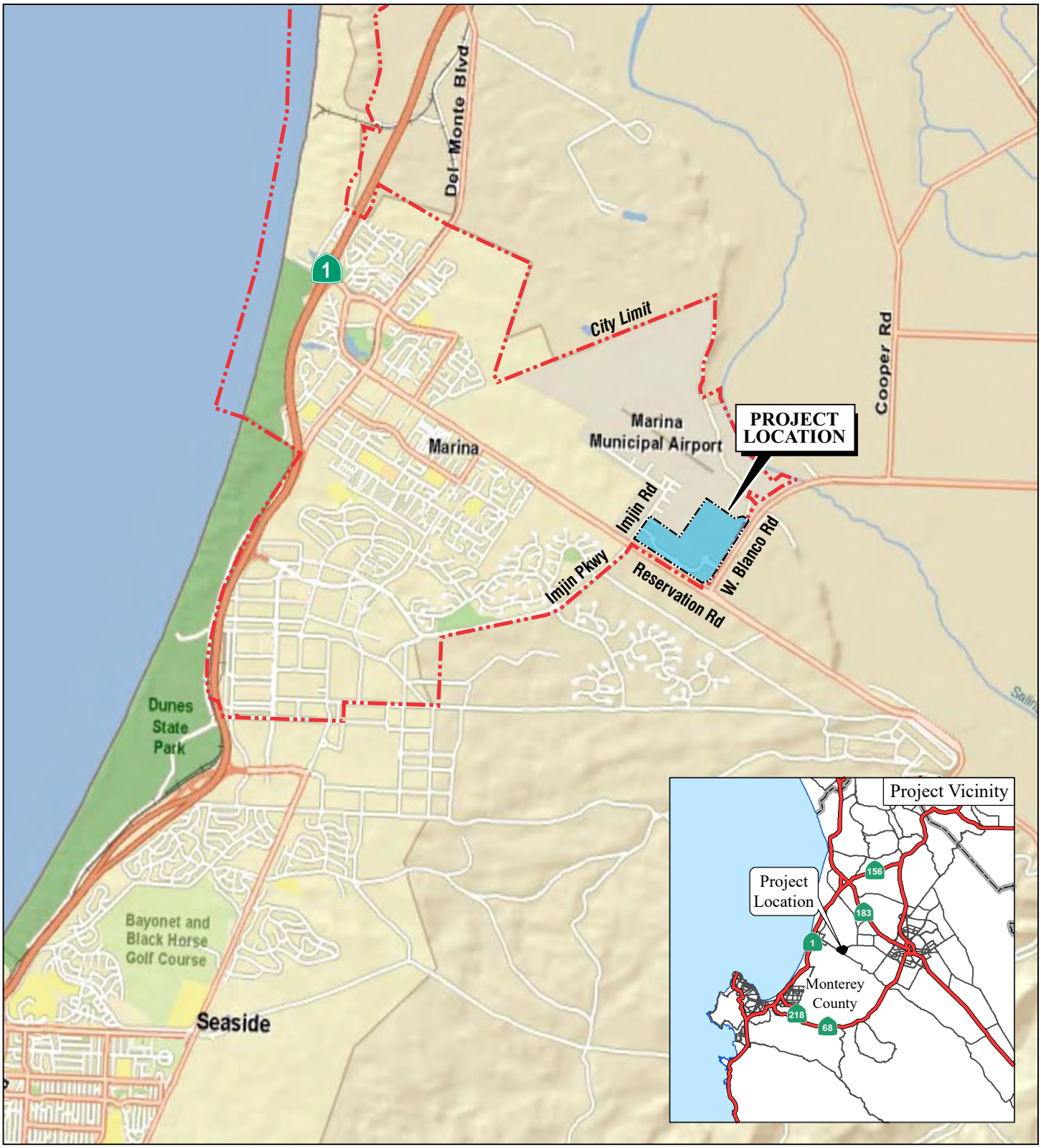

LSA

LEGEND

- City Limit
- Specific Plan Area

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MILE

SOURCE: ESRI

FIGURE 1.4-1

Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan

Project Location

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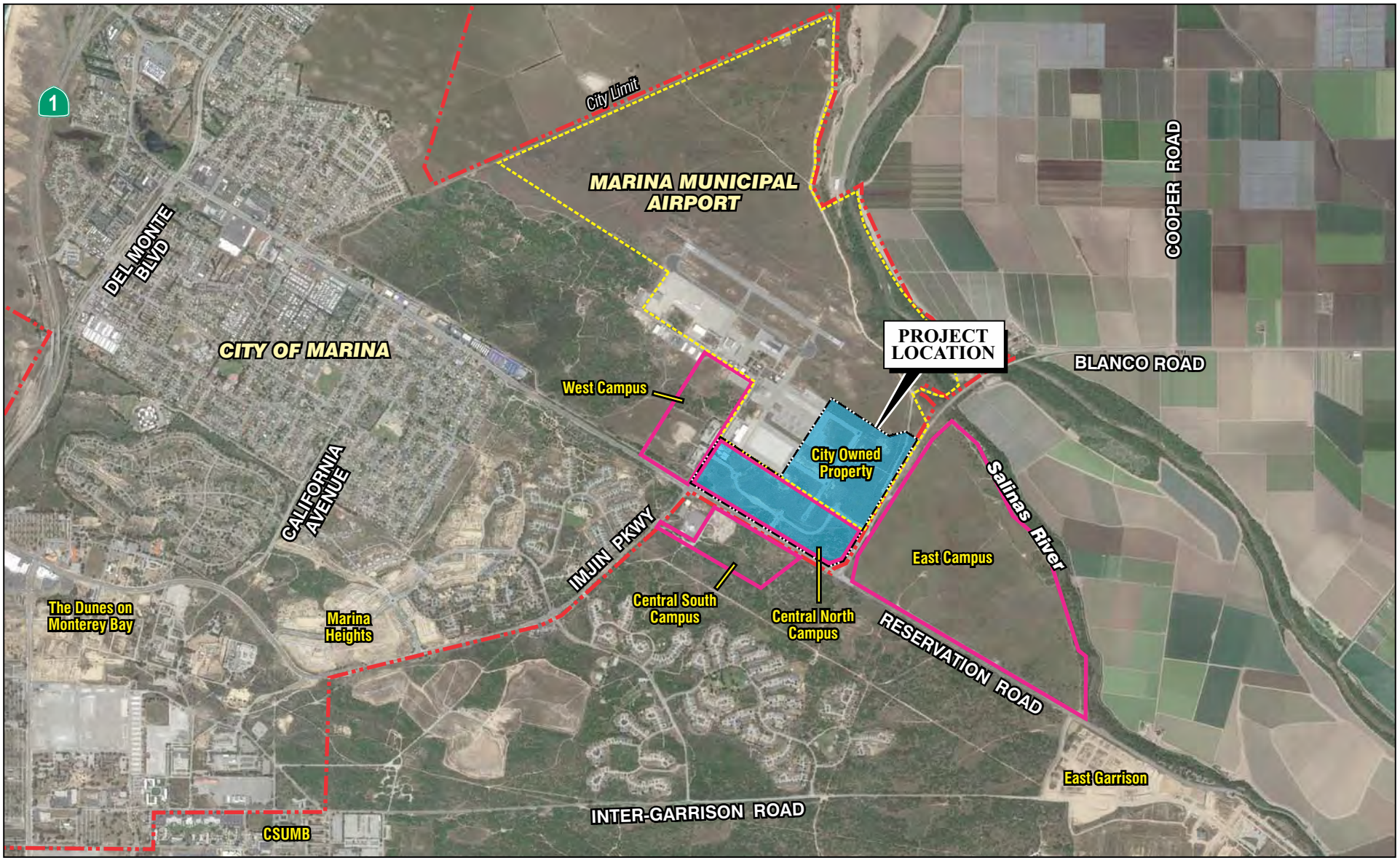

LSA

N

0 .75 1.5
MILES

LEGEND

- Marina City Limit
- Specific Plan Area
- Marina Municipal Airport
- UC MBEST Campus Locations

SOURCE: Google Earth

FIGURE 1.4-2

Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan

Project Plan Area

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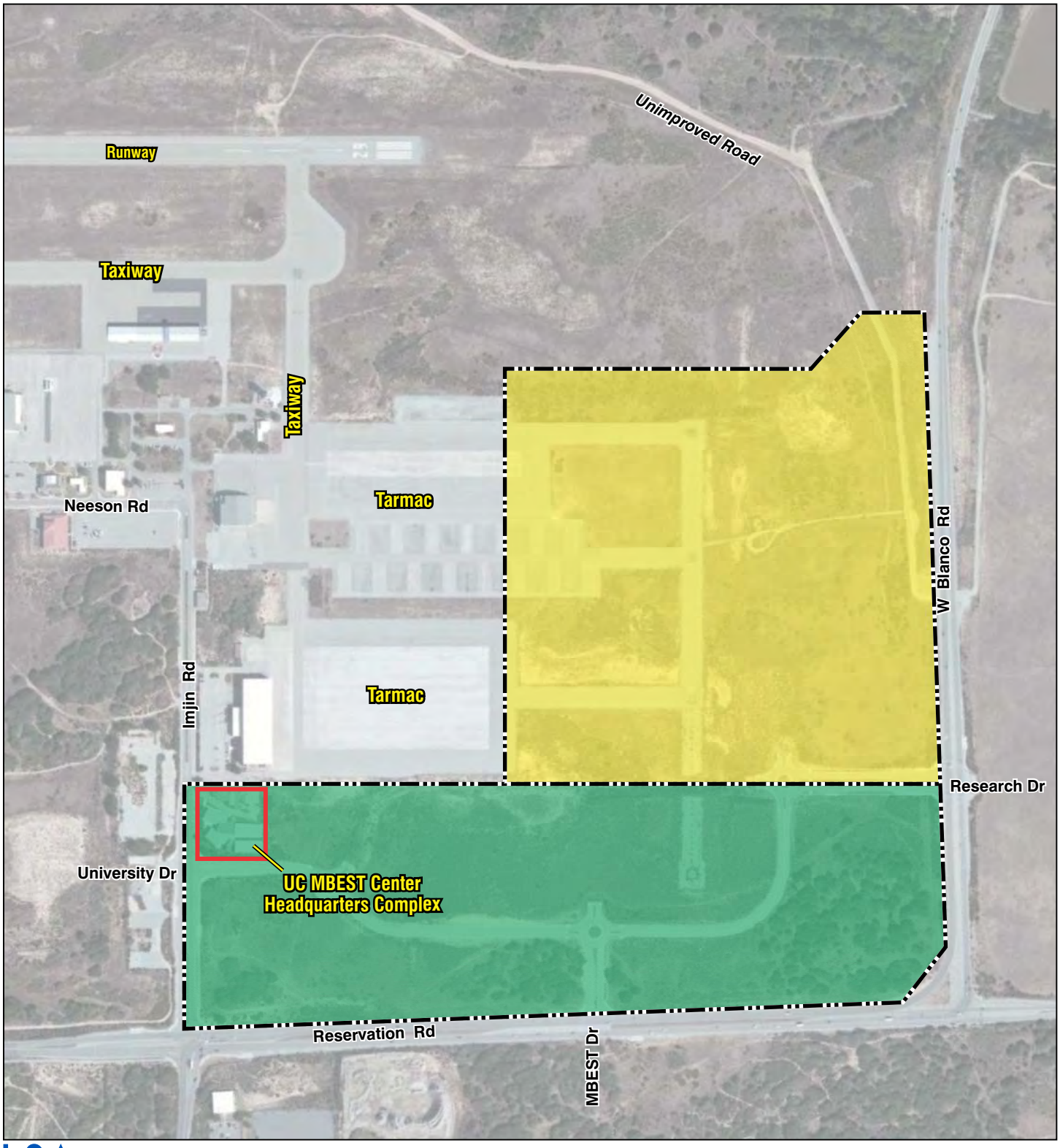

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SOURCE: Google Earth

LEGEND

- City Owned *
- UC Owned *

* Property ownership as of 2016

FIGURE 1.4-3

Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan

City Owned/UC Owned Properties

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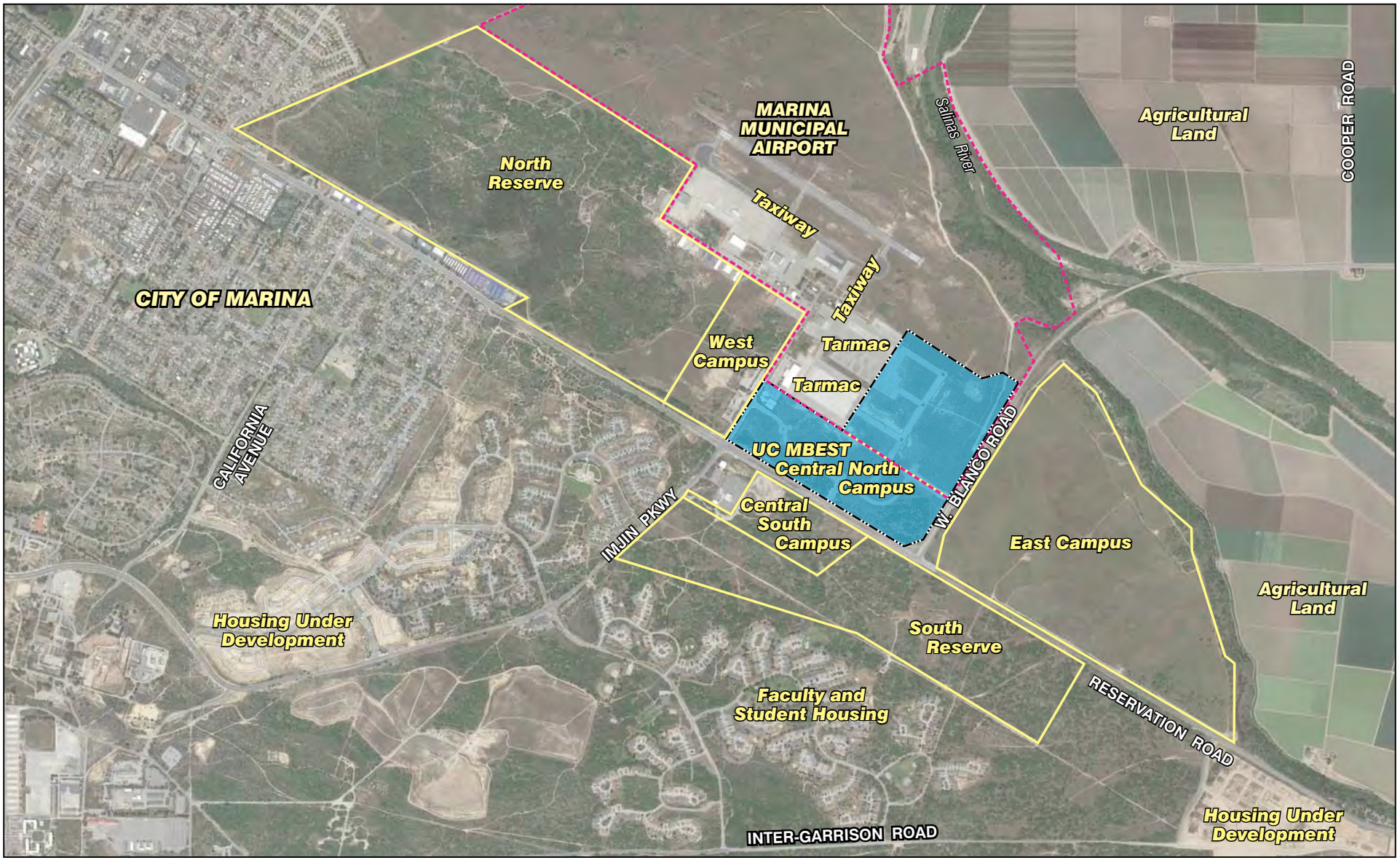

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LEGEND

- Specific Plan Area
- Marina Municipal Airport
- UC MBEST Campus Locations

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SOURCE: Google Earth

FIGURE 1.4-4

Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan

Existing and Surrounding Land Uses

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1.5 BACKGROUND

The Fritzsche Army Airfield was completed in the early 1960s as part of the Fort Ord Military Reservation complex of lands and uses. It was located in the northern portion of the Fort Ord Military Reservation, on the north side of Reservation Road. The primary land use was military/ industrial support operations. In 1991, as part of the Defense Base Realignment and Closure Act, the Fritzsche Army Airfield was closed along with the rest of the Fort Ord Military Reservation lands, and a process was initiated to reuse the 44-square-mile, 28,000-acre military reservation. The Fritzsche Army Airfield was transferred to the City of Marina, converted into a general aviation facility, and renamed Marina Municipal Airport.

The Marina Municipal Airport is classified as a General Aviation Airport in the National Plan of Integrated Airport Systems (NPIAS) and as a Community General Aviation Airport in the California Aviation System Plan (CASP). Community airports provide access to other regions and states. They are typically located near small communities or in remote locations. Community General Aviation Airports predominantly provide service for single-engine aircraft with a maximum weight of 12,500 pounds and accommodate basic services for pilots and aircraft.

At 3,483 feet in length, the runway currently presents limits to the type of aircraft that can safely operate at the Airport. According to the Federal Aviation Administration (FAA), airport designs based only on existing aircraft can severely limit the ability to expand the airport to meet future requirements for larger, more demanding aircraft.[1] In 2013, a Runway Extension Justification Study was prepared for the Airport, and the City is in the process of seeking approval from the FAA to extend the runway first to 5,000 feet and then ultimately to 5,800 feet.[2] The Airport will have a wider appeal to a broader range of general aviation operators once the runway is extended.

The UC MBEST Center also emerged out of the Fort Ord Military Reservation closure process. When the Fort Ord Military Reservation closed, UC acquired 1,089 acres, more than half of which is part of the UC Natural Reserve System. The remaining approximately 480 acres are planned to support a range of endeavors, including the UC MBEST Center, an innovative multi-partner research and development through public and private partnerships. In 1997, the UC Regents approved a Master Plan for the UC MBEST Center, which is to be operated by UC. The UC MBEST Center Master Plan defines four campuses located adjacent to the Airport: the West Campus, the Central North Campus, the Central South Campus, and the East Campus. The Master Plan provides a general design concept that includes roadways, land uses, and conceptual parcelization. The UC MBEST Central North Campus portion is included within this Specific Plan.

1 FAA Advisory Circular 150/5300-13A, Aircraft Design.

2 The possible need for a 5,000-foot runway is supported by the minimum runway length requirements of a converted A-10 jet planned to be based at the Airport. The ultimate extension to 5,800 feet is based on the needs of business jets under heavy loading conditions.

1.5.1 Supporting Actions and Documentation

The following documents and actions represent the sequence of land use decisions leading to the adoption of this Specific Plan. As a part of this sequence, the Specific Plan is designed to reflect the goals established in the City's General Plan, the UC MBEST Center Master Plan, the Marina Municipal Airport Master Plan, the Draft Marina Municipal Airport Comprehensive Land Use Plan, and the Fort Ord Base Reuse Plan, all of which provide a framework for future development of the Specific Plan area.

1.5.1.1 SB 899/Fort Ord Initial Base Reuse Plan

The Fort Ord Initial Base Reuse Plan was adopted on March 19, 1993, by the Fort Ord Reuse Group in a cooperative planning effort that included the participation of six local governments, UC, the California State University, and numerous other interests at the federal, State, regional, and local levels. The formal Fort Ord Reuse Group members included Monterey County (County) and the Cities of Marina, Seaside, Del Rey Oaks, Monterey, and Sand City. UC and California State University, among others, also participated actively in Fort Ord Reuse Group planning and related reuse efforts. Following completion of the Fort Ord Initial Base Reuse Plan, the State of California passed Senate Bill (SB) 899 to create and define the roles of a new regional planning entity, the Fort Ord Reuse Authority (FORA), as the Local Reuse Authority.

SB 899 authorized Monterey County local agencies to establish the FORA to "prepare, adopt, finance, and implement a plan for the future use and development of the territory occupied by the Fort Ord military base in Monterey County."[1] SB 899 authorized the acquisition and disposition of real property and facilities within the Fort Ord territory, including the identification and implementation of environmental mitigation measures.

1.5.1.2 Marina Municipal Airport Master Plan and EA/EIR (June 1995)

The City of Marina, the United States Department of Transportation, and the FAA prepared the Draft and *Final Environmental Assessment/Environmental Impact Report* (EA/EIR) in June 1995.[2] Specifically, this action followed the 1993 Environmental Impact Statement (EIS) prepared for the disposition and use of Fort Ord. Although a specific base reuse plan was not adopted at this time, this EA/EIR was prepared in support of a series of interrelated decisions regarding potential civilian reuse by the United States Army that may or may not have environmental impacts.

One of these decisions included the consideration of conveying approximately 845.5 acres to the City of Marina for public airport use. A second decision involved the use of former Fort Ord

1 SB 899 Legislative Counsel's Digest. Website: http://www.leginfo.ca.gov//pub/93-94/bill/sen/sb_0851-0900/899_bill_940509_chaptered, accessed February 10, 2016.

2 City of Marina, United States Department of Transportation, and Federal Aviation Administration. June 1995. *Final Environmental Assessment/Environmental Impact Report, Marina Municipal Airport*, p. 2-2. Prepared by P&D Consultants, Inc.

property by UC for a "multi-institutional center for science, technology, education and policy center to be built on approximately 970 acres."[1]

1.5.1.3 Quitclaim Deed for Surplus Airport Property (August 1995)

The City and the FAA (as the Administrator for the United States Government addressing surplus property) recorded a quitclaim deed for the City-owned portion of the Specific Plan site as part of a larger parcel (approximately 835 acres) in September 1995. In addition to generally describing the area and characteristics thereof, the deed established conditions that run with the land. Specifically, Paragraph C of this quitclaim deed states that property in question can be developed[2] in such a fashion that will not adversely affect the operations of the Airport. This quitclaim deed is incorporated into this Specific Plan by reference.

UC and the United States government recorded a quitclaim deed for the UC-owned portion of the Specific Plan site as part of a larger parcel (approximate 1,100 acres) in September 1994. In addition to generally describing the area and characteristics thereof, the deed established conditions that run with the land. While the deed does not require FAA approval for any land use, it does include a provision that a no hazard to air navigation be issued by the FAA.[3]

UC and the City recorded a grant of avigation easement for the UC-owned portion of the Specific Plan site in August 2003. This establishes a perpetual and assignable easement over the UC MBEST Central North Campus for aviation purposes.[4] The easement applies solely to the airspace above an imaginary plane over the property, as defined by Section 77.25 of Part 77 of the Federal Aviation Regulations.

1.5.1.4 UC MBEST Center Master Plan (1996)

The UC MBEST Center Master Plan was created to guide development of the property in a way that reflects the UC mission, values, and objectives. Because the UC MBEST Center lands and the

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1 City of Marina, United States Department of Transportation, and Federal Aviation Administration. June 1995. *Final Environmental Assessment/Environmental Impact Report, Marina Municipal Airport*, p. 2-2. Prepared by P&D Consultants, Inc.

2 Paragraph C states that the property cannot be "used, leased, sold, hypothecated, salvaged, or disposed" by the City for "other than airport purposes without the written consent of the Administrator." Such consent will be granted by the Administrator if any use other than for airport purposes will not "materially and adversely" affect "the development, improvement, operation, or maintenance of the airport." The Administrator is defined as the FAA.

3 Under the "Notice of proximity of Airport" provision, the deed states, "The Monterey Airport and Fritzsche Army Airfield are in close proximity to the subject property. Accordingly, in coordination with the FAA, the Grantee covenants and agrees, on behalf of it, its successors and assigns and every successor in interest to the property herein described, or any part thereof, that there will be no construction or alteration unless a determination of no hazard to air navigation is issued by the FAA in accordance with Title 14, Code of Federal Regulations, Part 77, entitled, 'Objects Affecting Navigable Airspace', or under the authority of the Federal Aviation Act of 1958, as amended."

4 The easement includes, for the use and benefit of the public, the continuing right to fly, or cause or permit the flight by, any and all persons, or any aircraft of any and all kind(s) now or hereafter known, in, through, across, or above any portion of the "airspace."

Marina Airport Business Park lands are adjacent to one another, the Master Plan also includes a recommended development pattern for the Marina Airport Business Park. The Master Plan was not intended to reflect adopted policies of the City of Marina, only to illustrate a pattern on City-owned land that would be compatible with the UC MBEST Center. In this regard, the Specific Plan will ensure that development of the Specific Plan lands is consistent with the General Plan of the City of Marina.

1.5.1.5 Fort Ord Final Base Reuse Plan (1997)

FORA adopted the Fort Ord Final Base Reuse Plan on June 13, 1997. In accordance with the requirements of Government Code Section 67675 et seq., each county or city within the territory occupied by Fort Ord was required to submit to FORA its general plan or amended general plan and zoning ordinances that satisfy the requirements of said statutes. On October 31, 2000, the Marina City Council approved an amendment to the City's General Plan that provided land use designations and adopted policies and programs for all the territory of the City within the jurisdiction of FORA (Resolution 2000-95). At that time, the City made findings that the amendments were (1) consistent with the Fort Ord Final Base Reuse Plan, (2) consistent with FORA's plans and policies, and (3) otherwise consistent with the Fort Ord Reuse Authority Act. The Executive Officer of FORA reviewed the amendments with the Working Group and Administrative Committee of FORA. On May 22, 2001, the FORA Board of Directors made findings that (1) the City followed the procedures and fulfilled the requirements of the implementation process and procedures of the Fort Ord Base Reuse Plan; (2) the City had met the requirements of Government Code Section 67675 et seq.; and (3) the City had provided substantial evidence that the amendments were consistent with the Fort Ord Base Reuse Plan (FORA Resolution 01-5).

Originally, all legislative actions relating to land development within the former Fort Ord were to be reviewed by FORA for consistency with the Fort Ord Base Reuse Plan following land use jurisdictions approval of the legislative action and the FORA Master Resolution. FORA will officially dissolve on June 30, 2020; therefore, this portion of the review process will not occur. However, the Specific Plan's permitted uses, policies, standards, and guidelines are consistent with the Final Base Reuse Plan.

1.5.1.6 Airport Ordinances and Specific Plan/Design Guidelines

On August 1, 2000, the Marina City Council adopted the Guide for Development, City of Marina Municipal Airport and Business Park. Essentially, this Guide provided: (a) a Conceptual Design Plan, (b) a Set of Conceptual Development Standards and Zone of Interest, and (c) a Set of Conceptual Site and Building Design Guidelines. On August 15, 2000, the Marina City Council approved Ordinance No. 2000-6, introducing the new zoning districts A-1 (Aviation Related Zone) and A-2 and A-3 (both of which are non-Aviation Related Zones), codifying these districts as Chapter 17.28 of the City's Municipal Code. On May 20, 2003, the Marina City Council approved Ordinance No. 2003-06, which amended Chapter 17.28 of the City's Municipal Code by amending the City's Zoning Map to indicate new boundaries for the A-1, A-2, and A-3 Zoning Districts.

1.5.1.7 City of Marina General Plan and EIR

The City of Marina General Plan, adopted October 31, 2000, and updated with amendments through August 4, 2010, identifies two planning sub-areas that in part make up the Specific Plan area. A portion of the UC MBEST Center Sub-Area (of which the UC MBEST Central North Campus is part) comprises the UC MBEST component, and the southeastern portion of the Marina Municipal Airport/Business Park Sub-Area corresponds to the City-owned land.

On May 22, 2001, the FORA adopted Resolution No. 01-05, including findings that the City followed the procedures and fulfilled the requirements of the Implementation Process and Procedures of the Fort Ord Base Reuse Plan and the FORA Master Resolution, thereby meeting the requirements of Government Code Section 67675 et seq. In addition, the City provided the required substantial evidence showing that the General Plan Amendments were consistent with the Fort Ord Base Reuse Plan, as well as that the City of Marina's Amendments to its General Plan (as contained in Resolution No. 2000-95) will, considering all their aspects, further the objectives and policies of the Final Base Reuse Plan. This resolution was approved and certified as meeting the requirements of Title 7.85 of the Government Code and are consistent with the Fort Ord Base Reuse Plan.

1.5.1.8 Draft Marina Municipal Airport Comprehensive Land Use Plan (2006)

The purpose of the Draft Marina Municipal Airport Comprehensive Land Use Plan (CLUP) is to provide for the orderly development of the new land uses surrounding public use airports while simultaneously protecting the health, safety, and welfare of persons who live and work around the Airport. Toward that goal, the CLUP adopted a comprehensive set of policies designed to ensure that proposed development surrounding the Airport will neither impact nor be impacted by operation of the Airport. The CLUP identified specific areas surrounding the Airport for large-scale development. The areas identified include those lands included in the Specific Plan area. Anticipated uses to the east of the Airport (City-owned property) include "Non-Aviation Revenue Producing" (e.g., commercial, industrial, and corporate aviation uses). Anticipated uses to the south of the Airport (UC-owned property) are envisioned to be a multi-institutional center for science, technology, education, and policy.

The development that is planned for the Specific Plan area is consistent with the land use expectations of the Draft Marina Municipal Airport CLUP.

1.5.1.9 Marina Municipal Airport Master Plan Update (2008)

The purpose of the Marina Municipal Airport Master Plan Update was to determine the type and extent of aviation facilities needed at the Airport through 2025 and to prepare a plan that would accommodate the required development. The Marina Municipal Airport Master Plan Update envisioned that the lands surrounding the main Airport facilities (e.g., taxiway, tarmac areas) would be developed as a business park to complement the existing and future Airport uses.

The development planned for the Specific Plan is consistent with the development envisioned within the Marina Municipal Airport Master Plan Update (refer to Figure 1.5-1).

1.5.1.10 FORA Regional Urban Design Guidelines (2016)

In June 2016, FORA adopted Regional Urban Design Guidelines (RUDGs) that establish standards for road design, setbacks, building height, landscaping, signage, and other matters of visual importance. The RUDGs provide jurisdictions, developers, and the public guidance on matters of visual importance to former Fort Ord reuse.

The development planned for the Specific Plan is consistent with the FORA RUDGs.

Specific Plan Site Boundary

Airport Planning Area Boundary

Planning Area Boundary

Urban Growth Boundary

Roads

Parks and Open Space

- Habitat Reserve & Other Open Space
- Parks & Recreation
- Agriculture
- Golf Course

Residential

- Single Family Residential (average density 5 dwelling units/acre)
- Marina Heights Residential (average density 5.5 to 6.5 dwelling units per acre)
- Village Homes (average density 8 dwelling units/acre)
- Multi-family Residential (15-35 dwelling units/acre)

Commercial

- Multiple Use
- Office/Research
- Retail/Service
- Visitor-Serving

Industrial

- Light Industrial/ Service Commercial

Public Facilities

- E Education
- E(P) Education (Proposed)
- C Civic
- O Other Public Facilities

N

0 0.5 1

MILES

LSA

FIGURE 1.5-1

Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan

General Plan Land Use and Airport Planning Area

SOURCE: City of Marina General Plan

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1.6 POLICY AND REGULATORY CONTEXT

The Specific Plan is consistent with, and serves to implement, the City's General Plan and the UC MBEST Center Master Plan. The policies and standards in the Specific Plan will take precedence over more general policies and standards during the review of development projects within the Specific Plan area. In situations where policies or standards relating to a particular aspect of development have not been provided in the Specific Plan, the existing standards of the City's Zoning Ordinance will apply. Once the Specific Plan is adopted by the City Council and the UC, all other necessary amendments to the General Plan and zoning ordinance will need to be made to ensure consistency among all of these documents.

1.6.1 City of Marina General Plan

Germane City of Marina General Plan policies include the following:

Compatible Land Uses

Policy 2.4.15. *The City shall protect the Marina Municipal Airport and related aviation facilities from encroachment by potentially incompatible land uses, and shall promote the development of an Airport facility that can accommodate the future growth of aviation and air commerce while minimizing airport-related environmental and safety hazards. The City shall utilize the Airport Influence Area (AIA) or "Airport Planning Area" adopted by the Monterey County Airport Land Use Commission in the Marina Municipal Airport Comprehensive Land Use Plan, and consider all applicable FAA regulations, policies and procedures (Resolution 2008-224).*

Future Development

Policy 2.4.14. *The City shall encourage economic opportunities and development at and surrounding the Marina Municipal Airport, by providing opportunities for aviation and non-aviation related uses that have the appropriate sites and environment for a broad range of commercial and industrial uses. The City shall create an attractive image for the entire Airport area, both as experienced upon entering and traveling within the area that promotes the City's economic objectives to contribute to an overall appearance that will attract desired uses and enhance the area's short and long-term economic viability (Resolution 2008-224).*

Policy 2.4.16. *The City shall ensure that all future development within the AIA or Airport Protection Area should be consistent with the policies adopted by the Monterey County Airport Land Use Commission, except where pursuant to Public Utilities Code Sections 21676 and 21675.5, the City Council, pursuant to a two-thirds vote, exercises its option to conclude that, notwithstanding a negative recommendation from the Monterey County ALUC, the Council's proposed action is consistent with the purposes of providing for the orderly development of the Airport and its surrounding*

area while protecting the public health, safety and welfare by minimizing the public's exposure to excessive noise and safety hazards (Resolution 2008-224).

Policy 2.77. *A total of 214 acres of land has been provided in the Marina Municipal Airport MBEST Center area for industrial and commercial-service uses, which represents 74 percent of the total land area allocated to accommodate growth of these uses in the City. The primary function of this area is to provide sites for industrial and commercial-service uses which are linked to aviation activities of the Municipal Airport or are complementary to the various educational, science, and technology oriented uses planned for the MBEST Center.*

Policy 2.78. *Future development of lands owned by the City and successors in interest at and surrounding the airport shall be governed by Marina Municipal Airport Comprehensive Land Use Plan and applicable FAA regulations, policies, and procedures. Lands under the jurisdiction of the University of California shall be governed by the standards and guidelines of the University of California Monterey Bay Educational, Science and Technology Center Master Plan, except as it may be modified herein by this General Plan and, for that portion which falls within the Airport Planning Area, the policies and standards of the Airport Comprehensive Land Use Plan, except that development intensity up to an FAR of 0.5 should be allowed and building heights of up to fifty-six (56) feet should be allowed, provided that visual simulations shall be prepared by project applicants for any buildings proposed over 35 feet high and such development complies with the safety standards of the Marina Municipal Airport Comprehensive Land Use Plan and applicable FAA regulations, policies, and procedures (Resolutions 2005-45, 2005-82, 2008-224).*

Office/Research-and-Development

Policy 2.64. *The greater portion of land designated for Office and Research-and-Development uses, approximately 297 acres, is located in the MBEST Center and the contiguous Marina Municipal Airport and Business Park. Smaller-scale areas for office/research use are provided elsewhere in the Main Garrison area, on Armstrong Ranch, and along Reservation Road. Unless otherwise specified, development shall not exceed a FAR of 0.45 or be less than 0.25.*

Policy 2.65. *Except as further specified in the following sections under Office and Research- and-Development, permitted uses shall be limited to offices for administrative, professional, and financial services; medical and health facilities; and research-and-development activities conducted in an office environment or in laboratory space. Production or assemblage activities which are secondary to the research function and do not require the*

frequent transportation of goods or materials or large bulk items may also be permitted. Such production or assemblage activities not necessarily secondary to a research function may be carried out in the MBEST Center and adjoining Marina Airport Business Park when they are consistent with the list of uses permitted under the Research and Development Land Use Category in the University of California's Monterey Bay Education, Science, and Technology Center Master Plan, which was adopted by the University of California Regents, March 21, 1997. Such production or assemblage activities not necessarily secondary to a research function may also be carried out in the interior of a single parcel or site with this designation that is 50 acres or larger. Retail, personal-service, or business-service uses are also permitted, provided such uses are ancillary to the primary use, intended primarily for the convenience of the office or R&D workforce within the same site or complex of buildings, and do not occupy more than 5 percent of the gross floor area of the building or complex within which they are located. (This general plan policy will be amended to reflect the broader allowable uses within the R&D land use category and without the previous restrictions applied by this policy.)[1]

Limited Manufacturing on UC-owned Property

Policy 2.66. *These designated UC-owned lands are intended to accommodate public, nonprofit, and private office and research-and-development activities devoted to educational, scientific or technology endeavors, and which may also have limited manufacturing components. Private office and research uses are limited to those which have a relationship to the University or other ((governmental and nonprofit educational and research activities located within the Center or elsewhere in the Monterey Bay area.*[2]*(This policy will be amended to reflect the allowable uses within the R&D land use category and without the previous restrictions as to type of R&D use.)*

Conferencing/Hotel Facility on UC-owned Property

Policy 2.61. *Within the portions of the MBEST Center designated for Multiple Use Commercial uses, a conferencing/hotel facility of up to 150 bedrooms*

1 Under the "Permitted Uses by Land Use Category" within the UC MBEST master plan, there is recognition that: "Other uses deemed by the University of California or permitting jurisdiction to be sufficiently similar to the allowed uses set forth within each land use category shall also be allowed." Source: UC MBEST Master Plan Errata Sheet, February 19, 1997.

2 UC is considering replacing this language with: "Private office and research uses that have a relationship to the University or other governmental and non-profit educational and research activities located within the Center or elsewhere in the Monterey Bay Area are encouraged." Final adoption will be determined at a later date.

may be allowed in order to support and enhance the variety of business uses planned for the MBEST Center/Airport Business Park.

Retail and Personal-Service Development

Policy 2.46. *Retail, personal-service, and business-service uses shall be permitted in the following areas provided that the type and extent of development does not detract from the viability of the primary local-serving areas identified in the General Plan.*

2. *In conjunction with the development of the MBEST Center, within areas designated by the MBEST Center Master Plan.*

3. *In areas designated for industrial and commercial services such that they do not detract from the viability of the primary use of the areas for industrial-service commercial uses and that they do provide services needed by the industrial-serve areas subject to specific review by the City (Resolution 2001-120).*

Application Process for Private and Nonprofit Development on UC-owned Property

Policy 2.67. *All applications for private and nonprofit development within the MBEST Center shall be subject to approval by the City of Marina. The development standards and guidelines governing development of office and research activities set forth in the University of California's Monterey Bay Educational, Science, and Technology Center Master Plan, which was adopted by the University of California Regents, March 21, 1997, shall be used as the primary basis for approval for such applications, with the exception that development intensity up to a FAR of 0.5 may be allowed and building heights of up to fifty-six (56) feet may be allowed, provided that visual simulations shall be prepared by project applicants for any buildings proposed over thirty-five (35) feet high. All such development shall also be subject to applicable provisions of this General Plan as well as the requirements of City of Marina Building Code, other public safety code requirements, and fees and in-lieu payments in effect at the time of application. Possible future amendments to the MBEST Master Plan by the University shall also become applicable for City review upon the City's separate acceptance of any such amendments, which may occur by the City Council without requiring amendment to this General Plan.*

Transit Service

Policy 2.4.5. *Future land development, whether it involves development of new areas, infilling of existing neighborhoods or commercial areas, or redevelopment of former Fort Ord lands, shall be organized and have*

sufficient intensity to help ensure the longer-term feasibility of public transit for work and other purposes, and to create a pedestrian-oriented community. Intensity associated with the provision of public transit service to Marina Municipal Airport shall be required to ensure consistency with the Marina Municipal Airport Comprehensive Land Use Plan (Resolution 2008-224).

Childcare Facilities

Policy 2.107. *Provisions shall be made for childcare facilities with the development of major job centers in the MBEST Center and Marina Airport Business Park, the commercial and industrial center of Armstrong Ranch, the West University Village, and all other large-scale mixed-use projects. Such facilities proposed nearby the Marina Municipal Airport shall be sited in accordance with the provisions of the Marina Municipal Airport Comprehensive Land Use Plan. All childcare facilities shall be adequate to serve the projected employee base of the respective areas.*

Design and Development Requirements

Policy 4.2.5. *For development projects proposed at, or in near proximity to, Marina Municipal Airport, consideration shall be given to the City's Design Guidelines to accommodate safe airport operations, airport land use compatibility, and all appropriate FAA regulations, policies and procedures. Such guidance and regulations address, but are not limited to, lighting, signs, landscaping, building and roadway setbacks, etc. (Resolution 2008-224).*

Policy 4.95. *Design and development requirements for the University of California Monterey Bay Educational, Science, and Technology Center are provided in the master plan for the area adopted by the University of California Regents on March 21, 1997. The City shall use the standards and guidelines set forth in this master plan as the basis for approval of all development applications subject to its review. Within that context, City review shall emphasize the achievement of site and architectural design of high quality, characterized by high visual interest and an attractive overall environment. This may permit limited accent features which may employ materials, colors, and a landscaping palette beyond the normal range identified in the master plan. Also, the City's employment of the master plan's standards and guidelines may be modified by subsequent amendments to the master plan approved by the City and/or amendments to the City's General Plan.*

Open Space and Significant Natural Features

Policy 4.15. *Natural features within the boundaries of the Marina Planning Area are major contributors to the overall form and appearance of Marina. These community-defining open spaces consist of four primary landscape types: (1) coastal dunes and related plant communities west of Highway One; (2) field crops and grazing lands north of the City; (3) chaparral and oak woodland in the areas east of the UC MBEST Center, around the Marina Municipal Airport, and in areas immediately south of the existing city and between the family housing areas on the former base; and (4) large windrows comprised primarily of Monterey Cypress.*

Landscape Buffer Along Reservation Road

Policy 4.44. *Land uses fronting the segment of Reservation Road extending from Salinas Avenue to its intersection with Intergarrison Road are markedly different from those along other portions of Reservation Road. There are only five points of vehicular access along the entire approximate 12,200 foot frontage. Additionally, a substantial portion of the frontage is within the University of California Natural Resource System and is permanently protected as open space, and the remainder consists of frontage along the MBEST Center where 50-foot landscaped buffers and 100-foot building setbacks are required. The net effect of these conditions is to make the retention of natural landscape appearances along the entire road length desirable.*

Natural Landscape Along Reservation Road

Policy 4.45. *To protect and further enhance the natural landscape appearance of this portion of Reservation Road, the following design requirements shall apply to all future improvement along the frontage:*

1. *Landscape improvements within the right-of-way shall use plant materials which produce a seamless appearance with the adjoining natural landscaping.*

Water Supply

Policy 3.43. *Former Fort Ord has received a separate allocation from the Monterey County Water Resources Agency of which 1,175 afy[1] has been allocated by FORA to the City of Marina (excluding MBEST) and 230 afy to the MBEST Center. There is also a potentially substantial non-potable water supply available in Marina for irrigation of large areas of turf such as golf courses or parks. Under an agreement with the Monterey Regional Water*

[1] This figure has been updated to 1,340 afy pursuant to the 2020 Water Supply Assessment.

Pollution Control Agency, the MCWD is entitled to receive tertiary-treated water from the regional facility up to the volume of wastewater it conveys for treatment.

Policy 3.53. *The City of Marina, in conjunction with MCWD, shall continue to promote and require water-saving devices. Specifically the following measures shall be required:*

3. *All new construction shall use low-flow water fixtures and ultra-low-flush toilets…*

Policy 3.54. *All infrastructure required for adequate water supply shall be in place prior to or concurrent with new development. The cost for providing water to new development shall be paid by impact fees set at a rate sufficient to cover the annual debt service of the new water supply system. This provision may be especially critical in areas of former Fort Ord, where water-distribution and storage facilities are in need of repair.*

Storm Water Management

Policy 3.57.4. *FAA warns against the creation of wildlife hazards within 5,000 feet of a piston-powered aircraft, within 10,000 feet of airports that serve turbine-powered aircraft, and within 5 statute miles of approach/departure surfaces, including the creation of new open water sources or habitat enhancement. Consequently, open water retention and sediment ponds are not appropriate near Marina Municipal Airport unless specific design features are included. All proposed storm water management facilities on Airport property should be designed using the guidance set forth in FAA Advisory Circular 150/5200-33B, Wildlife Hazard Attractants on and Near Airports.*

Environmental Protection

Policy 4.123.5. *The City shall avoid and minimize the potential impacts [to Biological Resources] and implement Policies 4.113 through 4.123 to the extent possible when planning or implementing development projects on or adjacent to Marina Municipal Airport. If the proposed measures have the potential to pose hazards to aircraft operations or lead to potential encroachment, the City should consider alternative measures (e.g., off-site mitigation measures, compensatory mitigation, etc.). The City should work with FAA and other regulatory agencies to identify appropriate environmental protection and conservation measures when proposing improvements to Marina Municipal Airport or adjacent areas (Resolution 2008-224).*

1.6.2 UC MBEST Center Master Plan

Germane UC MBEST Center Master Plan policies include the following:

> ***Policy 5.1.*** *Establish a mixture of uses which helps to achieve UC's vision for the creation of a center devoted to innovation in science, technology, education and policy.*
>
> ***Policy 5.4.*** *Allow for the subdivision of the UCMBEST Center into a range of parcel sizes that are responsive to market opportunities and compatible with the landscape character of the site.*
>
> ***Policy 5.5.*** *Establish development standards that promote a coordinated high-quality campus environment.*
>
> ***Policy 6.2.*** *Create an onsite roadway system that allows for the coordinate development of the UCMBEST Center and Marina's Airport Business Park.*
>
> ***Policy 6.4.*** *Establish roadway standards that provide for efficient circulation of vehicles.*
>
> ***Policy 6.5.*** *Employ traffic-calming devices which discourage through-movement of vehicles and promote a safe pedestrian/bicycle environment.*
>
> ***Policy 6.8.*** *Provide a pattern of internal roadways that will allow for regional bus access to serve future UCMBEST Center employees.*
>
> ***Policy 6.10.*** *Create a multimodal transfer station at the heart of the UCMBEST Campus.*
>
> ***Policy 6.11.*** *Create a continuous system of bicycle routes within the UCMBEST Campus that connects to the planned Fort Ord and regional network of bicycle facilities.*
>
> ***Policy 6.13.*** *Create a continuous system of landscaped pedestrian walkways adjacent to roadways within the UCMBEST Campus.*
>
> ***Policy 7.1.*** *Provide for the cost-effective extension of water service to development sites within the UCMBEST Center property.*
>
> ***Policy 7.3.*** *Establish a comprehensive wastewater system for the UCMBEST Center, in coordination with the overall upgrade of sanitary sewer systems for Fort Ord.*
>
> ***Policy 7.4.*** *Maintain preconstruction levels of storm water percolation onsite while complying with environmental and water quality regulations.*

1.7 USE OF AIRPORT PROPERTY FOR REVENUE GENERATION

Section 3.5 of the FAA Airport Compliance Manual (Order 5190.6B) states the following:

> *P.L. No. 80-289 specifically authorized the General Services Administration (GSA) to transfer such surplus non-airport property as needed to develop sources of revenue from the non-aeronautical commercial businesses at a public use airport. . . . If the property is not used for aeronautical purposes directly, the property must be used to generate revenue for the benefit of the airport consistent with FAA's Policy and Procedures Concerning the Use of Airport Revenue. The FAA must approve the use for non-aeronautical purposes before such use is allowed.*

This section further notes that the Airport sponsor (City) "must use the revenue generated by the property for airport purposes by depositing the revenues into an airport fund designated for airport use."

1.8 SEVERABILITY

If any term, provision, condition, or requirement of the Specific Plan shall be held invalid or unenforceable, the remainder of this Specific Plan or the application of such term, provision, condition, or requirement to the circumstances other than those in which it is held invalid or unenforceable shall not be affected hereby, and each term, provision, condition, or requirement of the Specific Plan shall be valid and enforceable to the fullest extent permitted by law.

1.9 DEFINITIONS

The definitions and explanations below clarify certain terms that have particular meanings within this Specific Plan, including specific elements of the site and building design described in the Design Guidelines. Terms used throughout these regulations shall take their commonly accepted meaning unless herein defined. When there are conflicts between the definitions herein and the definitions provided in the City's Zoning Code, these definitions shall take precedence.

- **Acreage, Gross:** The total land area within a defined boundary. Gross acreage measurements are made to the centerline of abutting local streets or to right-of-way boundary of adjacent arterials.
- **Acreage, Net:** That portion of gross acreage exclusive of all public lands and rights-of-way.
- **Aeronautical Activity:** Any activity that involves, makes possible, or is required for the operation of aircraft or that contributes to or is required for safety of such operations. Activities within this definition, commonly conducted on airports, include, but are not limited to: general and corporate aviation, air taxi and charter operations, scheduled and nonscheduled air carrier operations, pilot training, aircraft rental and sightseeing, aerial photography, crop dusting, aerial advertising and surveying, aircraft sales and services, aircraft storage, sale of aviation petroleum products, repair and maintenance of aircraft, sale of aircraft parts, parachute or ultralight activities, and any other activities that, because

of their direct relationship to the operation of aircraft, can appropriately be regarded as aeronautical activities. Other activities, such as model aircraft or model rocket operations, are not aeronautical activities.

- **Airport Comprehensive Land Use Plan:** The California State Aeronautics Act (Public Utility Code Section 21670 et seq.) provides for the creation of local Airport Land Use Commissions (ALUCs) and conveys on ALUCs the responsibility for preparing CLUPs for all public use airports within their jurisdiction. The purpose of a CLUP is to provide for the orderly development of new land uses surrounding public use airports while at the same time protecting the health, safety, and welfare of persons who live and work around the airport. Toward that goal, the Marina Municipal Airport CLUP adopts a comprehensive set of policies designed to ensure that proposed development surrounding the Airport will be compatible with the noise, safety, and overflight impacts created by the operation of the Airport.
- **Avigation (Aviation) Easement:** A grant of a property interest in land over which a right of unobstructed flight in the airspace is established.
- **Business Support Services:** A subcategory of commercial land use that permits establishments primarily engaged in rendering services to other business establishments on a fee or contract basis (e.g., advertising and mailing, building maintenance, personnel and employment services, management and consulting services, protective services, equipment rental and leasing, copying and printing, travel, office supply, and similar services).
- **City Project:** A proposed project shall be subject to entitlement processes and approval of the City of Marina if the project is proposed on City-owned property, privately owned property, and/or on property owned or leased by UC that is a commercial development project unrelated to or does not implement UC's education, research, and public service mission.
- **Development Guidelines:** Development guidelines provide recommendations for development of individual sites within the Specific Plan.
- **Development Standards:** Development standards provide the requirements for the development of individual sites within the Specific Plan. The development standards serve to implement the goals and objectives of the Specific Plan.
- **Entry Roads:** Entry roads are located at the key gateways to the Specific Plan area and UC MBEST Center campus to provide a distinctive sense of entry and to provide for gateway elements and signs. These include Imjin Road at Reservation Road, MBEST Drive at Reservation Road, Research Drive at West Blanco Road, and University Drive at Imjin Road.
- **Floor-to-Area Ratio (FAR):** The building square footage divided by lot area. Building square footage shall include all structures on a lot, including garages and accessory structures. Parking structures shall not be included in the calculation of FAR.
- **Floor Area, Gross:** The total horizontal area, in square feet, including the exterior walls of all floors of a structure.
- **General Plan:** City document that encompasses policies toward land use, circulation, housing, open space, conservation, safety, noise, and any other elements the City considers important and encompasses all territory within the boundaries of the City. The City's

General Plan was updated in 2000 to reflect the land uses found in the UC MBEST Center Master Plan and includes policies to utilize the standards and guidelines of the Master Plan for UC-owned property, except as modified by policies and standards in the General Plan and the Airport CLUP.

- **Primary Internal Roadways:** Primary Internal Roadways shall be three lanes in width, with the center lane providing for left turns into individual sites.
- **Specific Plan:** The Marina Municipal Airport Business and Industrial Park/University of California Monterey Bay Education Science and Technology Center Specific Plan
- **Temporary Storage:** A subcategory of business aviation reserve land use that permits storage of such items as construction equipment, building materials, and vehicles with construction or placement of buildings limited to temporary structures without permanent foundations, and screened.
- **Transportation Services:** A subcategory of business aviation reserve land use that permits establishments engaged in commercial transportation of persons not associated with the Marina Municipal Airport, and related facilities such as parking, vehicle storage, and incidental maintenance of such vehicles inside a building. Facilities for the storage or warehousing of goods for transportation are permitted when incidental and subordinate to the principal use.
- **UC Project:** A proposed project shall be subject to entitlement processes and approval of the University of California if the project is proposed on property owned or leased by the University of California. It may be a commercial development project if it is related to or implements UC's education, research, and public service mission. The University of California may, in its sole and exclusive discretion, elect to grant to the City of Marina the authority to review and approve a project on property owned or leased by the University of California.
- **Use:** The purpose for which land or a building is arranged, designed or intended, or for which either land or building is, or may be, occupied or maintained.
- **Use, Accessory:** A use of land or of a building or portion thereof that is clearly incidental and subordinate to the principal use of the land or building and located on the same lot with such principal use.
- **Use, Permitted:** A use listed by the regulation of any particular district as a permitted use within that district and permitted therein as a matter of right when conducted in accord with the regulations established by ordinance.
- **Use, Principal:** A use which fulfills a primary function of a business, establishment, institution, or other entity.

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2.0 LAND USE

2.1 LAND USE CONCEPT

The Marina Municipal Airport Business and Industrial Park/University of California Monterey Bay Education Science and Technology (UC MBEST) Center Specific Plan (Specific Plan) land use concept is derived from combining two parallel planning processes by two separate entities: the City of Marina and the University of California (UC). The City and UC initiated their respective planning processes as the result of the former Fort Ord Military Reservation closure. The City is seeking to identify land uses that represent a means of employment generation that could replace a portion of the jobs lost because of the closure, and UC acquired former military land as a site for the UC MBEST Center.[1]

The total Specific Plan area is approximately 150 acres, with the City assuming direct planning responsibility for the northern approximately 75-acre portion while UC directs the planning for the southern approximately 75-acre portion. Both entities embarked on an extended planning process during the past several years that resulted in several key planning documents that represent the different processes' milestones. These key planning documents are discussed in Section 1.5, Background.

Both the City and UC acknowledge land use and employment opportunities because of the Specific Plan's location. The City seeks to take advantage of its property's close proximity to the Marina Municipal Airport (Airport), and UC would like to take advantage of the site's relationship to the Monterey Bay region and its "opportunity to leverage intellectual resources to create a regional competitive advantage."[2]

The City will be encouraging the development of aviation-related and industrial uses within its portion of the Specific Plan area. Parcels that are adjacent to and have direct access to the Airport's airfield facilities (e.g., tarmac area) will be reserved for aviation/aeronautical uses; as shown on Figure 2.1-1, parcels without direct access may have non-aviation business park type uses. Proceeding south toward Reservation Road and into UC's portion of the Specific Plan area, the uses will then transition into research and development, commercial/mixed-use and light industrial and office land uses that reflect, in part, UC's mission and the opportunities afforded by the frontages along Reservation Road and West Blanco Road as well as key intersections with these roads. This Specific Plan acknowledges the need to accommodate changing land use markets. Hence, the Specific Plan will permit a range of industrial, research and development, educational, office, business park, and commercial uses. This Specific Plan will establish the necessary development standards, design guidelines, and appropriate review and approval process so that the property will (a) result in a balanced set of land uses, (b) create an internal

[1] Approximately 75 acres out of a total of approximately 1,100 acres has been designated by UC as the UC MBEST Central North Campus and is part of this Specific Plan. The remaining UC properties are not part of this Specific Plan or its development process.

[2] UC MBEST Master Plan (1996), p. 1-3.

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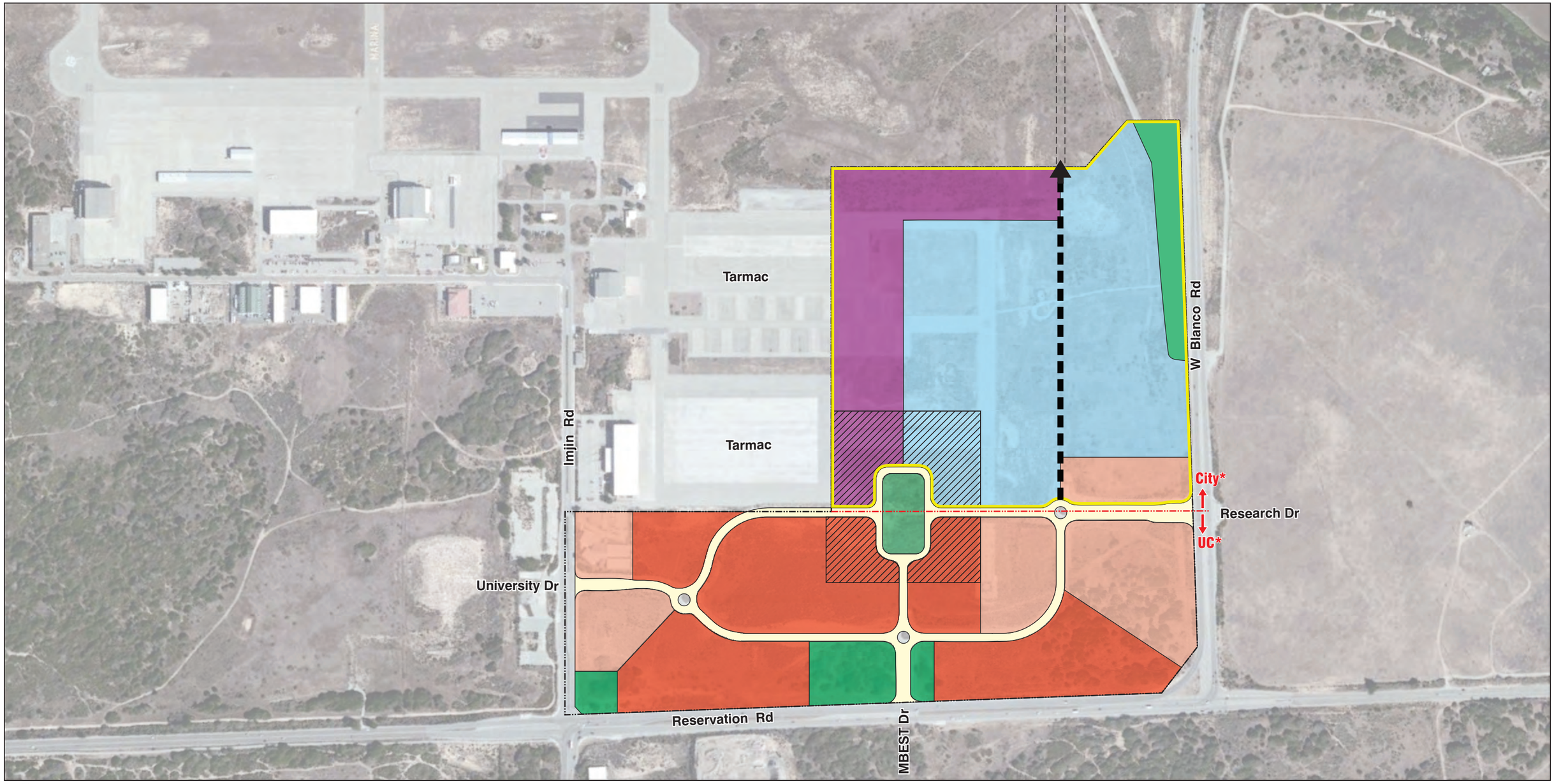

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SOURCE: Google Earth

LEGEND - CITY*

- Commercial/Mixed Use - 3.55 ac
- Business Park - 44.20 ac
- Business Aviation Reserve - 19.10 ac
- Campus Core Overlay - 6.50 ac
- Research and Development Overlay Zone - 78.19 ac
- Possible Roadway Connection (for illustrative purposes only)
- ROW - 3.50 ac
- Open Space - 4.84 ac

LEGEND - UC*

- Commercial/Mixed Use - 19.01 ac
- Research & Development - 37.64 ac
- Campus Core Overlay - 4.50 ac
- ROW - 9.63 ac
- Open Space - 6.24 ac

FIGURE 2.1-1

Marina Municipal Airport Business and Industrial Park/
UC MBEST Center Specific Plan
Land Use Concept

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support and synergism among these land uses, (c) be developed in a timely and market-responsive manner, and (d) remain consistent with the goals and objectives established by the previous planning processes and accompanying documents.

Table 2.1.1 describes estimated build out of the Specific Plan area. Permitted uses, as identified in Table 2.3.1 (provided later under Section 2.3), may be developed in each of the land use designations subject to the site development standards set forth in Section 2.4, Site Development Standards.

Table 2.1.1: Estimated Land Use Intensity

Land Use Designations	City Owned[1]			UC MBEST Owned		
	Gross Acreage	FAR	Allowable Building Square Footage	Gross Acreage	FAR	Allowable Building Square Footage
Business Park	41.00	0.3	517,101			
Business Park/Overlay	3.20	0.4	55,757			
Business Park Subtotals	***44.20***		***572,858***			
Business Aviation Reserve	16.19	0.3	189,878			
Business Aviation Reserve/Overlay	2.91	0.4	50,704			
Business Aviation Reserve Subtotals	***19.10***		***240,582***			
Research and Development				33.14	0.3	433,074
Research and Development/Overlay				4.50	0.4	78,408
Research and Development Subtotals				***37.64***		***511,482***
Commercial/Mixed Use	3.55	0.3	45,738	19.01	0.3	248,423
Open Space	4.84			6.24		
Rights-of-Way	3.50			9.63		
Totals	***75.19***		***859,178***	***72.52***		***759,905***

[1] Section 2.2.8 establishes a Research and Development Overlay Zone, allowing the City to consider and approve all land uses listed in Table 2.3.1 for the City's portion of this Specific Plan.

City = City of Marina
FAR = floor-to-area ratio
UC MBEST = University of California Monterey Bay Education Science and Technology

2.2 LAND USE DESIGNATIONS AND PERMITTED USES

Five land use designations have been established within the Specific Plan consistent with land use designations on the General Plan Land Use Map: Open Space, Research and Development, Commercial/Mixed Use, Business Park, and Business Aviation Reserve. Each land use designation captures the most appropriate use of the land relative to the natural features of the site, adjacent land uses, and design objectives for the overall Specific Plan area. Land use designations for the Specific Plan are described in detail below. Education as well as research and development uses shall be permitted on all portions of the UC MBEST Center where development is allowed.

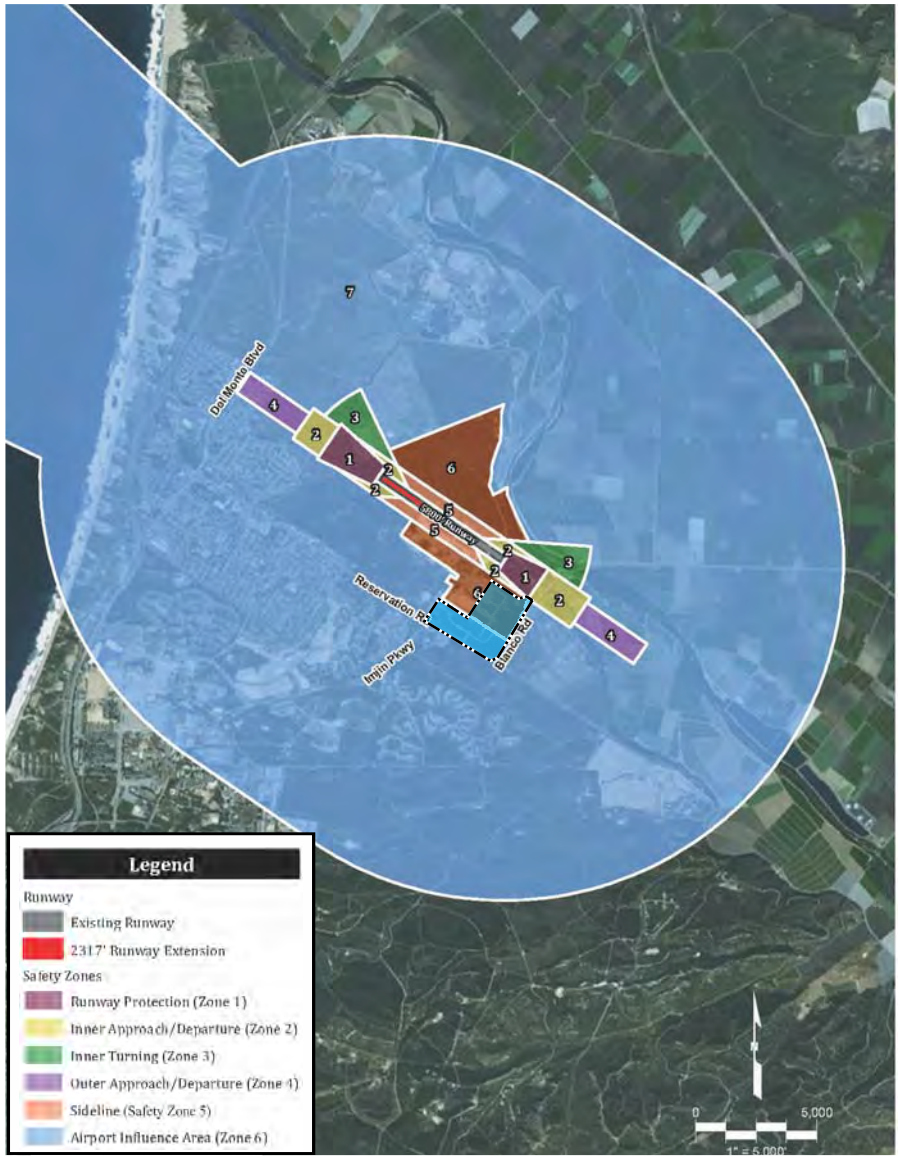
All five base land use designations shall be compatible with the existing and future Airport operations. The Federal Aviation Administration (FAA) defines "compatible land use" as "attained when the use of adjacent property neither adversely affects flight operations from the

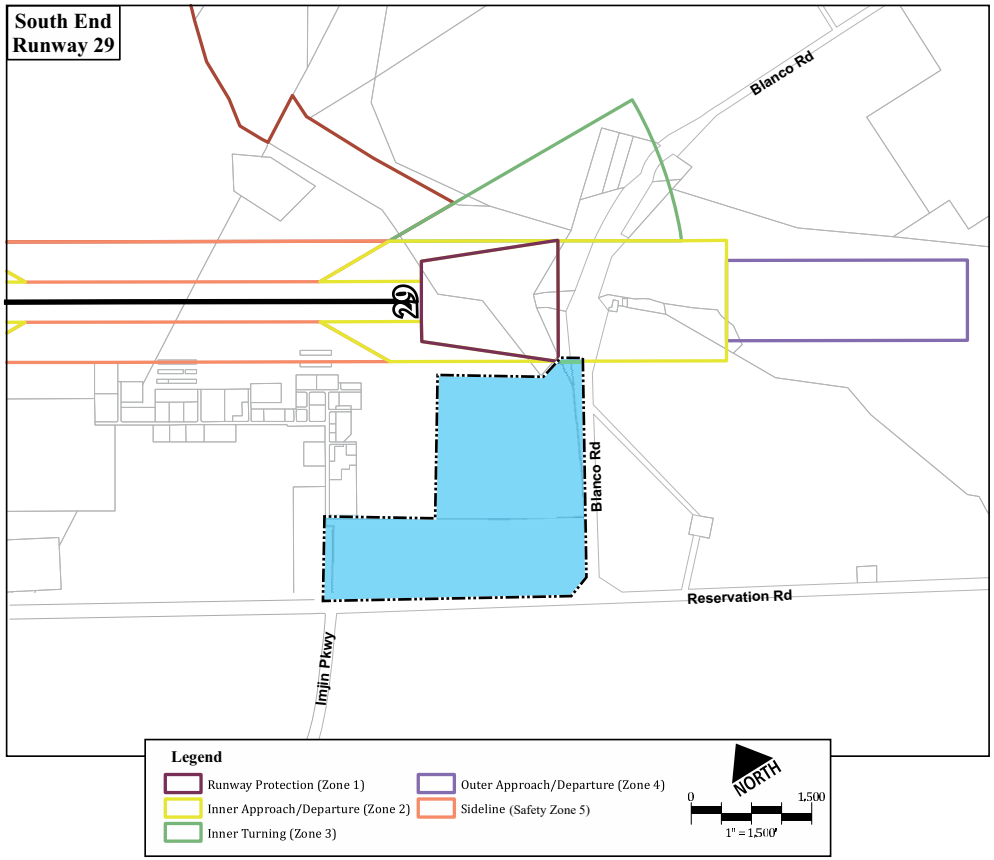
airport nor is itself adversely affected by such flight operations."[1] In most cases, the adverse effect of flight operations on adjacent land results from exposure of noise sensitive development (e.g., residential areas) to aircraft noise and vibration. Land use that adversely affects flight operations is that which creates or contributes to a flight hazard. For example, any land use that might allow tall structures, block the line of sight from the control tower to all parts of the airfield, inhibit pilot visibility (e.g., glaring lights, smoke), produce electronic aberrations in navigational guidance systems, or that would tend to attract birds would be considered an incompatible land use. For instance, under certain circumstances, an exposed landfill may attract birds. If open incineration is regularly permitted, it can also create a smoke hazard.[2]

Furthermore, the FAA defines "incompatible land use" as land uses that include obstructions or residential construction built on airport property or in violation of conditions of released land or residential development within grant funded aircraft noise compatibility land. Introducing a wildlife attractant or failure to take adequate steps to mitigate hazardous wildlife at the airport can also result in an incompatible land use. Incompatible land uses can include wastewater ponds, municipal flood control channels and drainage basins, sanitary landfills, solid waste transfer stations, electrical power substations, water storage tanks, golf courses, and other bird attractants. Other incompatible uses would be towers or buildings that penetrate Part 77 surfaces or are located within a runway protection zone (RPZ), runway object free area (ROFA), object free zone (OFZ), clearway or stopway.[3]

Another influencing factor in land use types and intensity is traffic safety zones as delineated by the FAA. There are up to six separate traffic safety zones that influence the type and intensity of land uses next to an operating airport as identified in the California Department of Transportation (Caltrans) publication *California Airport Land Use Planning Handbook* (October 2011). These zones vary according to the size and type of operating airports. The Airport is a general aviation airport with a 3,483-foot runway and approximately 30,000 annual flights.[4] The applicable traffic safety zone for the Airport is Zone 6 (Airport Influence Area), which extends approximately 6,000 feet from the nearest runway's centerline. Therefore, the entire Specific Plan area is within Traffic Pattern Zone 6. Within Zone 6, intensities should not exceed an average of 300 people per gross acre or a maximum intensity of 1,200 people per acre[5] (refer to Figure 2.2-1).

1 *FAA Airport Compliance Manual*, Order 5190.6B (2009), p. 20-5.
2 *FAA Airport Compliance Manual*, Order 5190.6B (2009), p. 20-1.
3 *FAA Airport Compliance Manual*, Order 5190.6B (2009), p. 21-9.
4 The total annual operations are forecast to grow to 43,000 over the course of the next 20 years (Airport Master Plan, September 2015, prepared by Coffman Associates, Marina Municipal Airport consultants).
5 California Department of Transportation. October 2011. *California Airport Land Use Planning Handbook*, Figure 4G.





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SOURCE: Google Earth

LEGEND

- Specific Plan Area

Note: The entire Specific Plan Area falls within the Airport Influence Area (Zone 6)

FIGURE 2.2-1

Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan

Traffic Pattern Zone (Airport Influence Area)

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2.2.1 Open Space

Open space areas serve a wide range of purpose and intent, particularly within a general business park setting. Open space areas provide visual relief, a gathering place for activities, and the preservation of natural topographic and vegetation features. Also, open space areas can be strategically located for the intent of identifying points of access, roadways, and pedestrian paths, and act as a transition between areas of different land uses. There are four primary areas within the Specific Plan with the Open Space designation. One area, at the corner of Reservation Road and Imjin Road, is intended to support an identification sign. A second area, on both sides of MBEST Drive at the intersection with Reservation Road, is intended to protect existing stands of coastal oak trees and the surrounding habitat. The northeast portion of the Specific Plan area, fronting on West Blanco Road, does not provide any feasible developable area because of the topography and slope and is therefore designated as Open Space. The centrally located Open Space area, referred to herein as the Plaza, provides a core function and design element for the rest of the Specific Plan area. Measuring approximately 2 acres in size, the Plaza will provide a central open space for a wide range of outdoor and gathering activities ranging from a passive lunch or break time respite area to organized outdoor events occurring on the weekends or after work hours.

A unique design opportunity exists for the Plaza area in that it can be a unification factor for both the City's and UC's portions of the Specific Plan, perhaps including an element linking the property's aviation history with its future educational and technological vision.

The Plaza area will be an intersecting point for all other land use designations, with the exception of the Commercial/Mixed Use land use designation. The backbone circulation system will connect this Open Space area with the remainder of the Specific Plan area. Visually, it will provide a sense of entry and arrival for those entering the Specific Plan area from West Blanco Road and Reservation Road.

2.2.2 Research and Development

Research and Development uses are the predominant uses for the UC MBEST Master Plan area, indicating UC's commitment to its mission statement of promoting "collaborative interaction and strategic alliances between research and education institutions, private business, and policy makers in the Monterey Bay region to enhance the area's economic development opportunities."[1] Specifically, as it applies to this portion of the UC MBEST Master Plan within this Specific Plan, Research and Development uses will occupy approximately 40 acres of the southern portion of the Specific Plan area. This designation will promote a very wide range of permitted uses, including research, testing, electronics manufacturing, testing and assembly, instrumentation, pharmaceuticals, and audio/multimedia equipment. Office, warehousing, light industrial and distribution uses will also be allowed. A limited range of commercial uses will be allowed, only as accessory uses in support of a primary permitted use. (Refer to Section 2.3, Permitted Uses, and Table 2.3.1 for a list of permitted and conditionally permitted uses.)

[1] UC MBEST Master Plan (1996), p. 1-2.

2.2.3 Commercial/Mixed Use

This designation was developed through the UC MBEST Master Plan and permits a range of retail, professional office, institutional, hotel/conference, and guest-serving (limited-stay residential) uses. The Commercial/Mixed Use designation takes advantage of the West Blanco Road, Reservation Road, and Imjin Road frontages, as well as the major intersections at Research Drive/West Blanco Road and University Drive/Imjin Road. The Commercial/Mixed Use designation provides opportunities for stand-alone general commercial uses and support services for the other Business Aviation Reserve, Business Park, and Research and Development land use areas. (Refer to Table 2.3.1 in Section 2.3, Permitted Uses, for a complete list of permitted and conditionally permitted uses.)

2.2.4 Business Park

A significant part of the remaining City-owned portion (approximately 32 acres) of the Specific Plan would be designated Business Park. This designation takes advantage of its proximity to West Blanco Road and reflects the City's current Airport District, A-2 Zone.[1] Permitted uses within the Business Park designation would range from light industrial and manufacturing to general office and business support services, as well as limited restaurant, food, and beverage sales. (Refer to Table 2.3.1 in Section 2.3, Permitted Uses, for a complete list of permitted and conditionally permitted uses.)

2.2.5 Business Aviation Reserve

Approximately 18 acres of the northwest portion of the Specific Plan are designated as Business Aviation Reserve. This area is directly adjacent to the Airport's airfield facilities (e.g., tarmac area) and is in closest proximity to Taxiway A, the runway, and other paved areas.

The FAA defines "Aviation Use of Real Property" (aeronautical property) as "All property comprising the land, airspace, improvements, and facilities used or intended to be used for any operational purpose related to, in support of, or complementary to the flight of aircraft to or from the airfield. It is not confined to land areas or improvements eligible for development with federal aid (FAAP/ADAP/AIP) or to property acquired from federal sources. In addition to the areas occupied by the runways, taxiways, and parking aprons, aeronautical property includes any other areas used or intended to be used for supporting services and facilities related to the operation of aircraft. It also includes property normally required by those activities that are complementary to flight activity such as convenience concessions serving the public including, but not limited to, shelter, ground transportation, food, and personal services."[2]

Permitted uses within the Business Aviation Reserve designation would include aircraft storage, repair and maintenance, sales, and leasing; aviation-related manufacturing, services, supplies, and sales; and Airport-serving uses such as public parking. (Refer to Table 2.3.1 in Section 2.3, Permitted Uses, for a complete list of permitted and conditionally permitted uses.) This area takes advantage of its location adjacent to the active airfield by accommodating potential uses

1 City of Marina Zoning Ordinance (2009), Chapter 17.28.
2 *FAA Airport Compliance Manual*, Order 5190.6B (2009), p. 317.

directly relating to and supporting active airfield operations. It also provides a buffer for the remainder of the Specific Plan area and reduces potential airfield impacts on uses with a higher degree of sensitivity to these impacts.

2.2.6 Campus Core Overlay Area

The Overlay Area is not a separate and distinct land use designation, but rather an area that will be distinguished by unique development standards and design guidelines, leading to a greater sense of urban intensity when compared to the remainder of the Specific Plan. The majority of the Specific Plan's land uses, with the exception of Commercial/Mixed Use, will be represented within the Overlay Area, but buildings may be slightly taller and street setbacks may be slightly less than the same land use designations outside the Overlay Area. Finally, this Overlay Area will have a strong visual and functional relationship with the Plaza area.

2.2.7 Research and Development Overlay Area

All permitted and conditionally permitted uses listed in Table 2.3.1 (provided in Section 2.3) shall be allowed within the City's portion of the Specific Plan pursuant to Sections 2.4 and 2.5 and Chapter 5 of this Specific Plan. However, the total square footage of the uses identified in Table 2.1.1 shall not be exceeded without prior approval of a Specific Plan amendment pursuant to Section 5.5 of this Specific Plan, accompanied by the appropriate environmental review pursuant to the California Environmental Quality Act (CEQA), as amended.

Further, due to the current limited availability of water for the City's portion of the Specific Plan, the City will not accept proposed development applications for review once the 76.3 acre-feet per year (afy) cap is reached. Later phases of development or subsequent development must be deferred until the Marina Coast Water District (MCWD) is able to develop additional sources of water for the Ord Community service area. All proposed development project applications will need to be accompanied by written and conclusive evidence indicating an immediate, reliable, and available support of water prior to acceptance by the City of Marina.

2.3 PERMITTED USES

The following permitted, conditionally permitted, and accessory use categories have been established for each of the five land use designations of the Specific Plan. For the purposes of this Specific Plan, a permitted or primary use has been defined as the main use of a building or piece of land. An accessory use has been defined as a subsidiary use connected to the main use of a building or piece of land.

Specific uses for each land use designation are provided in Table 2.3.1. If a proposed use is not listed in Table 2.3.1, it will be considered prohibited. Should a prohibited use be proposed and be similar in nature to the approved list of permitted and conditionally permitted uses, a request will be made pursuant to Section 5.3.1, Land Uses Not Listed as Permitted or Conditionally Permitted. In the event a request is reviewed and approved pursuant to Section 5.3.1, Table 2.3.1 will be revised to include the approved use.

Table 2.3.1: Permitted and Conditionally Permitted Uses

Use Types	Permitted Use	Conditionally Permitted Use	Accessory Use
Open Space			
Picnicking/lunch or break time gathering	●		
Informal gatherings/meetings, including small group lectures	●		
Non-motorized outdoor recreation activities that do not materially alter the landscape, nor degrade the environmental quality, nor involve commercial recreational use	●		
Community festivals and special events, not exceeding 1,200 people per acre		●	
Concerts, not exceeding 1,200 people per acre		●	
Research and Development			
Primary research and development and/or controlled production or testing of high-technology electronic, biological, medical, dental, industrial, or scientific products, or processes, which may include information technology	●		
Light industrial manufacturing, processing, assembly, packaging or treatment of specialized goods in a setting that tests the feasibility of prototype production for goods or manufacturing systems	●		
Production, assembly, testing and repair of components, devices, equipment, systems, and parts	●		
Light industry that provides areas for research, administrative, lighter manufacturing, wholesale and heavy service commercial uses not suitable for traditional commercial areas	●		
Wholesale	●		
Warehousing and distribution facilities provided they are conducted wholly within a completely enclosed building and do not occupy more than 50 percent of the area of any building	●		
Educationally related uses that meet the teaching and public service mission of the University of California, including education or training facilities, publishing services, conference facilities, and executive/management and administrative uses that support educationally related activities	●		
Offices, administrative and executive			●
Employee recreational and dining facilities, and meeting and public assembly facilities			●
Commercial uses for the convenience of employees, located internal to the buildings with primary customer access from interior areas, such as children's daycare centers, cafeterias, business support services, and other similar incidental services			●
Open storage of materials, goods, parts, and equipment, including company-owned or operated trucks and other motor vehicles provided adequate screening is provided			●
Print, photocopy, and lithographic establishments		●	
Warehouse and distribution occupying more than 50 percent of the area of any building		●	
Sales of goods manufactured, processed, or assembled on the premises		●	
Places of worship		●	
Commercial/Mixed-Use			
Any permitted land use under "Research and Development"	●		
Hotel/conference/bed-and-breakfast inn	●		

Table 2.3.1: Permitted and Conditionally Permitted Uses

Use Types	Permitted Use	Conditionally Permitted Use	Accessory Use
Serviced apartments (guest-serving, limited-stay residential)	●		
Retail shops	●		
Professional, medical, or government offices	●		
Financial services	●		
Restaurants, coffee house, delicatessens	●		
Laundromats, shoe repair	●		
Travel agency	●		
Athletic clubs	●		
Social halls, clubs	●		
Photocopying	●		
Communications/data processing services	●		
Art galleries, museums, or theaters	●		
Educationally related uses that meet the teaching and public service mission of the University of California, including education or training facilities, conference facilities, and executive/management and administrative uses that support educationally related activities	●		
Places of worship		●	
Business Park			
Manufacturing, fabrication, assembly, or processing of materials that are generally already in processed form and which do not in their maintenance, assembly, manufacture, or plant operations create a hazard to aircraft in flight, including physical (e.g., tall objects), visual (e.g., large quantities of smoke or dust), and electronic forms of interference with the safety of aircraft operations	●		
Warehousing, indoor storage (e.g., mini-warehouses), and wholesale sale to retailers from the premises of finished goods and foodstuffs typical of electronic and pharmaceutical businesses	●		
Primary research, development and/or controlled production or testing of high-technology electronic, biological, industrial or scientific products, or processes, which may include information technology	●		
Nurseries and greenhouses	●		
Trade schools conducted within an enclosed building	●		
Service establishments, such as janitorial, pest control, delivery, laboratory, etc.	●		
Furniture manufacturing, finished paper products, and other light manufacturing of similar character		●	
Public and quasi-public uses and buildings including public utility buildings, etc.		●	
Carpentry shops, paint, plumbing shops, and other uses of a similar nature		●	
Propane distributorship and sales and service of appliances, and related equipment, provided all equipment is stored within a building or screened by adequate fencing and landscaping		●	
Prototype production including machine shops		●	
Commercial recreation		●	
Contract service establishments including contractors' offices with related storage of equipment and vehicles, when conducted within a completely enclosed building		●	

Table 2.3.1: Permitted and Conditionally Permitted Uses

Use Types	Permitted Use	Conditionally Permitted Use	Accessory Use
Open storage of materials, goods, parts, and equipment, including company-owned or operated trucks and other motor vehicles provided adequate screening is provided			●
General office			●
Business support services			●
Commercial recreation (e.g., theaters) associated with aviation related uses		●	
Auditoriums, associated with aviation related uses		●	
Places of worship		●	
Educationally related uses, including education or training facilities, conference facilities, and executive/management and administrative uses that support educationally related activities		●	
Business Aviation Reserve			
Air freight operations		●	
Aircraft sales and leasing	●		
Aviation-related manufacturing, assemblage, and research	●		
Airport-serving transportation services and public parking	●		
Aviation-based services, supplies, and retail	●		
Aircraft service, repair, and maintenance	●		
Primary research, development and/or controlled production or testing of high-technology electronic, biological, industrial or scientific products, or processes, which may include information technology	●		
Warehousing and distribution, light-impact manufacturing, assemblage, and processing	●		
Automobile rental	●		
Restaurants and convenience consumer sales and services			●
General office or business support services			●
Contract service establishments		●	
Commercial recreation (e.g., theaters) associated with aviation-related uses		●	
Auditoriums, associated with aviation-related uses		●	
Temporary storage		●	
Transportation services		●	
Places of worship		●	
Educationally related uses, including education or training facilities, conference facilities, and executive/management and administrative uses that support educationally related activities		●	

2.3.1 Interim Uses

In order to effectively respond to market sensitivity, there may arise a need to consider Interim Uses that may or may not be listed above or within Appendix A as permitted, conditionally permitted, and/or accessory. Interim Uses must be consistent with the above list of permitted, conditionally permitted, and/or accessory uses in that approved structures containing Interim Uses shall be reviewed for their ability to accommodate future uses that are listed above as a permitted, conditionally permitted, or accessory use. Interim Uses shall be assigned a time-sensitive condition of approval limiting their existence within this Specific Plan to an initial

period of no more than 3 years, commencing with the issuance of the certificate of occupancy. No more than five extensions of up to an additional 15 years to the original time period shall be approved for Interim Uses. Interim Uses will be subject to all other development regulations and design guidelines as established by this Specific Plan. Further, Interim Uses may not possess the characteristics listed in Section 2.3.2, Expressly Prohibited Uses.

2.3.2 Expressly Prohibited Uses

The uses provided below are expressly prohibited within the Specific Plan area due to its close proximity to the Airport:

- Theaters/auditoriums that allow more than 300 people per gross acre or a maximum intensity of 1,200 people per acre to assemble
- General recreational uses, such as stadiums, athletic fields and playgrounds, that allow more than 300 people per gross acre or a maximum intensity of 1,200 people per acre to assemble
- Non-aviation bulk fuel storage
- Municipal solid waste landfills
- Odor-causing rotting organic matter (putrescible waste) disposal operations
- Waterways that create a bird hazard
- Open water intake and treatment facilities
    - Open storm water and wastewater treatment facilities (not including sediment and other material traps associated with parking lot or street storm water collection systems)
    - Retention/detention ponds, settling ponds, or poorly drained locations[1]
    - Recreational ponds
    - Ponds resulting from mining activities
    - Surface mining
    - Wetlands
    - Dredge spoil containment areas (confined disposal facilities)
    - Agricultural production (including hay crops)
    - Livestock production or breeding
    - Zoos
    - Riding stables
    - Power-generating plants and substations other than pilot plants to test alternative energy production techniques
    - Public communication facilities
    - Aquaculture
    - Libraries
    - Hunting (including seasonal activities on agricultural land)
    - Golf courses (even with turf grass)

[1] Where standing water is expected to remain for more than 48 hours under typical rainfall conditions.

  - Roosting habitat on buildings
  - Two or more land uses that together attract wildlife through the Airport
- Manufacturing and industrial uses that involve:
  - Chemicals and allied products
  - Asphalt paving and miscellaneous petroleum products
  - Petroleum refining
  - Rubber and plastics
- Communication and utility uses that include:
  - Radio, television, and telephone centers
  - Electrical and natural gas generation and switching
- Commercial uses that involve:
  - Chemicals and allied products
  - Petroleum truck terminals
- Public and quasi-public uses and services:
  - Hospitals
  - Libraries

In addition to the list above, any other uses that have the following characteristics, as identified in the Airport Cooperative Research Program (ACRP) Report 27, *Enhancing Airport Land Use Compatibility*, Volume 1, 2010, will be expressly prohibited within the Specific Plan area due to the serious safety concerns related to aircraft takeoff, landing, and flight:

- Create a visual obstruction by excessive:
  - Smoke
  - Water vapor/steam
  - Smog
  - Dust
  - Glare
  - Light emissions (confusing or blinding lights or reflections)
- Generate electrical interference
- Involve structures over 56 feet in height (e.g., buildings, smoke or ventilation stacks, wind turbines, cellular/communication towers, aboveground power lines, construction cranes [even for temporary use])

2.4 SITE DEVELOPMENT STANDARDS

The development of individual sites will conform to the site development standards (requirements) in this section. These standards serve to implement the goals and objectives of the Specific Plan.

2.4.1 Minimum Parcel Size and Dimensions

Research and Development and Commercial/Mixed Use land use designations on UC-owned property can support parcel sizes ranging from approximately 1 acre to 6 acres. Within the Business Park and Business Aviation Reserve land use designations on the City-owned portion of the Specific Plan, parcel sizes shall be no less than 1 acre. There is no maximum parcel size limitation to Business Park and Business Aviation Reserve designated land.

2.4.2 Floor-to-Area Ratio (FAR)

Floor-to-area ratio (FAR) is the building square footage divided by lot area. Building square footage includes all structures on a lot, including garages and accessory structures. Parking structures are not included in the calculation of FAR.

The City of Marina General Plan establishes the maximum FAR, or building intensity, for the Specific Plan's land use designations. Building intensities within the Specific Plan area provide appropriate transitions between areas with unique environmental features and aviation-related activities, and encourage a concentration of activity and development around the Plaza. As shown in Table 2.4.1 and on Figure 2.4-1, the maximum allowable FAR permitted within the Specific Plan area is 0.30 for all land use designations within the Specific Plan, with the exception of the Overlay Area. Land use designations within the Overlay Area have an established FAR of 0.40. The FAR permitted in each land use designation conforms to the maximum FAR permitted in the City's General Plan and the UC MBEST Master Plan. No development is permitted within the Open Space areas; therefore, no FAR is established for this land use designation.

Table 2.4.1: Maximum Allowable Floor-to-Area Ratio

Land Use Designation	City-Owned Property	UC MBEST-Owned Property	Within Campus Core Overlay Area
Open Space	0	0	0
Research and Development	N/A	0.30	0.40
Commercial/Mixed Use	0.30[1]	0.30	N/A
Business Park	0.30[1]	N/A	0.40
Business Aviation Reserve	0.30[1]	N/A	0.40

[1] The City's General Plan allows for the FAR to be increased to 0.50, pending approval of a visual impact analysis. The Specific Plan further recommends that a traffic and infrastructure capacity analysis be completed prior to approving any development on the City-owned portion of the Specific Plan with a proposed FAR exceeding 0.30.

City = City of Marina N/A = not applicable
FAR = floor-to-area ratio UC MBEST = University of California Monterey Bay Education Science and Technology

The City's General Plan has policies allowing the FAR to be increased to a maximum of 0.50 on City-owned property within the Specific Plan area. Development proposals that would exceed the 0.30 FAR on the City-owned property will be required to submit visual impact, traffic, and infrastructure capacity analyses as part of their approvals.

2.4.3 Building Heights

Building heights within the Specific Plan shall not exceed the following heights or number of stories as provided in Table 2.4.2 and shown on Figure 2.4-2, consistent with FAA height limits imposed on the Airport.[1]

[1] Code of Federal Regulations (CFR), Title 14, Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace.

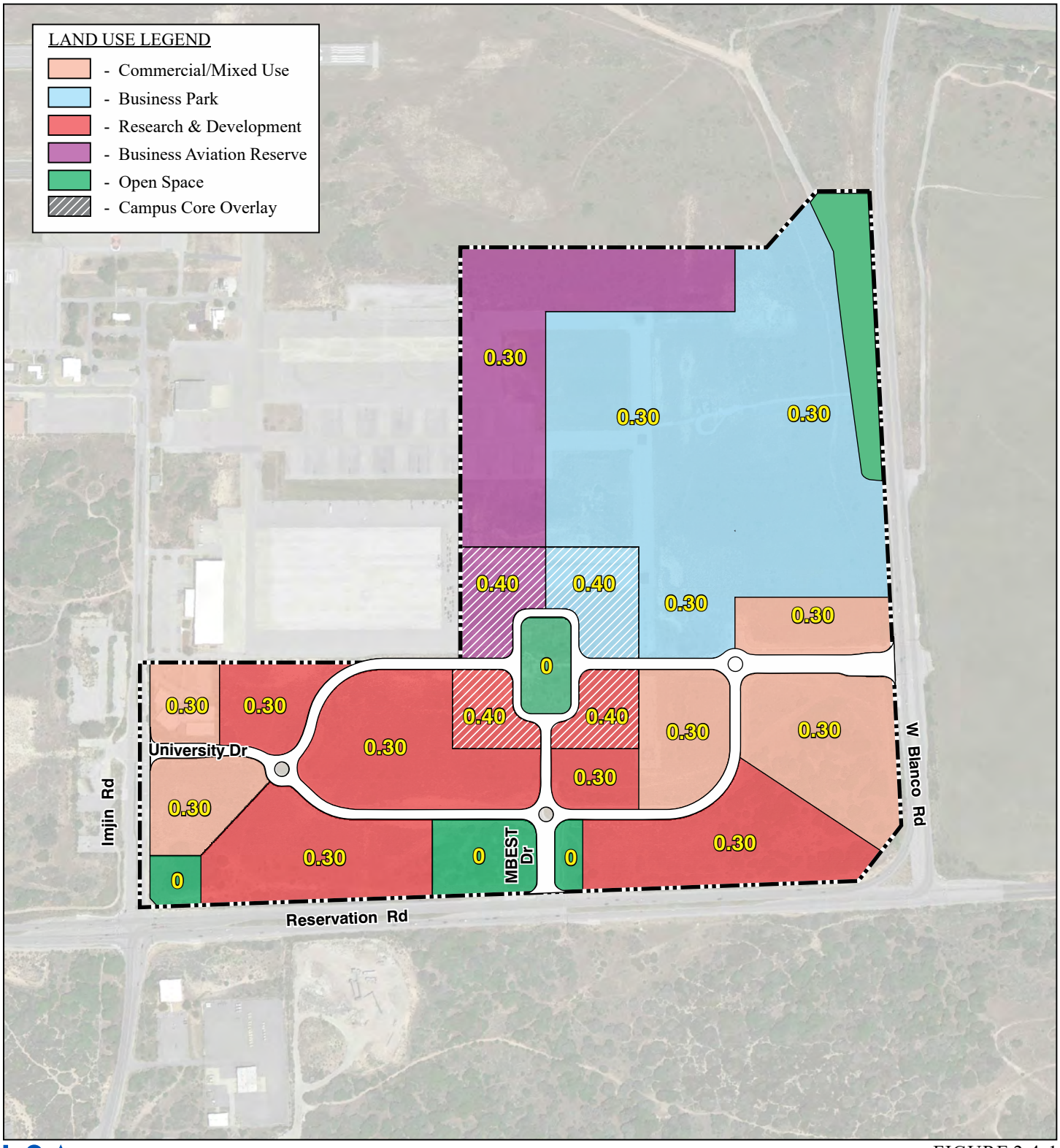

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FIGURE 2.4-1

LEGEND

0.30 - Maximum Allowable FAR

N

0 300 600

FEET

SOURCE: Google Earth

Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan

Maximum Allowable Floor Area Ratio (FAR)

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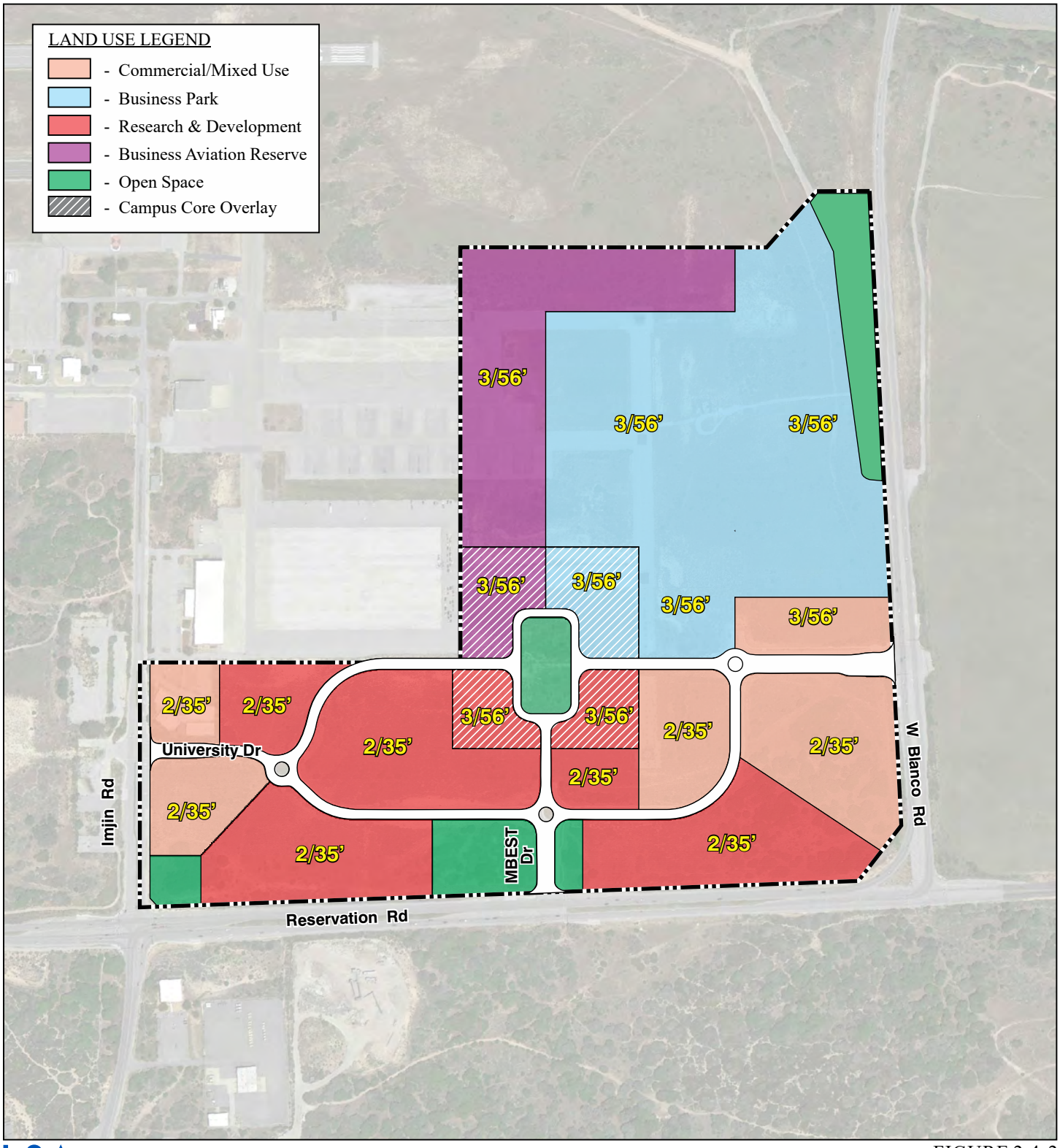

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LEGEND

2/35' - Maximum No. of Stories/ Maximum Height (feet)

N

0 300 600

FEET

SOURCE: Google Earth

FIGURE 2.4-2

Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan

Maximum Building Heights

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Table 2.4.2: Building Heights

Land Use Designation	UC-Owned or City-Owned Property		Within Campus Core Overlay Area	
	Maximum No. of Stories	Maximum Height (ft)	Maximum No. of Stories	Maximum Height (ft)
Open Space	N/A	N/A	N/A	N/A
Research and Development	2	35	3	56
Commercial/Mixed Use	2	35	3	56
Business Park	3	56[1]	3	56
Business Aviation Reserve	3	56[1]	3	56

[1] Within the Business Park and Business Aviation Reserve land use designations, aircraft hangars and other Airport-related buildings, facilities, or appurtenances may be erected to a height in excess of 56 ft subject to first securing a use permit from the City in each case. Visual simulations shall be prepared by the project applicants for any proposed structures over 35 ft high.

City = City of Marina
ft = foot/feet
N/A = not applicable
UC = University of California

2.4.4 Setbacks and Landscaping

2.4.4.1 Setbacks

The setbacks described in Table 2.4.3 apply to the Specific Plan (refer to Figure 2.4-3).

Table 2.4.3: Setbacks

Setback	City-Owned Property[1]		UC-Owned Property	
	Parcels That Abut Reservation Road or West Blanco Road	Parcels That Abut University Drive, Research Drive, or Other Internal Roadways	Parcels That Abut Reservation Road or West Blanco Road	Parcels That Abut University Drive, Research Drive, or Other Internal Roadways
Building Setback from Property Line	100 ft	25 ft	100 ft	25 ft
Side Yard Width (Minimum/Maximum)	10 ft / 25 ft		10 ft / N/A	
Rear Yard Width (Minimum/Maximum)	30 ft / N/A		10 ft / N/A	

[1] At no time will any setback within the Specific Plan area on City-owned property be reduced to zero pursuant to the *FAA Airport Compliance Manual*, FAA Order 5190.6B (August 2009).

City = City of Marina
ft = foot/feet
N/A = not applicable
UC = University of California

Within the Overlay Area, at least 50 percent of building frontages shall be built to a line 10 feet from the property line adjacent to the street separating this area from the Plaza (refer to Figure 2.4-3).

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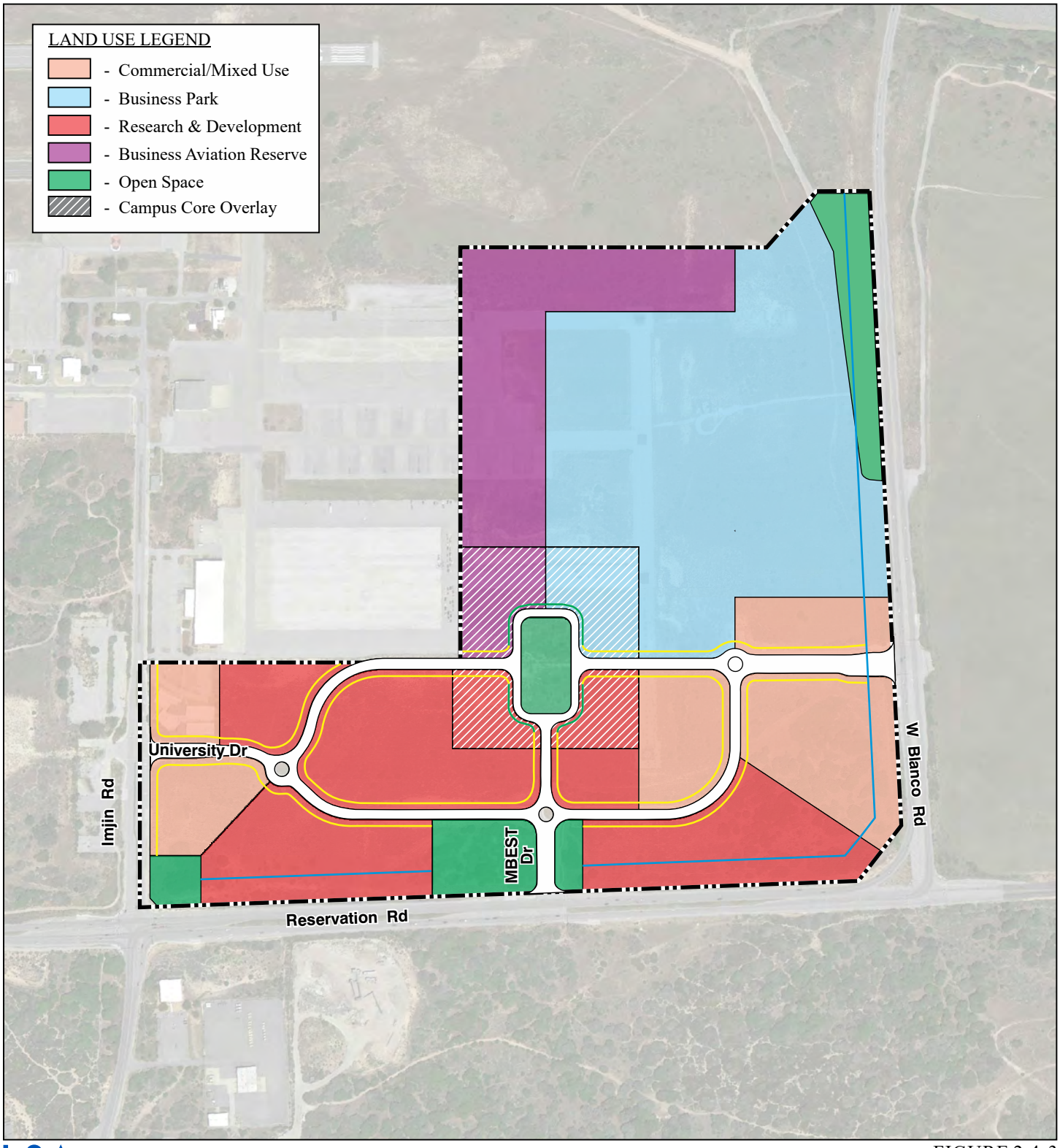

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FIGURE 2.4-3

LEGEND

- 100' Roadway Setback
- 25' Roadway Setback
- 10' Roadway Setback

N

0 300 600

FEET

SOURCE: Google Earth

Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan

Roadway Setbacks

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2.4.4.2 Landscape Setbacks

In order to promote a continuous landscape and streetscape character along the major roadways that abut and pass through the Specific Plan, landscaped setbacks are established from parcel property lines. The following setback standards shall apply:

- On parcels that abut Reservation Road or West Blanco Road, a 50-foot landscaped setback shall be provided from the adjoining property line (refer to Figure 3.2-2a in Chapter 3.0).
- Along internal roadways within the Specific Plan area, including University Drive or Research Drive, a continuous 25-foot landscaped setback shall be provided along all property frontages (refer to Figures 3.2-2a and 3.2-2b, which are provided in Chapter 3.0).
- Building or parking will not be permitted within landscaped setback areas.
- Landscaped setbacks shall only be used for landscaping, walkways, driveway access to public streets, connections to public utilities and underground utilities, topographical transitions to existing grades at the property line, and signs.
- All landscaped setbacks shall be installed during or prior to building construction.
- Maintenance shall be the responsibility of the owner or lessee (long-term) of the parcel.

In addition to the landscape setbacks required above, each parcel within the Specific Plan area shall contain an additional minimum landscaping and storm water catchment adjacent to building façades. The following landscape standards apply to all buildings within the Research and Development and Commercial/Mixed Use land use designations within the Specific Plan area:

- A minimum landscape edge of 15 feet shall be provided along the front of buildings.
- A minimum landscape width of 10 feet shall be provided along the sides of buildings.
- For buildings within the Overlay Area, 5 feet of landscaping and a 5-foot sidewalk shall be provided within the 10-foot setback zone (to supplement the 5-foot sidewalk and landscaping within the public right-of-way) (refer to Figures 2.4-3 and 3.2-2b).

2.4.5 Landscaping

2.4.5.1 General Landscape Standards

The following standards apply to landscaping within all Specific Plan land use designations:

- All areas within the Specific Plan area on which buildings, roadways, parking lots, or courtyards are not proposed shall be retained in natural vegetation or landscaped.
- During and after individual site development, areas where grading or vegetation removal has occurred that are not paved or on which buildings are not located, shall be stabilized to prevent erosion. Stabilization may be achieved by planting ground cover or shrubs or by other means demonstrated by the applicant, contractor, developer, and/or landowner to be effective means of erosion control.

- Individual site landscape and irrigation plans shall be designed by landscape professionals with knowledge of local plants, soils, and climate conditions and approved pursuant to Section 5.4, Development Submittal, Review, and Approval Process.
- A minimum of 65 percent of the total of individual landscape areas shall be landscaped with California-native plant material requiring minimum irrigation once established[1].
- Any plant material that has a higher water demand shall be irrigated separately.
- Individual landscape and irrigation plans shall be designed to be consistent with the provisions of the Model Water Efficient Landscape Ordinance (Sections 490-495, Chapter 2.7, Division 2, Title 23 in the California Code of Regulations)

2.4.5.2 Landscaping of Streetscapes

All landscaping of streetscapes shall meet the following requirements:

- At the time of installation, street trees shall be a minimum 15-gallon size and have a minimum height of 8 feet. The 24-inch-box street tree size is preferred where appropriate in areas of special interest (e.g., at key intersections or entries, or in pedestrian plaza areas).
- The selection of street tree species (e.g., the list of small, medium, and landmark trees in Table 2.5.1, which is provided later) shall avoid any species that might attract large flocks of birds during any time of the year.
- The selection of nonnative street tree species shall require that species be drought tolerant, non-invasive, compatible with the coastal climate and sandy soils, and visually compatible with the native vegetation of the Monterey Peninsula.
- The minimum size of shrubs shall vary by species. Shrubs shall be 5-gallons in size where appropriate for common landscape standards. A minimum of 50 percent of shrubs shall be 5 gallons in size, with the balance of the shrubs being 1 gallon in size.
- Groundcovers and shrubs shall be designed, installed, and maintained to achieve 100 percent coverage within 3 years of planting.
- Landscaping of streetscapes shall comply with the following public safety requirements:
    - The height, spread, and growth habits of all plants shall not interfere with or obstruct ease of movement or impede a public right-of-way.
    - Trees located adjacent to a public street shall be pruned such that no branches extend lower than 14 feet above the curb line.
    - Trees located adjacent to a public sidewalk or path shall be pruned such that no branches extend lower than 7 feet above the sidewalk or path.

[1] FORA Regional Urban Design Guidelines (RUDGs) (2016) states "Consider 80 percent native plant composition along roadway right-of-way for new development."

- All landscaping and screening, excluding trees, located at the intersection of two public streets shall comply with Chapter 10.70 of Title 17 of the City's Zoning Code, Visibility at Intersections.
- All landscaping located within 15 feet of the intersection of a driveway and a public street shall not exceed a height of 3 feet.

2.4.5.3 Landscaping of Parking Lot Areas

Landscaping of parking lot areas shall meet the following requirements:

- At least one tree pocket with a minimum dimension of 5 square feet shall be provided for every six parking spaces. These trees shall be evenly distributed through the parking areas to provide a continuous canopy.
- Trees shall be planted in 5-foot (minimum) square pockets or in curbed planting islands and distributed throughout the parking lot to achieve one continuous canopy.
- Parking spaces at the end of parking bays shall be separated from adjoining access aisles by landscaped areas with appropriate widths to accommodate the proposed landscaping and a minimum width of 4 feet, and length equal to the length of adjoining parking spaces. A minimum of two trees shall be planted per planting area.

2.4.5.4 Landscaping of Percolation/Storm Water Retention Areas

All landscaping of percolation/retention areas shall meet the following requirements:

- Slopes in excess of 3:1 are not permitted.
- Within setback areas, the maximum width of a swale shall be 10 feet as measured from the existing grade.

2.4.5.5 Landscaping Within the Open Space Areas Along Reservation Road

The Open Space areas along Reservation Road are designated to preserve a significant stand of existing coastal oak trees. The following landscape requirements apply to the Open Space areas along Reservation Road:

- Landscaping shall be limited to native species that would normally be associated with the oak stands (e.g., Coast live oak [*Quercus agrifolia*], madrone [*Arbutus menziesii*], and California buckeye [*Aesculus californica*]).
- Due to the sensitivity of the existing stands of oaks, irrigation systems shall not be introduced.
- New plantings shall be hand watered only to allow plant establishment.
- The regrading of land shall not occur within the canopy (drip line) of existing oak trees.
- Surface drainage from adjacent parcels will not be allowed.

- The use of native perennial grasses along the edges of the Open Space areas is recommended to mitigate the impacts of adjacent roads and parcel development.
- Generally, the ground plane shall remain undisturbed and unplanted.
- The installation of benches, trash receptacles, and pedestrian pathways within the Open Space areas is recommended to encourage access and passive recreational opportunities (e.g., walking, sitting, nature watching).

2.4.5.6 Removal of Invasive Species

Invasive species, defined by Executive Order 13112, are "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health."

The following species are considered invasive for the purposes of this Specific Plan:

- Ice plant (*Mesembryanthemum crystallinum*)
- French broom (*Genista monspessulana*)
- Pampas grass (*Cortaderia selloana*)
- Mexican feather grass (*Nassella/Stipa tenuissima*)

The following landscape requirements apply to invasive species:

- Existing stands of invasive species such as ice plant, French broom, pampas grass, and Mexican feather grass must be removed as part of any landscape treatment.
- Owners and tenants will be required to maintain parcels free of invasive species.
- A program to control invasive species shall be implemented as part of normal landscape maintenance. The program shall specify methods to eradicate invasive species, including chemical, manual, and physical methods, using an integrated pest management (IPM) approach. If herbicide treatments are selected, they shall be conducted under the direction of a licensed Pest Control Advisor using chemicals approved for habitats present within the Specific Plan area.

2.4.5.7 Landscape Maintenance

All landscape within a privately owned and/or leased property will be installed and maintained by that property owner and/or lessee. All landscape installation within the public right-of-way will be installed as a private expense by the adjacent landowner. After installation, all landscaping within the public right-of-way and designated open space areas will be maintained by a Landscaping and Lighting Assessment District formed and managed in accordance with Section 22500 of the California State Street and Highway Code.

2.4.6 Storm Water Infiltration

- All property owners shall be responsible for retaining storm water runoff generated on their site pursuant to Section 4.4.2, Proposed Drainage System, of this Specific Plan.
- Plans for retaining storm water runoff shall be submitted as part of the site plan package pursuant to Section 5.4.3, Expedited Review, of this Specific Plan.

2.4.7 On-Site Circulation

The Specific Plan's on-site circulation system is designed to create a continuous system of landscaped roadways, bikeways, and pedestrian paths that extend the planned regional and citywide system and encourage non-vehicular trips. Figure 2.4-4 shows the proposed pedestrian circulation system for the UC's portion of the Specific Plan.

The circulation pattern for the City property will be established by subsequent development proposals and implementation. All standards described herein will apply to any future circulation system(s).

The Specific Plan's on-site circulation system shall meet the following standards:

- Parking lot circulation shall be contained within each development parcel, with the exception of parcels within common driveways.
- To the extent feasible, driveways shall be aligned on opposite sides of a street.
- Service routes shall not conflict with other on-site circulation routes.
- On-site pedestrian walkways shall provide clearly delineated direct paths between parking, open space, work/leisure areas, and building entrances.
- Sight lines required for safe automobile movement shall be kept clear. Screens and structures shall not be located where they would block such sight lines (e.g., both entering and exiting individual sites and the Specific Plan area).
- The design and location of entries (i.e., curb cuts and driveways) for each parcel shall be such that the driver has ample time to perceive them when approaching the parcel. Driveway approaches shall be kept clear of obstructions (e.g., street trees shall be placed at least 10 feet from driveways).
- Drive aisle widths and configurations shall be designed, at a minimum, in accordance with the latest adopted City standard specifications (e.g., Public Works Division Standard Plan No. ST-7).
- Although vehicular access will continue to be the primary mode of transportation within the Specific Plan area for the foreseeable future, the design of the roadway system shall be supportive of transit as a viable alternative to the automobile.
- Internal roadways shall be included and designed as multimodal corridors to support pedestrians, bicycles, and transit vehicles, as well as automobiles.
- Continuous Class II bicycle lanes shall be provided within the planned roadways of the Specific Plan area along with landscaped pedestrian walkways (refer to Figures 2.4-4 and 2.4-5).
- At least one Americans with Disabilities Act (ADA) accessible route shall be provided within each site from ADA-accessible parking spaces and ADA-accessible passenger loading zones; public streets and sidewalks; and public transportation stops to the ADA-accessible building or facility entrance they serve.

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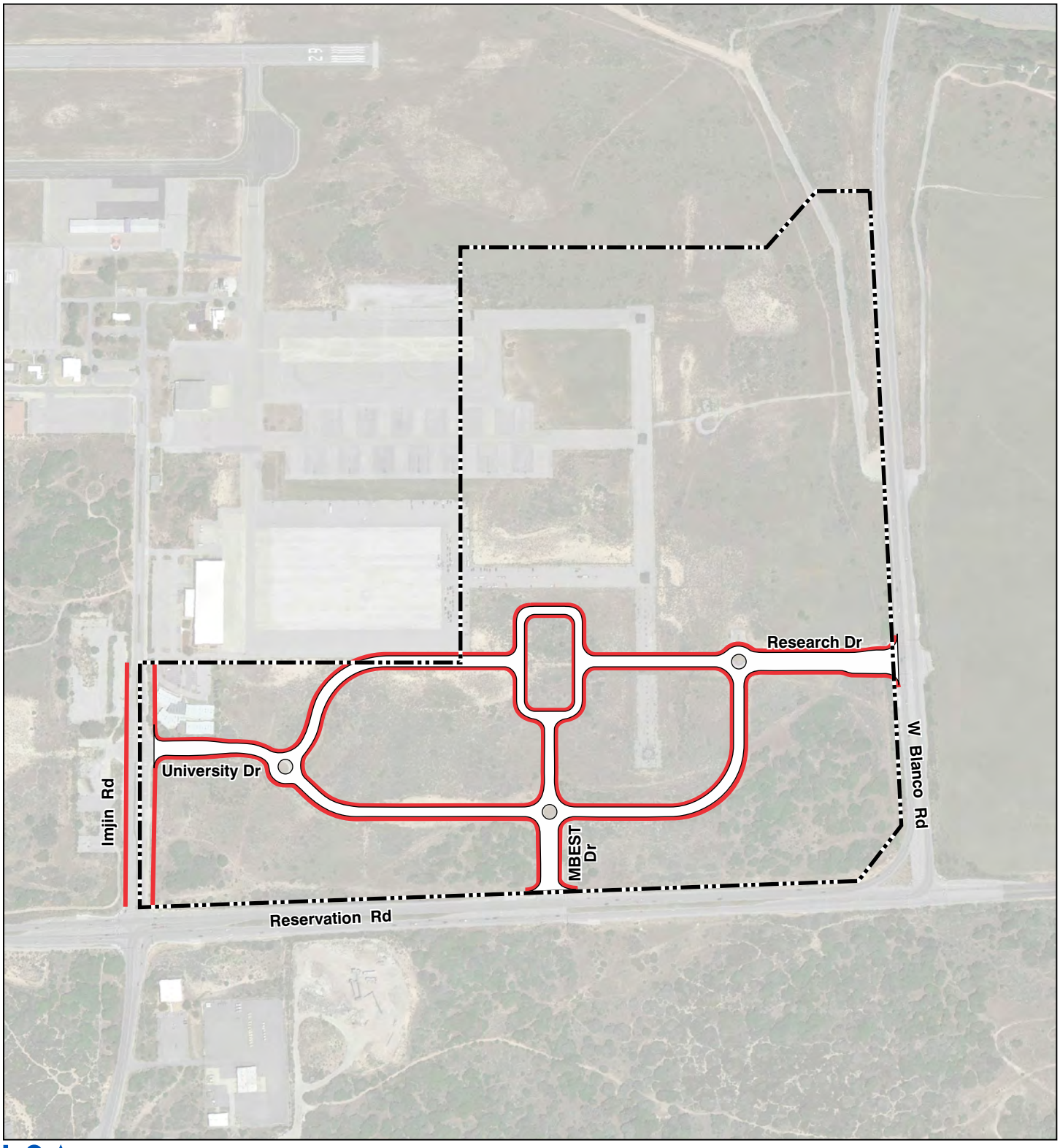

LSA

LEGEND

- Sidewalk Location

N

0 300 600

FEET

SOURCE: Google Earth

FIGURE 2.4-4

Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan

Pedestrian Circulation System

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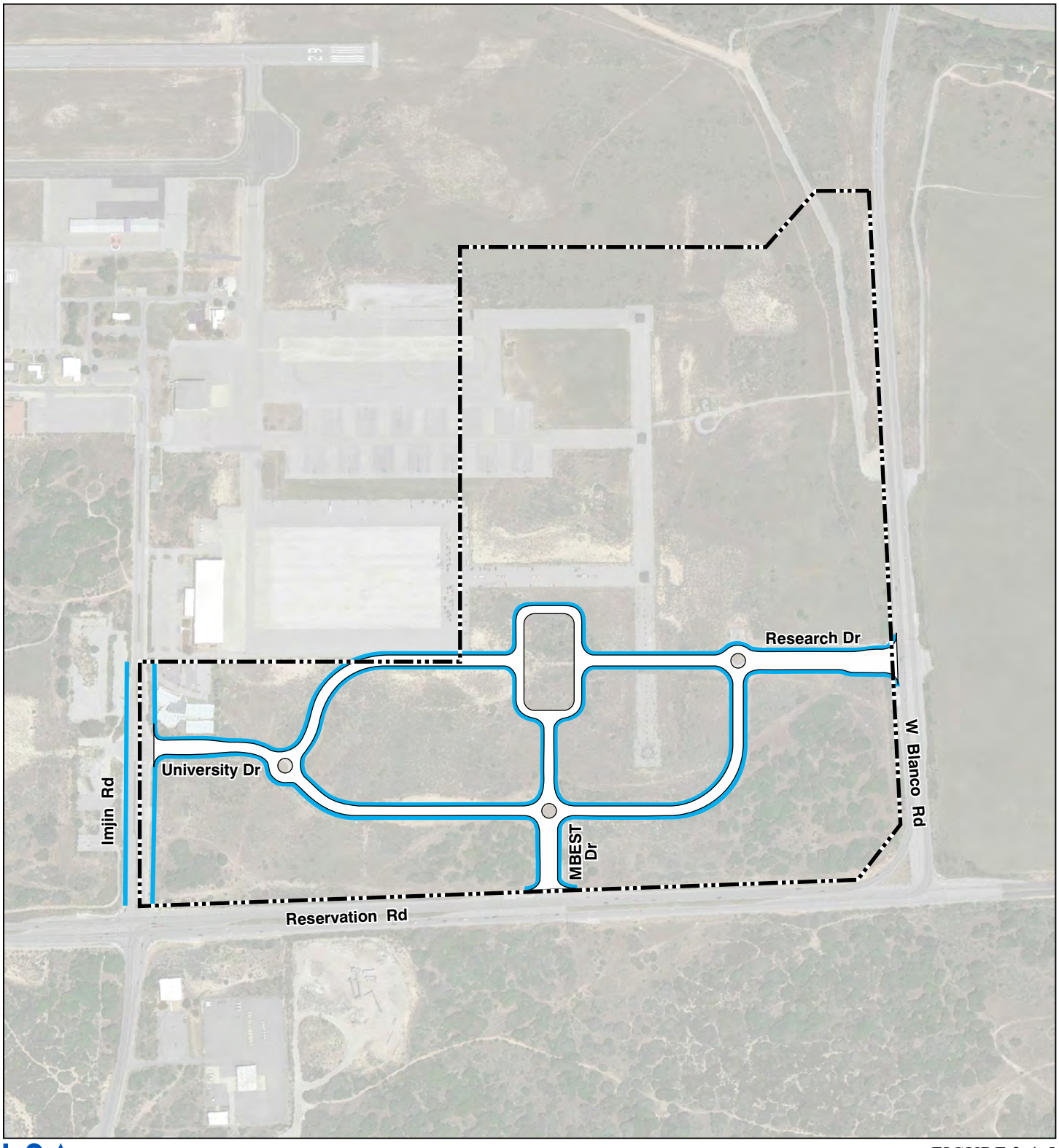

LSA

LEGEND

- Bike Lane Location

N

0 300 600

FEET

SOURCE: Google Earth

FIGURE 2.4-5

Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan

Bicycle Circulation System

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2.4.8 Bus Stops, Bays, and Transit Shelters

All bus bays and transit shelters will be designed and implemented pursuant to Chapter VII (Design Standards) of the Monterey-Salinas Transit Manual, Designing for Transit, *A Manual for Integrating Public Transit and Land Use in Monterey County* (November 2006).

Figure 2.4-6 shows the proposed bus circulation system for the UC's portion of the Specific Plan.

2.4.9 Vehicular and Bicycle Parking

2.4.9.1 General Parking Lot Standards

Parking lots within the Specific Plan area shall meet the following standards:

- All parking areas and driveway surfaces shall be permanently paved and maintained to the satisfaction of the City Engineer.
- Each required parking space shall be a minimum of 9 feet by 19 feet, unless designated as compact parking.
- Parking is permitted within the building setback areas as long as the landscape requirements pursuant to Section 2.4.4.2 are maintained.
- Parking space depth from the face of curb may be reduced to 17.5 feet for up to 30 percent of parking spaces to accommodate a typical 1.5-foot front vehicle overhang where curb or other possible vertical obstructions do not exceed a height of 6 inches. Parking space depth (to the face of curb) may be reduced to as little as 16.5 feet in certain limited circumstances (i.e., where additional landscaped area might help save an existing tree or provide additional landscaped area that might allow for the planting of a tree or a larger tree species). Reduced parking space dimensions shall be marked "compact" or "C" to delineate those parking areas for compact vehicles. Compact parking spaces shall not be permitted at the ends of parking aisles or adjacent to a landscape island.
- If parking areas exceed one double row in depth, it is recommended that the alignment of the aisles be in the direction of pedestrian movement.

2.4.9.2 Parking Requirements (Number of Spaces)

The required number of parking spaces per land use shall be pursuant to Chapter 17.44 of the City of Marina's Municipal Code, with the following supplemental requirements:

- Required parking for aviation-related uses within the Business Aviation Reserve land use designation shall be calculated as follows:
    - One space for each four private aircraft occupying a hangar space or tie-down space
    - One space per 350 square feet of office-type space
    - One space per 1,000 square feet of space devoted to aircraft maintenance activities
    - One space per 500 square feet of space used for manufacturing, assemblage, or research activities

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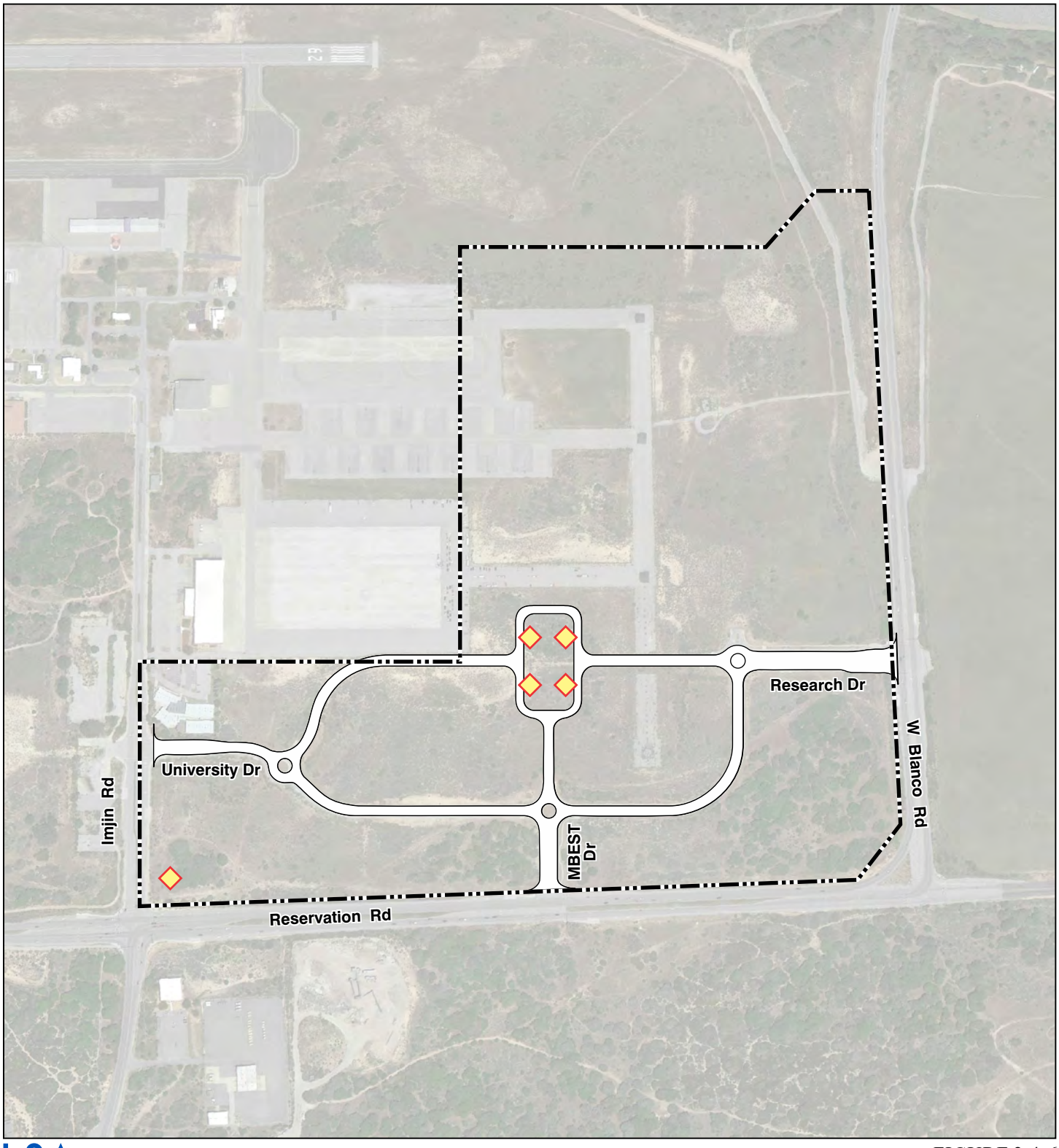

LSA

LEGEND

- Bus/Shuttle Stop

N

0 300 600

FEET

SOURCE: Google Earth

FIGURE 2.4-6

Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan

Bus Circulation System

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Parking lots within the Commercial/Mixed Use and Research and Development land use designations in the Specific Plan area shall meet the standards of Chapter 17.44 of the City of Marina's Municipal Code. No additional standards apply to these land use designations.

2.4.9.3 Parking Demand Management Program

A Parking Demand Program seeking to modify the above parking requirements may be prepared and approved pursuant to City of Marina Municipal Code Section 17.44.070 E.

2.4.9.4 Americans with Disabilities Act Parking

ADA-compliant parking within the Specific Plan area shall meet the applicable standards as established by Title 24 (Accessible Parking Requirements) of the California Code of Regulations.

2.4.9.5 Bicycle Parking and Other End-of-Trip Facilities

Bicycle parking and other end-of-trip facilities within the Specific Plan area shall meet the following standards:

- Bicycle parking facilities shall be placed in locations that will not interfere with pedestrian access.
- Bicycle parking facilities shall not impede California Building Code (CBC) Title 24 accessibility standards.
- Bicycle parking facilities (bike racks) should be installed in convenient locations (i.e., near building entrances and adjacent to rights-of-way/sidewalks/parking lots) (refer to Figure 2.4-7).

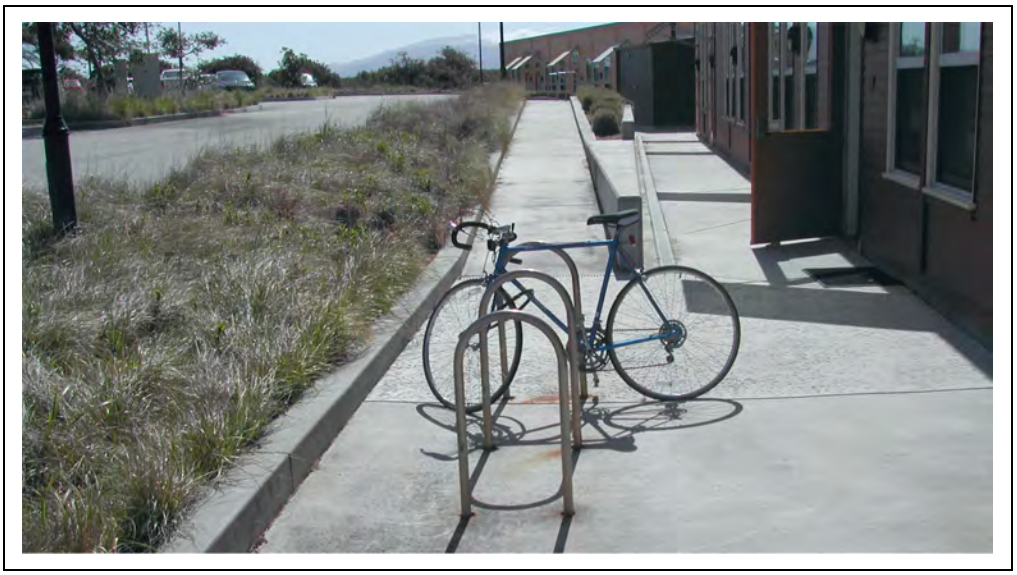

Figure 2.4-7: Bicycle Parking Facilities (Bike Racks)

- A secure bicycle parking facility (bike rack) shall be provided to accommodate one bicycle per 30 required vehicle parking spaces, and in no case fewer than three bicycles.
- Bicycle parking facilities shall be visible (not in enclosures) and lighted to minimize the chance of theft.
- Commercial and industrial developments shall provide a minimum of one shower per building, excluding accessory buildings.

2.4.10 Loading and Storage Areas

Loading areas within the Specific Plan area shall meet the following standards:

- Loading areas shall be designed to provide for maneuvering on site and not from or within a public street.
- Loading areas and doors not fronting a public or private street shall be screened from view from the street by solid wing walls and/or a functional equivalent, and shall be constructed of materials compatible and consistent with adjacent buildings and landscaping. Screening shall be of sufficient height to provide adequate visual screening.
- Truck maneuvering areas shall not encroach into required parking stalls and drive aisles or pedestrian access.
- The minimum dimensions for truck loading areas serving buildings shall be 12 feet wide and 45 feet long, with 14.5 feet of vertical clearance.
- All loading areas with exterior storage of materials or equipment shall be located at the rear of the building and be totally screened from view by a wall with a minimum height of 6 feet or a combination of fencing and/or dense vegetation of equivalent height that form a visual barrier comparable to a solid wall. The maximum height of a freestanding wall shall be 8 feet.

Loading areas within the Business Park and Business Aviation Reserve land use designations shall face the side or rear property line and shall be designed to be an integral part of the building architecture. Direct loading from a public street is not permitted. Side loading shall be screened from the street by an 8-foot-high (maximum) wall or other appropriate screening.

Loading areas within the Commercial/Mixed Use and Research and Development land use designations may be permitted facing a public or private street provided they are screened by a combination of screen walls, ornamental landscaping, and/or portions of on-site buildings.

Outdoor storage areas shall meet the following standards:

- Any outdoor storage must be directly related to and part of the primary use on the same parcel.
- Any equipment storage not contained within the main structure shall be completely visually screened from adjacent streets and properties. Screening shall consist of a wall constructed in an architectural style consistent with the adjacent structures, including color and

materials, or a solid landscaping screen with material consistent with the site's landscape palette, or a combination therefore as approved, pursuant to Section 5.4, Development Submittal, Review, and Approval Process. Should landscaping be used for the screening of the outdoor equipment, it shall be of sufficient size (height and breadth) to completely visually screen the equipment at the time of installation.

- No storage areas will extend into required setback areas.
- No storage will be permitted between streetside and the building line or be visible from the street.
- No required parking spaces will be eliminated to accommodate storage.

2.4.11 Trash Enclosures

The Specific Plan is being created during a time where there are active programs and legislation addressing solid waste reduction, recycling and diversion. The City and UC solid waste collection, diversion and recycling practices fall under the California Integrated Waste Management Act (Assembly Bill [AB] 939), requiring all California cities, counties, and approved regional solid waste management agencies responsible for enacting plans and implementing programs to divert 50 percent by year 2000. Later legislation mandates that the 50 percent diversion requirement be achieved every year. Subsequent legislation includes AB 341, which establishes the goal of recycling, composting, and source reduction of solid waste by 2020. It should be noted that this is a recycling goal and not a diversion goal.

The number and location of refuse bins shall be developed in coordination with the City's waste provider. Refer to Table 2.4.4 for recycling and waste enclosure size guidelines. Trash enclosures within the Specific Plan area shall meet the following standards:

- Trash enclosures shall be designed to allow sufficient space to accommodate appropriately sized recycling and waste containers without requiring the container to be moved to service another container.
- Trash enclosures shall be provided and screened on four sides by a solid wall that may not exceed 6 feet in height. The trash enclosure walls shall be of suitable colors and materials (e.g., stucco, wood, stone, decorative metal, or iron) that are consistent with the primary building. Chain-link fencing or gates are not permitted (refer to Figure 2.4-8).
- Trash enclosure doors shall have a latch that can be secured in the open and closed position.
- Trash enclosures shall have a solid roof. A request to build an enclosure without a roof may be made to the Public Works Division. Non-roofed structures would be allowed at building sites where applicants demonstrate there will not be any visual and/or odor impacts to neighboring properties and that enclosures can be protected and maintained.
- Trash enclosure pads shall be constructed of concrete and extend 8 feet beyond the fence of the enclosure at a slope of no more than 1 percent. The slope of the enclosure pad shall not exceed 1/8 inch per foot.

Table 2.4.4: Recycling and Waste Enclosure Guidelines

Land Use Designation	Size/Scale	Minimum Required Space for Bins
Research and Development	First 10,000 sf	Space for one 4 cy waste bin, one 4 cy cardboard bin, and two 95 gal rolled containers for mixed recyclables. Once per week service.
	Each additional 10,000 sf	Space for two 4 cy waste bins, two 4 cy cardboard bins, and four 95 gal rolled containers for mixed recyclables. Twice per week service for waste and once per week service for recyclables.
Commercial/Mixed Use	First 10,000 sf	Space for one 4 cy waste bin, one 4 cy cardboard bin, and two 95 gal rolled containers for mixed recyclables. Once per week service.
	Each additional 10,000 sf	Space for two 4 cy waste bins, two 4 cy cardboard bins, and four 95 gal rolled containers for mixed recyclables. Twice per week service for waste and once per week service for recyclables.
Business Park	First 20,000 sf	Space for one 4 cy waste bin, one 4 cy cardboard bin, and one 95 gal mixed recyclables bin. Once per week service.
	Each additional 20,000 sf	Space for two 4 cy waste bins, one 4 cy cardboard bin, and two 95 gal mixed recyclables bins. Once per week service.
Business Aviation Reserve	First 20,000 sf	Space for one 4 cy waste bin, one 4 cy cardboard bin, and one 95 gal mixed recyclables bin. Once per week service.
	Each additional 20,000 sf	Space for two 4 cy waste bins, one 4 cy cardboard bin, and two 95 gal mixed recyclables bins. Once per week service.

cy = cubic yard(s)
gal = gallon
sf = square foot/feet

Figure 2.4-8: Trash Enclosure

- A 12-foot-wide City-standard sidewalk crossing (such as a driveway or wheelchair ramp) shall be installed at the street near the collection point if the trash enclosure area is not accessible from a parking lot or other on-site location.
- Trash areas shall not be used for storage. The premises shall be kept in a neat and orderly condition at all times, and all improvements shall be maintained in a condition of good repair and appearance.
- Storage of waste and recyclables within trash enclosure areas shall be in approved containers serviced by a franchised hauler.
- Easily accessible dedicated area(s) shall be provided for each building, including the collection and storage of materials for recycling, including but not limited to, mixed paper, corrugated cardboard, glass, plastics, and metals (refer to Figure 2.4-9).

Figure 2.4-9: Designated Recycling Enclosure

- General recycling information shall be posted in trash enclosures near recycling containers to encourage recycling and deter contamination of recyclables.
- Recycling bins shall be located in the same enclosure as waste bins whenever possible. If not possible, recycling bins shall be located so they are as convenient as the waste bins and with appropriate signage.

2.4.12 Signs

2.4.12.1 General Requirements

The sign program for the Specific Plan area provides project identity, maintains attractiveness while allowing for individuality, and provides compatibility with the adjacent Airport. Signs are an integral part of each site's architecture and landscaping and, therefore, will integrate with and be part of the overall site's design. The following standards apply to all signs within the

Specific Plan area. A sign program shall be submitted with building site plans for all proposed developments for approval pursuant to Section 5.4, Development Submittal, Review, and Approval Process, of this Specific Plan. The sign program shall meet the following requirements:

- To ensure legibility, the copy area of a sign shall not exceed 30 percent of the total background area of the sign.
- Signs shall be of materials that are compatible with exterior building colors and materials, building architecture, landscaping, lighting, finishes, and type fonts, and be of high-quality fabrication.
- Signs shall be free of all labels and fabricators' advertising except for those required by code.
- No sign shall be permitted that, by virtue of the intensity, direction or color of its lighting, or the placement of the sign, interferes with the operation of, or causes confusion to the operation of, aircraft or motor vehicles on adjoining roads.
- Lighting of signs shall be accomplished through the use of adjacent pole lights, backlights, or uplights. Signs shall not utilize neon or be internally lit.
- Signs shall not employ any devices that rotate, gyrate, blink, flash, or move in any manner.
- All building-mounted signs shall be constructed so as not to have exposed wiring, raceways, ballasts, conduits, or transformers.
- All signs shall conform to the appropriate building and electrical codes. The owner/tenant and contractor shall be responsible for obtaining any and all permits required.
- All freestanding signs shall be integrated with landscaping and grading.
- Metal signs may be made of aluminum, brass, bronze, copper, or stainless steel and may be painted.
- All owners and/or tenants shall be responsible for the proper maintenance of their signs.
- Upon termination of a lease of a use or vacation of a facility, signs related to that use or facility shall be removed.
- Signs located at driveway entrances shall not interfere with the visibility of motorists, bicyclists, and pedestrians.

2.4.12.2 Comprehensive Sign Program

A comprehensive sign program shall be prepared and submitted in conjunction with each project application involving either a multi-tenant structure or a number of buildings associated as one complex. The program shall address all signs to be used and shall conform to all provisions identified in this section of the Specific Plan. For all signs, the size, placement, materials, colors, illumination, and other design characteristics not specified in this section of the Specific Plan shall be determined at the time of approval of the comprehensive sign program pursuant to Section 5.4, Development Submittal, Review, and Approval Process, of this Specific Plan. The comprehensive sign program shall contain the following information:

- A site plan with building elevations identifying the locations of all signs.
- Design drawings for each sign or type of sign, specifying the dimensions, copy, size of copy, materials, type of construction, illumination, and details necessary to determine the appropriateness of the sign.

Once a comprehensive sign program is approved, all signs in that project shall conform to the program. The specified dimensional limitations may be waived upon determination by the architectural and site design review board that the submitted sign(s) meet the intent of the standards and guidelines and result in both a functionally and aesthetically superior design.

2.4.12.3 Definitions of Sign Terms

Unless otherwise specified, the following definitions shall apply to all signs within the Specific Plan area:

- **Applied Letter Sign:** A sign consisting of copy only (letters and symbols), with no frame or border, in which the copy is either painted or applied directly in the form of cutouts to the building exterior.
- **Awning Sign:** A sign integral with an awning.
- **Background Area of a Sign:** The entire background area of a sign upon which copy could be placed. In computing the background area of a sign, only the face seen from any one direction at a time shall be counted.
- **Building Complex Sign:** A sign located on an access road or entrance drive identifying groups of buildings served by that road or drive.
- **Building Identification Sign:** A sign identifying the name and/or number of an individual building.
- **Comprehensive Sign Program:** A program establishing the design characteristics of a coordinated set of signs for a single project or area.
- **Copy Area of Sign:** The actual area of the sign copy applied to any background. In computing copy area, straight lines drawn closest to the copy extremities encompassing individual letters, words, or symbols shall be used.
- **Directional Sign:** A sign designed to guide or direct motorist or pedestrian traffic and identifying vehicular and pedestrian ingress and egress, internal circulation, and locations and limitations of parking.
- **Directory Sign:** A sign identifying either the locations of individual buildings in a complex of buildings or the tenants of a specific building.
- **Freestanding Sign:** A sign that stands alone or on its own foundation without being attached to or supported by something else.
- **Gateway Sign:** An entry sign strategically located near the intersections of Imjin Road and University Road, Imjin Road and Reservation Road, MBEST Drive and Reservation Road, and

University Road and West Blanco Road. These entry signs will generally identify the Marina Municipal Airport Business and Industrial Park/UC MBEST Center Specific Plan area.

- **General Advertising Sign:** A sign that directs attention to a business, commodity, service, or entertainment conducted, sold, or offered elsewhere than on the premises and only incidentally on the premises if at all.
- **Monument Sign:** A low-profile, freestanding sign having either no supporting base or a supporting base with a minimum dimension of at least one-third of the maximum horizontal dimension of the sign and a vertical dimension of less than 20 percent of the maximum height of the sign. A monument sign accents the architectural theme of buildings within the same development by incorporating the design and materials of the buildings. Said sign may be placed within required setback areas.
- **Sign Area:** For applied letter signs, the copy area; for all other signs, the background area.
- **Tenant Identification Sign:** A sign identifying the business occupants of a building or space within a building.
- **Wall Sign:** A sign affixed in any manner to the exterior wall of a building that does not project more than 8 inches from the wall surface and does not extend above the parapet, eaves, or building facade to which it is attached.
- **Window Sign:** A sign affixed or applied to either the interior or exterior of a glazed surface such that the sign background remains transparent and the sign copy is visible from areas accessible to the public.

2.4.12.4 Sign Types and Requirements

- **Gateway Signs:**
  - The primary gateway sign for the Specific Plan area shall be located on the northern side of the planned intersection of MBEST Drive along Reservation Road between Imjin Road and West Blanco Road. This intersection will be the primary point of entry for Specific Plan area-bound visitors and employees, and will provide a direct connection to the Plaza. The design of the sign shall create an appropriate gateway statement that is compatible with the landscaped open space that will surround it. The sign shall not exceed 6 feet in height or 10 feet in width.
  - Secondary gateway signs shall also be located at the intersections of Imjin Road and Reservation Road, and Research Drive and West Blanco Road. These gateway signs shall provide identification for both the UC MBEST Center and other activities, including the Marina Municipal Airport Business and Industrial Park. These signs shall not exceed 5 feet in height and 8 feet in width.
- **Streetscape Zone Signs.** The streetscape zone includes the landscaped setback and extends to the property line at the street right-of-way.
  - Signs within the streetscape zone shall be limited to directory or monument signs.
  - Only one sign shall be located at each driveway curb cut.

- All signs shall be ground mounted and shall not exceed 5 feet in height (above grade), 12 feet in length, and 36 square feet in area.
- Sign copy shall be limited to 30 percent or less of the sign area and letter height shall not exceed 5 inches. Copy shall be designed to be legible to motorists entering the site.
- If signs are located on landscaped berms, their overall height above the closest roadway shall not exceed 6 feet.
- Signs located at driveway entrances shall not interfere with the visibility of motorists, bicyclists, or pedestrians.
- Building address numbers shall be displayed as close as possible to a building's main entrance, and signs, including numerals, shall always face the main vehicular or pedestrian approach.
- General advertising signs shall not be allowed.

- **Interior Zone Signs.** The interior zone includes the parking, landscaping, and building areas. Signs included within this zone comprise the following:
  - **Tenant Directory Signs.** Ground mounted; no greater than 54 inches in height (above grade); and not exceeding 36 square feet in area.
  - **Pedestrian and Directional Entry Signs:**
    - Pedestrian entry signs shall be wall mounted, located a maximum of 6 feet above grade, and have a maximum width of 4 feet and a maximum area of 3 square feet.
    - Directional entry signs shall have a height not greater than 54 inches and not less than 36 inches, and a width not greater than 40 inches. Directional entry signs shall be illuminated if the on-site facilities will be used during non-daylight hours.
  - **Building Wall Signs.** Wall-mounted but no higher than the roof parapet. Maximum dimensions are 3 feet high and 20 feet wide, with a maximum sign area of 60 square feet.
- **Temporary Facility Signs:**
  - **Freestanding Signs.** The developer of each parcel may display one temporary freestanding sign that includes information pertinent to a site and its stage of development. Temporary signs may be post-and-panel signs or freestanding monument signs. Such signs shall be submitted to and approved by the City prior to installation. No temporary promotional signs are allowed within public street rights-of-way. The following criteria apply to temporary freestanding signs:
    - A temporary freestanding sign may be erected on a site any time after the site has been purchased from the property owners. Information may be added or the sign can be replaced by another to indicate the beginning of construction, or to recruit employees or identify the leasing agent. However, each revision or sign replacement must conform to the signage guidelines provided in the Specific Plan. A sign to be replaced by another shall be removed before the new sign is installed. Such signs

shall be removed from the lot when the initial leasing program is 95 percent complete.

- Temporary signs shall be no more than 5 feet in height and no more than 4 feet in width.
- The sign material shall be designed to last the length of its intended use without significant fading, warping, blistering, cracking, rotting, or delaminating. The City may, without liability, cause the removal of any sign deemed to be in deterioration or damaged.
- Temporary signs associated with the sale, leasing, and/or development and construction of buildings shall remain in place no more than 12 months. Removal shall occur after 95 percent occupancy or lease-out or within 6 months of occupancy approval, whichever occurs first. This period may be extended upon approval from the Community Development Director. No temporary sign shall pose a hazard to the safe movement of traffic, nor shall it block the visibility of permanent signs on adjacent lots.

- **Wall Signs.** Banners, pennants, and flags may be placed on an occupant's property for the purpose of announcing the opening of a new business. The following criteria apply to temporary wall signs:
  - The total area of all temporary signs and advertising devices shall not exceed the area of permanent signs for the use permitted by these sign criteria.
  - No temporary sign shall be located in a manner not permitted for permanent signs.
  - No inflatable sign shall be permitted.
  - No temporary sign shall pose a hazard to the safe movement of traffic, nor shall it block the visibility of permanent signs on adjacent parcels.
  - Temporary signs may remain in place for a period not to exceed 30 days after the date of sign installation, or until a permanent sign is installed, whichever occurs first.

2.4.13 Fences and Walls

The following standards apply to all fences and walls within the Specific Plan area:

- No fence or wall exceeding 3.5 feet in height shall be constructed closer than 30 feet to the curb line of the fronting street.
- No exterior fence or wall, including retaining walls, shall exceed a height of 8 feet.
- Walls and fences between buildings and fronting streets are generally discouraged but may be approved as part of a development application when demonstrated that such a wall or fence is consistent with and implements the objectives of the Specific Plan.
- Chain-link or similar metal fencing materials are prohibited.
- Where sloping conditions exist, the tops of all fences should be stepped.

2.4.14 Equipment Screening

Exterior mechanical, electrical, water, and related equipment shall comply with the following standards:

- Exterior components of roof-mounted equipment, including plumbing, processing, heating, cooling, and ventilating systems (including, but not limited to, piping; tanks; stacks; collectors; heating, cooling, and ventilating equipment fans; blowers; ductwork; vents; louvers; meters; compressors; motors; incinerators; and ovens) shall not be directly visible from a height of 5 feet above any ground or ground-floor elevation at a distance closer than 250 feet from the closest building on any lot.
- All on-site electrical lines (excluding transmission lines) and telephone lines shall be placed underground. Ground-mounted transformers and all other similar equipment shall be visually screened from view from streets and adjacent properties.
- Roof-mounted equipment shall be screened by either building parapets or individual screening material that is visually consistent with the building's architecture.
- Water meters shall be placed underground or visually screened from view from streets.
- Backflow preventers shall be visually screened from view from streets.

2.4.15 Site Lighting

2.4.15.1 General Standards

Public lighting refers primarily to streetlights along public streets. Streetlights shall conform, both in type and location, to the City's standards at the time of installation. Costs for maintenance of and energy used for public street lighting will be paid through the Landscaping and Lighting Assessment District formed and managed in accordance with Section 22500 of the California State Street and Highway Code.

The following requirements apply to illumination of on-site areas within the Specific Plan area for purposes of safety and security, including lighting for parking areas, pedestrian walkways, graphics and signs, architectural and landscape features, shipping and loading areas, and any additional exterior areas:

- A comprehensive lighting plan shall be prepared and approved in conjunction with the site plans for each parcel submitted for approval pursuant to Section 5.4, Development, Submittal, Review, and Approval Process, of the Specific Plan.
- All exterior lighting shall be designed so as to create no glare or interference with aircraft in flight. Such lighting shall be constructed and located so that only the intended area is illuminated and off-site glare is fully controlled. The lighting shall be arrayed in such a manner that it cannot be mistaken for Airport approach or runway lights by pilots. Project lighting plans shall be approved by the Airport manager or his/her designee. On-site lighting shall utilize cut-off luminaires to minimize off-site glare.

- Floodlighting and intense lighting of expansive areas, with the exception of industrial uses associated with Airport use, is to be prohibited.
- Where direct lighting sources cannot be avoided, such as on pole-mounted fixtures in parking lots, diffusers shall be incorporated into the design of the fixture and the lighting sources. The diffuser shall be mounted above or flush with an opaque fixture housing.
- Street lighting shall be designed, at a minimum, in accordance with the latest adopted City standard specifications (e.g., Public Works Division Standard Plans E-1 through E-5).
- All parking areas shall have photocell-operated lighting, which maintains 0.5 foot-candle[1] at ground surface from sunset to sunrise and would not create a hazard to flight associated with the Airport.

2.4.15.2 Obstruction Lights

The FAA AC 150/5345-43G has light unit intensity requirements for white and red obstruction lights that would be followed within the Specific Plan area. The light unit intensity must be controlled by a photocell facing the northern (polar) sky. White obstruction lights must automatically change intensity steps when ambient light changes, as follows:

- From day intensity to twilight intensity when the illumination decreases below 60 foot-candles (645.8 lux) but before it reaches 35 foot-candles (376.7 lux).
- From twilight intensity to night intensity when the illumination decreases below 5 foot-candles (53.8 lux) but before it reaches 2 foot-candles (21.5 lux).
- From night intensity to twilight intensity when the illumination increases above 2 foot-candles (21.5 lux) but before it reaches 5 foot-candles (53.8 lux).
- From twilight intensity to day intensity when illumination increases above 35 foot-candles (376.7 lux) but before it reaches 60 foot-candles (645.8 lux).

Red obstruction light requirements are as follows:

- If automatic control is utilized, the light unit must turn on when the ambient light decreases to not less than 35 foot-candles (376.7 lux) and turn off when the ambient light increases to not more than 60 foot-candles (645.8 lux). Single L-810 light units are controlled in a manner compatible with the particular installation.

2.4.15.3 Parking Lot Lighting

The following standards apply to all parking lot lighting within the Specific Plan area:

- Parking lot lighting shall illuminate all sidewalks and connecting walkways within parking lot areas.

[1] A foot-candle is a unit for measuring illumination that is equal to 1 lumen per square foot. It is the illuminance on a surface that is everywhere 1 foot from a uniform point source of light of one candle.

- Lighting standards shall be a maximum of 25 feet in height (refer to Figure 2.4-10).

Figure 2.4-10: Parking Lot Lighting

- All parking lot lighting shall be provided with automatic lighting systems regulated by photocell-operated lighting, which maintains an average of 0.5 foot-candle illumination at ground surface and within property boundaries from sunset to sunrise.

2.4.16 Design Requirements within the Campus Core Overlay Area

The following specific design requirements apply only to development of the Overlay Area and have been summarized from Sections 2.4.1 through 2.4.12 above:

- Land use categories (Business Park, Research and Development, and Business Aviation Reserve) within the Overlay Area have an established FAR of 0.40.
- Buildings within the Overlay Area will be permitted to a height of three floors or 56 feet.
- For buildings within the Overlay Area, 5 feet of landscaping and a 5-foot sidewalk shall be provided within the 10-foot setback zone (to supplement the 5-foot sidewalk and landscaping within the public right-of-way) (refer to Figures 2.4-3 and 3.2-2b).
- At least 50 percent of building frontages within the Overlay Area shall be built to a line 10 feet from the property line adjacent to the Plaza.
- Two bus stops for Monterey-Salinas Transit (MST) buses shall be located along the curb edge of the Overlay Area. Buses shall circulate around the Overlay Area in a clockwise direction as indicated by directional signs, allowing for passenger drop off and pick up from the Plaza. At such time as the UC MBEST Center grows beyond West Blanco Road to include the development of the UC MBEST East Campus, two additional shuttle stops will be added within the Overlay Area to serve UC MBEST Center shuttles.

- Adjacent to each bus stop within the Overlay Area, a transit shelter and bench shall be provided along with posted information related to bus schedules and routing.

2.4.17 Waivers or Deviations from Development Standards

Any development proposal for this Specific Plan requesting a waiver or deviation from the above-referenced development standards may do so pursuant to Section 5.3, Substantial Conformance, of this Specific Plan. In all such requests, the applicant must demonstrate how the requested waiver or deviation will not detract or be inconsistent with the goals and objectives of this Specific Plan.

2.5 DESIGN GUIDELINES

2.5.1 General Concepts for All Planning Areas

The objective of the Specific Plan's design guidelines (recommendations) is to create a balance between the following:

- Allowing the opportunity for unique, innovative, and market-responsive architectural design for individual sites while adhering to the development standards established in Section 2.4, Site Development Standards, of this Specific Plan; and
- Creating a strong, integrated, and unifying design theme for the entire Specific Plan area through streetscape, landscape/entry statements, and common area guidelines.

The design guidelines identified below for the Specific Plan are consistent with the RUDG adopted by the FORA in June 2016.

2.5.1.1 Individual Site Design

The following general principles are intended to facilitate design quality and compatibility among a variety of uses in the Specific Plan area, as well as with uses adjacent to the Specific Plan area:

- Grading should be minimized to the extent practicable to preserve existing topography.
- Existing trees and other on-site vegetation should be retained to the extent practicable to extend and/or preserve natural features.
- Site design should facilitate the intended functions of developed and open space areas and provide for appropriate interactions between the buildings and activity centers, goods movement, vehicular access and parking, and pedestrian and bicycle travel.
- Landscaping should adhere to the approved plant palette, providing shade and heat reduction (function) and complementing the structural elements of the site (form).
- Adequate parking should be provided on each lot or among adjacent lots, with convenient and safe ingress and egress. Parking areas should be designed to avoid conflict among service vehicles, private passenger vehicles, pedestrians, and bicyclists.

- Signs should serve a directional and identification purpose but should be consistent with the structural and landscaping components of the site in terms of scale, amount, location, materials, and colors.
- Lighting should focus on safety and direction and should be in scale with the building, landscaping, and signs. Lighting on any individual site should not allow direct rays beyond the site's property boundaries.

2.5.1.2 Buildings

It is not the intent of the Specific Plan to establish a singular architectural theme for buildings within the Specific Plan area. However, it is important that the buildings contribute to a high-quality Specific Plan environment that complements the natural features of the area, creates an attractive and interesting visual environment, and promotes interaction and exchange among the various uses. The following principles should be applied to the design of buildings within the Specific Plan area:

- **Orientation:** Buildings should be oriented to encourage the use of daylighting (the illumination of buildings by natural light) and other green building practices to the greatest extent feasible. Buildings should be located so that approaches to visitor parking and entries are easily discernible (refer to Figure 2.5-1). Buildings should generally be located parallel or perpendicular to roadways; however, exceptions will be considered for the purpose of solar orientation. Buildings within the Overlay Area should be oriented close to the roadway and/or Plaza to encourage activity and pedestrian interest (refer to Figure 2.5-2).
- **Consistent Treatment of All Elevations:** Buildings should be designed with a high-quality visual image, with consistent architectural features and materials on all sides.
- **Relation to the Topography of the Site:** Buildings should reflect the site's topography through stepping and terracing as practicable, with the expressed intent of minimizing mass grading and excessive need for export and/or import of material.
- **Complementary Materials and Colors:** Buildings should be designed with materials and colors that complement the surrounding landscape. Masonry, wood, plaster, and stone utilizing a light and warm color palette in the earth tones is encouraged. The use of metal clad or reflective glass buildings is not permitted within any of the land use designations; however, exceptions will be considered for aircraft hangars, manufacturing, industrial, warehousing, and related aviation and non-aviation building types for uses permitted within the Business Aviation Reserve and Business Park land use designations.
- **Ground-Level Treatment:** Ground-level areas facing key open spaces and the Plaza should be designed in a manner that promotes a comfortable and interesting pedestrian environment (refer to Figure 2.5-3). Public-oriented activities (e.g., lobbies, recreational facilities, dining areas) that promote an extension of indoor activities to the exterior and/or provide a sense of activity from the pedestrian's viewpoint should be included along these frontages. The use of weather-protected arcades, colonnades, or canopies is encouraged. Generous provision of storefront windows and frequent building entries is also encouraged, as appropriate.

Figure 2.5-1: Easily Discernable Visitor Parking and Entries

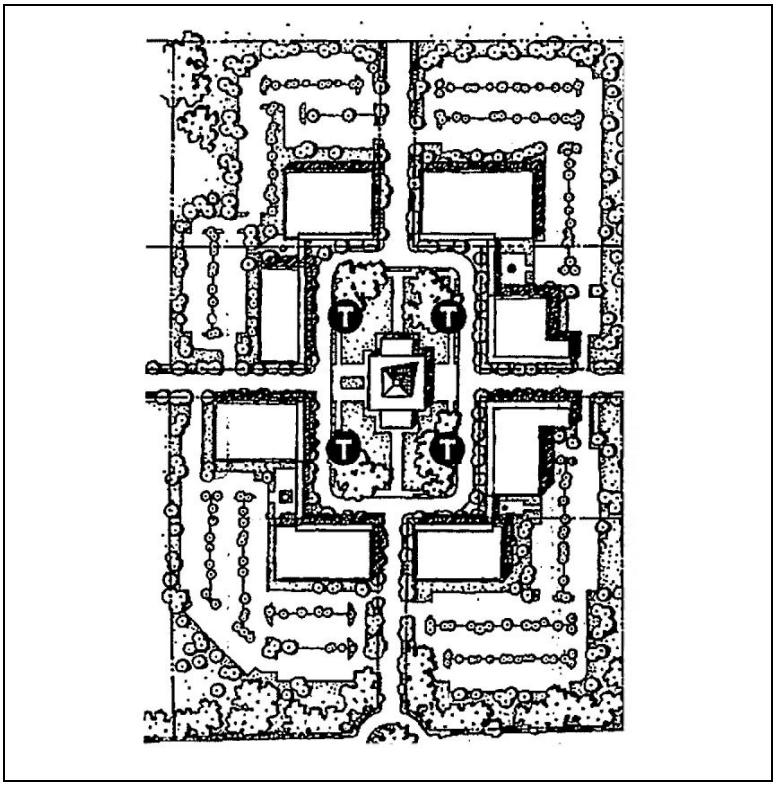

Figure 2.5-2: Illustrative Development Pattern for the Campus Core Overlay Area

Figure 2.5-3: Promote Comfortable Pedestrian Experience

- **Elevation Treatment:** Visual interest and diversity are encouraged through variations in building profile; the use of accent materials and colors; overhanging roofs and recessed windows and openings, which create distinct shadows; and the use of moldings, belt courses, and other architectural features on the façade to provide interest for all elevations for each building (refer to Figure 2.5-4).
- **Service Areas:** Service areas, which may include truck facilities, materials, supplies, and exposed mechanical and electrical equipment, must be screened with visual barriers so they are not visible from public streets or open spaces. In addition, materials and supplies must be screened from adjacent parcels (refer to Figure 2.5-5).
- **Mechanical Equipment:** All major systems requiring large components (e.g., air-conditioners, storage tanks) should be located in mechanical rooms completely within the building. Alternatively, systems might include an exterior location at or below ground level as necessary to limit heights to a maximum of 8 feet above grade, or may be fully recessed into roof wells with allowances for future equipment. Mechanical equipment so located must be screened in an architecturally integrated manner with the overall architectural design of the building. Auxiliary buildings housing mechanical equipment must be in full compliance with all the development standards outlined in Chapter 2.0 of this Specific Plan and architectural guidelines also provided herein. Portable storage containers should be permitted on a temporary basis only.
- **Overhangs:** Non-fabric awnings, balconies, porticos, and entry setbacks should be used in commercial and office buildings as appropriate to define entrances, provide outdoor seating, and protect pedestrians from sun, wind, and rain (refer to Figure 2.5-6).

Figure 2.5-4: Building Profile Variations

Figure 2.5-5: Screen Service Areas

Figure 2.5-6: Building Overhangs

2.5.2 Landscaping

This section describes the minimum landscape guidelines that should be followed in the design of all public and private improvements within the Specific Plan area. Landscaping should promote the aesthetic character and value of the Specific Plan area and should:

- Establish a strong sense of place and a recognizable hierarchy of streets and spaces;
- Provide visual interest through the use of naturalistic plantings that are compatible with the natural environment;
- Direct views and define spaces through the use of a combination of berms, shrubs, and smaller trees; and
- Serve to provide a consistent visual theme for the entire Specific Plan area.

2.5.2.1 General Landscape Guidelines

As noted in the UC MBEST Master Plan, the underlying intention for future planning is to build upon the native and indigenous landscape and thus reinforce local identity. One of the objectives of the following landscape approach is to avoid the manicured and groomed appearance of typical business parks and to instead create a distinctive identity for this Specific Plan while reducing overall irrigation and maintenance costs. For example, turf areas requiring intensive irrigation are not permitted. The preserved open space areas along Reservation Road, which are occupied by oak stands and native understory, provide the visual intent of these general landscape guidelines. The following guidelines apply to landscaping for all land use designations within the Specific Plan area:

- Nonnative plants may be used provided they are not invasive (refer to "Removal of Invasive Species" in Section 2.4.5, Landscaping, for a list of invasive species) and are commonly used

in naturalistic landscaping found in the Monterey Bay area. They should be drought-tolerant and compatible with the sandy dune environment, prevailing coastal winds, and salt-borne air conditions typically found along the coast.

- Complementary plants should be used to create a setting that resembles locally found plant communities, thereby blending the Specific Plan area more sensitively into the Monterey Bay and Fort Ord landscape.
- Landscaping should appear informal, reflecting native materials, form, and scale.
- New landscaping should be planted in groups containing the same species to develop recognizable landscape forms and masses; however, the use of a single species over extended areas should be avoided.

Landscaping guidelines are organized into three categories: streetscapes, on-site landscaping, and open space. These categories are described in detail below.

2.5.2.2 Streetscapes

The landscaping of streets within the Specific Plan area includes the adjacent arterial roads (Reservation Road and West Blanco Road), entry roads, and internal roadways. In general, the landscaping of the streets should achieve the following:

- Reinforce the hierarchy and pattern of the roadways
- Reduce the overall scale of the roadways to promote traffic calming and greater safety for non-vehicular mobility.
- Provide visual interest to motorists, bicyclists, and pedestrians
- Promote a seamless landscape between the medians, shoulders, and adjacent parcel setback areas

Reservation Road and West Blanco Road. Reservation Road and West Blanco Road traverse and abut the Specific Plan area. The following landscape guidelines apply to Reservation Road and West Blanco Road:

- These road frontages should include drought-tolerant trees primarily indigenous to the Monterey Peninsula, with a low to medium height (e.g., Coast live oak [*Quercus agrifolia*]).
- At key intersections and entries, taller landmark trees (e.g., Monterey cypress [*Cupressus macrocarpa*] and Catalina ironwood [*Lyonothamus floribundus*]) should be incorporated.
- All trees along these road frontages should be planted in an informal manner so as to resemble natural groupings.

Entry Roads. Entry roads from Reservation Road and West Blanco Road serve to distribute traffic between the Specific Plan area and surrounding roads, and assist in establishing a proper transition in scale to the individual parcels. Entry roads include University Road, MBEST Drive, and Research Drive. The following landscape guidelines apply to entry roads (refer to Figures 2.4-3 and 3.2-2a):

- Entry roads should utilize a wider range of types and scales of plant materials than suggested for Reservation Road and West Blanco Road.
- Emphasis upon more distinctive plants should be considered (refer to Figure 2.5-7).

Figure 2.5-7: Distinctive Landscape at Entry Points

- Beyond the 4-foot-wide landscaped parkway strips and walkways is the 25-foot-wide landscape area (shoulder), which will transition directly into the landscaped setbacks within the individual parcels. The parkway, shoulder, and parcel setbacks should be a seamless landscape utilizing a range of plant material similar to the medians.
- Larger landmark trees should be used more frequently in the 25-foot shoulder areas. Understory trees and shrubs should be used for screening and accent within the shoulders.
- Ground plane planting within the medians, parkway strips, and shoulders should also include a mix of low shrubs, ground cover, and perennial grasses.

Internal Roadways. Landscaping of roadways occurs within parkway areas between the curbs and sidewalks, and is visually extended by landscaping within the parcel front yard setbacks that abut the sidewalks within the road rights-of-way (refer to Figures 2.4-3, 3.2-2a, and 3.2-2b). The following landscape guidelines apply to roadways:

- Landscaping of roadways should be limited to trees that are suitable as street trees (refer to Table 2.5.1).
- Trees should be selected to both reduce the scale of the roadways and assist in the formulation of a recognizable and distinct circulation system.

- Landscaping between the roadways and parcel setbacks should achieve the appearance of a seamless landscape through the use of plants that are common to both areas.
- Ground plane planting within the parkway strips should be limited to low shrubs, ground cover, and perennial grasses.

2.5.2.3 On-Site Landscaping

Landscaping within the development parcels should be designed to extend the character of the surrounding Fort Ord, streetscapes, and open space areas, and to appear as a seamless naturalistic landscape extending across the Specific Plan area. Landscape guidelines for other areas of the Specific Plan apply equally to on-site landscaping. Each development proposal for any individual site within the Specific Plan area will include a landscape and irrigation plan indicating plant material, plant size, plant location, and irrigation plans. Landscaping guidelines for on-site landscaping have been broken down into the following seven categories.

Landscaped Setbacks Adjacent to Streets. Landscaped setbacks adjacent to streets vary from 25 feet along Imjin Road and internal roadways to 50 feet along Reservation Road and West Blanco Road. Landscaping within these setbacks should primarily extend the character of the adjacent streetscapes directly through the parcel landscape setbacks to create a seamless, naturalistic landscape. The following landscape guidelines apply to setbacks adjacent to streets:

- Understory trees and shrubs should be used for screening and accent, and ground plane planting should include a mix of low scrubs, ground cover, and perennial grasses (refer to Figure 2.5-8).

Figure 2.5-8: Understory Trees and Shrubs Provide Screening and Accents

- Berming is acceptable provided the intent is to screen parking lots or other objectionable views, such as building service areas. Berming should be undertaken in a manner that complements and extends the existing topography.
- Larger landmark trees should be planted in the parcel setbacks.

Landscaping of Percolation/Storm Water Retention Areas. The landscape treatment of percolation/retention areas will be integrated with surrounding landscapes and the overall site design to promote the appearance of a cohesive site. The following landscape guidelines apply to percolation/storm water retention areas:

- If situated within setback areas, percolation/storm water retention areas should be designed to extend the streetscape landscaping and should be landscaped with the same ground cover materials.
- The configuration of the depressed area should be carefully composed so that it appears to be a natural extension of the surrounding landscape.
- If percolation/storm water retention areas are situated on other portions of the site, they should be designed to appear as attractive elements of the landscape and site design.

Landscaped and Paved Areas Surrounding Buildings. The following landscape guidelines apply:

- Landscaping should be smaller in scale and more refined to reflect the smaller spaces and proximity of the buildings.
- The building surrounds should be designed as pedestrian-oriented environments and landscaped as such (refer to Figure 2.5-9).

Figure 2.5-9: Pedestrian Oriented Landscaping

- Landscaping should be scaled to provide a gradual transition from the larger trees found in the streetscapes and setbacks to the smaller parking lot trees and the more intimate building surrounds.
- Building surrounds should be landscaped with finely textured plants.
- Trees should be selected for their leaf, branching, or bark characteristics.
- Low shrubs and ground covers should be selected for various unique characteristics, such as flowers and/or fruit.

Landscaping of Interior Courtyards. The following landscape recommendations apply to interior courtyards:

- Interior courtyards that are predominantly enclosed may be landscaped with plants not listed in Section 2.5.2.6, Approved Plant Materials, provided the landscaping is water-conserving and the specimens do not grow substantially above the roof line of buildings surrounding the courtyard (refer to Figure 2.5-10).

Figure 2.5-10: Enclosed Interior Courtyard

- At least one-third of the courtyard area should have an attractive and durable surface (such as paving or crushed rock) to permit daily use of the area. Additional provisions should be made for seating within these areas.

Parking Lot Treatment. The following landscape guidelines apply to parking lots:

- Landscaping should be designed to mitigate the visual impact of parking lots while also providing shade.

- Landscaping should be provided along the perimeter of parking areas to spatially distinguish and partially screen parking lots from adjoining streets, buildings, and landscaped areas.
- The interior of multi-bay parking lots should be landscaped to minimize the visibility of paved surfaces and to provide shade (refer to Figure 2.5-11).

Figure 2.5-11: Parking Area Landscaping Provides Shade and Visual Relief

- The interior of multi-bay parking lots should be landscaped to minimize the visibility of paved surfaces and to provide shade (refer to Figure 2.5-11).
- Parking lot trees should be selected for deep root growth. Shallow-rooting trees that could disrupt parking lot pavement should be avoided.
- Deep root growth should be enhanced through the use of root control barriers and deep water irrigation techniques.
- The soil within the tree wells should be prepared in advance of tree planting.
- Parking lot trees should be of medium texture and evergreen, although other tree types should be considered.
- Tree pockets and parking islands should be planted with low ground cover.

Retention of Oak Stands. The following landscape guidelines apply to existing oak stands:

- To the extent possible, existing oak stands should be incorporated as part of the site landscaping concept (refer to Figure 2.5-12).

Figure 2.5-12: Existing Oak Stands Incorporated into Site Landscaping

- The removal of any existing oak or other tree with a diameter greater than 6 inches on the land owned or controlled by UC will require the replacement planting and maintenance of new trees such that the sum of the diameters at breast height (DBH) of the new trees equal the sum of the DBH of the trees removed. Locations for replanting should be primarily along Reservation Road and West Blanco Road. Proposed planting locations should be approved pursuant to Section 5.4, Development Submittal, Review, and Approval Process, of this Specific Plan.
- The removal or relocation of any existing oak tree on the City-owned portion of the Specific Plan area or on MBEST Center land not owned or controlled by UC should require that a tree removal permit be obtained from the City pursuant to Chapter 17.51 of Title 17 of the City's Zoning Code. To obtain a tree removal permit, an application form provided by the City accompanied by the specified fees should be submitted to the City. The Community Development Director or designee, upon review and recommendation by the tree committee, may approve, deny, or conditionally approve a request for removal. If the request is part of a development proposal that requires review by the Site and Architectural Design Review Board and/or the City Planning Commission, the Community Development Director or designee should refer the application together with a recommendation for action thereon to the appropriate reviewing body. If it is determined by the appropriate approval authority that adverse effects of tree removal can be mitigated, conditions should be imposed on the removal, including, but not limited to, one or more of the following: (1) a Tree Removal and Protection Plan, (2) a Compensation Plan, and/or (3) a Site Restoration Plan.

2.5.2.4 Open Space

The landscaping of open space within the Specific Plan area includes the Plaza and two designated open space areas along Reservation Road. These open space areas should achieve the following:

- Extend and/or preserve on-site vegetation and natural features;
- Provide common areas for gathering and/or recreation; and
- Promote pedestrian activity and interest along open space areas.

Plaza. The Plaza is intended to serve as the principal gathering place for the Specific Plan area. The Plaza will be surrounded by a one-way roadway with curbside parking, bike lanes, and strategically located bus bays, and will be spatially defined by two- to three-story buildings oriented to the open space (refer to Figure 2.5-13).

Figure 2.5-13: Plaza Should be Defined by Buildings and Flat Flexible Space

The following landscape guidelines apply to the Plaza:

- The landscape treatment should be designed to support group events as well as informal enjoyment and recreation.
- The Plaza should be planted with a blended grass mixture consisting of a native wildflower mix for erosion control and special-interest and drought-tolerant turf grass for durability in anticipation of pedestrian usage.
- (OPTIONAL) If creatively designed, the majority of the Plaza may have impermeable or semi-permeable surfaces (e.g., colored/stamped concrete, permeable paving), with the intent of maximizing its use as a flexible space and/or reducing runoff.

- The Plaza should be planted with the following trees along the edges: New Zealand Christmas tree (*Metrosideros excelsos*) and Marina strawberry tree (*Arbotus 'Marina'*). These trees should be similar in scale and appearance to the street trees planted in the 4-foot parkway strips along the roadways.
- The trees should assist in defining the Plaza without adversely impacting the ability to use the Plaza for various activities.

2.5.2.5 Landscape Maintenance

A Lighting and Landscaping Assessment District made up of the individual site property owners should maintain all common areas, including but not limited to entry statements, rights-of-way adjacent to public roadways, slopes, and the Plaza.

Private Lot Maintenance. All landscaping installed on individual privately owned or occupied lots will be maintained at all times by the property owner or property lessees in a healthy condition acceptable to the City and UC, as appropriate.

Maintenance of Unimproved Sites. Sites that have yet to be improved with a building(s), parking, and other facilities should be maintained in a healthy condition acceptable to the City and the Lighting and Landscaping Assessment District. Seasonal weed abatement will occur to the satisfaction of the City Fire Department and the Lighting and Landscaping Assessment District. Unimproved sites will be kept clear of debris and refuse.

General Maintenance. In the event that a site, improved or unimproved, is not maintained to the satisfaction of the Lighting and Landscaping Assessment District, the Lighting and Landscaping Assessment District will then have the authority to notify the landowner in writing and request that the site's condition be corrected. Should the site's condition not be improved or corrected within a reasonable time frame, the Lighting and Landscaping Assessment District will notify the City, which will then notify the landowner and request immediate action. Should the property's condition remain unchanged, the City should independently conduct the site improvements and thereafter assess the landowner for the cost of the work performed.

2.5.2.6 Approved Plant Materials

Table 2.5.1 provides a range of plant materials that meet the criteria of drought tolerance, non-invasiveness, compatibility with coastal climate and sandy soils, and visual compatibility with the native vegetation of the Monterey Peninsula. These plant materials are consistent with the plant lists provided in the FORA RUDG, have been reviewed by a local naturalist and landscape architect, and are approved for use in the key landscape areas based on the soil type and climate conditions of the site, including streetscapes, open spaces, and on-site landscaping.

The plant species in Table 2.5.1 are typically found in the California chaparral and woodland communities as well as within the coastal strand, and include landmark trees, small to large trees, shrubs, and perennial grasses. The final selection of plants should be based on availability, cost, plant health, and suitability. Plant materials not included in Table 2.5.1 may be used if they meet the selection criteria mentioned above, are consistent with the FORA RUDG, and are

approved as part of an individual site's landscape design plan pursuant to Section 5.4, Development Submittal, Review, and Approval Process, of this Specific Plan.

Table 2.5.1: Approved Plant Materials

Common Name[1]	Scientific Name	Recommended Planting Location within Specific Plan Area
Landmark Trees[2]		
Monterey Cypress	*Cupressus macrocarpa*	Key intersections, entries, and in parcel setbacks
Catalina Ironwood	*Lyonothamus floribundus*	Key intersections, entries, and in parcel setbacks
Coast Live Oak	*Quercus agrifolia*	Along Reservation Rd and Blanco Rd frontages
Small to Medium Trees		
Cajeput	*Melaleuca quinquenervia*	Internal secondary roadway street tree
New Zealand Christmas Tree	*Metrosideros excelsus*	Plaza
Shrubs		
Hooker's Manzanita	*Arctostaphylos hookeri*	
Coyote Brush	*Baccharis pilularis*	
Flannel Bush	*Fremontodendron* species	Along Reservation Rd and Blanco Rd frontages
Coast Silk Tassel	*Garrya eliptica*	
Toyon	*Heteromeles arbutifolia*	Along Reservation Rd and Blanco Rd frontages
Yellow Bush Lupine	*Lupinus arboreus*	
Coffeeberry	*Rhamnus californica*	Along Reservation Rd and Blanco Rd frontages
Sage	*Salvia species*	
Ground Cover – A. Low-Growing Native Mix		
Monterey Manzanita	*Arcostaphylos hookeri*	
Carmel Creeper	*Ceanothus thyrsiflorus* var. *griseus*	
California Poppy	*Eschscholzia californica*	
Sand Strawberry	*Fragaria chiloensis*	
Deer Grass	*Muhlenbergia rigens*	
Ground Cover – B. California Native Wildflower Mix		
Common Yarrow	*Achillea millefolium*	
Black Sage	*Salvia mellifera*	

[1] **Bold type** indicates California native species.
[2] Generally within 25-foot shoulder areas adjacent to entry roads and within parcel setbacks.

2.5.3 Signs

Signs will play an important role in the overall visual appearance of the Specific Plan area. The following sign guidelines apply to all development within the Specific Plan area:

- Signs should clearly delineate the intended path of travel within the Specific Plan area for motorists, bicyclists, and pedestrians (refer to Figure 2.5-14).
- Signs should provide clear linkages between surrounding roads and the Specific Plan area and roadways.
- There should be a consistent and hierarchical design theme throughout all levels of the signs that is compatible in design, size, proportion, color, and materials with the buildings and landscaping (refer to Figure 2.5-15).

Figure 2.5-14: Signs Provide Clear Direction

Figure 2.5-15: Signs Should be of Human Architectural Scale

A sign program will be part of the development application packages submitted for individual sites within this Specific Plan. Refer to Section 2.4.12, Signs, for a complete discussion of the necessary components of the sign program.

2.5.4 Trash Enclosures

The following guidelines apply to all trash enclosures within the Specific Plan area:

- Trash enclosures should be located no more than 150 feet from the nearest point of the building they service.
- Trash enclosure walls should be protected from damage by containers and vehicles.

- Trash enclosures should be designed to allow convenient access by users without having to open the main enclosure gates.
- Trash enclosures designed to use chutes should be designed to allow the chutes to empty into the center of the container to prevent imbalanced loading.
- Trash enclosures that are to be locked should use a 2-inch or larger brass resettable combination lock.
- Trash enclosures should be designed so that the bins cannot be accessed after business hours.

2.5.5 Site Lighting

2.5.5.1 General GuidelinesThe following guidelines apply to illumination of on-site areas within the Specific Plan area for purposes of safety and security, including lighting for parking areas, pedestrian walkways, graphics and signs, architectural and landscape features, shipping and loading areas, and any additional exterior areas:Exterior lighting should accomplish a generally subdued and uniform lighting pattern with a minimum potential for glare through combinations of multiple indirect lighting sources, as opposed to fewer, more powerful direct lighting sources.

- General site and parking lot lighting should tend toward a warmer color spectrum, which is typical of incandescent and sodium-vapor lighting sources. Lighting sources should be energy-efficient lighting.
- Light sources that tend toward more white, daylight, or cooler colors on the light spectrum should be limited to locations where a more accurate color rendition is important, such as at building entrances and exits (for security reasons), or should be used for the lighting of signs or of unique or special building or site features.
- The design of the lighting fixtures should be consistent throughout the Specific Plan area and should be compatible with the architectural style of the buildings. Wall-mounted lights should be utilized to minimize the total number of freestanding light standards.
- Pedestrian paths should be lighted by pole- or bollard-type fixtures (refer to Figure 2.5-16) that are in scale with the pedestrian (typically no more than 12 feet or 3 feet in height, respectively).
- Architectural lighting of building facades is encouraged to enhance and emphasize the buildings and to provide identity.
- Landscaped areas may be illuminated by bollard-type fixtures and by ground-mounted up-lights into trees. The use of solar lighting or light-emitting diodes (LEDs) is encouraged for outdoor landscape lighting.

Figure 2.5-16: Pedestrian Scale Bollard Lighting

2.5.6 Design Concepts for the Campus Core Overlay Area

2.5.6.1 Design Objectives

The Overlay Area (see Figure 2.4-3) is not a separate and distinct land use designation but rather an area that will be distinguished by enhanced development standards and design guidelines, leading to a greater sense of urban density when compared to the remainder of the Specific Plan area. The majority of the Specific Plan's land use designations, with the exception of the Commercial/Mixed Use Designation, will be represented within the Overlay Area; however, specific design concepts and requirements apply to the Overlay Area that do not apply to the same land use designations outside the Overlay Area.

The following design objectives apply to the Overlay Area within the Specific Plan area:

- The Overlay Area should serve as the principal gathering place and focus for the Specific Plan area, encompassing both the UC MBEST Center and the Marina Municipal Airport Business and Industrial Park campuses.
- The Overlay Area should be centrally located within the Specific Plan area, with the Plaza being the central core space of the Overlay Area.
- Buildings within the Overlay Area should be oriented toward the Plaza (which is located in the center of the Overlay Area), thereby encouraging interaction between the various uses and pedestrian interest.
- The Specific Plan's circulation system should provide a central roadway system surrounding the Plaza and separating it from the individual sites within the Overlay Area (refer to description of the central Quadrangle road in Section 3.2.1, Extension of MBEST Circulation Plan).

- The roadway should have four ingress/egress points centrally located on each side of the Plaza that connect the Overlay Area to the remainder of the Specific Plan area.
- At the edges of the Overlay Area, transit stops should offer visitors and employees the opportunity to transfer from the regional bus system to a campus shuttle/transit.

2.5.7 Sustainability Guidelines

2.5.7.1 Introduction

It is the intent of this Specific Plan to encourage and promote sustainable site planning and building concepts for all development in the Specific Plan area. Incorporation of LEED design concepts in building development minimizes the impact of the development on surrounding ecosystems, conserves water and energy, lowers operating costs and increases asset value, reduces harmful greenhouse gas emissions, reduces waste sent to landfills, and creates a healthier and safer environment for occupants.

Developers and applicants are encouraged to employ a sustainability approach for projects through the use of Leadership in Energy and Environmental Design (LEED) design concepts as identified in the *LEED v4 for Building Design and Construction* (U.S. Green Building Council, July 2015). These design guidelines are included as Appendix E. [1] In addition, projects constructed on property ground-leased from UC shall be subject to UC's Sustainable Practices Policy (University of California Office of the President, July 2015). These policies are included in Appendix F.

2.5.7.2 Expedited Review Incentive

In addition to these abovementioned benefits, and pursuant to Section 5.4.3, Expedited Review, of this Specific Plan, applicants may pursue an expedited and/or priority review process with UC and/or the City should their development and land use proposals incorporate the wide range of design concepts identified in Section 2.5.7, Sustainability Guidelines.

[1] The LEED design criteria are periodically updated. Appendix E should be updated as new versions become available.

3.0 CIRCULATION AND MOBILITY CONCEPT

The circulation and mobility concept for the Marina Municipal Airport Business and Industrial Park/ University of California Monterey Bay Education Science and Technology (UC MBEST) Center Specific Plan (Specific Plan) area will support and complement the land use concept in the Specific Plan. The goal of the circulation and mobility concept is to design a safe and efficient transportation system to and through the Specific Plan area for all users, including pedestrians, bicyclists, motorists, and transit riders. Providing complete streets within the Specific Plan area will also support the goals and policies set by Assembly Bill (AB) 32 (i.e., Global Warming Solutions Act of 2006), Senate Bill (SB) 375 (i.e., Sustainable Communities and Climate Protection Act of 2008), and SB 743 (i.e., vehicle miles traveled [VMT] analysis), which seek to reduce greenhouse gas emissions throughout the State by promoting responsible land use planning, including transportation planning.

The Specific Plan identifies the existing roadways within the University of California (UC) owned portion of the Specific Plan. Roadways developed within the City's portion of the planning area will be identified and designed as part of subsequent development projects, yet shall be consistent with the Specific Plan standards. There is emphasis on designing the streets to make walking, bicycling, and transit safer and more accessible, and to minimize the need to drive from one location to another within the Specific Plan area. Circulation design and dimensions are consistent with the UC MBEST Master Plan and RUDG adopted by FORA in June 2016.

3.1 EXISTING SETTING

3.1.1 Existing Roadways and Improvements

The Specific Plan area is located within the City of Marina (City) approximately 4 miles east of State Route 1 (SR-1), and approximately 8 miles west of United States Route 101 (US-101). The main roadways providing access to the Specific Plan area are Reservation Road (which runs along the Specific Plan area's southern boundary), Imjin Road (which runs along the Specific Plan area's western boundary), and West Blanco Road (which runs along the Specific Plan area's eastern boundary.) Figure 3.1-1 depicts the regional circulation system for the area.

3.1.1.1 Reservation Road

Reservation Road, which is designated in the City of Marina General Plan as an arterial roadway, runs in a generally northwest-to-southeast direction between SR-1 in the northwest to State Route 68 (SR-68) in the southeast and provides access from the City to the Specific Plan area. From downtown Marina, Reservation Road is a paved, four-lane roadway with sidewalks on both sides of the road between Del Monte Boulevard and Salinas Avenue. East of Salinas Avenue, there is a multipurpose trail on the south side of Reservation Road, but no curb, gutter, sidewalks, or other roadway improvements on the north side until Imjin Road. There is a traffic light at Reservation Road and Imjin Parkway/Road with designated turn lanes into the Specific Plan area in both the eastbound and westbound directions. Between Imjin Parkway/Road and MBEST Drive, there are three westbound lanes and two eastbound lanes on Reservation Road. There is a traffic light at Reservation Road and MBEST Drive.

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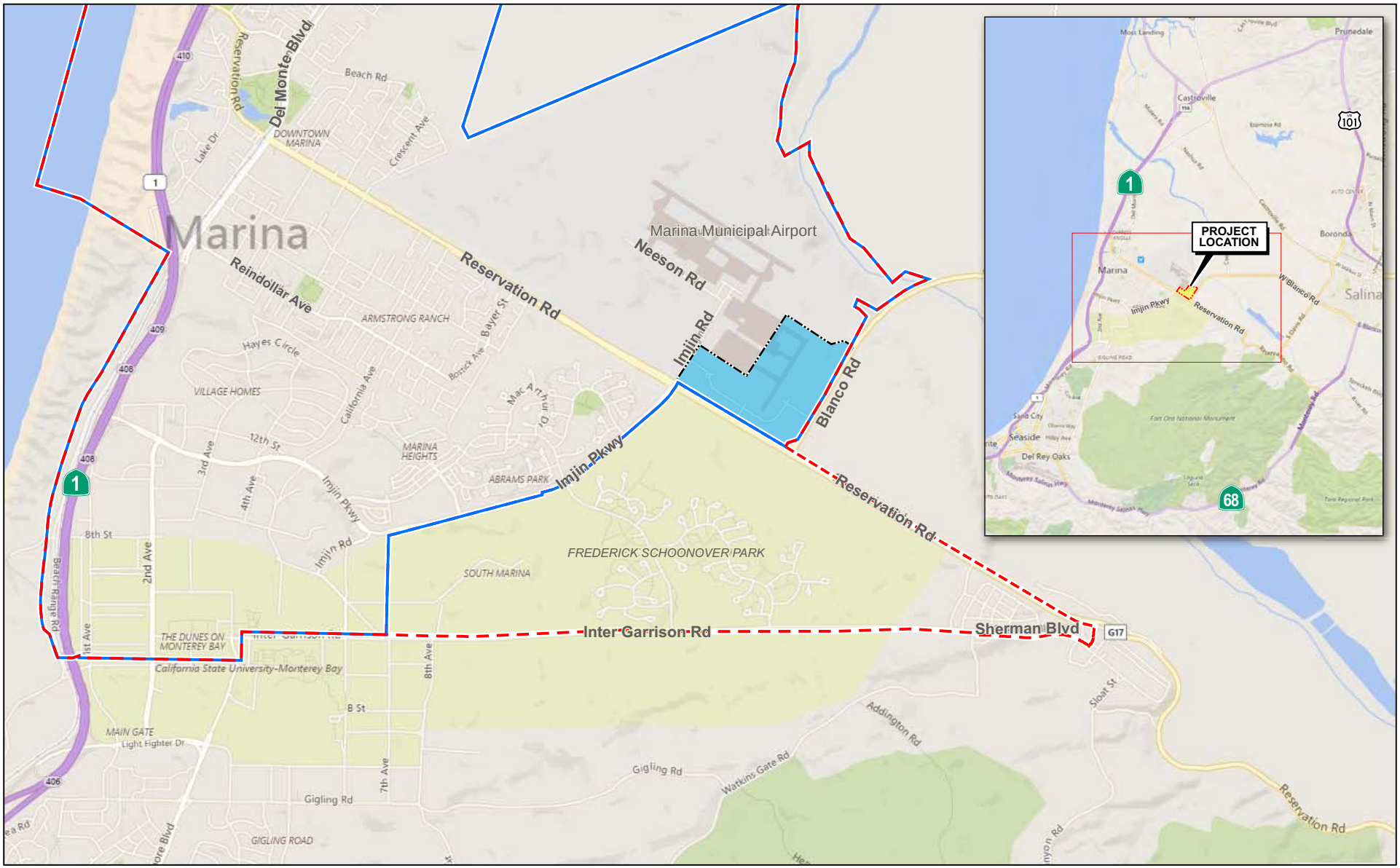

LSA

LEGEND

- Specific Plan Area
- City Boundary
- Sphere of Influence

N

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FEET

SOURCE: Bing Maps (2016)

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FIGURE 3.1-1

Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan

Regional Circulation System

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There are also three westbound lanes and two eastbound lanes on Reservation Road between MBEST Drive and West Blanco Road. There is a traffic light at Reservation Road and Blanco Road. There are no sidewalks, multiuse pathways, or stripped bicycle lanes on either side of Reservation Road between Imjin Road and Blanco Road. The speed limit on Reservation Road near the Specific Plan area is 55 miles per hour (mph).

3.1.1.2 Imjin Parkway/Road

Imjin Parkway/Road runs both north and south of Reservation Road between SR-1 to the south and west and the Marina Municipal Airport (Airport) to the north. South of Reservation Road, Imjin Parkway is designated in the City's General Plan as an expressway while Imjin Road north of Reservation Road is designated as a collector street. Imjin Parkway is a two-lane roadway, although it has two southbound lanes for approximately 1,000 feet south of Reservation Road. A Class II bike lane with green paint at intersections runs along Imjin Parkway. Imjin Road leads into the Specific Plan area and transitions from a divided four-lane roadway to a two-lane roadway just north of the Imjin Road/University Drive intersection. There are curbs and gutters on both the east and west sides of Imjin Road between the Airport and Reservation Road. There is also a sidewalk that runs the entire length of Imjin Road between the Airport and Reservation Road on the east side. Imjin Road has a Class II bike lane on the west side from University Drive to the Airport and on both sides south of University Drive to Reservation Road. Imjin Road also contains landscaped medians north of Reservation Road. The speed limit on Imjin Road within the Specific Plan area is 25 mph.

As specified in the General Plan, Imjin Parkway is part of a multi-modal corridor, the purpose of which is to accommodate longer-term high-capacity transit operations that would link the Cities of Marina and Salinas. The plan includes right-of-way reservation beginning at West Blanco Road south of the Salinas River and extending to a final station location adjoining SR-1 and First Street. In addition, the transit right-of-way would be developed with an exclusive roadway for buses. Bus transit service along this corridor would be used to help promote public transit use and transit-oriented development at intensities sufficient to eventually support conversion of the corridor to light-rail operations.

3.1.1.3 West Blanco Road

West Blanco Road, which is designated in the City's General Plan as an expressway, provides direct access to the Specific Plan area from the City of Salinas and terminates at Reservation Road. West Blanco Road is generally a four-lane roadway with full improvements within the City of Salinas. Outside the City limits, West Blanco Road becomes a two-lane road, with Class II bike lanes until approximately 1,000 feet north of the Specific Plan area. From approximately 1,000 feet north of the Specific Plan area to Reservation Road, West Blanco Road again becomes a four-lane road with curb and gutter and Class II bike lanes, but no sidewalks. The speed limit on West Blanco Road near the Specific Plan area is 55 mph.

3.1.1.4 MBEST Drive

MBEST Drive, which is designated in the City's General Plan as a collector street, is a four-lane roadway connecting Reservation Road with University Drive. It has a median and a meandering

sidewalk on the east side, and bike lanes on both sides. There is currently no posted speed limit on MBEST Drive.

3.1.1.5 University Drive/Research Drive

University Drive/Research Drive, designated in the City's General Plan as a collector street, is a two-lane roadway connecting Imjin Road with West Blanco Road. It has a striped median, a walkway on the north side, and a Class II bike lane along University Drive. There are no bike lanes along Research Drive. The speed limit on University Drive/Research Drive within the Specific Plan area is 25 mph. There is currently no posted speed limit on Research Drive.

3.1.2 Access

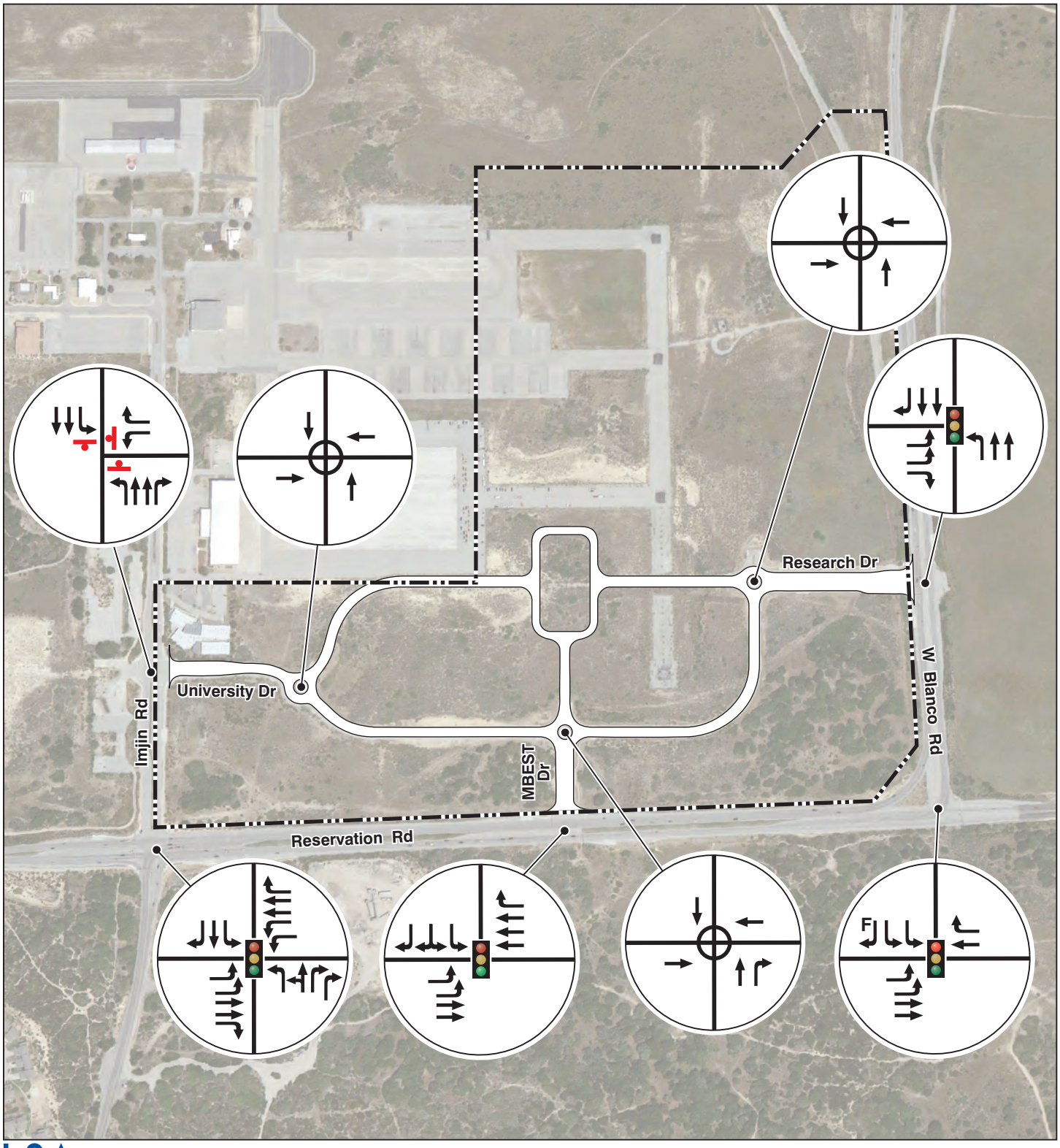
Primary access to the Specific Plan area is provided by the intersections of Imjin Road/University Drive, Reservation Road/MBEST Drive, and West Blanco Road/Research Drive. These intersections within the Specific Plan area are fully improved, with turn lanes and signalization or stop control. The intersections at Imjin Road/Reservation Road and West Blanco Road/Reservation Road are also signalized. Internal intersections include roundabouts for traffic control.

Figure 3.1-2 shows the lane geometrics for the intersections in the vicinity of the Specific Plan area.

3.1.3 Public Transit

The Specific Plan area is served by Monterey-Salinas Transit (MST). Transit service to the City of Marina is provided by Routes 2X, 16, and 20, while Routes 2X, 20, 25, 72, and 74 provide transit service to Salinas and Monterey. These routes are discussed in detail below.

- **Route 2X:** Route 2X connects Pebble Beach to the Salinas Transit Center, traveling on Reservation Road and West Blanco Road adjacent to the Specific Plan area. The nearest bus stop to the Specific Plan area is at the Marina Transit Exchange in downtown Marina at Reservation Road and De Forest Road, which is approximately 2 miles west of the Specific Plan area.
- **Route 16:** Route 16 starts at the Marina Transit Exchange, travels west to the intersection of Beach Road and Reservation Road, then travels west toward the Specific Plan area on Reservation Road, turns south on Imjin Parkway, and ends at the Del Monte Center in Monterey. The stop nearest the Specific Plan area is at the intersection of Reservation Road and Imjin Parkway/Road.
- **Route 20:** Route 20 starts at the Salinas Transit Center and ends at the Del Monte Center in Monterey, traveling through West Blanco Road and Reservation Road near the Specific Plan area. The stop nearest the Specific Plan area is at the intersection of Reservation Road and Imjin Parkway/Road.



LSA

LEGEND

- Signal
- Traffic Circle
- Stop Sign

N

0 300 600

FEET

SOURCE: Google Earth

FIGURE 3.1-2

Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan

Lane Geometrics

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- **Route 25:** Route 25 connects Salinas with the California State University, Monterey Bay (CSUMB) campus, traveling through West Blanco Road, Reservation Road, and Imjin Parkway south of the Specific Plan area. The stop nearest the Specific Plan area is at Preston Drive and Ready Court, less than 1 mile south of the Specific Plan area.
- **Route 72:** Route 72 connects the Presidio of Monterey to north Salinas, traveling on Imjin Parkway, Reservation Road, and West Blanco Road. This is an express route and has no stops near the Specific Plan area.
- **Route 74:** Route 74 connects the Presidio of Monterey with Toro Park in Salinas, traveling through Reservation Road near the Specific Plan area. The stop nearest the Specific Plan area is at Preston Drive and Ready Court, less than 1 mile south of the Specific Plan area.

3.1.4 Multimodal

In June 2015, the Transportation Agency for Monterey County (TAMC) prepared the final report of the *Marina-Salinas Multimodal Corridor Conceptual Plan* (Corridor Conceptual Plan). The Corridor Conceptual Plan was prepared in recognition of the peak-hour congestion on Reservation Road and Imjin Parkway, as well as other areas in the Marina-Salinas region. The Corridor Conceptual Plan was assembled in order to identify a regional route through the former Fort Ord area that will increase roadway capacity by taking advantage of high-quality transit, bicycling, and pedestrian modes of travel. The Corridor Conceptual Plan has potentially identified a transit station near the intersection of Reservation Road and Imjin Parkway/Road as well as an enhanced pedestrian and bicycle path along the south side of Reservation Road, between Imjin Parkway/Road and West Blanco Road (and beyond). Figure 3.1-3 depicts the Preferred Alignment Configuration of the *Marina-Salinas Multimodal Corridor Conceptual Plan*.

3.1.5 Pedestrian

Limited pedestrian facilities currently exist near the Specific Plan area. Imjin Road has a sidewalk along the east side from Reservation Road to the start of the Airport development. MBEST Drive has a sidewalk on the east side, and University Drive has a sidewalk on the north side. Research Drive has a sidewalk on both the north and south sides from University Drive to West Blanco Road.

3.1.6 Bicycle

Bicycle facilities in the vicinity of the Specific Plan area are limited. University Drive has a Class II bike lane in each direction. MBEST Drive has a bike lane on both sides between Reservation Drive and University Drive. West Blanco Road has bike lanes on both sides. Imjin Road has a Class II bike lane on the west side from University Drive to the Airport and on both sides south of University Drive. Imjin Parkway has a Class II bike lane on both sides with green paint at intersections (refer to Figure 3.1-4).

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LSA

LEGEND

- Specific Plan Area

FIGURE 3.1-3

NO SCALE

SOURCE: Final Report for Marina-Salinas Multimodal Corridor Conceptual Plan (2015)

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Figure 3.1-4: Imjin Parkway Bike Lane with Green Paint

3.2 PROJECT CIRCULATION SYSTEM

A preliminary trip generation analysis was conducted for the Specific Plan area using the proposed land uses in the Specific Plan. It was further calculated that the traffic will be toward Salinas and Marina. According to the preliminary trip generation prepared for the project, it is anticipated that the project will generate approximately 17,000 trips per day. Based on review of the circulation plan, and due to the fact that there are three primary access points to the surrounding roadway network, it is anticipated that all roadways within the project area will require two lanes. The existing roundabouts will be sufficient to support the proposed land uses.

3.2.1 Extension of the UC MBEST Circulation Plan

The goal of the UC MBEST Circulation Plan is to create a multimodal system of vehicular, transit, bicycle, and pedestrian circulation facilities that supports the activities of the UC MBEST Center and complements and extends the regional transportation system, and that can provide alternatives to automobile dependency. Toward that end, the UC MBEST Master Plan states that the publicly dedicated system of streets within the UC MBEST Center is intended to provide safe and efficient circulation for planned development within the UC MBEST Center campus, an integrated system with the adjacent Marina Municipal Airport Business and Industrial Park, and a safe and efficient linkage to and from the regional circulation network.

The Specific Plan will implement the UC MBEST Master Plan circulation policies and intent by providing opportunities to travel to and within the Specific Plan area via several transportation alternatives. The foundation of the Specific Plan's circulation and mobility system includes the following four roadway classifications, which are also reflected on Figure 3.2-1:

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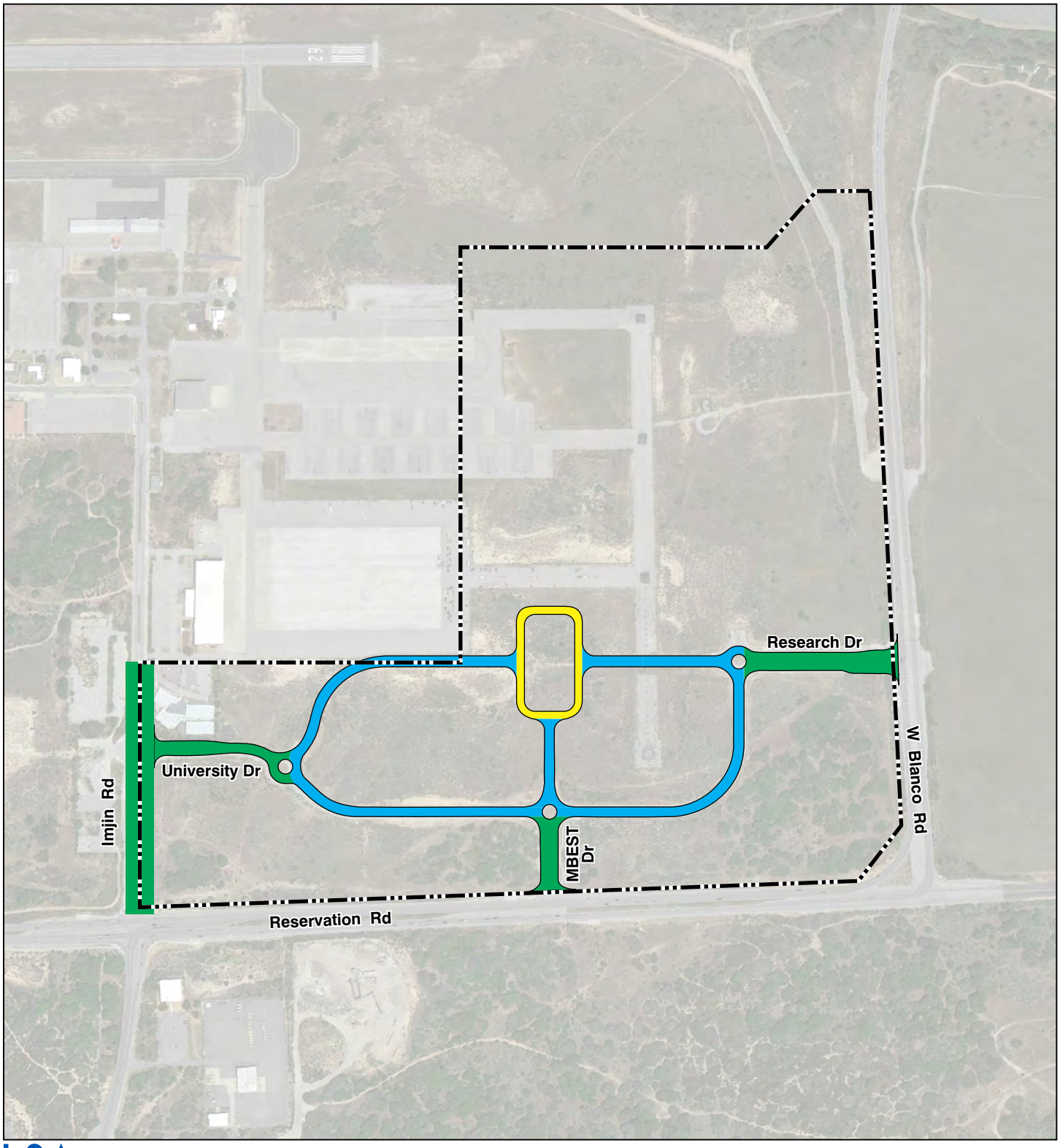

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N

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FEET

SOURCE: Google Earth

LEGEND

- Entry Roads
- Primary Internal Roadways
- Central Quadrangle Road

FIGURE 3.2-1

Marina Municipal Airport Business and Industrial Park/ UC MBEST Center Specific Plan

Proposed Roadway/Circulation System

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- **Entry Roads:** These roads are located at the key gateways to the Specific Plan area and the UC MBEST Center campus to provide a distinctive sense of entry and to provide for gateway elements and signs. These will include Imjin Road at Reservation Road, MBEST Drive at Reservation Road, Research Drive at West Blanco Road, and University Drive at Imjin Road. The typical right-of-way for entry roads is 100 feet, with two 20-foot carriageways (one lane of traffic and one bicycle lane separated by a 20-foot-wide landscaped median and bordered by 20-foot landscaped parkways).
- **Primary Internal Roadways:** The Primary Internal Roadways shall be three lanes in width, with the center lane providing for left turns into individual sites. The right-of-way for such streets shall be 60 feet, including a carriageway of 44 feet (three vehicular lanes and two bicycle lanes) and an 8-foot parkway with sidewalks on both sides. The roadway system within the City's portion of the planning area will be identified and defined as part of subsequent development proposals and approvals. These roadways shall be consistent with the Specific Plan standards.
- **Central Quadrangle Road:** Surrounding the Plaza, the Specific Plan will be a one-way roadway circulating in a counter-clockwise direction. The 50-foot right-of-way includes an 8-foot parkway/sidewalk on both sides and a 34-foot carriageway, including an approximately 10.5-foot-wide parking lane adjacent to the Plaza. A 6-foot bike lane will be adjacent to the exterior curb, leaving approximately 16 feet of a single travel lane to accommodate buses and vehicles. The bike lane and travel lane will be separated by a 1.5-foot buffer lane. Adjacent development would provide an additional 5 feet of sidewalk area and a landscaped setback of 5 feet adjacent to the right-of-way to promote a pedestrian-friendly environment. Also, a maximum of two public transit bus stops will be provided on the central quadrangle road consistent with standards established by MST in its November 2006 publication titled *Designing for Transit, a Manual for Integrating Public Transit and Land Use in Monterey County.* Finally, no direct access (e.g., driveways or additional roadways) from the central quadrangle road onto surrounding properties will be allowed.

Figure 3.2-2 shows the proposed cross-sections for the above roadway classifications. On-street parking will only be permitted along the interior edge (adjacent to the Plaza) of the central quadrangle road. On-street parking will be prohibited on all other primary and secondary roadways within the Specific Plan area.

The Specific Plan does not propose any additional connections to the adjoining roadways (Imjin Road, West Blanco Road, and Reservation Road) beyond those proposed in the UC MBEST Master Plan. The Specific Plan will extend Research Drive to the west of the roundabout on Research Drive closest to West Blanco Road to form the east leg of the central quadrangle road. Research Drive will continue as the west leg of the central quadrangle road and connect with the east leg of the existing roundabout on University Drive closest to Imjin Road. MBEST Drive will be extended north of the existing roundabout to form the south leg of the central quadrangle road.

The City and UC will cooperate with regional agencies, when necessary, to implement the roadway system to optimize development opportunities for both areas while minimizing impacts on the external roadway system.

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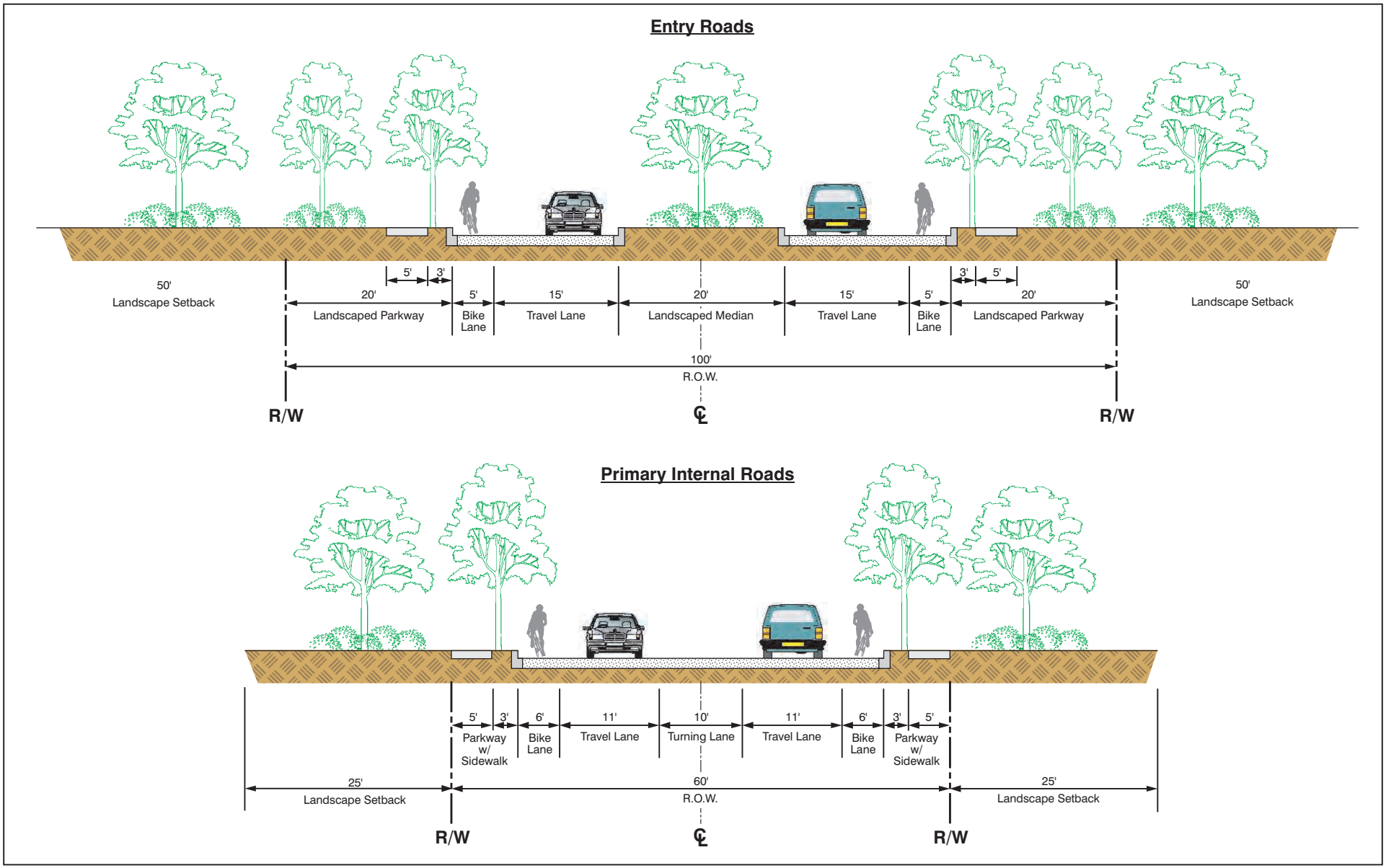

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FIGURE 3.2-2a

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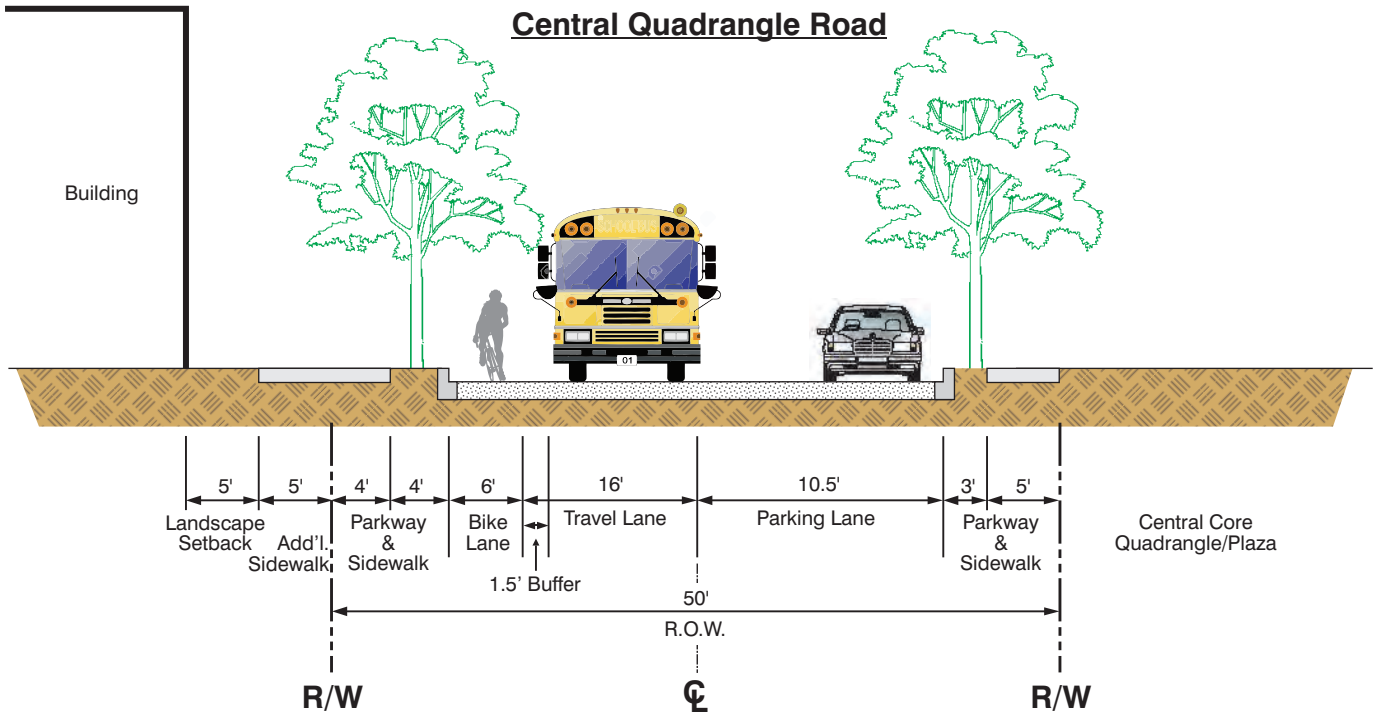

LSA

FIGURE 3.2-2b

Marina Municipal Airport Business and Industrial Park/
UC MBEST Center Specific Plan

Roadway Cross Sections

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3.2.2 Individual Site Access

Individual sites within the Specific Plan area will obtain access from adjacent roadways. To maximize safety and increase the capacity of the roadways, the Specific Plan will implement access management strategies. Access management refers to a set of techniques that can be used to control access to roadways in order to improve traffic flow and safety. Access management includes several techniques that are designed to increase the capacity of roadways, manage congestion, and reduce crashes. Research shows a strong linear relationship between the number of driveways and the number of accidents. In other words, the more access points (i.e., driveways) along a roadway, the greater the potential for conflicts. Additional driveways also reduce speeds and capacities of roadways. Research shows that for every 10 access points per mile, roadway speeds were reduced an average of 2.5 mph. Therefore, fewer driveways spaced farther apart will not just reduce the potential for conflict (resulting in fewer accidents), but will also provide for a more orderly merging of traffic, which will reduce travel times and preserve road capacities.

On a project of this size, the primary access management tool that can be implemented is driveway spacing. Provisions concerning the spacing and number of driveways within the Specific Plan should reflect the following general considerations from a site perspective:

- Provide access to a single location from more than one roadway, where feasible.
- The number of site driveways should be based on need. For small developments where access to an internal roadway is not available, site access should be limited to one driveway. For large developments, it may be necessary to provide two (or more) access points.
- The design features of a driveway or intersection, including lane width, median treatment, turning radius, sight distance, etc., should reflect the access or functional class of the roadway on which it will be located.
- On-site circulation should be designed and sufficient storage space should be provided to preclude any spillback of traffic from site connectors onto the roadway system.
- Wherever possible, driveways will be consolidated with shared-access easements.
- All driveways shall be designed, at a minimum, in accordance with the latest adopted City standard specifications (e.g., Public Works Division Standard Plan ST-7).
- No on-street parking will be permitted, except for parallel curbside parking along the outside edge of the central Plaza.

3.2.3 Public Transit

The Specific Plan will extend the UC MBEST Master Plan's transit policies and provide a pattern of internal roadways that will allow for regional bus access to serve the area. The Specific Plan will also provide direct connections to the proposed Multimodal Transfer Station to be located within the UC MBEST Master Plan area next to the central Plaza.

As noted above, a maximum of two public transit bus stops will be provided on the central quadrangle road consistent with the standards established by MST in its November 2006

publication titled *Designing for Transit, a Manual for Integrating Public Transit and Land Use in Monterey County.* These transit stops will provide a central location for employees and people accessing the Specific Plan area.

3.2.4 Pedestrian

Pedestrian circulation within the Specific Plan area will provide employees and visitors with an alternative means of travel within the Specific Plan area and the adjacent UC MBEST Center (refer to Figure 2.4-5). The Specific Plan will extend the UC MBEST pedestrian plan.

All roadways within the Specific Plan area shall be lined with continuous landscaped walkways to provide a continuous network of pedestrian walkways. Walkways shall be a minimum of 5 feet in width and shall be separated from the carriageway of the road by a landscaped parkway of at least 3 feet. Although the minimum width for an Americans with Disabilities Act (ADA) compliant sidewalk is 36 inches (3 feet), if sidewalks are less than 60 inches (5 feet) across, the ADA requires passing spaces to be constructed at set intervals. These passing spaces must measure at least 60 inches (5 feet) on all sides and must be located at least every 200 feet.

Consistent with the UC MBEST Master Plan, sidewalks that meander slightly through the landscape setback may be appropriate in some settings. Along segments of street frontage where pedestrian access is expected to be limited, the City and UC may choose to provide sidewalks on only one side of the street; in these cases, the opposite side of the street will retain an 8-foot landscaped zone, permitting the construction of a sidewalk in the future.

3.2.5 Bicycle

Bicycle circulation within the Specific Plan area will provide employees and visitors with an alternative means of travel within the Specific Plan area and the adjacent UC MBEST Center, and will contribute to the reduction of vehicular trips and greenhouse gas emissions. The Specific Plan will extend the UC MBEST bicycle plan.

The Specific Plan will provide Class II bike lanes along both curbs at all roadways (refer to Figure 2.4-6). Development projects within the Specific Plan shall provide adequate and secure facilities for the storage of bicycles, including bike racks and/or bike lockers. The sizing of facilities shall be consistent with City of Marina General Plan Policies 3.35.1 and 3.35.2 as well as the City's Bicycle Systems Plan. Refer to Section 2.4.9, Vehicular and Bicycle Parking, for a list of bicycle facilities and other end-of-trip facility development standards required for all development projects within the Specific Plan area.

4.0 PUBLIC SERVICES, UTILITIES, AND COMMUNITY FACILITIES

4.1 INTRODUCTION

This chapter identifies the public infrastructure and utilities that will be required to serve development within the Marina Municipal Airport Business and Industrial Park/University of California Monterey Bay Education Science and Technology (UC MBEST) Center Specific Plan area. The following sections describe the existing infrastructure and detail the water, sewer, drainage, and utility infrastructure improvements necessary for the development of the Specific Plan area.

4.2 WATER FACILITIES

4.2.1 Existing Water Facilities

Four existing water wells are located on the University of California (UC) owned and Fort Ord Natural Reserve land between 2,000 feet and 6,000 feet south and east of the Specific Plan area. These existing wells were the principal sources of potable water for the former Fort Ord, and this system will remain in place for the foreseeable future. The Marina Coast Water District (MCWD) will be the potable water purveyor for the Specific Plan. The Specific Plan area is part of the MCWD Zone "B" service range. This zone typically services elevations between 120 feet and 220 feet, resulting in pressures between 80 pounds per square inch (psi) and 40 psi, respectively. The existing elevations at the Specific Plan area range between approximately 125 feet and 155 feet (North American Vertical Datum of 1988 [NAVD 88]); therefore, pressures could be estimated at the higher end of the Zone "B" range (80–40 psi). The Specific Plan area is served from an existing 18-inch main in Reservation Road and an existing 16-inch main in Imjin Road. The existing pipe sizes range from 12 inches to 16 inches and include stubs for future connections to the north of Research Drive. These pipes were installed in anticipation of the larger UC MBEST Master Plan area that included the UC MBEST East Campus east of West Blanco Road.

Currently, there are no water facilities within the portion of the Specific Plan controlled by the City of Marina (City).

4.2.2 Proposed Water Facilities

The former Fort Ord has received a separate water allocation from the Monterey County Water Resources Agency, of which 1,175 acre-feet per year (afy) were allocated by the Fort Ord Reuse Authority (FORA) to the City (excluding UC MBEST), and 230 afy were allocated to the UC MBEST Center.[1] The City's allocation was recently updated to 1,340 afy pursuant to the 2020 Water Supply Assessment, which was adopted by the City of Marina City Council on April 20, 2020. New facilities must be constructed within the Specific Plan in order to provide potable water service and fire protection to each lot. The existing water mains will be maintained, and a new distribution system of 8-inch to 12-inch pipes will be extended to the north. The system will be looped in order to provide an even pressure distribution throughout the Specific Plan area. Fire

[1] Please refer to the Fort Ord Reuse Authority Annual Report, FY 2014-2015 (2015).

hydrant locations and minimum fire flows will be as required by the City of Marina Fire Department and will be based on land uses and lot configurations. Per conversations with the MCWD, there are no anticipated system capacity issues that would affect provision of water service to the Specific Plan area.

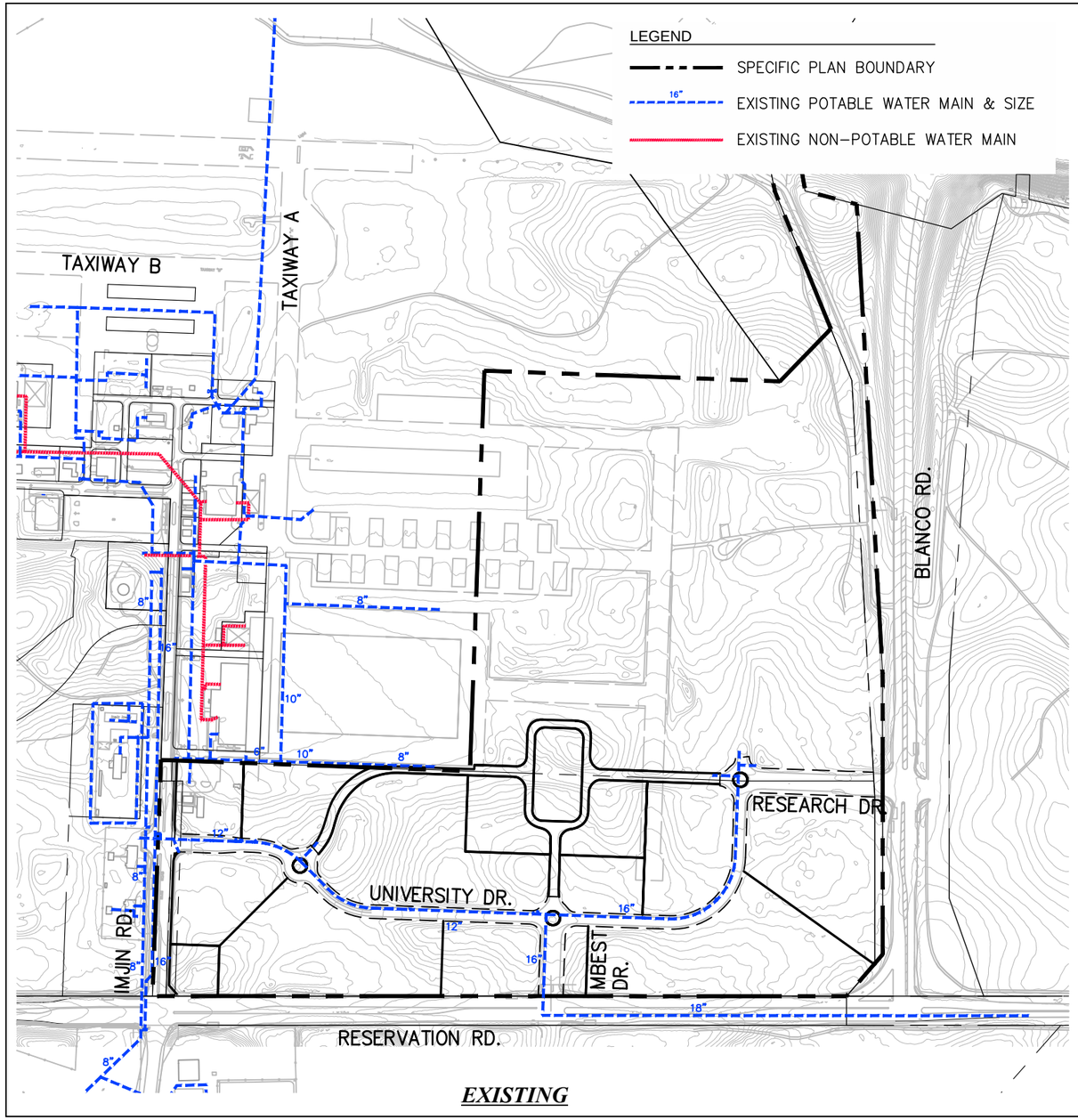
Figure 4.2-1 depicts the existing and proposed baseline water facilities for the UC's portion of the Specific Plan area. Baseline water facilities within the City's portion of the planning area will be identified and defined as part of subsequent development proposals and approvals. These facilities shall be consistent with the Specific Plan standards.

4.2.3 Water Demand and Allocation

A projected potable water demand of (Revise total demand based on UC's calculation) was estimated for the Specific Plan area based on maximum floor-to-area ratios (FARs) and published MCWD water demand factors for similar uses (refer to Table 4.2.1). However, at this time, these are estimated values only and should be verified for specific development proposals for each lot as actual uses and sizes are identified.

A Water Supply Assessment and Written Verification of Supply (WSA) was prepared for the Specific Plan in April 2020 and adopted by the City of Marina City Council on April 20, 2020. As described in the WSA, the projected water demand for the Specific Plan is 309.2 acre-feet per year (afy), of which 145.2 afy is for the City's portion of the Specific Plan and 164.0 afy is for the UC's portion of the Specific Plan. Both the City and UC have allocations of Salinas Valley Groundwater for use within the Ord Community service area. The City has an existing allocation of 1,340 afy and has previously sub-allocated 1,263.7 afy to other projects, leaving 76.3 afy available to the City's portion of the Specific Plan. The UC has an existing allocation of 230 afy and is currently using 2 afy, leaving 228 afy available for the UC's portion of the Specific Plan. FORA has also formally allocated the recycled water supply from the Phase 1 Recycled Water Project, which includes 345 afy to the City and 60 afy to the UC, within the Ord Community service area.

The WSA concludes that the UC has sufficient existing water supply within the Ord Community service area to achieve the complete buildout of the UC's portion of the Specific Plan. The available supply is sufficient to meet the existing and projected demands over the 20-year projection during normal, single-dry and multiple-dry water years. However, the City does not have sufficient existing water supply within the Ord Community service area to achieve the complete buildout of the City's portion of the Specific Plan at this time. Currently, the City can authorize up to 76.3 afy from the existing Salinas Valley groundwater allocation and up to 18.1 afy of recycled water supply for initial development. Water would be allocated to projects within the City's portion of the Specific Plan as they occur, up to the amount of water supply available at the time of development. However, the City would be unable to accept development project applications once the 76.3 afy cap is reached. Later phases of development or subsequent development must be deferred until the MCWD is able to develop additional sources of supply for the Ord Community service area. All development projects will require written and conclusive evidence indicating an immediate and available supply of water prior to be reviewed by the City.



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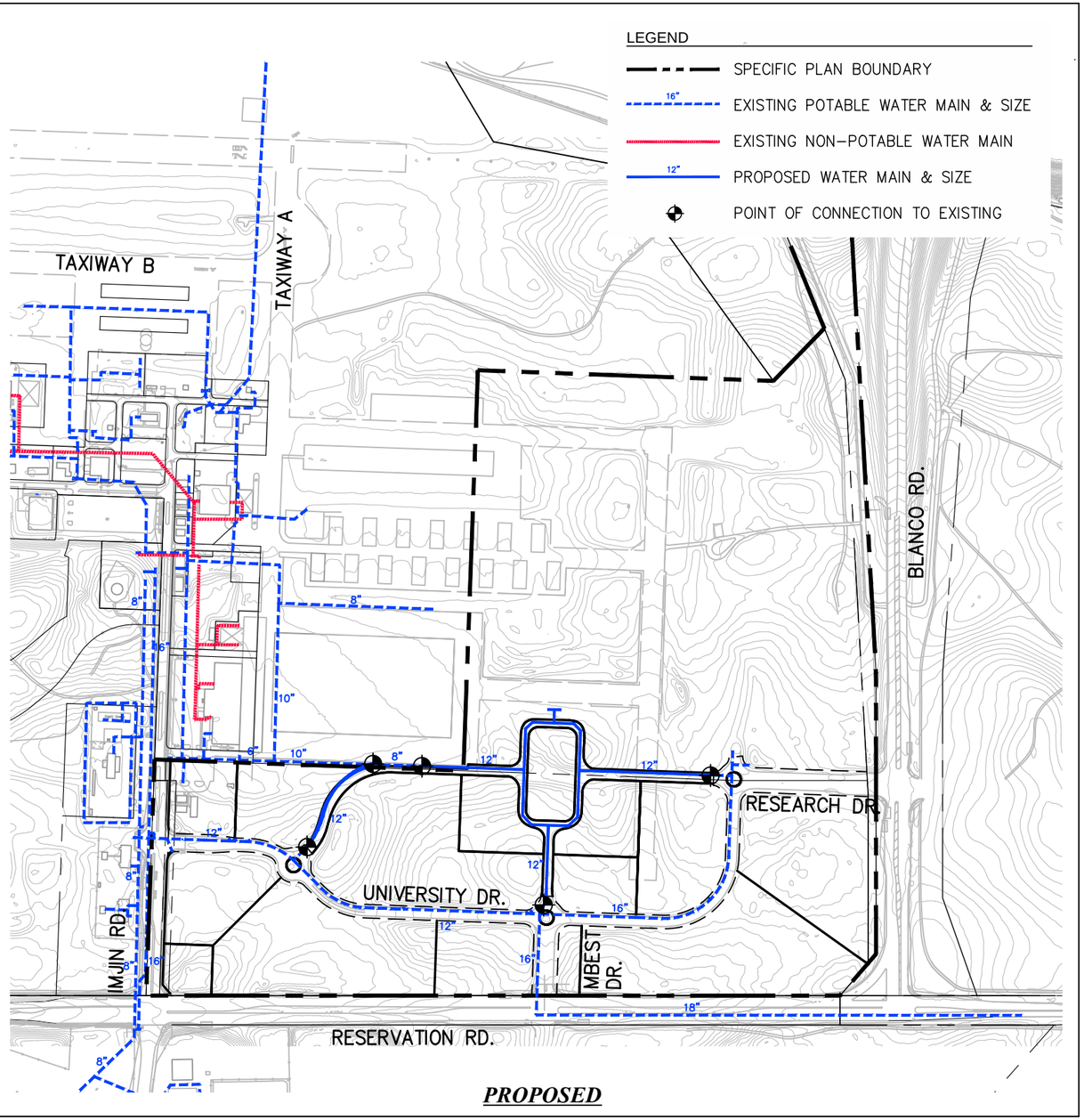

PROPOSED

LSA

FIGURE 4.2-1

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FEET

SOURCE: Whitson Engineers

Marina Municipal Airport Business and Industrial Park/
UC MBEST Center Specific Plan

Existing and Proposed Water System

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Table 4.2.1: Projected Water Demand

Land Use	Lot Area (ac)[1, 7]	Maximum Development Floor Area (sf)[1]	Landscape Area (sf)[2]	MCWD Water Demand Classification	Building Water Demand Factor (afy/sf)[3]	Landscape Water Demand Factor (afy/ac)[3]	Potable Water Demand (afy)	Reclaimed Water Demand (afy)
City-Owned Property								
Commercial/Mixed-Use	3.6	45,700	15,200	Office/Commercial	0.0003	2.1	13.7	0.7
Business Aviation Reserve	16.2	189,900	63,300	Light Industrial	0.00015	2.1	28.5	3.1
Business Aviation Reserve/ Overlay	2.9	50,700	12,700	Light Industrial	0.00015	2.1	7.6	0.6
Business Park	41.0	517,100	172,400	Office/Research & Development	0.000135	2.1	69.8	8.3
Business Park/Overlay	3.2	55,800	13,900	Office/Research & Development	0.000135	2.1	7.5	0.7
Roadway Landscape[4]	3.5	N/A	54,000	Improved Landscaping	N/A	2.1	0	2.6
Central Park[5]	1.0	N/A	43,600	Improved Landscaping	N/A	2.1	0	2.1
Natural Open Space[6]	4.8	N/A	0	N/A	N/A	2.1	0	0.0
						Subtotal	**127.1**	**18.1**
UC-Owned Property								
Research & Development	33.1	433,100	144,400	Office/Research & Development	0.000135	2.1	58.5	7.0
Research & Development/ Overlay	4.5	78,400	19,600	Office/Research & Development	0.000135	2.1	10.6	0.9
Commercial/Mixed-Use	19.0	248,400	82,800	Office/Commercial	0.0003	2.1	74.5	4.0
Roadway Landscape[4]	9.6	N/A	133,000	Improved landscaping	N/A	2.1	0	6.4
Central Park[5]	1.0	N/A	43,600	Improved Landscaping	N/A	2.1	0	2.1
Natural Open Space[6]	6.2	N/A	0	N/A	N/A	2.1	0	0.0
						Subtotal	**143.6**	**20.4**
						TOTAL	**270.7**	**38.5**

Source: Whitson Engineers (March 23, 2016).

[1] Lot Area and Maximum Development Area are per the Maximum Building Intensity (FAR) Table by LSA dated March 22, 2016.

[2] Lot irrigated landscape is assumed to account for 10% of a total lot area.

[3] Demand Factor is per Table 3.4 of the 2011 MCWD Urban Water Management Plan.

[4] Roadway Landscape area is estimated based on the landscape parkways shown on both sides of all public roadways within the Specific Plan area.

[5] Central open area is assumed to include irrigated, but non-turf landscape.

[6] Natural open space is assumed to be non-irrigated native landscape only.

[7] The lot area will be adjusted once a roadway system is established for the City-owned portion of the Specific Plan area.

ac = acres
afy = acre-feet/year
afy/ac = acre-feet/year per acre
afy/sf = acre-feet/year per square foot
MCWD = Marina Coast Water District
sf = square feet

4.2.4 Reclaimed Water Service

MCWD will be the reclaimed water purveyor for the Specific Plan. It is anticipated that the Specific Plan will have a demand for reclaimed water to irrigate landscape areas; however, it is not currently known when reclaimed water will be available. At this time, the Specific Plan project should plan on utilizing reclaimed water infrastructure for all landscape areas even though the interim water supply could be potable water.

4.2.5 Existing Facilities

There are existing 10-inch reclaimed water facilities within the Specific Plan area that are currently not in use. The existing pipes and stubs for future connections to the north of Research Drive were installed in anticipation of supplying reclaimed water to the larger UC MBEST Master Plan area that included the UC MBEST East Campus, east of West Blanco Road. The existing pipes in the Specific Plan area are connected to an existing 30-inch reclaimed water main in Imjin Road that is anticipated to be a future supply line for the Fort Ord development area.

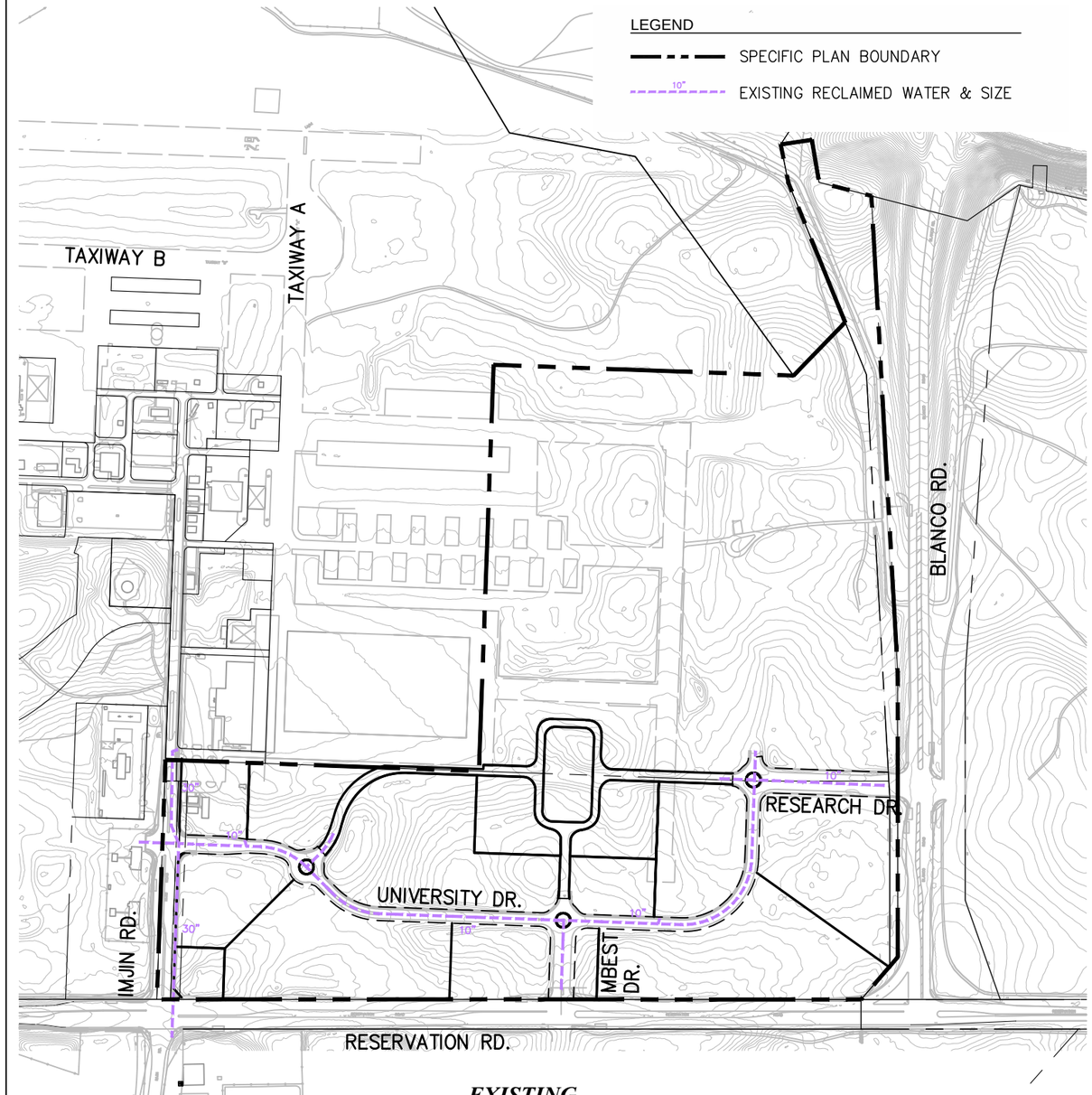
4.2.6 Proposed Facilities

New facilities must be constructed in order to provide reclaimed water service for public landscape areas and to each lot. The existing reclaimed water mains listed above will be maintained and a new distribution system of 8-inch to 10-inch pipes will be extended to the north. The system will be looped in order to provide an even pressure distribution through the Specific Plan area.

Figure 4.2-2 depicts the existing and proposed reclaimed water facilities within the UC's portion of the Specific Plan area. Reclaimed water facilities within the City's portion of the planning area will be identified and defined as part of subsequent development proposals and approvals. These facilities shall be consistent with the Specific Plan standards.

4.2.7 Reclaimed Water Demand and Allocation

The City has received a non-potable reclaimed water allocation of 345 afy, and UC has received a non-potable reclaimed water allocation of 60 afy. A projected reclaimed water demand of 38.5 afy was estimated for the Specific Plan area based on landscape area estimates for roadways, plazas, and lot areas and published MCWD water demand factors (refer to Table 4.2.1). However, at this time, these are estimated values only and should be verified for specific development proposals and landscape plans for each lot and for the plazas and roadways as actual uses are identified.



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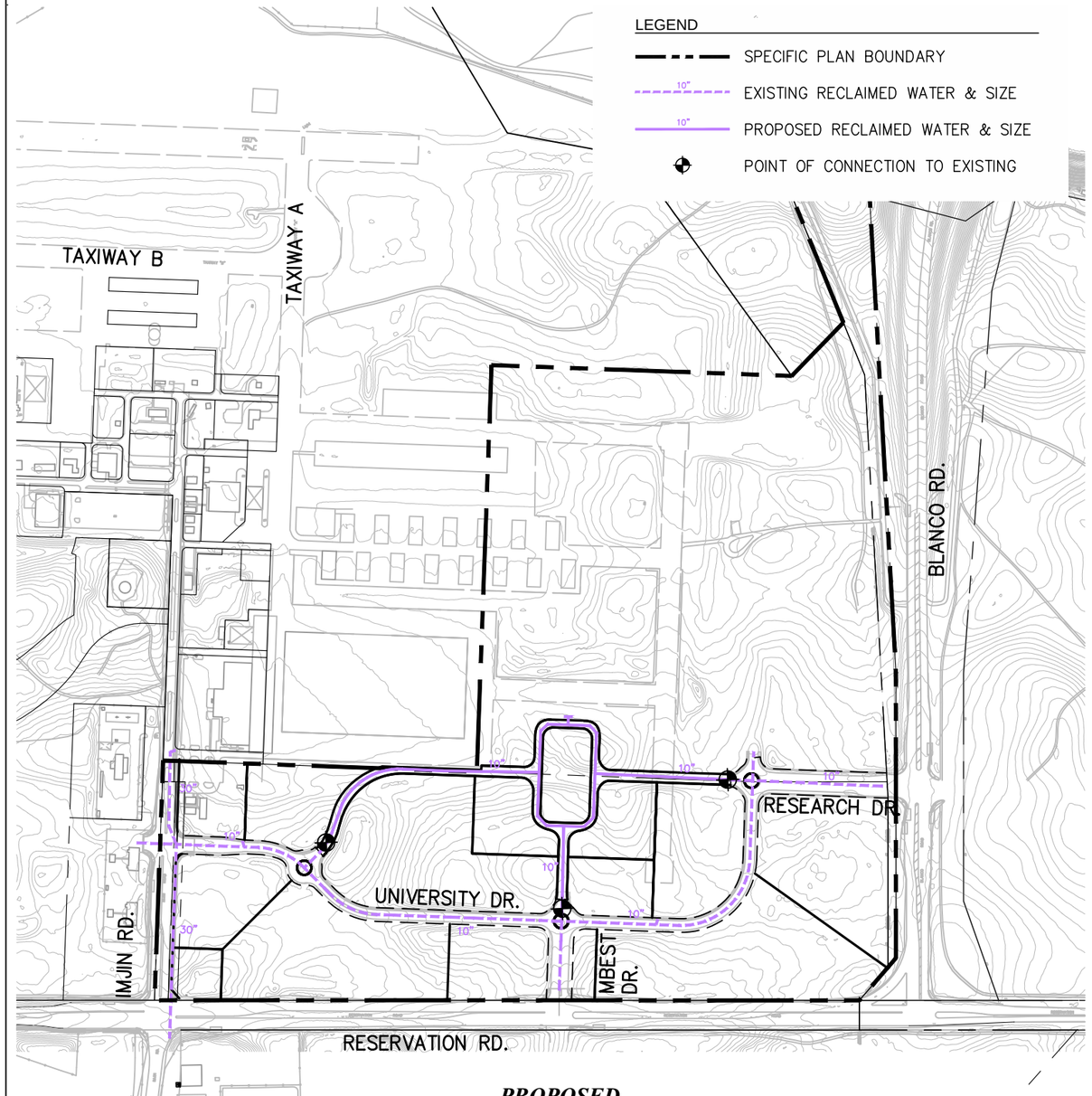

PROPOSED

LSA

FIGURE 4.2-2

0 300 600
FEET

SOURCE: Whitson Engineers

I:\MAR1202B\G\SP Graphics\2016 - March\Chapter 4\Ex&Prop Reclaimed Water System.cdr (6/28/2019)

Marina Municipal Airport Business and Industrial Park/
UC MBEST Center Specific Plan

Existing and Proposed Reclaimed Water System

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4.3 SANITARY SEWER SYSTEM

4.3.1 Existing Sewer System

An existing sanitary sewer line connects the Marina Municipal Airport (Airport) facilities to the regional treatment facility, which is located at the United States Army Reserve outparcel. The existing main sizes range from 8 inches to 15 inches and were installed (including stubs for future connection to the north of Research Drive) in anticipation of the larger UC MBEST Master Plan area. The general flow direction of the mains within the Specific Plan area is from east to west toward the Reservation Road Lift Station west of Imjin Road. From there, wastewater flows continue through the MCWD system to the Monterey Regional Water Pollution Control Agency (MRWPCA) Regional Wastewater Treatment Plant located at the north end of the City.

There are no existing sanitary sewer facilities within the City-owned portion of the Specific Plan area.

4.3.2 Proposed Sewer System

It is anticipated that the existing sanitary sewer mains listed above within the Specific Plan area will be maintained, and a new collection system of 8-inch mains will be extended to the north to serve the Specific Plan area. Although connection points to the existing 12-inch main in Research Drive are approximately 20 feet deep, the new sewer mains that extend to the north will need to be thoughtfully designed so as to maintain minimum cover and slopes per MCWD requirements. The existing terrain to the north of Research Drive is variable, so the design of the new sewer system could be optimized if select grading could occur along the route to remove larger crests and sumps. Per conversations with MCWD, there are no anticipated downstream pipe capacity issues other than the Imjin Lift Station, which will most likely be upgraded by MCWD as a capital improvement project prior to development of the Specific Plan.

4.3.3 Wastewater Generation

A preliminary sanitary sewer generation amount of 757,000 gallons per day (gpd) was estimated for the Specific Plan area for peak wet-weather flow based on a 100 percent return rate of the project water demand described above (as specified in the Ord Community Wastewater System Master Plan, July 2005) and the inclusion of a 10 percent contingency. However, at this time, these are estimated values only and should be verified for specific development proposals for each lot as actual uses and sizes are identified.

4.4 STORM WATER FACILITIES

4.4.1 Existing Drainage System

The existing drainage system is above ground (refer to Figure 4.3-1). A 15-inch storm drain and an 18-inch storm drain exist along Imjin Road, University Drive, MBEST Drive, and Research Drive. Additional 27-inch, 24-inch, and 15-inch storm drains exist adjacent to the roadways.

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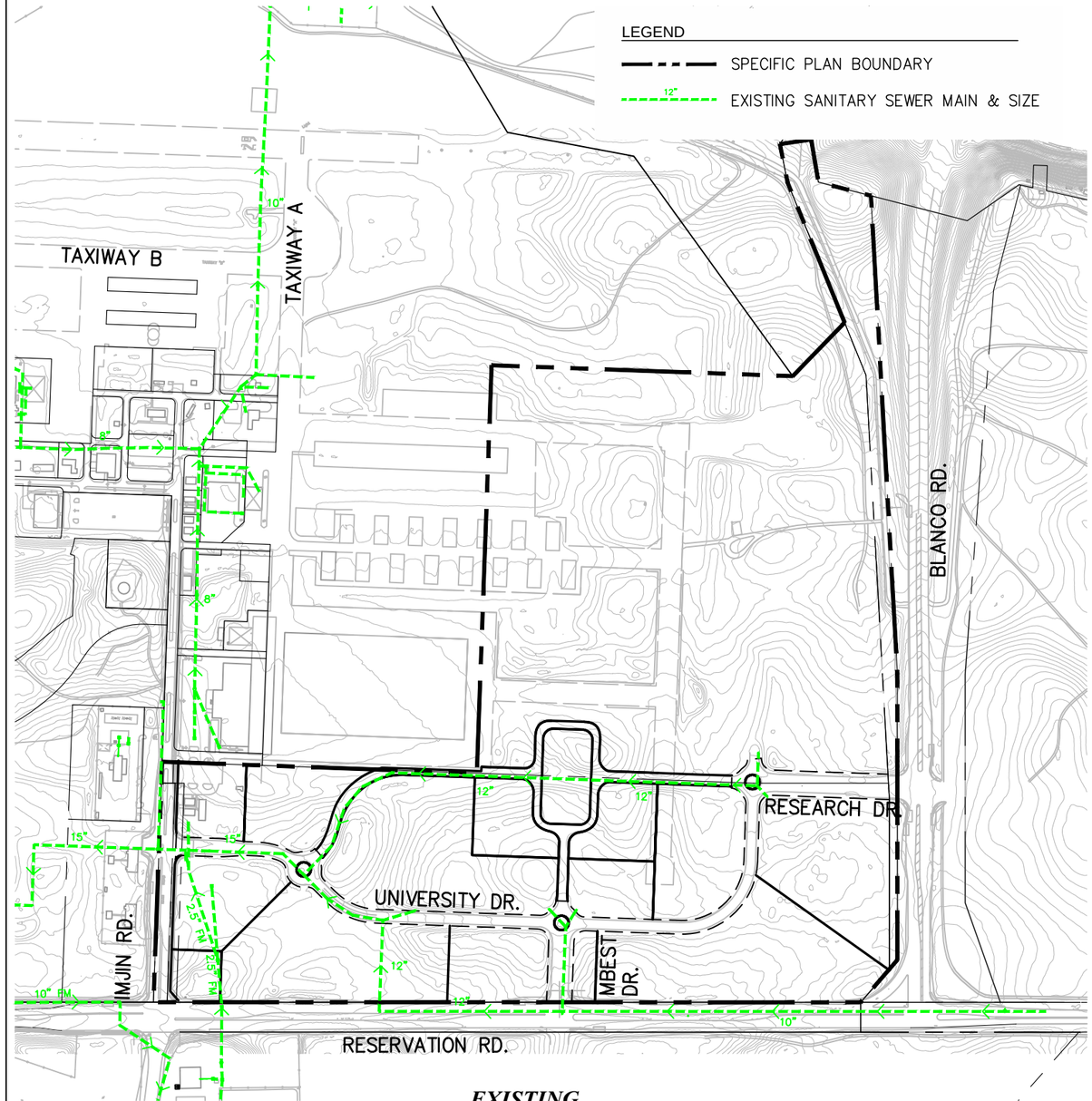

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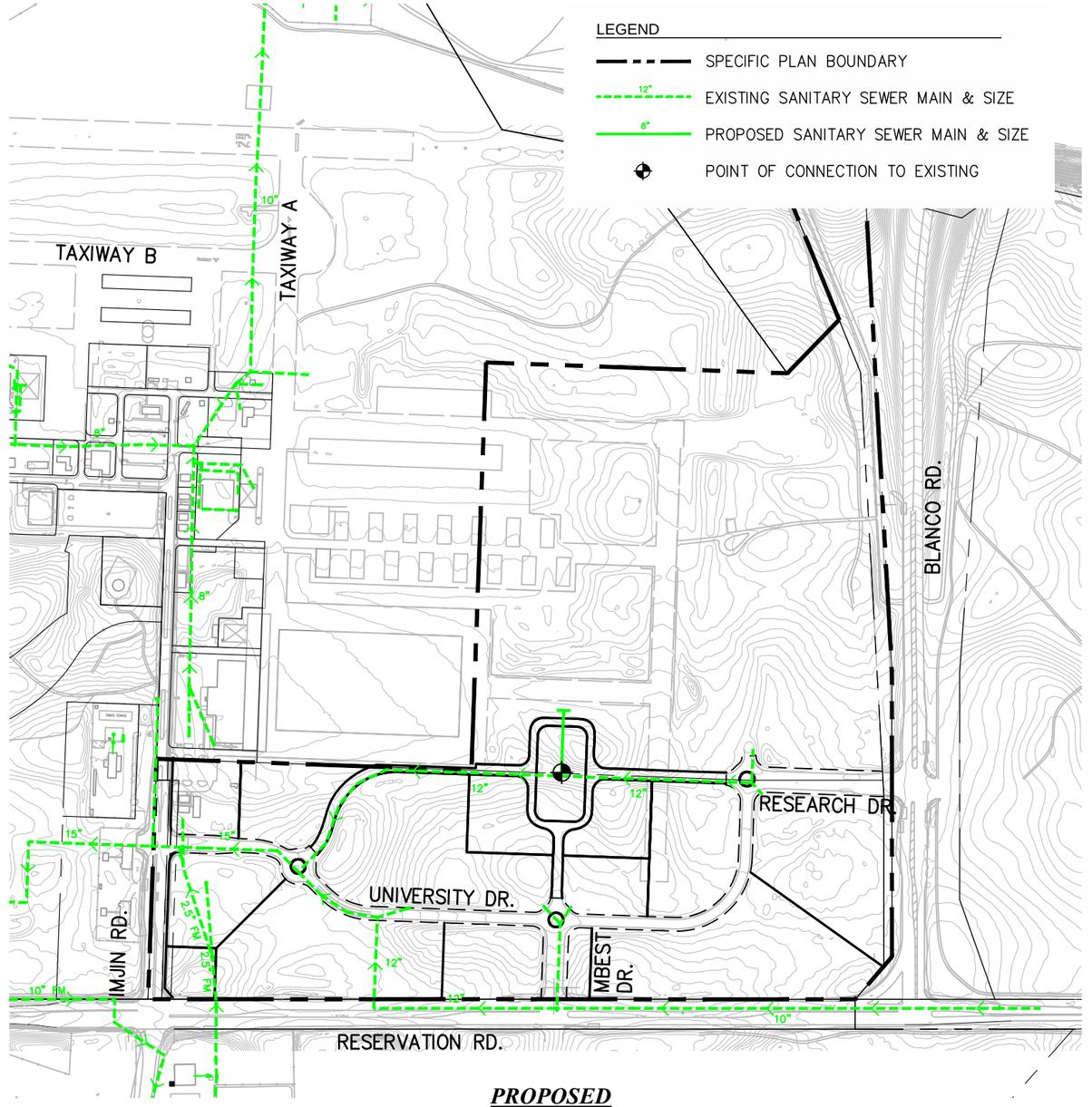

PROPOSED

LSA

FIGURE 4.3-1

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SOURCE: Whitson Engineers

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Marina Municipal Airport Business and Industrial Park/
UC MBEST Center Specific Plan

Existing and Proposed Sanitary Sewer System

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4.4.2 Proposed Drainage System

The existing on-site public roadway storm drain system must be retrofitted to include underground infiltration chambers at select locations within a roadway and/or right-of-way easement. Individual lots will be required to retain and infiltrate storm water runoff on site. The proposed storm drain line is located on the roads along Research Drive and north of Research Drive. The size ranges from 15 inches to 18 inches where the proposed storm drain line connects with the existing storm drain on Research Drive.

Figure 4.4-1 depicts the existing and proposed storm drain facilities within the UC's portion of the Specific Plan. Storm drain facilities within the City's portion of the planning area will be identified and defined as part of subsequent development proposals and approvals. These facilities shall be consistent with the Specific Plan standards.

4.5 UTILITIES

4.5.1 Existing Utilities

The Salinas-Del Monte 60-kilovolt (kV) electric utility line is an overhead transmission line that enters former Fort Ord land southeast of West Blanco Road. The line is located along the centerline of a 30-foot-wide utility easement. The easement also accommodates a section of line that is part of a system tie-in between the Fort Ord substation, which is located on Gigling Road between Sixth Street and Seventh Street, and the North Salinas substation, which is located on Boronda Road south of Madison Lane. The former Fort Ord area is served by a single electrical substation located near the California State University, Monterey Bay (CSUMB) campus. In addition, there are two 6-inch existing electric conduit facilities and a small 12 kV cable for streetlights within the Specific Plan area that connect to the existing three-phase 12 kV primary conductor overhead electric lines along Imjin Road. An existing underground electrical line runs from West Blanco Road on University Drive and then connects to the overhead electrical lines along Imjin Road.

A 16-inch high-pressure gas line parallels State Route 1 (SR-1), and a 10-inch east-west transmission main crosses the former Fort Ord along Intergarrison Road south of the UC MBEST campus. Additionally, a 4-inch gas line is located adjacent to Imjin Road. In addition, there are existing 4-inch plastic natural gas mains that connect to the existing natural gas distribution system in Imjin Road.

The Specific Plan area's telephone service is currently served by a 300-pair copper cable located in a four-conduit underground bank running parallel to Imjin Road. There is a 12-duct bank of existing conduits located under University Drive. Comcast has existing facilities at the southeast corner of Reservation Road and Imjin Parkway, and AT&T has existing background wire installed in Imjin Parkway. A high-speed fiber-optic service line has been installed in Imjin Parkway, running to within 200 feet of Neeson Road. The existing UC MBEST Center Headquarters complex on UC-owned property is currently serviced by this high-speed fiber-optic line.

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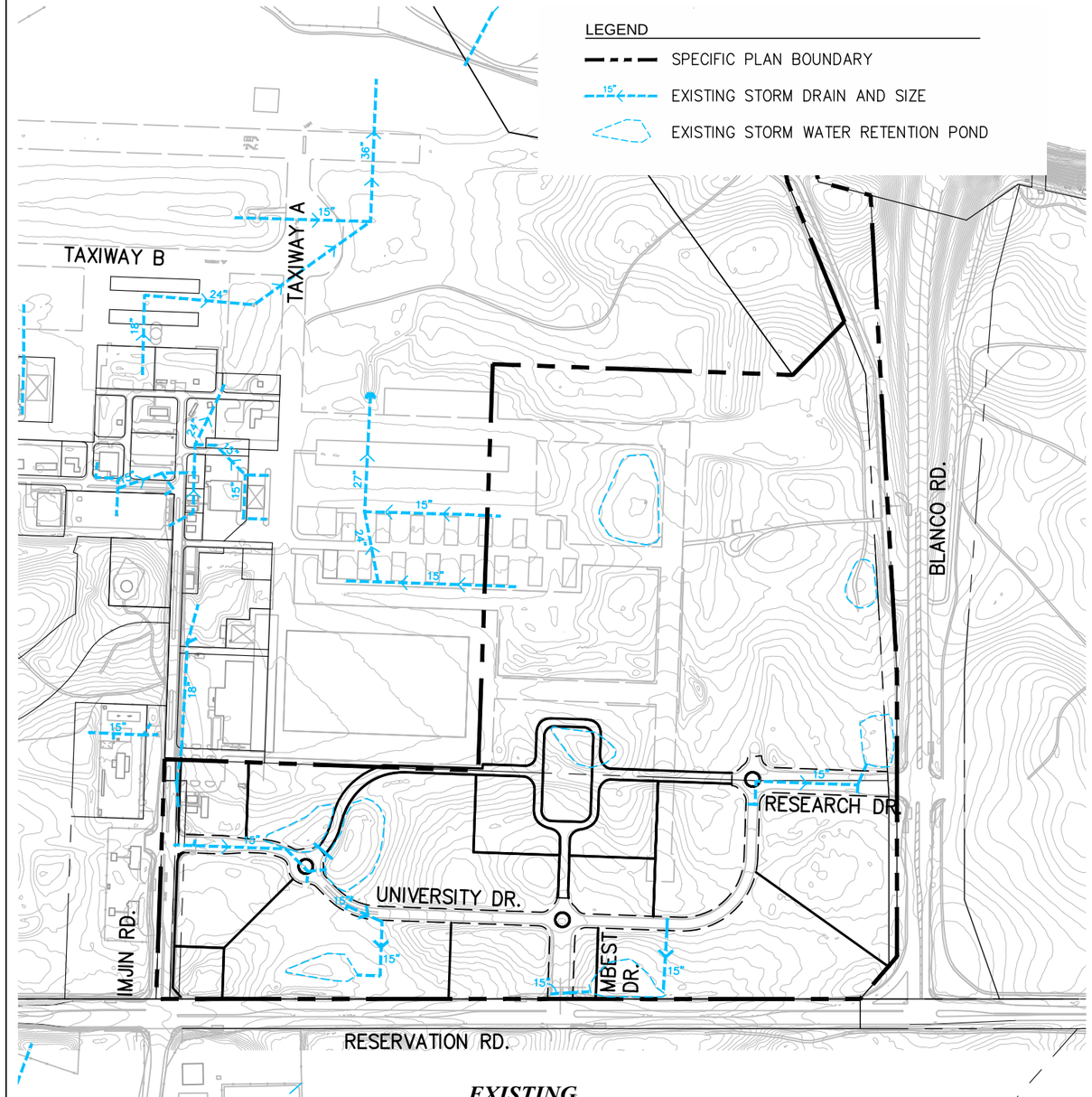

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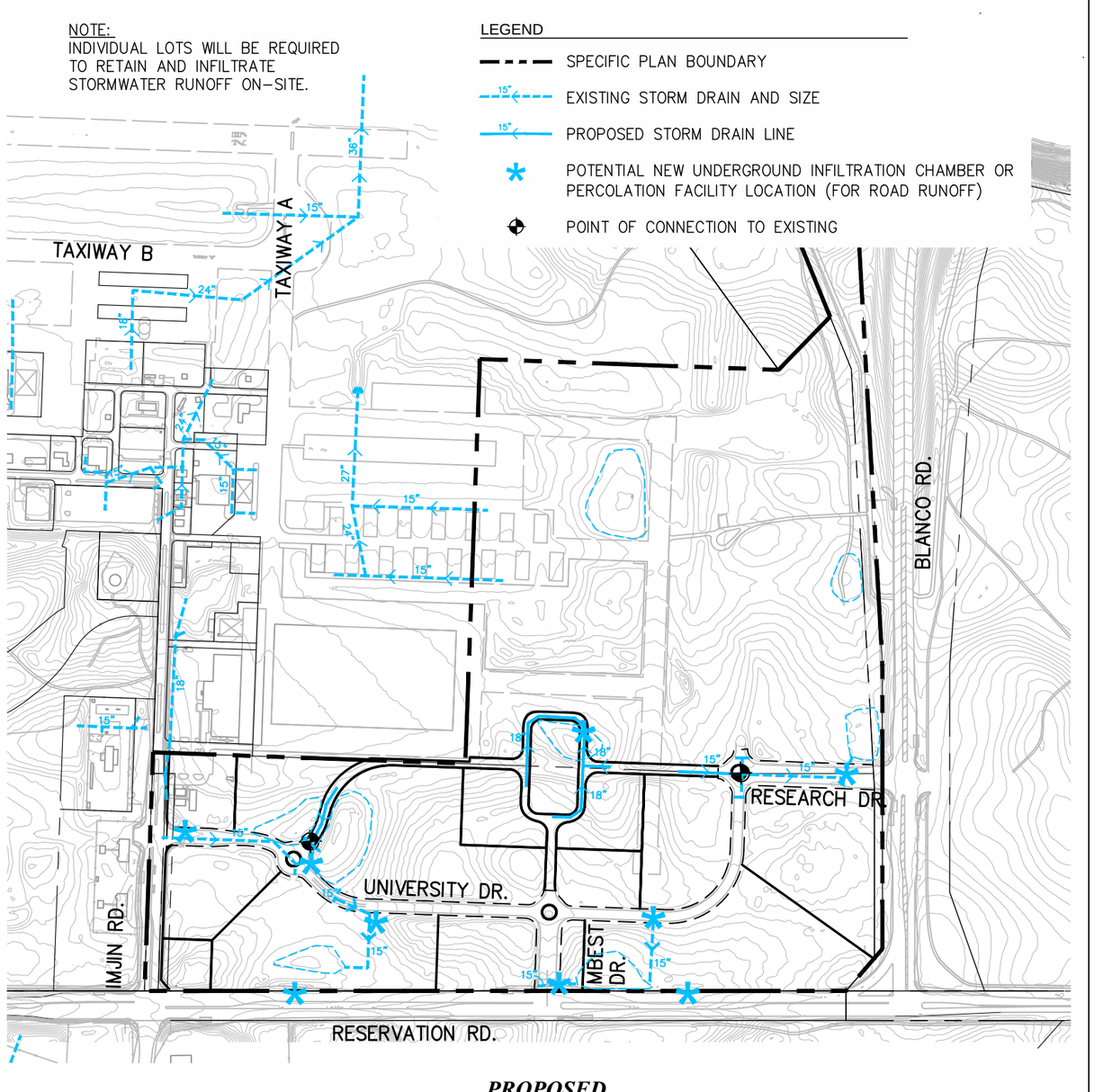

PROPOSED

LSA

FIGURE 4.4-1

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SOURCE: Whitson Engineers

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4.5.2 Proposed Utilities

All new utility connections and services for electricity, gas, telephone, television, and other line-carried forms of communication within the Specific Plan area will be located underground.

Gas and electric service will be provided by Pacific Gas and Electric Company (PG&E), which will develop its own electrical and gas infrastructure plan for the Specific Plan area. UC and the Airport shall coordinate with PG&E as development proceeds to ensure that service is provided in a cost-effective manner. All roadways will include underground electrical and gas service. A new 21 kV distribution system will be extended to the northeast from Imjin Road in a new underground joint trench system (PG&E is currently converting the existing electrical system from 12 kV to 21 kV). Additionally, in order to provide more reliable electric service to the existing customers on Imjin Road, PG&E will require a back-tie to a separate existing PG&E electric system approximately 2,400 feet north of Research Drive along West Blanco Road. The details for this back-tie connection or other potential options are to be coordinated with PG&E.

Figures 4.5-1 and 4.5-2 depict the existing and proposed utilities within the UC's portion of the Specific Plan area. Proposed utilities within the City's portion of the planning area will be identified and defined as part of subsequent development proposals and approvals. These utilities shall be consistent with the Specific Plan standards.

The two existing gas supply routes (the existing 16-inch high-pressure gas line and the 10-inch transmission main) provide a framework from which the existing 4-inch service line to the Specific Plan area can be expanded. The roadway network provides an opportunity to loop the natural gas distribution lines as part of a joint trench utility system in order to provide even pressure distribution throughout the Specific Plan area.

At each stage of development, the UC MBEST Center and Marina Municipal Airport Business and Industrial Park will make the necessary investments in fundamental infrastructure required to maintain independence and flexibility in the provisioning of telecommunication services to future tenants.

Regarding the construction of basic infrastructure for telephone and communications, the City and UC shall pursue the following two policies:

- Ensure that the fiber-optic link to the public switched telephone network currently in Imjin Road reaches the entire Specific Plan area.
- Expand and maintain ownership of the underground 12-duct conduit bank of interbuilding communications to City-owned property and parcels along the north edge of UC-owned land not yet serviced by the existing bank.

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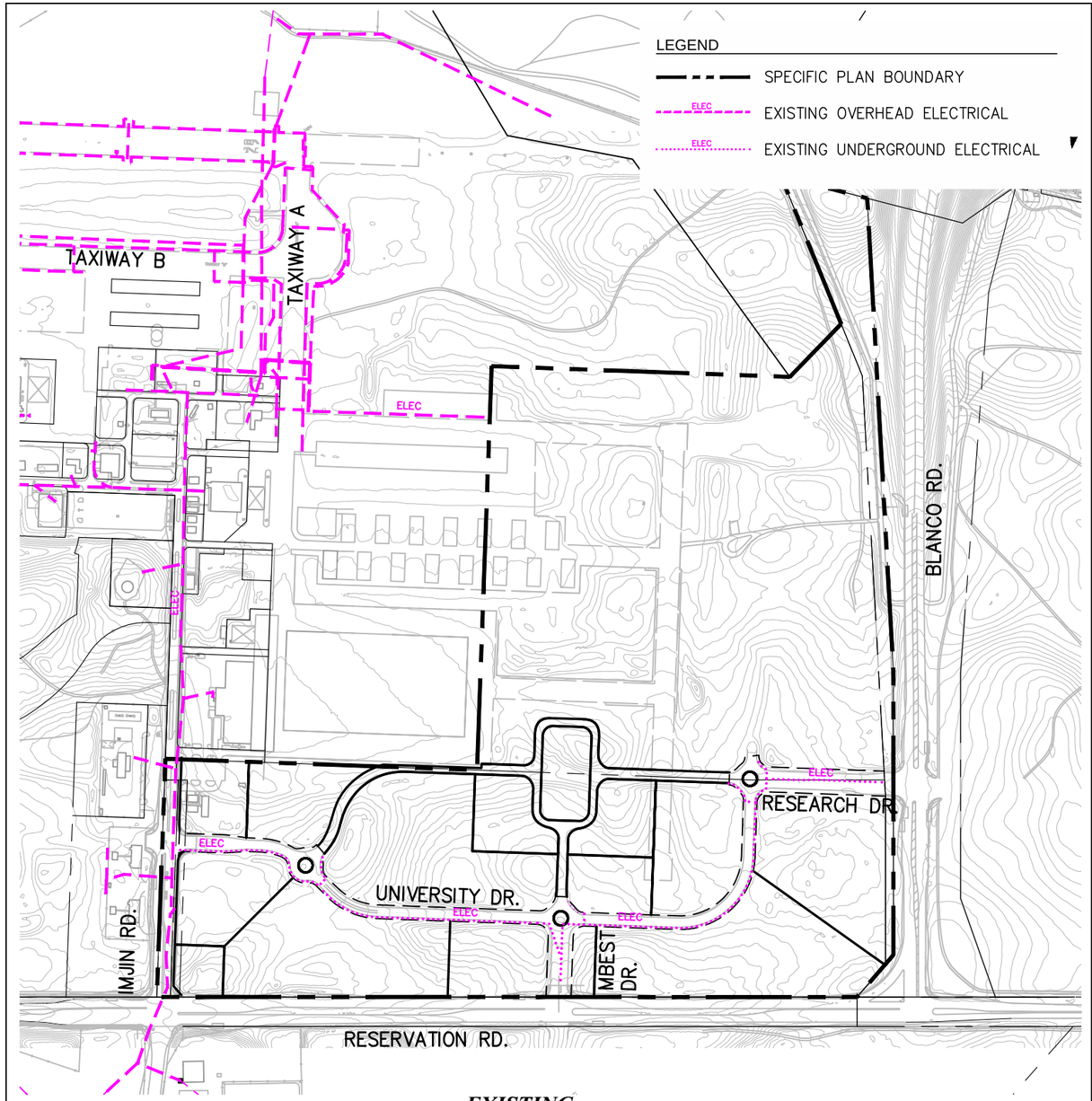

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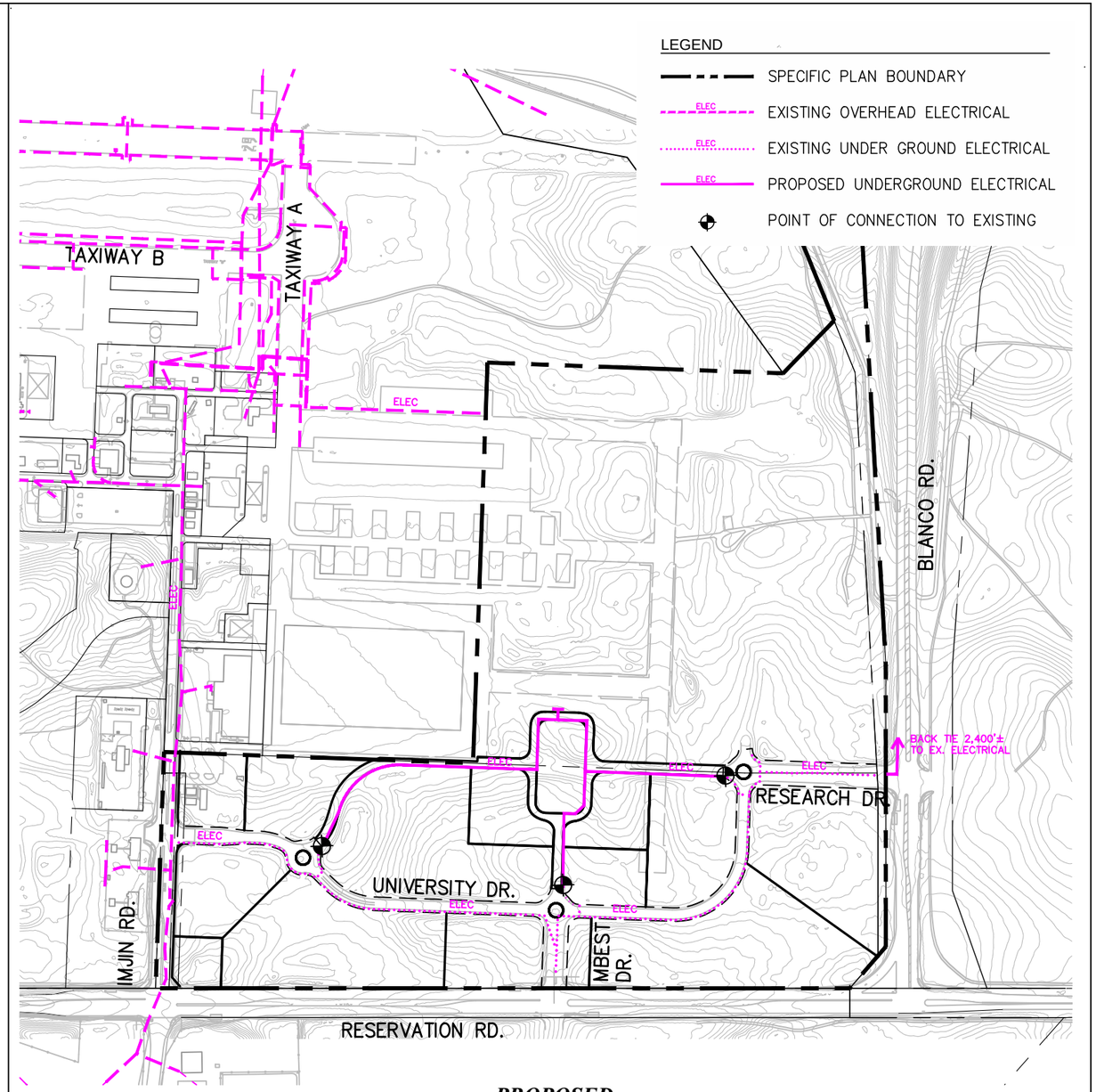

PROPOSED

LSA

FIGURE 4.5-1

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SOURCE: Whitson Engineers

Marina Municipal Airport Business and Industrial Park/
UC MBEST Center Specific Plan
Existing and Proposed Electrical Service

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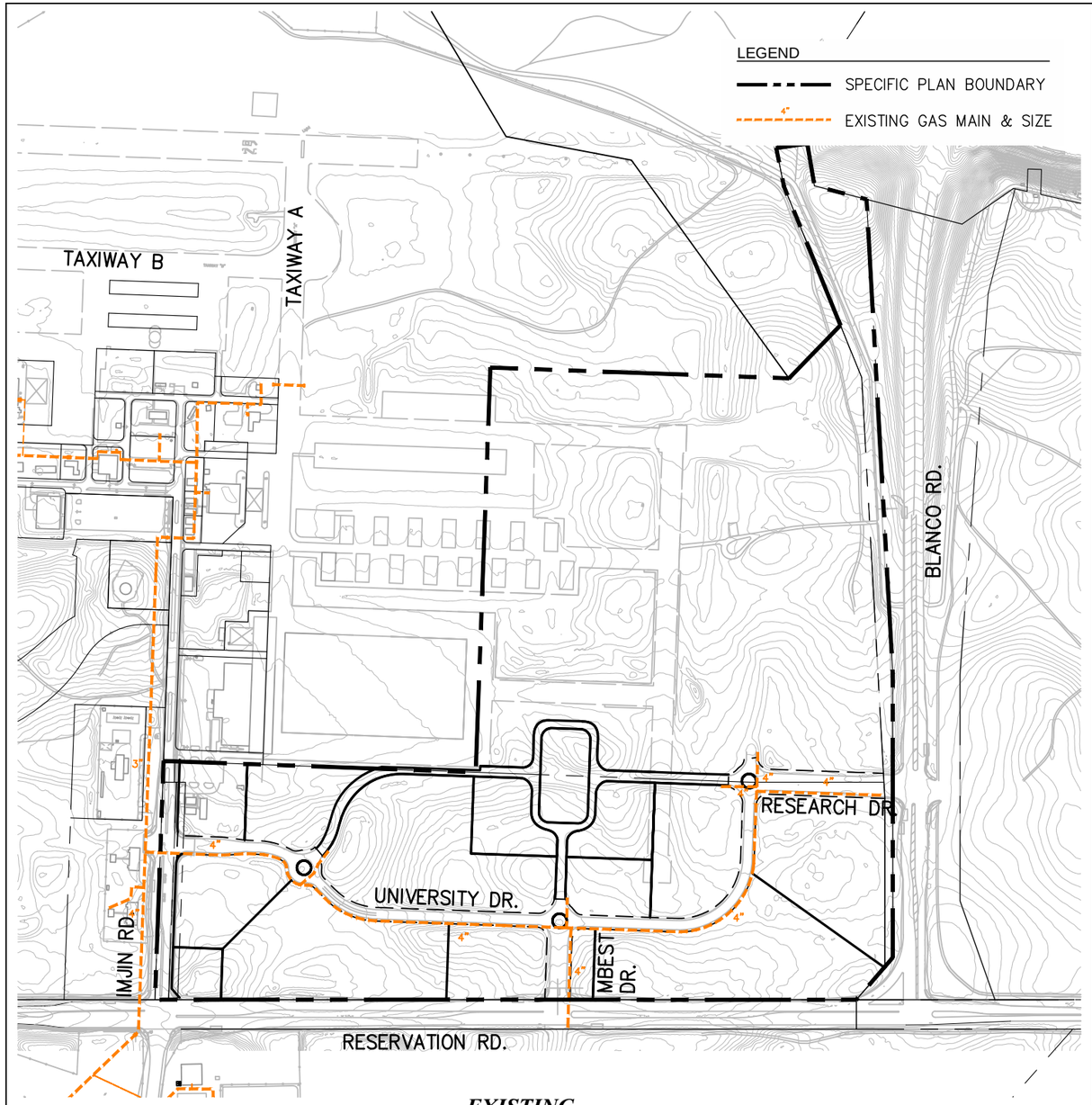

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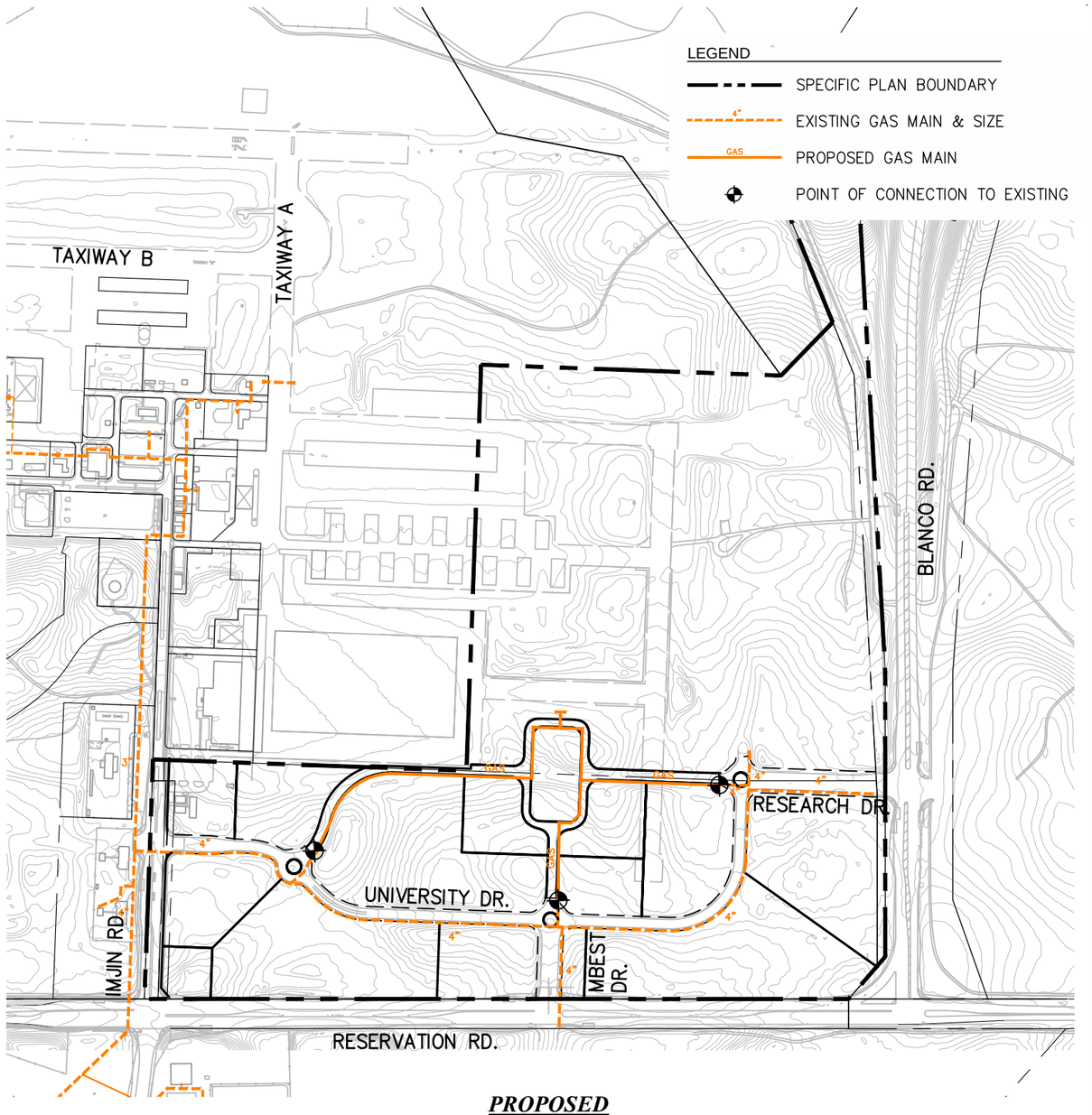

PROPOSED

LSA

FIGURE 4.5-2

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SOURCE: Whitson Engineers

Marina Municipal Airport Business and Industrial Park/
UC MBEST Center Specific Plan
Existing and Proposed Natural Gas Service

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4.6 COMMUNITY FACILITIES

4.6.1 Fire and Police Protection

The City of Marina Fire Department and City of Marina Police Department will provide fire and police protection services to the Specific Plan area. Both the Fire Department and the Police Department are headquartered at City Hall, located at 211 Hillcrest Avenue. Marina Fire Station No. 2 and the Marina Police Field Office East are located at 3260 Imjin Road, just northeast of the Specific Plan boundary. Although Fire Station No. 2 and Police Field Office East are closest in proximity to the Specific Plan area, fire, police, and emergency services will be responded to first by the departments' headquarters at City Hall, with secondary assistance provided by the station and office at 3260 Imjin Road.

Applicable City fire protection standards and requirements will be incorporated into all site development plans, including fire alarm systems and related Building and Fire Code requirements. Fire flows and hydrants will meet the requirements of the Marina Fire Department. Similarly, development plans for the Specific Plan will incorporate appropriate security requirements of the Marina Police Department. Developments that handle hazardous materials are required to submit an emergency plan to the Marina Fire Department and County of Monterey Health Department.

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5.0 ADMINISTRATION

5.1 ADMINISTRATION

The Marina Municipal Airport Business and Industrial Park/University of California Monterey Bay Education Science and Technology (UC MBEST) Center Specific Plan (Specific Plan) provides the framework for site development and improvement for properties within the Specific Plan boundaries. Its implementation will require the review and approval of the University of California (UC) or the City of Marina (City), depending on the location and nature of the proposed project.

5.2 SPECIFIC PLAN ADMINISTRATION AND DEVELOPMENT REVIEW PROCESS

Development and approval of this Specific Plan has been a collaborative effort and process by UC and the City. UC currently owns and manages the south portion of the Specific Plan area, while the City currently manages and owns the north portion. The UC may retain ownership, enter into long-term leases, and/or sell any property of any Specific Plan parcel that may be under their current and respective ownership. The City may enter into long-term leases for any Specific Plan parcel that may be under their current and respective ownership.

5.2.1 University of California

UC will remain involved with the administration of this Specific Plan so long as it retains ownership of any property within the Specific Plan boundaries. UC shall retain approval authority for a proposed project on land owned or leased by UC that furthers its education, research, and public service mission. Should UC transfer, sell or otherwise permanently relinquish control of property currently under UC ownership within the Specific Plan area, UC will relinquish its approval authority over said property in terms of development proposals, property improvements, and property renovations, and such approvals will be exclusively within the jurisdiction of the City. Such relinquishment shall extend only to the areas or portions of UC's property that are transferred, sold, or over which UC has otherwise permanently relinquished control. UC may also, in its sole and exclusive discretion, elect to grant to the City of Marina the authority to accept, review, and approve a project on UC-owned or leased property.

5.2.2 City of Marina

The City will maintain land use authority for the Specific Plan for the individual sites that, at the time of this Specific Plan's approval, are under City ownership. Should the City sell or lease any of the lands currently owned by the City, it shall maintain land use authority as established by this Specific Plan and Chapter 17 of the Marina Municipal Code. The City will assume land use authority for any site or property within the UC MBEST Central North Campus but was subsequently sold or transferred to any entity other than UC, except for lands on which UC holds a lease. The City shall assume permitting authority for projects on land owned by UC and leased to an entity other than UC if UC in its sole judgment chooses to relinquish project approval authority to the City or if the proposed project is a commercial development project unaffiliated with UC's education, research, and public service mission.

5.3 SUBSTANTIAL CONFORMANCE

The purpose of the Substantial Conformance provision is to provide an administrative mechanism by which minor modifications to the literal application of the Specific Plan or design departures from specific standards herein may be permitted without amendment of the Specific Plan, provided that such departures do not result in significant impacts and are consistent with the intent and basic objectives of the Specific Plan. The ability to permit minor modifications to the Specific Plan via the Substantial Conformance provision allows for reasonable flexibility while maintaining the structure and intent of the Specific Plan, including protection against significant impacts to adjacent property owners. Substantial Conformance may include, but is not limited to, inclusion of land uses not listed in Chapter 2.0, Land Use, of the Specific Plan, or modifications affecting infrastructure, public services and facilities, landscape material, and other issues except those affecting project financing and development regulations. Except as otherwise provided below, Substantial Conformance shall not include significant modifications to the basic design of the project.

Determination of Substantial Conformance shall be made by the City for private property, property under its ownership, and property not under UC ownership or control at the time of project approval. UC will maintain the authority for determination of Substantial Conformance for properties under its control unless expressly waived, in writing, by UC.

5.3.1 Land Uses Not Listed as Permitted or Conditionally Permitted

Land uses not listed as permitted and/or conditionally permitted in Chapter 2.0, Land Use, of this Specific Plan may be permitted, subject to a determination of Substantial Conformance, based on all the following findings:

1. The proposed use is compatible with the permitted uses, possessing similar characteristics as the permitted uses, in the land use designation within which it is proposed; and
2. The proposed use will not create any significant environmental impacts that were not previously addressed in prior environmental documents prepared pursuant to the California Environmental Quality Act (CEQA) and relied upon by the City in adopting or amending the Specific Plan; and
3. The proposed use will not substantially increase the severity of any significant environmental impacts that were previously addressed in prior environmental documents prepared pursuant to CEQA and relied upon by the City in adopting or amending the Specific Plan; and
4. The proposed use is similar in terms of land use, impacts, parking requirements and other operational characteristics as the permitted uses in the designated planning area within which it is proposed.

5.3.2 Development Intensity

The anticipated intensity of development within the Specific Plan area is identified in Table 2.1.1. The development intensity within any particular land use designation may be exceeded under the Substantial Conformance provisions of the Specific Plan provided the overall

development intensity of the Specific Plan is not exceeded, and that the exceedance of the development intensity for the particular land use designation will not result in impacts greater than those anticipated in the related environmental document prepared pursuant to CEQA and relied upon by the City in adopting or amending the Specific Plan.

5.3.3 Infrastructure

Modifications to the alignment of roads, the creation of local public and/or private streets, or adjustments to individual infrastructure facilities (e.g., drainage, sewer, and water facilities) may be approved by UC and the City (i.e., City Engineer) provided such modifications do not result in any significant impacts that were not previously addressed in environmental documentation prepared pursuant to CEQA and relied upon by the City in adopting or amending the Specific Plan.

5.3.4 Landscaping

Revisions to the plant palette provided in Chapter 2.0, Land Use, may be approved with the mutual concurrence of UC and the City.

5.3.5 Development Standards and Design Guidelines

Building size, height, bulk, and orientation, the parking lot layout, and other site plan details may be revised utilizing Substantial Conformance provisions. As a general guideline, such changes should not exceed a 10 percent reduction or addition to any development standard or design guideline established within Chapter 2.0, Land Use, of the Specific Plan. In making such a determination, UC and the City shall be required to find that the revisions requested under Substantial Conformance are consistent with the provisions of the Specific Plan and do not create impacts that were not recognized and addressed in the original approval.

5.4 DEVELOPMENT SUBMITTAL, REVIEW, AND APPROVAL PROCESS

Table 5.4.1 indicates the different types of approvals required for any particular land use or design request and application. Properties transferred, sold, or otherwise permanently relinquished from UC's control following the approval of the Specific Plan will fall under the land use jurisdiction of the City.

5.4.1 University of California

UC reserves the right to accept, review, and approve/deny development and land use applications within this Specific Plan for sites of which it is the landowner or the lessee. Applications for project approval by UC shall be submitted to the Director, Real Estate Office, Mail Stop REO, University of California, 1156 High Street, Santa Cruz, CA 95064.

UC may, in its sole and exclusive discretion, elect to grant to the City of Marina the authority to accept, review, and approve a project on UC-owned or leased property.

Table 5.4.1: Required Approvals for Land Use or Design Requests and Applications

Request	UC	City DRB	City Planning Commission	City Council
Uses Not Listed	●		●	
Site/Architectural Plan (UC)	●			
Conditionally Permitted Use (UC)	●			
Site/Architectural Plan (City)		●	●[1]	
Conditionally Permitted Use (City)		●	●	
Interim Uses	●		●	
Specific Plan Amendment	●	●	●	●

[1] Pursuant to Section 2.5.7.2, Expedited Review Incentive, UC and the City shall consider an expedited and priority review process in the event the development and land use applications incorporate a wide representation of the sustainability guidelines as listed in Section 2.5.7, Sustainability Guidelines, of this Specific Plan.

City = City of Marina
DRB = Site and Architectural Design Review Board
UC = University of California

5.4.2 City of Marina

The City will accept, review, and approve/deny development and land use applications pursuant to Section 5.4 (Development Submittal, Review, and Approval Process) of this Specific Plan and Chapters 17.48 (Use Permits) and 17.50 (Site and Architectural Design Review) of the City Municipal Code. The City shall assume permitting authority for projects on land owned by UC and leased to an entity other than UC if UC, in its sole judgment, chooses to relinquish project approval authority to the City or if the proposed project is a commercial development project unaffiliated with UC's education, research, and public service mission.

5.4.3 Expedited Review

UC and the City shall consider an expedited and priority review process in the event the development and land use applications incorporate a wide representation of the sustainability guidelines as listed in Appendices F and G of this Specific Plan.

5.5 SPECIFIC PLAN AMENDMENT

An amendment to the Specific Plan will require review and approval by the City Community Development Department, City Planning Commission, and City Council. Such amendments are governed by California Government Code Sections 65450 et seq. and require an application and fee to be submitted to the City Community Development Department. As further described under Section 5.5.1, University of California Concurrence Process, the City shall obtain approval from UC prior to taking any action that would result in amendments to the Specific Plan that affect UC MBEST Central North Campus land.

5.5.1 University of California Concurrence Process

Any amendment to the Specific Plan shall not be valid or enforceable unless or until it is approved by UC, from which approval will not be unreasonably withheld. The City shall provide UC with notice of its intent to amend the Specific Plan, including, but not limited to, notice of

any public hearings and CEQA public review periods/hearings. Approval of a Specific Plan amendment in advance of UC's approval may occur only if the effective date of the amendment does not take effect unless or until the amendment is approved by UC. All notices shall be provided to the UC Real Estate Office.

UC does not anticipate recording covenants, conditions, and restrictions for the purpose of implementing the design and land use controls in the UC MBEST Master Plan on property sold to private parties; however, property sold to entities that are not subject to City permitting or entitlement process may be subject by UC to deed-restricted design and land use controls.

5.6 FINANCING CAPITAL IMPROVEMENTS

The City and UC will decide the most appropriate means to finance and construct the necessary infrastructure described in Chapter 3.0, Circulation and Mobility Concept, and Chapter 4.0, Public Services, Utilities, and Community Facilities, of this Specific Plan. The backbone infrastructure for the UC portion of the Specific Plan has been installed and is available for use.

For the remainder of the Specific Plan area (the City-owned portion), there are several alternatives for constructing capital improvements. The most appropriate alternative may be determined by the development proposal or proposals for this portion of the Specific Plan.

5.6.1 Development Agreement

It is anticipated that the City will remain the underlying landowner for their portion of the Specific Plan. Therefore, any subsequent land developer/user will be allowed to improve this area upon a negotiated agreement—perhaps a lease—with the City. Financing the capital improvements could occur as part of this lease's terms and conditions or a functional equivalent agreement.

5.6.2 Assessment Districts

The California Constitution defines a benefit assessment as "any levy or charge upon real property by an agency for a special benefit conferred upon the real property" (Article XIIID Section 2 [b]). Benefit assessment districts are appropriate for major improvements that may benefit multiple landowners and/or users within the planning area. Landowners and users are assessed via a proportionate ratio of the overall benefit derived from the capital improvements. This ratio is assessed on a street frontage or acreage or some other functional equivalent formula. A benefit assessment localizes the costs of public improvement and activities, so only landowners and land users who benefit from the property improvement pay.

5.6.3 Impact/Development Fees

Capital improvements are constructed and then as parcels are improved and used, and fees are charged by the City to capture the original capital improvement costs. For example, water and sewer connection fees are a form of an impact/development fee. A common challenge to the effectiveness and complete cost recovery of impact/development fees is the unknown timing and sequence of future development because of market forces. If there is an extended period of time between the initial development and capital improvements installation, the original fees

may not keep pace with inflation and therefore not be able to completely capture the original capital costs.

5.6.4 Reimbursement Agreements

The initial developer constructs and finances completely, or in part with the City, the backbone capital improvements. Subsequent developers then reimburse the initial developer as projects are approved and constructed. Again, a challenge is the unknown timing and sequence of subsequent development due to market forces.

APPENDIX A

SPECIFIC PLAN DEVELOPMENT AND LAND USE APPLICATION FORM

Interested parties may contact the Community Development Director at 209 Cypress Avenue, Marina, CA 93933 (831-884-1220) for property availability and application information.

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APPENDIX B

LONG-TERM LEASE APPLICATION FOR CITY-OWNED AIRPORT LAND

Interested parties may contact the City Manager or Airport Services Manager at 211 Hillcrest Drive, Marina, CA 93933 (831-884-1278) or 781 Neeson Road, Building 540, Marina, CA. 93933 (831-582-0102), respectively, for property availability and the FAA review and approval process.

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APPENDIX C

LAND PURCHASE PROCESS FOR UC-OWNED OFF-AIRPORT LAND

Interested parties may contact the Director, Real Estate Office, University of California, 1154 High Street, Mail Stop REO/MBEST, Santa Cruz, CA (831-459-5379) for property availability.

For all property valued at less than $1,000,000, and for property to be sold to a public entity for a public purpose, the University of California may negotiate a sale. For such sales, a purchase and sale agreement will be negotiated and a deed will be drafted and executed.

Under current state law, for property valued at $1,000,000 or more not sold to a public entity for a public purpose, the property will be advertised and sealed bids will be solicited for a public auction. The property will be sold to the highest bidder meeting the criteria of the auction.

For property sold to private parties, the University of California does not anticipate the need to impose deed restrictions related to land use or design. For property sold to parties not subject to the City's permitting process, the University of California may impose deed restrictions consistent with the Specific Plan.

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APPENDIX D

LONG-TERM LEASE PROCESS FOR UC-OWNED OFF-AIRPORT LAND

Under current state law, the University of California may negotiate ground leases for any value to any legal entity.

The ground lease will likely specify what is to be constructed on the property and the condition under which the property is to be returned to the University of California at the end of the ground lease.

Interested parties may contact the Director, Real Estate Office, University of California, 1154 High Street, Mail Stop REO/MBEST, Santa Cruz, CA (831-459-5379) for property availability.

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APPENDIX E

LEED V4 FOR BUILDING DESIGN AND CONSTRUCTION

Please refer to http://www.usgbc.org/guide/bdc for most LEED Building Design and Construction Guidelines.

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APPENDIX F

UC SUSTAINABLE PRACTICES POLICIES

Please refer to https://policy.ucop.edu/doc/3100155/SustainablePractices to access the UC Sustainable Practices Policies.

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LSA

www.lsa.net

EXHIBIT 3 – General Plan - Land Use Plan

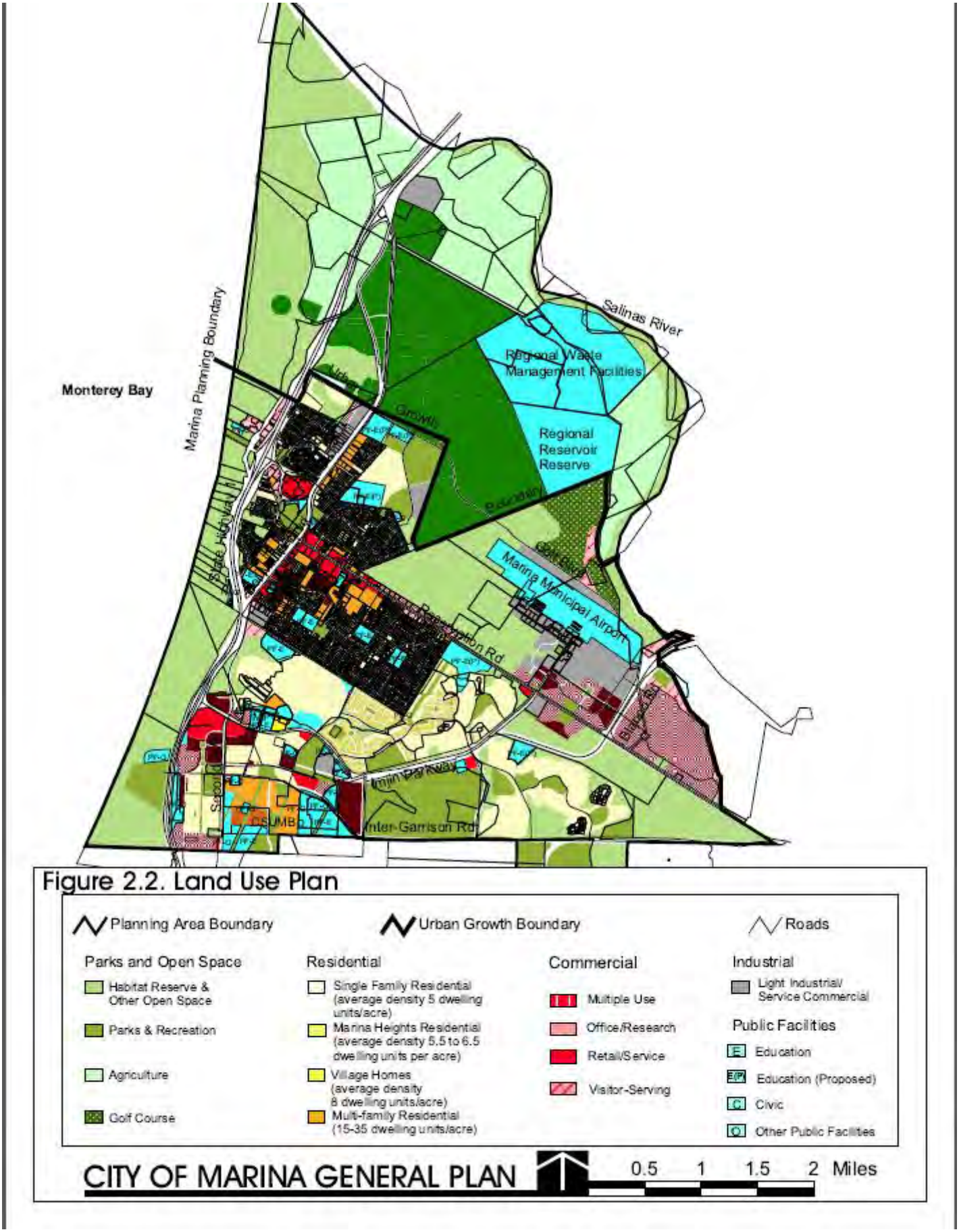
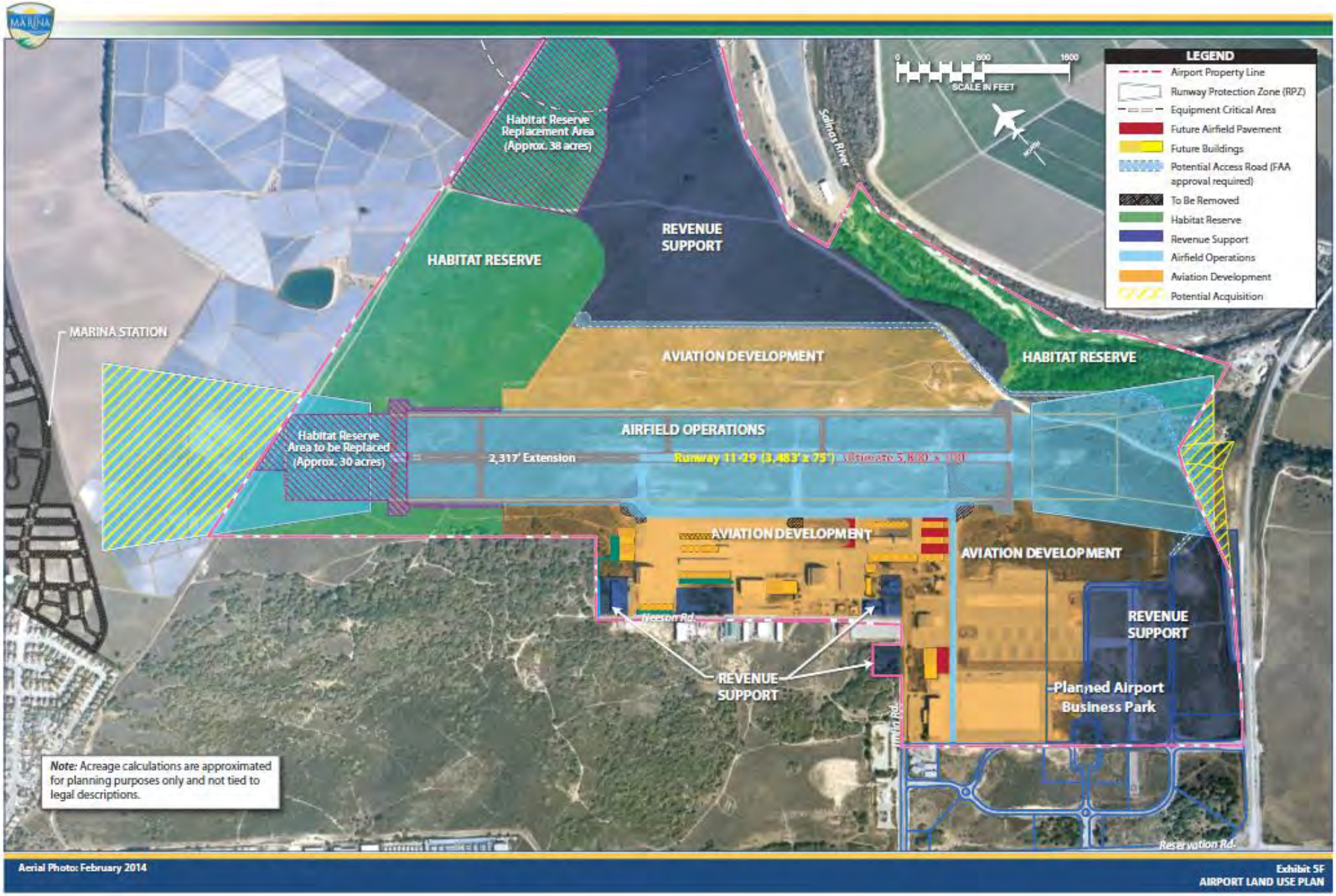


EXHIBIT 4 – Airport Land Use Plan - Airport Land Use Plan – Exhibit 5-F



1.5.1.7 City of Marina General Plan and EIR

The City of Marina General Plan, adopted October 31, 2000, and updated with amendments through August 4, 2010, identifies two planning sub-areas that in part make up the Specific Plan area. A portion of the UC MBEST Center Sub-Area (of which the UC MBEST Central North Campus is part) comprises the UC MBEST component, and the southeastern portion of the Marina Municipal Airport/Business Park Sub-Area corresponds to the City-owned land.

On May 22, 2001, the FORA adopted Resolution No. 01-05, including findings that the City followed the procedures and fulfilled the requirements of the Implementation Process and Procedures of the Fort Ord Base Reuse Plan and the FORA Master Resolution, thereby meeting the requirements of Government Code Section 67675 et seq. In addition, the City provided the required substantial evidence showing that the General Plan Amendments were consistent with the Fort Ord Base Reuse Plan, as well as that the City of Marina's Amendments to its General Plan (as contained in Resolution No. 2000-95) will, considering all their aspects, further the objectives and policies of the Final Base Reuse Plan. This resolution was approved and certified as meeting the requirements of Title 7.85 of the Government Code and are consistent with the Fort Ord Base Reuse Plan.

1.5.1.8 Draft Marina Municipal Airport Comprehensive Land Use Plan ~~(2006)~~2019

The purpose of the Draft Marina Municipal Airport Comprehensive Land Use Plan (CLUP) is to provide for the orderly development of the new land uses surrounding public use airports while simultaneously protecting the health, safety, and welfare of persons who live and work around the Airport. Toward that goal, the CLUP adopted a comprehensive set of policies designed to ensure that proposed development surrounding the Airport will neither impact nor be impacted by operation of the Airport. The CLUP identified specific areas surrounding the Airport for large-scale development. The areas identified include those lands included in the Specific Plan area. Anticipated uses to the east of the Airport (City-owned property) include "Non-Aviation Revenue Producing" (e.g., commercial, industrial, and corporate aviation uses). Anticipated uses to the south of the Airport (UC-owned property) are envisioned to be a multi-institutional center for science, technology, education, and policy.

The development that is planned for the Specific Plan area is consistent with the land use expectations of the Draft Marina Municipal Airport CLUP.

1.5.1.9 Marina Municipal Airport Master Plan Update ~~(2008)~~2018

The purpose of the Marina Municipal Airport Master Plan Update was to determine the type and extent of aviation facilities needed at the Airport through 2025 and to prepare a plan that would accommodate the required development. The Marina Municipal Airport Master Plan Update envisioned that the lands surrounding the main Airport facilities (e.g., taxiway, tarmac areas) would be developed as a business park to complement the existing and future Airport uses.

The development planned for the Specific Plan is consistent with the development envisioned within the Marina Municipal Airport Master Plan Update (refer to Exhibit 5.F)~~Figure 1.5-1).~~

June 12, 2020 Item No. **9b**

Honorable Mayor and Members of the Marina City Council

City Council Meeting of June 16, 2020

CITY COUNCIL CONSIDER OPENING A PUBLIC HEARING AND TAKING ANY TESTIMONY FROM THE PUBLIC; RECEIVE THE RECOMMENDATION OF THE PLANNING COMMISSION; AND CONSIDER ADOPTING RESOLUTION 2020-, SUBMITTING TO THE VOTERS AT THE NOVEMBER 3, 2020 GENERAL MUNICIPAL ELECTION A MEASURE APPROVING A GENERAL PLAN AMENDMENT AND LOCAL COASTAL PROGRAM AMENDMENT EXTENDING THE EXPIRATION DATE OF THE OPERATIVE PROVISIONS OF THE 2000 MARINA URBAN GROWTH BOUNDARY INITIATIVE TO DECEMBER 31, 2040, SUBSTANTIALLY IN THE FORM ATTACHED HERETO, SUBJECT TO FINAL REVIEW AND APPROVAL BY THE CITY ATTORNEY; AND REQUESTING MONTEREY COUNTY ELECTIONS TO CONDUCT THE ELECTION AND REQUESTING CONSOLIDATION OF THE ELECTION.

RECOMMENDATION:

It is recommended that the City Council:

1. Consider opening a noticed public hearing and take any testimony from members of the public; and

2. Receive the recommendation of the Planning Commission; and

3. Consider adoption of Resolution 2020-, submitting to the voters at the November 3, 2020 General Municipal Election a Measure approving a General Plan Amendment and Local Coastal Program Amendment extending the expiration date of the operative provisions of the 2000 Marina Urban Growth Boundary Initiative to December 31, 2040, substantially in the form attached hereto, subject to final review and approval by the City Attorney; requesting Monterey County Elections to conduct the election and requesting consolidation of the election.

SUMMARY:

At a regular meeting held on February 4, 2020, the City Council directed that a Measure be placed on the ballot for the November 3, 2020, General Municipal Election as a Council-sponsored initiative which if approved by the voters would extend for an additional period of twenty years the Marina Urban Growth Boundary Initiative (the "2000 Urban Growth Boundary") adopted by the voters at the November 7, 2000, General Municipal Election as Measure E which would otherwise expire by its terms on December 31, 2020. At a regular meeting held on June 11, 2020, the Planning Commission held a noticed public hearing to consider the matter of making a recommendation to the City Council regarding amendments to the General Plan and Local Coastal Program extending the 2000 Urban Growth Boundary by placement of the matter on the ballot for the November 3, 2020 General Municipal Election. The Planning Commission adopted Resolution 2020-___ recommending that the City Council amend the General Plan and the Local Coastal Program Land Use Plan Amendment to extend the operative provisions of the 2000 Urban Growth Boundary Initiative, said amendment of the General Plan specifically condition upon the City Council placing the matter on the November 3, 2020 General Municipal Election as a Council-sponsored initiative and approval of the ballot measure by the voters.

BACKGROUND:

On November 7, 2000, by a 52.4 to 47.6% margin, the voters in the City of Marina's General Municipal Election approved a voter-sponsored initiative measure to: (a) adopt an Urban Growth Boundary line, located generally along the northerly edge of the City of Marina; and (b) to discourage for a period of approximately twenty years any new development other than park and open space uses to the north of or above the Urban Growth Boundary line.

The 2000 Urban Growth Boundary and the restrictions it imposed on new development were established by amending both the City of Marina's General Plan and the Local Coastal Program Land Use Plan.

With regard to lands presently located within the city limits, and south of and below the 2000 Urban Growth Boundary line, the 2000 Urban Growth Boundary adopted General Plan policies providing that immediately adjacent to the Urban Growth Boundary line an open space buffer is required between new development and existing residential areas and new development is thereby encouraged to locate within existing developed areas, rather than on currently vacant or undeveloped land.

The 2000 Urban Growth Boundary prohibits the City from taking any actions inconsistent with its provisions. The location of the 2000 Urban Growth Boundary and the prohibitions of or limitations on new development it imposed can only be amended by a vote of the people or by the City Council in three very limited situations. The first is to allow for the 2000 Urban Growth Boundary to be amended to provide for housing primarily for low, very low or moderate income persons. The second situation allows the City Council to amend the 2000 Urban Growth Boundary when it determines that denial of an amendment would constitute an unconstitutional taking or a landowner's property, but only to the minimum extent necessary to avoid such an unconstitutional taking. These two provisions can only occur after notice and a public hearing. Finally, the City Council can amend the 2000 Urban Growth Boundary provisions of the General Plan for the limited purpose of reorganizing the General Plan or reordering and renumbering individual General Plan provisions.

ANALYSIS:

Since 2000, the provisions of the 2000 Urban Growth Boundary have been intended to encourage efficient growth patterns and protected the City by concentrating development largely within or directly adjacent to existing developed areas consistent with the availability of infrastructure and services. The goals of the 2000 Urban Growth Boundary have encouraged infill development in an orderly and logical manner while minimizing adverse environmental impacts of new development on existing residential areas within the existing urban areas of the City while also encouraging ongoing agricultural, open space and natural resource uses on lands outside the 2000 Urban Growth Boundary.

The 2000 Urban Growth Boundary's provisions are intended to afford the ability for the City to meet reasonable housing needs for all economic segments in the population, especially very low, low, and moderate income households by directing development of housing into area where services and infrastructure are more efficiently available.

The 2000 Urban Growth Boundary seeks to promote stability in long-term planning for the City by acting as a cornerstone policy within the General Plan to designate appropriate geographic limits for urban development for a twenty-year period and allowing sufficient flexibility within those geographic limits to respond to the City's changing needs over time.

The 2000 Urban Growth Boundary amended the Land Use Plan of the City's Local Coastal Program by adding Policies 43 and 44 prohibiting in the North Reservation Road Planning Area outside the 2000 Urban Growth Boundary but within the City limits until December 31, 2020: (1) new development other than public parks and open space uses (including agriculture) outside the Urban Growth Boundary line; and (2) making the North of Reservation Road Planning Area subject to an Urban Growth Boundary Overlay to limit new development to those uses permitted by the underlying land use designations that are also allowed outside the Urban Growth Boundary pursuant to the 1982 General Plan Land Use Goal 1.1.

The 2000 Urban Growth Boundary will expire automatically on December 31, 2020, unless extended or amended by the voters of the City. By its own provisions, the 2000 Urban Growth Boundary may be amended only by the voters.

The form of a Resolution for the November 3, 2020 General Municipal Election is attached as **EXHIBIT A**.

ENVIRONMENTAL DETERMINATION:

Staff has evaluated the General Plan Amendment and Local Coastal Program Land Use Plan Amendment to extend the Urban Growth Boundary for an additional twenty years, that is, from January 1, 2021 through December 31, 2040, and to amend the Land Use Plan of the City's Local Coastal Program is exempt from environmental review under CEQA pursuant to CEQA Guidelines sections 15307 (actions for protection of natural resources) and 15308 (actions for protection of the environment) and alternatively under CEQA Guidelines sections 15060 and 15378 as adoption of the General Plan Amendment and Local Coastal Program Land Use Plan Amendment are not a "project" because individually and collectively they do not have the potential for resulting in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment and recommends that the City Council place the matter on the ballot for the November 3, 2020 General Municipal Election.

FISCAL IMPACT/ SOURCE OF FUNDING:

Should the City Council approve this request, adequate funding is included in the FY 2019-20 and FY 20-21 Budgets, and will be charged to General Fund, City Administration, Elections, Account No. 11.112.65895. The County Elections Department has estimated the cost to the City for the consolidation of the November 3, 2020 election to be between $60,426 and $80,568. 2021 Budgets and will be charged to General Fund, City Administration, Elections, Account No. 11.112.65895.

CONCLUSION:

This request is submitted for the City Council consideration and possible action.

Respectfully submitted,

Robert W. Rathie

Robert W. Rathie
City Attorney's Office

REVIEWED/CONCUR:

_____

Alec Barton
Assistant Planner
City of Marina

_____
Christy Hopper
Planning Services Manager
City of Marina

_____
Fred Aegerter
Community Developer Director
City of Marina

_____
Layne Long
City Manager
City of Marina

EXHIBIT A

RESOLUTION NO. 2020- ____

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MARINA SUBMITTING TO THE VOTERS AT THE NOVEMBER 3, 2020 GENERAL MUNICIPAL ELECTION A MEASURE APPROVING A GENERAL PLAN AMENDMENT AND LOCAL COASTAL PROGRAM AMENDMENT EXTENDING THE EXPIRATION DATE OF THE OPERATIVE PROVISIONS OF THE 2000 MARINA URBAN GROWTH BOUNDARY INITIATIVE TO DECEMBER 31, 2040; REQUESTING MONTEREY COUNTY ELECTIONS TO CONDUCT THE ELECTION AND REQUESTING CONSOLIDATION OF THE ELECTION

WHEREAS, by its Resolution No. 2020-44, adopted on May 5, 2020, the City Council called a General Municipal Election for November 3, 2020, and requested that such election be conducted by Monterey County election officials and consolidated with the statewide general election to be held on that date; and

WHEREAS, in November 2000 a majority of the voters of the City of Marina approved Measure E, the "Marina Urban Growth Boundary Initiative," which amended the City's General Plan and Local Coastal Program to: (a) adopt an Urban Growth Boundary Line located generally along the northerly side of the City, and (b) to prohibit for a period of twenty (20) years any new development other than park and open space uses to the north of or above such Urban Growth Boundary Line; and

WHEREAS, the City Council finds that since 2000, the Urban Growth Boundary provisions of Measure E have encouraged efficient growth patterns and protected the City of Marina's quality of life by concentrating development largely within or directly adjacent to existing developed areas, consistent with the availability of infrastructure and services; and

WHEREAS, the City Council further finds that these Urban Growth Boundary provisions have enabled the City to manage the City's growth in a manner that fosters and protects the small town character of Marina, while encouraging appropriate economic development in accordance with the City's unique local conditions; and

WHEREAS, the City Council further finds that these Urban Growth Boundary provisions have encouraged, and if left in place will continue to encourage, infill development within the existing urban areas of the City of Marina while also encouraging ongoing agricultural, open space and natural resource uses on lands outside the urban growth boundary; and

WHEREAS, the City Council further finds that these Urban Growth Boundary provisions have ensured, and if left in place will continue to ensure, that development within the urban growth boundary has proceeded in an orderly and logical manner, while minimizing adverse environmental impacts of new development on existing residential areas within the City; and

WHEREAS, the City Council further finds that these Urban Growth Boundary provisions have allowed, and if left in place will continue to allow, the City to meet its reasonable housing needs for all economic segments of the population, especially very low, low and moderate-income households, by directing the development of housing into areas where services and infrastructure are more efficiently available; and

WHEREAS, the City Council further finds that these Urban Growth Boundary provisions have promoted, and if left in place will continue to promote, stability in long-term planning for the City by maintaining a cornerstone policy within the General Plan that designates appropriate geographic limits for urban development over the next twenty years, and that allows sufficient flexibility within those geographic limits to respond to the City's changing needs over time; and

WHEREAS, the Urban Growth Boundary provisions of Measure E will expire automatically on December 31, 2020, unless extended or amended by the voters of the City of Marina; and

WHEREAS, by its own provisions, Measure E may be amended only by the voters of the City of Marina; and

WHEREAS, on June 11, 2020, the City of Marina Planning Commission held a noticed public hearing pursuant to the requirements of Government Code §65353 and recommended to the City Council that the City Council amend the General Plan and the Local Coastal Program Land Use Plan to extend the 2000 Urban Growth Boundary, with amendment of the General Plan to be specifically conditioned on approval by the voters at the November 3, 2020 General Municipal Election; and

WHEREAS, the City Council is authorized by California Elections Code
Section 9222 to place a measure extending the expiration date of Measure E, the Marina Urban Growth Boundary Initiative, before the voters; and

WHEREAS, as required by law, the City Council desires to submit a measure extending the Urban Growth Boundary provisions of Measure E until December 31, 2040, to the voters at the November 3, 2020, election; and

WHEREAS, pursuant to Elections Code 10002, the City Council may by resolution request the Board of Supervisors of the county to permit the county elections official to render specified services to the city or district relating to the conduct of an election; and

WHEREAS, the City shall reimburse the county in full for the services performed upon presentation of a bill to the City; and

WHEREAS, pursuant to Elections Code Section 10403, whenever an election called by a district, city or other political subdivision for the submission of any question, proposition, or office to be filled is to appear upon the same ballot as that provided for that statewide election, the district, city or other political subdivision shall, at least 88 days prior to the date of the election, file with the board of supervisors, and a copy with the elections official, a resolution of its governing board requesting consolidation, and setting forth the exact form of any questions, proposition, or office to be voted upon at the election, as it is to appear on the ballot. Upon request, the Board of Supervisors may order the consolidation. The resolution requesting the consolidation shall be adopted and filed at the same time as the adoption of the ordinance, resolution, or order calling the election; and

NOW THEREFORE BE IT RESOLVED AND ORDERED by the City Council of the City of Marina as follows:

1. The foregoing recitals are true and correct and are hereby adopted by the City Council; and

2. The City Council amends the General Plan to extend the Urban Growth Boundary to December 31, 2040, contingent upon its approval by the voters and certification of the election results pursuant to Section 15372 of the California Elections Code, where upon the General Plan shall be amended.

3. That pursuant to Elections Code Section 10400 and 10403, the City Council of the City of Marina hereby orders an election be called and consolidated with any and all elections also called to be held on November 3, 2020, within the same territory.

4. Pursuant to California Constitution Article XIIIC, Section 2; Government Code Section 53724; and Elections Code Section 9222 the City Council of the City of Marina hereby calls an election at which it shall submit to the qualified voters of the City, a proposition that, if approved, would extend the expiration date of the operative provisions of the Marina Urban Growth Boundary Initiative as approved by voters in November 2000 through and including December 31, 2040. This proposition shall be designated by letter by the Monterey County Elections Department.

5. Pursuant to Elections Code Section 1002 said City Council hereby requests the Board of Supervisors of the County of Monterey to permit the Monterey County Election Department to provide any and all services necessary for conducting an election and agrees to pay for said services in full.

6. The Monterey County Elections Department shall conduct the election to be held on November 3, 2020, and submit to the electorate the following question:

"CITY OF MARINA URBAN GROWTH BOUNDARY EXPIRATION DATE EXTENSION.

To protect the City of Marina from development in current open space areas north of the City limits and along its coast, and to encourage efficient development in central Marina and within Marina's portion of former Fort Ord, shall an ordinance be adopted extending the expiration date of the Marina Urban Growth Boundary Initiative to December 31, 2040?

YES NO"

7. The full text of the measure extending the expiration date of the Marina Urban Growth Boundary Initiative to December 31, 2040, to be approved by the voters pursuant to Sections 3 and 5 of this resolution is as set forth in **Exhibit A** attached hereto. The City Council hereby approves the form thereof, and its submission to the voters of the City at the November 3, 2020, election.

8. The Monterey County Elections Department is requested to print the full text of the measure attached hereto **Exhibit A together with Exhibit 2**, without Exhibit 1 referenced therein, exactly as filed or indicated on the filed document in the voter information guide for the November 3, 2020, election, but a copy of Exhibits 1 of Exhibit A will be sent to voters upon request at the cost of the City. In addition, the full measure text including Exhibits 1 and 2 will be available at the following website address: https://cityofmarina.org .

9. The voter approval requirement is approval of a majority of qualified electors casting votes.

10. Arguments for and against the ballot measure may be filed consistent with Elections Code Section 9282 *et seq.* .The last day for submission of direct arguments for or against the ballot measure shall be by 5:00 P.M. on August 13, 2020. Direct arguments shall not exceed three hundred words and shall be signed by not more than five persons.

11. Rebuttals to arguments for and against the ballot measure may be filed. The last day for submission of rebuttal arguments for or against the ballot measure shall be 5:00 P.M. on August 20, 2020. Rebuttal arguments shall not exceed two hundred-fifty words and shall be signed by not more than five persons, those persons may be different persons than the persons who signed direct arguments.

12. Pursuant to Election Code Section 9280, the City Council hereby directs the City Attorney to prepare by August 13, 2020, an impartial analysis of the ballot measure.

13. The Deputy City Clerk is hereby designated as the City's Election Official and is instructed, directed and authorized to do all things required by law to effectuate the November 3, 2020, General Municipal Election and to present the ballot measure submitted herewith to the electorate, including but not limited to working with the Monterey County Elections Department as needed in order to properly and lawfully conduct the election, posting, noticing and filing required publication postings. The ballots to be used in the election shall be in form and content as required by law. The Deputy City Clerk is hereby directed to forward a copy of this resolution to the City Attorney for preparation of the impartial analysis of the ballot measure submitted. Pursuant to Election Code section 9285, when the Deputy City Clerk has selected the arguments for and against the ballot measure, which will be printed and distributed to voters, the Deputy City Clerk shall send copies of the arguments in favor of the ballot measure to the authors of the argument against, and copies of the argument against to the authors of the argument in favor. Rebuttal arguments shall be printed in the same manner as the direct arguments. Each rebuttal argument shall immediately follow the direct argument which it seeks to rebut. The County Elections Department is authorized to canvass the returns of the general municipal election and certify the results to the City Council. Thereafter, in accordance with the time prescribed by the Elections Code, the City Council shall declare and cause to be entered in its minutes a statement of the results of the election. In all particulars not recited in this Resolution, the election shall be held and conducted as provided by law for holding municipal elections.

14. The Deputy City Clerk is directed to file forthwith a certified copies of this Resolution with the Board of Supervisors, the County Clerk, and the Registrar of Voters of the County of Monterey, together with the attached ballot measure; and certify as to the passage and adoption of this resolution and enter it into the book of original resolutions.

15. The City Council finds that extending the expiration date of Measure E, the Marina Urban Growth Boundary initiative is exempt from environmental review under the California Environmental Quality Act ("CEQA"), Public Resources Code section 21000 et sq., pursuant to CEQA Guidelines sections 15307 (actions for protection of natural resources),and 15308 (actions for protection of the environment), and alternatively under CEQA Guidelines sections 15060 and 15378 is not a "project" subject to CEQA because as regulatory action maintaining existing General Plan and Local Coastal Program policies in effect, it does not have the potential for resulting in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment.

16. The City Council further finds, pursuant to Title 14 of the California Code of Regulations, Section 15061(b)(3) and 15378(a), that this Resolution is exempt from the requirements of CEQA in that it is not a project which has the potential for causing a significant effect on the environment. This Resolution is further exempt under the definition of "Project" in Section 15378(b)(2) in that it concerns general policy and procedure making.

17. The City Council directs that Notices of CEQA exemptions be filed.

18. This resolution shall become effective immediately upon its passage and adoption.

PASSED AND ADOPTED by the City Council of the City of Marina at a regular meeting duly held on this 16th day of June 2020, by the following vote:

AYES, COUNCIL MEMBERS:
NOES, COUNCIL MEMBERS:
ABSTENTIONS, COUNCIL MEMBERS:
ABSENT, COUNCIL MEMBERS:

_____
Bruce C. Delgado, Mayor

ATTEST:

_____
Anita Shepherd-Sharp, Deputy City Clerk

EXHIBIT A
[To the Resolution]

Measure ___

A MEASURE OF THE VOTERS OF THE CITY OF MARINA APPROVING A GENERAL PLAN AMENDMENT AND LOCAL COASTAL PROGRAM AMENDMENT EXTENDING THE EXPIRATION DATE OF THE PROVISIONS OF THE MARINA URBAN GROWTH BOUNDARY INITIATIVE THROUGH DECEMBER 31, 2040

The people of the City of Marina do ordain as follows:

Section 1: Purpose

The purpose of this measure is to extend the expiration date of the operative provisions of Measure E, the "Marina Urban Growth Boundary ("UGB") Initiative," a set of amendments to the City of Marina General Plan and Local Coastal Program approved by the voters of the City of Marina in November 2000, through December 31, 2040. A true and correct copy of the full text of Measure E, as approved, adopted, and now in force is attached to this resolution as **EXHIBIT 1**. A true and correct copy of the Land Use Diagram showing the geographic location of the current Urban Growth Boundary is attached as **EXHIBIT 2.**

The purposes of the Urban Growth Boundary Initiative as approved by the voters in November 2000 are:

a. To encourage efficient patterns for future growth and development and to protect the City of Marina's quality of life by concentrating future development largely within existing developed areas, or, in some cases, directly adjacent to them, consistent with the availability of infrastructure and services.

b. To promote stability in long term planning for the City by establishing a cornerstone policy within the General Plan that designates appropriate geographic limits for urban development along the northerly boundary of the City over the next twenty years, and that allows sufficient flexibility within the specified geographic limits to respond to the City's changing needs over time.

c. To manage the City's future growth and development in a manner that fosters and protects the small-town character of Marina, while encouraging appropriate economic development in accordance with the City's unique local conditions.

d. To encourage infill development within the existing urban areas of the City of Marina and to discourage sprawling, or "leapfrog," development outside such areas.

e. To encourage ongoing agricultural, open space and natural resource uses on lands outside the urban growth boundary.

f. To ensure that future development within the urban growth boundary proceeds in an orderly and logical manner, and that adverse environmental impacts on existing residential areas within the City are minimized as new development occurs.

g. To allow the City to continue to meet its reasonable housing needs for all economic segments of the population, especially very low, low and moderate income households, by directing the development of housing into areas where services and infrastructure are more efficiently available.

h. To ensure that the General Plan Update that the City was undertaking at the time Measure E was approved by the voters reflected the will of the people as expressed in their adoption of Measure E.

Section 2: Findings

The voters of the City of Marina find as follows:

a. Since 2000, the UGB provisions of Measure E have encouraged efficient growth patterns and protected the City of Marina's quality of life by concentrating development largely within or directly adjacent to existing developed areas, consistent with the availability of infrastructure and services; and

b. The UGB provisions have enabled the City to manage growth in a manner that fosters and protects the small-town character of Marina, while encouraging appropriate economic development in accordance with the City's unique local conditions; and

c. The UGB provisions have encouraged, and if left in place will continue to encourage, infill development within the existing urban areas of the City of Marina while also encouraging ongoing agricultural, open space and natural resource uses on lands outside the urban growth boundary; and

d. The UGB provisions have ensured, and if left in place will continue to ensure, that development within the urban growth boundary has proceeded in an orderly and logical manner, while minimizing adverse environmental impacts of new development on existing residential areas within the City; and

e. The UGB provisions have allowed, and if left in place will continue to allow, the City to meet its reasonable housing needs for all economic segments of the population, especially very low, low and moderate-income households, by directing the development of housing into areas where services and infrastructure are more efficiently available; and

f. The UGB provisions have promoted, and if left in place will continue to promote, stability in long-term planning for the City by maintaining a cornerstone policy within the General Plan that designates appropriate geographic limits for urban development over the next twenty years, and that allows sufficient flexibility within those geographic limits to respond to the City's changing needs over time.

g. The UGB provisions have supported a stronger City budget due to efficient land use, which has provided the City funds needed to maintain and improve for Marina residents environmental and social justice benefits, such as better parks, streets, public safety, and recreation resources.

h. Extending the operative provisions of the Marina Urban Growth Boundary Initiative through 2040 is both necessary and appropriate to ensure continued efficient growth patterns and protection of the City of Marina's unique quality of life, and to preserve and protect the public health, safety, and welfare of Marina citizens generally.

Section 3: General Plan Amendments

The City of Marina General Plan, as adopted October 31, 2000 and as updated with amendments through August 4, 2010, is hereby amended as follows, with affected portions shown in ***bold italics,*** deletions in ***~~strikethrough~~*** text and additions in ***underline***:

a. Chapter 1, Introduction.

- On page 13, the last sentence of paragraph 1.4 is amended to read as follows:

  Figure 1.1 also depicts the City's Urban Growth Boundary - that is, the area within which the City will concentrate growth and new development, along with required community services until ~~2020~~ 2040.

- On page 16, item 4 under paragraph 1.13 is amended to read as follows:

  The Marina Planning Area is the entire geographic territory covered by this General Plan and as depicted in its various figures, including Figure 1.1. The Urban Growth Boundary defines the area within which the City will concentrate development and urban services until the year ~~2020~~ 2040.

- On page 21, paragraph 1.21 is amended to read as follows:

  The following provisions are excerpted from Section 2 of the Marina Urban Growth Boundary (UGB) Initiative. These, along with other provisions added to this Plan by Section 2 of the UGB Initiative, shall continue to be included in the Marina General Plan until December 31, ~~2020~~ 2040, unless earlier repealed or amended pursuant to the procedures set forth herein.

  Until December 31, ~~2020~~ 2040, the location of the Urban Growth Boundary or UGB may be amended only by a vote of the people, or by the City according to the following provisions and procedures[.]

b. Chapter 2, Community Land Use Element.

- On page 26, item 1 under paragraph 2.4 (Primary Policies) is amended to read as follows:

  The City shall provide a land supply within (i.e., south of) its Urban Growth Boundary sufficient in size and appropriately located to accommodate a fair share of the future population and employment growth within Monterey County. Unless otherwise amended by a vote of the Marina electorate, until December 31, ~~2020~~ 2040, the City's Urban Growth Boundary– as shown on Figures 1.1, 2.1 and 2.2 of this plan–may be amended by the City Council only to accommodate lands designated for affordable housing in accordance with Sections 1.21 through 1.24 of this Plan.

Section 4: Local Coastal Program Land Use Plan Amendments

This Section enacts amendments to City of Marina *Local Coastal Program – Land Use Plan* approved by the Marina City Council on February 17 and June 2, 1981 and certified by the California Coastal Commission on April 20, 1982, as that 1981 Land Use Plan has been modified by amendments up to and including April 10, 2008 (hereinafter "Land Use Plan"). The language adopted in the following amendments may be further amended as appropriate without a vote of the people.

In this Section, text to be inserted in the Land Use Plan is indicated in **bold type.** The Land Use Plan is hereby amended by adding the following new policies on page 14:

> **43. To provide for orderly growth and development patterns, all development in the coastal zone shall be subject to the timing and other limitations established by the Marina Urban Growth Boundary Initiative, which is incorporated herein by reference. Until December 31, 2040, subject to the exceptions set forth in the Marina Urban Growth Boundary Initiative, no new development other than public parks and open space uses (including agricultural uses) shall be permitted outside the Urban Growth Boundary delineated on Land Use Diagram 1 as adopted by the Marina Urban Growth Boundary Initiative in 2000 and re-adopted in 2020 and incorporated into the Land Use Element of the City of Marina General Plan. For the purpose of this policy, open space uses are those uses defined in Government Code section 65560, as that section of law exists on November 3, 2020.**
>
> **44. Until December 31, 2040, lands that, as of November 3, 2020, are designated Coastal Conservation and Development on the North of Reservation Road Planning Area Map and are outside the Urban Growth Boundary, but within the City of Marina, shall be subject to an Urban Growth Boundary Overlay ("UGB Overlay"). The UGB Overlay shall limit new development to those uses permitted by the underlying land use designation that are also allowed outside the Urban Growth Boundary pursuant to the City of Marina General Plan.**

Section 5. Implementation

a. Effective Date. Upon the effective date of the approval of this Measure by the voters of the City of Marina, the provisions of Section 3 of the Measure are hereby inserted into the City of Marina General Plan, and the provisions of Section 4 of the Measure are inserted into the City of Marina Local Coastal Program; except that if the four amendments of the mandatory elements of the General Plan permitted by state law for any given calendar year have already been utilized in the year in which the Measure becomes effective, this General Plan amendment shall be the first amendment inserted into the City of Marina General Plan and Local Coastal Program, respectively, on January 1 of the next year. At such time as this General Plan amendment is inserted in the City of Marina General Plan, any provisions of the City of Marina Zoning Ordinance, as reflected in the ordinance itself or in the City of Marina Zoning Map, inconsistent with this General Plan amendment shall not be enforced.

b. Other City Ordinances and Policies. The City of Marina and its City Council are hereby authorized and directed to amend the General Plan, the Local Coastal Program, all specific plans, the Zoning Ordinance, the Zoning Map, Land Use Program Maps, and other ordinances and policies affected by this Measure as soon as possible and in the manner and time required by any applicable state law, to ensure consistency between the policies adopted in this Measure and other elements of the City of Marina General Plan, the Local Coastal Program, all specific plans, the City of Marina Zoning Ordinance, the City of Marina Zoning Map, and other City ordinances and policies.

Section 6: Exemptions

Nothing in this Measure shall apply to any of the following: (1) any development project or ongoing activity that has obtained, as of the effective date of the Measure, a vested right pursuant to state or local law; and (2) any area contained within a Habitat Conservation Plan ("HCP") developed pursuant to the Endangered Species Act, 16 U.S.C. § 1531 et seq., that has been given formal approval by the City between the submittal date and the effective date of this Measure, but only to the extent federal or state law preempts application of this Measure to such areas.

Section 7: Severability and Interpretation

This Measure shall be interpreted so as to be consistent with all federal and state laws, rules, and regulations. If any section, sub-section, sentence, clause, phrase, part, or portion of this Measure is held to be invalid or unconstitutional by a final judgment of a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Measure. The voters hereby declare that this Measure, and each section, sub-section, sentence, clause, phrase, part, or portion thereof would have been adopted or passed even if one or more sections, sub-sections, sentences, clauses, phrases, parts, or portions are declared invalid or unconstitutional. If any provision of this Measure is held invalid as applied to any person or circumstance, such invalidity shall not affect any application of this Measure that can be given effect without the invalid application. This Measure shall be broadly construed in order to achieve the purposes stated in this Measure. It is the intent of the voters that the provisions of this measure shall be interpreted by the City in a manner that facilitates the protection for agricultural, open space, and natural resource uses of areas outside the Urban Growth Boundary established herein.

Section 8: Amendment or Repeal

Except as otherwise provided herein, this Measure may be amended or repealed only by the voters of the City of Marina.

EXHIBIT LIST:

Exhibit 1: Full Text of Measure E, the "Marina Urban Growth Boundary Initiative," as approved by the voters in November 2000.

Exhibit 2: Land Use Diagram showing Urban Growth Boundary area.

EXHIBIT 1
[To Exhibit A to the Resolution]

Marina Urban Growth Boundary Initiative

The people of the City of Marina hereby ordain as follows:

Section 1: Purpose

The purpose of this Initiative is to amend the City of Marina General Plan and City of Marina Local Coastal Program to establish a twenty- year Urban Growth Boundary for the City of Marina, to adopt related General Plan policies, and to make conforming changes to the General Plan and Local Coastal Program policies in effect on March 8, 2000.

The purposes of the Urban Growth Boundary, the related General Plan policies, and the conforming changes are:

a. To encourage efficient patterns for future growth and development and to protect the City of Marina's quality of life by concentrating future development largely within existing developed areas, or, in some cases, directly adjacent to them, consistent with the availability of infrastructure and services.

b. To promote stability in long-term planning for the City by establishing a cornerstone policy within the General Plan that designates appropriate geographic limits for urban development along the northerly boundary of the City over the next twenty years, and that allows sufficient flexibility within the specified geographic limits to respond to the City's changing needs over time.

c. To manage the City's future growth and development in a manner that fosters and protects the small-town character of Marina, while encouraging appropriate economic development in accordance with the City's unique local conditions.

d. To encourage infill development within the existing urban areas of the City of Marina and to discourage sprawling, or "leapfrog," development outside such areas.

e. To encourage ongoing agricultural, open space and natural resource uses on lands outside the urban growth boundary. For the purposes of this Initiative, open space uses are those uses identified in Government Code section 65560, as that section of law exists on March 8, 2000. A copy of Government Code section 65560 is attached to this Initiative as Exhibit A.

f. To ensure that future development within the urban growth boundary proceeds in an orderly and logical manner, and that adverse environmental impacts on existing residential areas within the City are minimized as new development occurs.

g. To allow the City to continue to meet its reasonable housing needs for all economic segments of the population, especially very low, low and moderate-income households, by directing the development of housing into areas where services and infrastructure are more efficiently available.

h. To ensure that the General Plan Update that the City is presently undertaking reflects the will of the people as expressed in this Initiative.

Section 2: General Plan Urban Growth Boundary Amendments

This Section of the Initiative enacts amendments to the City of Marina General Plan adopted on June 1, 1982, as that 1982 General Plan has been modified by any amendments adopted up to and including March 8, 2000. All further references herein to the "General Plan" are to the City of Marina General Plan adopted on June 1, 1982, as modified by any amendments to that General Plan adopted up to and including March 8, 2000. In this Section, text to be inserted in the General Plan is indicated in **bold** type.

a. **Urban Growth Boundary Goals**: The General Plan is hereby amended by adding the following new text immediately preceding "Section 2.0 CONDITIONS AND TRENDS" on page 10-3 of the General Plan. Land Use Diagram I, referenced below, is attached to this Initiative as Exhibit B.

1.1 Urban Growth Boundary Goals. as Adopted by the Marina Urban Growth Boundary Initiative

- **To provide for orderly growth and development patterns, an Urban Growth Boundary is established for the City of Marina. The Urban Growth Boundary, which affects areas generally on the northerly side of the City, is shown on Land Use Diagram 1. Land Use Diagram 1 is hereby incorporated into the General Plan by this reference. This Urban Growth Boundary shall be in effect until December 31, 2020.**

- **Until December 31, 2020, no new development other than public parks and open space uses (including agricultural uses) shall be permitted outside the Urban Growth Boundary delineated on Land Use Diagram 1. For the purpose of this policy, open space uses are those uses defined in Government Code section 65560, as that section of law exists on March 8, 2000.**

- **For the purposes of the Marina Urban Growth Boundary Initiative, the term "outside the Urban Growth Boundary" shall mean lands to the north of or above the Marina Urban Growth Boundary delineated on Land Use Diagram 1, and the term "within the Urban Growth Boundary" shall mean lands within the City of Marina that are also south of or below the Marina Urban Growth Boundary delineated on Land Use Diagram 1.**

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1.2 **Limitations on General Plan Amendments Relating to Urban Growth Boundary Diagram. Goals. and Policies**

Until December 31, 2020, the provisions of Land Use Element Sections 1.1, 1.2, 1.3, and 3.1, including the location of the Urban Growth Boundary shown on Land Use Diagram 1and the Urban Growth Boundary Goals and Policies enacted by Section 2 of the Marina Urban Growth Boundary Initiative, may be amended only by a vote of the people, or according to the procedures set forth below:

(a) **To comply with any applicable state law relating to the provision of housing for all economic segments of the community, the City Council may amend the Urban Growth Boundary designated on Land Use Diagram 1n order to accommodate lands to be designated for affordable housing, provided that no more than 10 acres of land may be brought within the Urban Growth Boundary for this purpose in any one calendar year. Such amendment may be adopted only if, based on substantial evidence, the City Council makes each of the following findings:**

(1) **That the land to be included within the Urban Growth Boundary is immediately adjacent to an area where development already exists, and that specific evidence in the administrative record relating to the amendment demonstrates that the Public Safety Department and Department of Public Works have adequate capacity to accommodate the proposed development and to provide adequate public services for the proposed development; and**

(2) **That the proposed development will consist of housing primarily for low, very low, or moderate Income persons, and that effective restrictions will maintain the housing as available to such persons In perpetuity; and**

(3) **That there is no existing residentially designated land available within the Urban Growth Boundary to accommodate the proposed low, very low, or moderate Income housing development; and**

(4) **That it is not reasonably feasible to accommodate the proposed development by redesignating lands within the Urban Growth Boundary for low, very low, or moderate income housing; and**

(5) **The proposed development is necessary to comply with state law requirements for provision of housing to persons of low, very low, or moderate income.**

(b) **Upon request of an affected landowner, the City Council may amend any of the goals or policies enacted by Section *2* of the Marina Urban Growth Boundary Initiative, Including the Urban Growth Boundary designated on Land Use Diagram 1, if it does so pursuant to a finding based on substantial evidence in the administrative record, and without substantial evidence to the contrary, that the application of one or more of such policies to any specific property constitutes an unconstitutional taking of a landowner's property; however, any such amendment shall be made only to the minimum extent necessary to avoid such an unconstitutional taking of a landowner's property.**

(c) **Prior to approving any amendments pursuant to subparagraphs (a) or (b), above, the City Council shall hold at least one noticed public hearing for the purpose of receiving testimony and evidence from the applicant and the public on the proposed amendment and any finding proposed in connection with such amendment. The hearing shall be in addition to any other public hearings regularly required for a General Plan amendment.**

(d) **The provisions of the General Plan added by the Marina Urban Growth Boundary Initiative may be updated, amended, or reorganized in the course of ongoing updates of the General Plan, In accordance with the requirements of state law, and Individual provisions may be renumbered or reordered. Land Use Diagram 1 may be updated, amended, or revised in accordance with the requirements of state law. Notwithstanding the above, the provisions added by Section *2* of the Marina Urban Growth Boundary Initiative, including the location of the Urban Growth Boundary shown on Land Use Diagram 1, shall continue to be included in the General Plan until December 31, 2020, unless earlier repealed or amended pursuant to the procedures set forth above, or by the voters of the City.**

1.3 <u>Prohibition on Inconsistent Actions</u>:

Upon the effective date of the Marina Urban Growth Boundary Initiative, the City, and its departments, boards, commissions, officers and employees, shall not approve or grant any General Plan amendment, rezoning, specific plan, subdivision map, conditional use permit, building permit or any other entitlement which is inconsistent with this Initiative.

b. **Urban Growth Boundary Policies:** The General Plan is hereby amended by adding the following text on page 10-14, immediately following the last bulleted item:

3.1 <u>Urban Growth Boundary Policies. as Adopted by the Marina Urban Growth Boundary Initiative</u>

- **In connection with any development proposed or permitted on lands within the Urban Growth Boundary that are immediately adjacent to the Urban Growth Boundary, a natural, park, or other open space buffer shall be provided between the new development and existing residential areas, to eliminate, or to minimize to the greatest extent possible, any adverse environmental impacts to existing residential uses.**

- **With respect to phasing and timing, whenever feasible, new development shall be encouraged to locate within the urban or existing developed areas of the City of Marina, In preference to the development of currently vacant, undeveloped lands located within the Urban Growth Boundary.**

Section 3: Local Coastal Program Land Use Plan Amendments

This Section of the Initiative enacts amendments to the Land Use Plan of the City of Marina Local Coastal Program approved by the Marina City Council on February 17, 1981, as that 1981 Land Use Plan has been modified by any amendments up to and including March 8, 2000 (hereinafter "Land Use Plan"). The language adopted in the following amendments may be further amended as appropriate without a vote of the people. In this Section, text to be inserted in the Land Use Plan is indicated in **bold** type. Certain portions of the Land Use Plan are attached to this Initiative for reference. These include the North of Reservation Road Planning Area Map, as shown on page 35 of the Land Use Plan, attached hereto as Exhibit C, and the description of the Coastal Conservation and Development land use designation, reproduced from page 20 of the Land Use Plan, attached hereto as Exhibit D. Exhibits C and D are provided for illustrative purposes only. Except as expressly indicated herein, this Initiative does not adopt or amend any of the policies, designations, or text contained in or referred to in these exhibits. The Land Use Plan is hereby amended by adding the following new policies on page 8:

43. **To provide for orderly growth and development patterns, all development in the coastal zone shall he subject to the timing and other limitations established by the Marina Urban Growth Boundary Initiative, which is incorporated herein by reference. Until December 31, 2020, subject to the exceptions set forth in the Marina Urban Growth Boundary Initiative, no new development other than public parks and open space uses (including agricultural uses) shall he permitted outside the Urban Growth Boundary delineated on Land Use Diagram 1 as adopted by the Marina Urban Growth Boundary Initiative and incorporated into the Land Use Element of the City of Marina General Plan. For the purpose of this policy, open space uses are those uses defined in Government Code Section 65560, as that section of law exists on March 8, 2000.**

44. **Until December 31, 2020, lands that, as of March 8, 2000, are designated Coastal Conservation and Development on the North of Reservation Road Planning Area Map (p. 35) and are outside the Urban Growth Boundary, but within the City of Marina, shall be subject to an Urban Growth Boundary Overlay ("UGB Overlay"). The UGB Overlay shall limit new development to those uses permitted by the underlying land use designation that are also allowed outside the Urban Growth Boundary pursuant to Land Use Goal 1.1 of the City of Marina General Plan.**

Section 4: Conforming General Plan Amendments.

In light of the General Plan amendments set forth above in Sections 2 and 3 of this Initiative, the City of Marina General Plan adopted on June I, I 982, as amended through March 8, 2000, is hereby further amended as set forth below in order to promote internal consistency among the various elements of the General Plan. In this Section, text to be inserted into the General Plan is indicated in ***bold italic*** type while text to be stricken is presented in ~~strikethrough~~ type; text in standard type currently appears in the General Plan and remains unchanged by this Initiative. The language adopted in the following amendments may be further amended as appropriate without a vote of the people in the course of future updates and revisions to the General Plan. The General Plan land use

map entitled "City of Marina: Land Use and Circulation Element," referenced below as the "General Plan Land Use Designations Map," is attached to this Initiative as Exhibit E. Exhibit E, which is the most current land use plan map available from the City of Marina, has not been updated since I985, and thus does not show intervening changes. Exhibit E is provided for reference only and, except as expressly amended by subparagraphs a and b below, is not changed or readopted by this Initiative.

a. **Urban Growth Boundary Overlay and Land Use Designations:** The General Plan is hereby by amended by adding the following new text to the end of the Land Use Element, immediately following the text of Policy 3.I inserted by Section 2(b) of this Initiative:

3.2 Urban Growth Boundary Over/ay and Land Use Designations

- ***Until December 31, 2020, lands that, as of March 8, 2000, are designated Coastal Development on the General Plan Land Use Designations Map and are outside the Urban Growth Boundary, but within the City of Marina, shall be subject to an Urban Growth Boundary Overlay ("UGB Overlay"). The UGB Overlay shall limit new development to those uses permitted by the underlying land use designation that are also allowed outside the Urban Growth Boundary pursuant to Land Use Goal 1.1.***

- ***To implement Land Use Goal 1.1, all lands that are located both outside the Urban Growth Boundary and outside the City limits, and that, as of March 8, 2000, have land use designations other than (1) Parks and Open Space or (2) Agriculture, are redesignated to Parks and Open Space. Figure 10-1, General Plan Land Use Designations Map, shall be updated or replaced as soon as possible to reflect, in graphic form, the changes implemented by this policy.***

b. The General Plan land use map entitled "City of Marina: Land Use and Circulation Element," attached hereto as Exhibit E, is hereby amended as follows:

(i) By adding the words: ***"Figure 10-1: General Plan Land Use Designations Map"*** to the title; and

(ii) By adding an asterisk ***(*)*** immediately following the term LEGEND; and

(iii) By adding the following at the bottom of the legend:

- ***Pursuant to the Marina Urban Growth Boundary Initiative, all lands that are located both outside the Urban Growth Boundary and outside the City limits, and that, as of March 8, 2000, have any land use designations indicated below other than (1) Parks and Open Space or (2)Agriculture, are redesignated to Parks and Open Space.***

c. The first two bulleted items on page 3-10 of the General Plan Conservation Element are amended as follows:

- Coastal-dependent uses shall be allowed on the west side of Dunes Drive ***but only within the Urban Growth Boundary shown on Land Use Diagram 1***. These activities shall include, but not be limited to, marine aquaculture, off-shore and sun-zone sand mining, and other commercial activities dependent for economic survival on proximity to the ocean, salt water or other such elements. Development in this area should be limited to already disturbed areas. Visitor-serving commercial use may be permitted in this area, ***but only within the Urban Growth Boundary shown on Land Use Diagram I*** , where it can be shown that coastal dependent uses are not feasible.

- ~~Development in the meadowland area in the Monterey County Coastal Zone adjacent to the end of Dunes Drive should be compatible with uses on the east side of Dunes Drive in Marina (visitor oriented commercial)~~

d. The first full paragraph on page 10-9 of the General Plan Land Use Element is amended as follows:

The placement of industrial development is very important with respect to its relationship to adjacent land uses. The U.S. Supreme Court has determined that industrial developments under the "nuisance doctrine" are liable and can be forced to shut down if they are adversely affecting surrounding residential uses. The courts have not considered the fact that new residences were built and occupied adjacent to an established manufacturing plant as grounds for favorable consideration on industry's behalf. The City, then, has the responsibility of protecting its high-investment manufacturing uses from future encroachment by residential development, as well as protecting residents from the nuisances which industry can create if located within close proximity. The thrust of the industrial policies set forth in the Land Use Element will be to assure protection for both industrial and residential land uses through wise land use management techniques *and* ***subject to the timing and other limitations imposed by the Marina Urban Growth Boundary Initiative***.

e. The second bulleted policy on page 10-13 of the General Plan Land Use Element is amended as follows:

- The City shall encourage and provide for industrial development in the northwestern portion of the community ***within the Urban Growth Boundary established by the Marina Urban Growth Boundary Initiative and consistent with the Urban Growth Boundary Goals and Policies set forth in sections 1.1, 1.2 and 3.1 of the Land Use Element.***

f The last bulleted policy on page 10-13 of the General Plan Land Use Element is amended as follows:

- Development of ***those portions*** of the Armstrong Ranch ***within the Urban Growth Boundary*** shall be subject to an overall Specific Plan, including specifications for population density *and the* distribution of various residential, commercial and industrial land uses***. Any development of those portions of the Armstrong Ranch outside the Urban Growth Boundary shall, in addition to being subject to the timing and other limitations established by the Marina Urban Growth Boundary Initiative, also be subject to an overall Specific Plan.***

  Due to the nature of Specific Plans, it may be necessary and appropriate to modify the land use and circulation patterns shown for the Armstrong Ranch. Such plans shall, however, be in compliance with tbe spirit and intent of the General Plan, ***including the Urban Growth Boundary Goals and Policies***. Overall densities shall not exceed that contained in the Land Use and Circulation Plan.

g. The last bulleted policy on page 10-14 of the General Plan Land Use Element is deleted as follows:

- ~~That the professional office use shall be encouraged, to the extent possible and practical, along those portions of Del Monte Boulevard and other arterials within the Armstrong Ranch. Furthermore, the Multi Family Residential (N.T.E. 21 DU/GROSS ACRE) land use designation should be utilized to provide a buffer where professional office land uses would be located adjacent to Single Family Residential (N.T.E. 7/DU GROSS ACRE) land uses, Adequate provisions to attain compliance with the policy shall be contained in the Specific Plan for the Armstrong Ranch.~~

h. The second paragraph on page 11-10 of the General Plan Circulation Element is amended as follows:

The City's land use plan indicates the location of new low-density residential land uses primarily to the north of the Downtown in the Armstrong Ranch area ***within the Urban Growth Boundary adopted by the Marina Urban Growth Boundary Initiative,*** an increase in residential densities in the downtown area, additional commercial facilities on Reservation Road, and***, subject to the timing and other limitations imposed by the Urban Growth Boundary Initiative***, additional industrial uses north of the City limits.

i. The first paragraph on page 11-13 of the General Plan Circulation Element is amended as shown below. A copy of Figure 11-8, referenced below, is attached hereto for reference as Exhibit F. Exhibit F is provided for illustrative purposes only. This Initiative does not adopt or amend Figure 11-8. The amendment to page 11-13 is as follows:

Figure 11-8 graphically shows these designations and new roadways planned for the Armstrong Ranch area. ***Construction of new roads in this area shall be coordinated with the timing and other limitations enacted by the Marina Urban Growth Boundary Initiative***. This street classification distribution is also reflected in the street network depicted in the summary Land Use and Circulation Plan.

j. The two bulleted items on page 11-15 of the General Plan Circulation Element and the bulleted item on page 11-16 are amended as follows:

- ***Any*** development of the northern Planning Area including the Armstrong Ranch shall be **subject *to the timing and other limitations of the Marina Urban Growth Boundary Initiative and*** to a Specific Plan which shall provide for adequate traffic circulation including specifications for arterials, collector and local streets to serve the proposed developments. Due to the nature of Specific Plans it may be necessary and appropriate to modify the circulation patterns shown on Figures 10-1 and 11-8. Such plans shall, however, be in compliance with the spirit and intent of this General Plan***, including the Urban Growth Boundary Goals and Policies***. The overriding policy in the implementation of the traffic circulation patterns of the Specific Plan shall be the long range protection of currently existing residential areas from traffic generated by the proposed adjacent industrial uses ***within the Urban Growth Boundary.***

- That the general circulation concepts embodied in this Circulation Element are predicated on the need for the following:

1. Development of a freeway interchange at the present Lapis Spur Overhead in conjunction with an arterial connecting this interchange with Del Monte Boulevard.

2. Designation of the segment of Beach Road between Del Monte Boulevard and the Reservation Road interchange as an arterial.

3. Upgrading Del Monte Boulevard and Beach Road to the greatest feasible extent to maximize utilization of the Reservation Road interchange.

4. Extension of California Avenue northward as an arterial from its present terminus at Reservation Road to connect with Del Monte Boulevard.

Items 1, 2, and 3 shall be verified prior to the adoption of a Specific Plan for the ***portion of the*** northern Planning Area, ***within the Urban Growth Boundary. In addition, implementation of all four items shall be coordinated with the timing and other limitations imposed by the Marina Urban Growth Boundary Initiative.***

- That the proposed industrial area northerly of the existing developed portion of the City (Cardoza Avenue vicinity) ***within the Urban Growth Boundary*** be served by a collector street system and further that truck traffic (commercial type truck traffic generated by the proposed industrial development) not be permitted to adversely impact adjacent residential areas over the long- term. Said truck traffic and other traffic generated by the development in the northern portion of the Planning Area ***within the Urban Growth Boundary*** should ultimately be directed towards a new freeway interchange proposed in the area of the Lapis railroad spur.

Section 5: Implementation

5. **Effective Date.** Upon the effective date of this Initiative, the provisions of Sections 2 and 4 of the Initiative are hereby inserted into the City of Marina General Plan and the provisions of Section 3 are hereby inserted into the Local Coastal Program, as an amendment thereof; except that if the four amendments of the mandatory elements of the General Plan permitted by state law for any given calendar year have already been utilized in the year in which the Initiative becomes effective, this General Plan amendment shall be the first amendment inserted into the City of Marina General Plan and Local Coastal Program, respectively, on January 1 of the next year. At such time as this General Plan amendment is inserted in the City of Marina General Plan, any provisions of the City of Marina Zoning Ordinance, as reflected in the ordinance itself or in the City of Marina Zoning Map, inconsistent with this General Plan amendment shall not be enforced.

a. **Interim Amendment.** The date that the Notice of Intention to circulate this Initiative measure was submitted to the Elections official of the City of Marina is referenced herein as the "submittal date." The City of Marina General Plan in effect on the submittal date and the General Plan as amended by this Initiative comprise an integrated, internally consistent and compatible statement of policies for the City of Marina. Jn order to ensure that nothing in this Initiative measure would prevent the City of Marina General Plan from being an integrated, internally consistent and compatible statement of the policies of the City, as required by state law, and to ensure that the actions of the voters in enacting this Initiative are given effect, any amendment to the General Plan that is adopted between the submittal date and the date that the General Plan is amended by this Initiative measure shall, to the extent that such interim-enacted provision is inconsistent with the General Plan provisions adopted by Sections 2 through 4 of this Initiative measure, be amended as soon as possible and in the manner and time required by State law to ensure consistency between the provisions adopted by this Initiative and other elements of the City of Marina General Plan.

c. **Other City Ordinances and Policies.** The City of Marina is hereby authorized and directed to amend the General Plan, the Local Coastal Program, all specific plans, the Zoning Ordinance, the Zoning Map, and other ordinances and policies affected by this Initiative as soon as possible and in the manner and time required by any applicable state law, to ensure consistency between the policies adopted in this Initiative and other elements of the City of Marina General Plan, the Local Coastal Program, all specific plans, the City of Marina Zoning Ordinance, the City of Marina Zoning Map, and other City ordinances and policies.

Section 6: Exemptions

Nothing in this Initiative shall apply to any of the following: (I) any development project or ongoing activity that has obtained, as of the effective date of the Initiative, a vested right pursuant to state or local law; and (2) any area contained within a Habitat Conservation Plan ("HCP") developed pursuant to the Endangered Species Act, 16 U.S.C. § 1531 et. Seq., that has been given formal approval by the City between the submittal date and the effective date of this Initiative, but only to the extent federal or state law preempts application of this Initiative to such areas.

Section 7: Severability and Interpretation

This Initiative shall be interpreted so as to be consistent with all federal and state laws, rules, and regulations. If any section, sub-section, sentence, clause, phrase, part, or portion of this Initiative is held to be invalid or unconstitutional by a final judgment of a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Initiative. The voters hereby declare that this Initiative, and each section, sub-section, sentence, clause, phrase, part, or portion thereof would have been adopted or passed even if one or more sections, sub-sections, sentences, clauses, phrases, parts, or portions are declared invalid or unconstitutional. If any provision of this Initiative is held invalid as applied to any person or circumstance, such invalidity shall not affect any application of this Initiative that can be given effect without the invalid application. This Initiative shall be broadly construed in order to achieve the purposes stated in this Initiative. It is the intent of the voters that the provisions of this Initiative shall be interpreted by the City in a manner that facilitates the protection for agricultural, open space, and natural resource uses of areas outside the Urban Growth Boundary established herein.

Section 8: Amendment or Reneal

Except as otherwise provided herein, this Initiative may be amended or repealed only by the voters of the City of Marina.

EXHIBIT LIST

EXHIBIT A:	**Government Code section 65560**
EXHIBIT B:	**Land Use Diagram 1**
EXHBIT C:	**City of Marina Local Coastal Program Land Use Plan, North of Reservation Road Planning Area Map, reproduced from page 35 of the City of Marina Local Coastal Program Land Use Plan.**
EXHIBIT D:	**Description of the uses for the Coastal Conservation and Development land use designation, reproduced from page 20 of the City of Marina Local Coastal Program Land Use Plan.**
EXHIBIT E:	**Reduced Copy of the General Plan Land Use Map entitled "City of Marina Land Use and Circulation Element," referenced in this Initiative as "Figure 10-1: General Plan Land Use Designation Map;" (For the readers convenience, the names of certain roads, as well as the Salinas River, have been enlarged from the original.)**
EXHIBIT F:	**Figure 11-8, Circulation Plan reproduced from the General Plan Circulation Element.**

EXHIBIT A

GOVERNMENT CODE SECTION 65560

§ 65560. Definitions

(a) "Local open-space plan" is the open-space element of a county or city general plan adopted by the board or council, either as the local open-space plan or as the interim local open-space plan adopted pursuant to Section 65563.

(b) "Open-space land" is any parcel or area of land or water which is essentially unimproved and devoted to an open-space use as defined in this section, and which is designated on a local, regional or state open-space plan as any of the following:

(1) Open space for the preservation of natural resources including, but not limited to, areas required for the preservation of plant and animal life, including habitat for fish and wildlife species; areas required for ecologic and other scientific study purposes; rivers, streams, bays and estuaries; and coastal beaches, lakeshores, banks of rivers and streams, and watershed lands.

(2) Open space used for the managed production of resources, including but not limited to, forest lands, rangeland, agricultural lands and areas of economic importance for the production of food or fiber; areas required for recharge of ground water basins; bays, estuaries, marshes, rivers and streams which are important for the management of commercial fisheries; and areas containing major mineral deposits, including those in short supply.

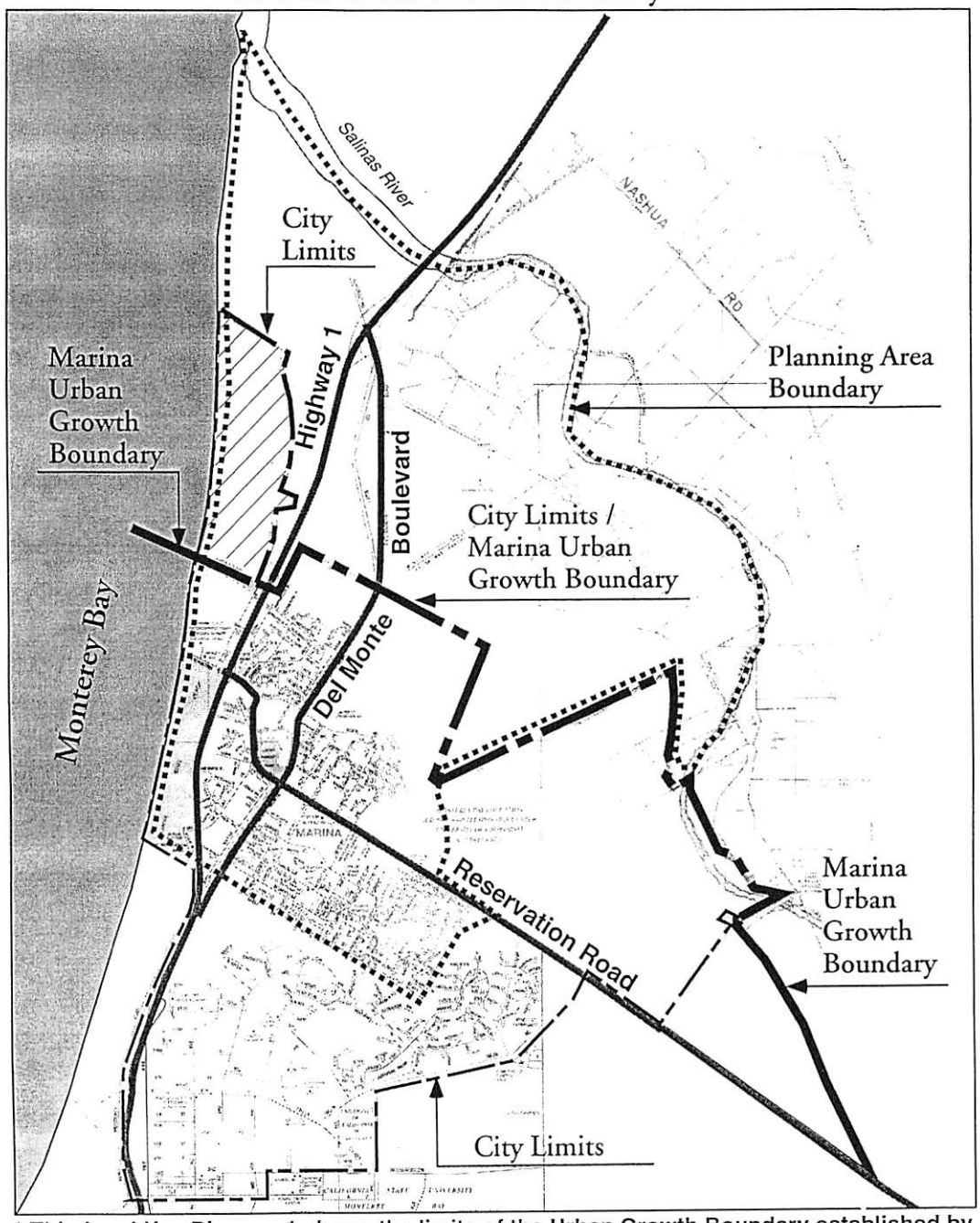
(3) Open space for outdoor recreation, including but not limited to, areas of outstanding scenic, historic and cultural value; areas particularly suited for park and recreation purposes, including access to lakeshores, beaches, and rivers and streams; and areas which serve as links between major recreation and open-space reservations, including utility easements, banks of rivers and streams, trails, and scenic highway corridors.

(4) Open space for public health and safety, including, but not limited to, areas which require special management or regulation because of hazardous or special conditions such as earthquake fault zones, unstable soil areas, flood plains, watersheds, areas presenting high fire risks, areas required for the protection of water quality and water reservoirs and areas required for the protection and enhancement of air quality.

(Added by Stats.1972, c. 251, p. 501, § 2, eff. June 30, 1972.)

EXHIBIT B

Land Use Diagram 1
Marina Urban Growth Boundary*



* This Land Use Diagram 1 shows the limits of the Urban Growth Boundary established by the Marina Urban Growth Boundary Initiative. This Diagram also shows the location of the City of Marina's City Limits and Planning Area Boundary as of March 7, 2000 based on the most recently published and publicly available maps contained in the City's General Plan. The Marina Urban Growth Boundary Initiative does not adopt, readopt, alter, or amend the City Limits or the Planning Area Boundary.

City of Marina, California

Legend

- Marina Urban Growth Boundary - where it overlaps with the Marina City Limits
- City Limits - where different than Urban Growth Boundary
- Marina Urban Growth Boundary - where different than City Limits
- Planning Area Boundary
- Urban Growth Boundary Overlay

Scale 0 1/2 1 mile

North

Sources:

- North County General Plan, Local Coastal Program - Figure 1: Land Use Plan. Monterey County Planning Department, April 28, 1982; amended May 19,1987.
- City of Marina, Land Use and Circulation Element Map. Quad Consultants, Visalia, California. June 1982; amended August, 1985.

EXHIBIT C

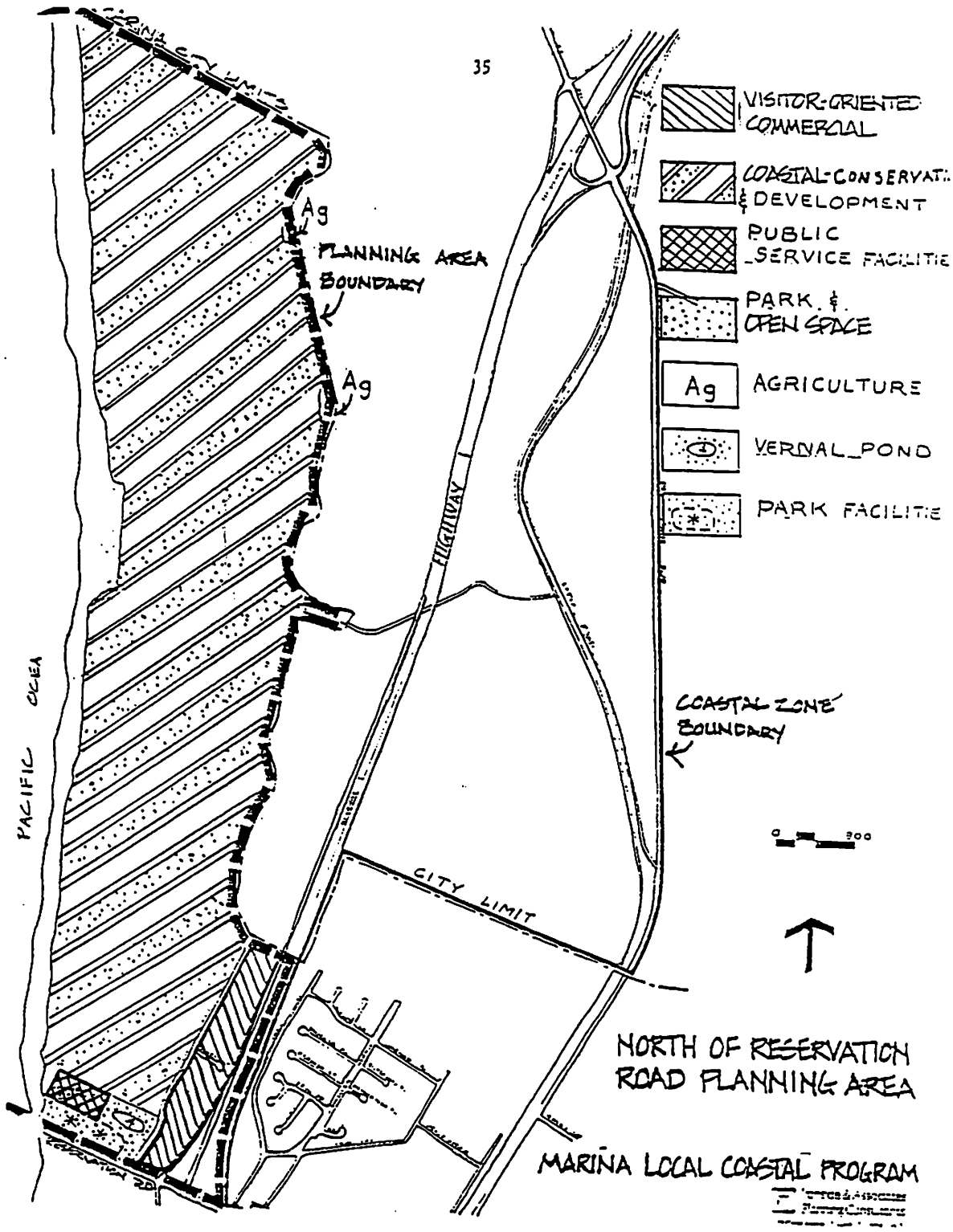

35
Ag
PLANNING AREA BOUNDARY
Ag
HIGHWAY
PACIFIC OCEAN
CITY LIMIT
COASTAL ZONE BOUNDARY
VISITOR-ORIENTED COMMERCIAL
COASTAL-CONSERVATI & DEVELOPMENT
PUBLIC SERVICE FACILITIE
PARK & OPEN SPACE
Ag AGRICULTURE
VERNAL_POND
PARK FACILITIE
0 300
NORTH OF RESERVATION ROAD PLANNING AREA
MARINA LOCAL COASTAL PROGRAM

EXHIBIT D

Coastal Conservation and Development - uses, including coastal research and education uses; developed public access and other coastally dependent recreation uses; coastal dependent industrial uses including but not limited to marine aquaculture (mariculture), dredge ponds, surf zone and offshore sand extraction; in severely disturbed areas and those portions of parcels currently subject to dune mining activity, dune mining; and on parcels where other coastal conservation and development uses are not feasible, visitor serving uses, such as visitor accommodations.

Exhibit E

CITY OF MARINA

LAND USE AND CIRCULATION ELEMENT

LEGEND

RESIDENTIAL
- Single Family (N.T.E. 7 DU/Gross Acre)
- Low Density Multiple Family (N.T.E. 14 DU/Gross Acre)
- Multiple Family (N.T.E. 21 DU/Gross Acre)

COMMERCIAL
- Neighborhood
- Community
- Highway

INDUSTRIAL
- Industrial-Research and Development-Professional Office
- Coastal Development

PUBLIC FACILITIES
- Public Grounds and Buildings
- Parks and Open Space

AGRICULTURE
- Agriculture

CIRCULATION SYSTEM
- Arterial
- Collector
- Local

- Planning Area Boundary
- Local Coastal Plan Boundary

COMMERCIAL/RESIDENTIAL
- Multiple Family (N.T.E. 16 DU/Gross Acre)

NORTH

0 500 1000 2000 4000

Revision	Date
Commercial/Residential	Ave. 16

Plan Adopted June , 1982

Drawn by Parker June 15, 1982

QUAD CONSULTANTS

EXHIBIT E

EXHIBIT F

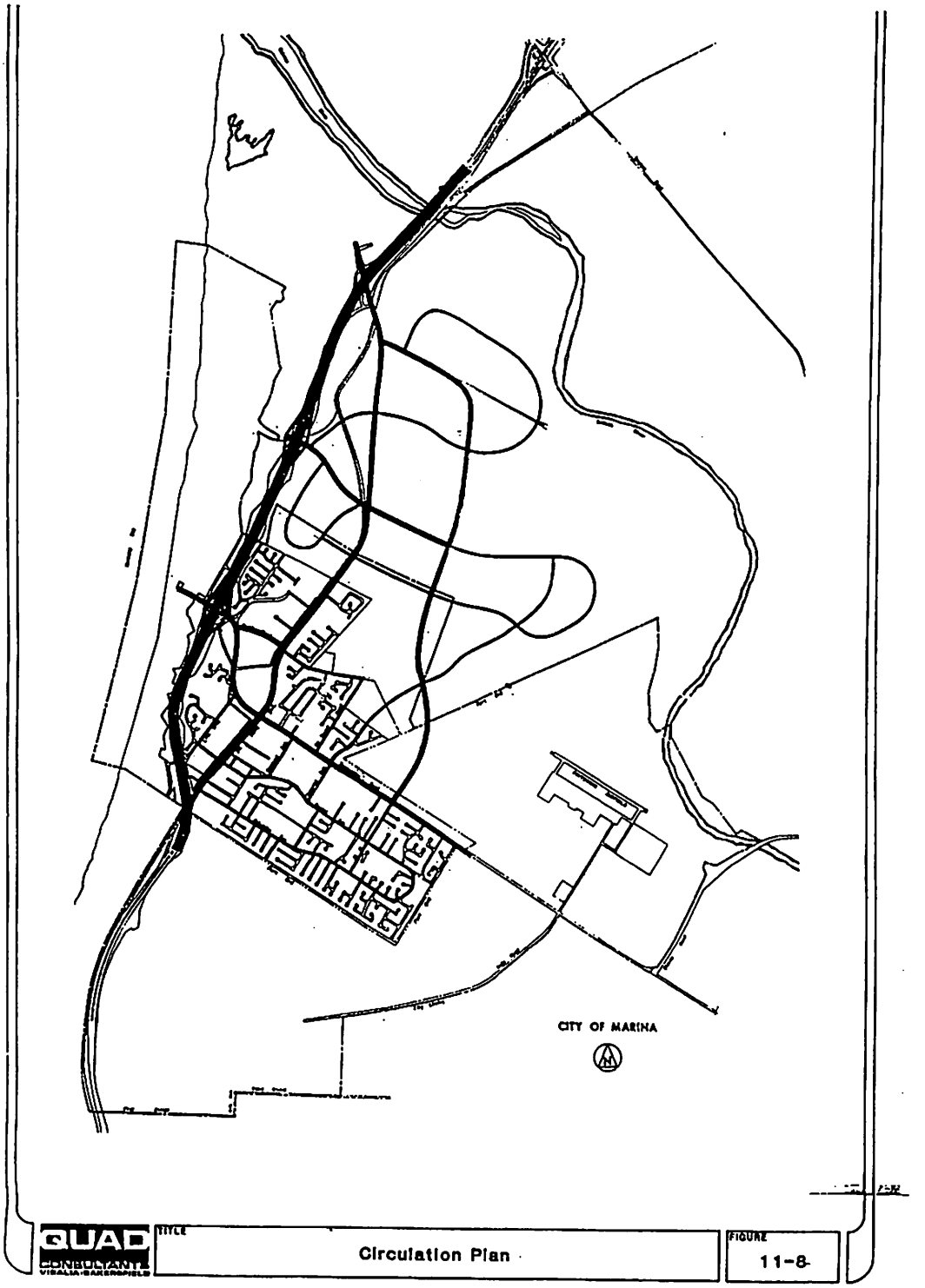
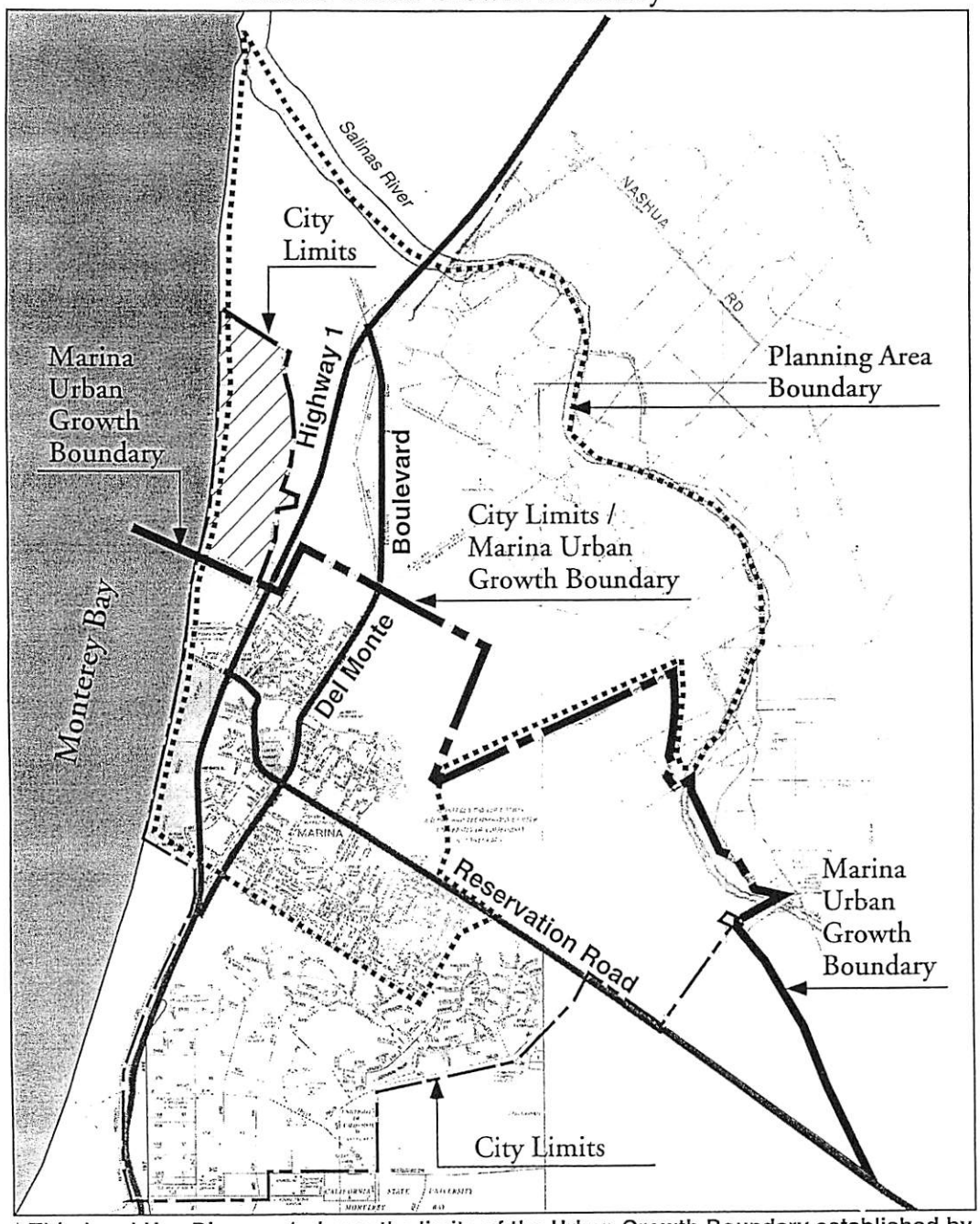

CITY OF MARINA
QUAD CONSULTANTS
VISALIA-SAN LUIS OBISPO
TITLE
Circulation Plan
FIGURE
11-8

EXHIBIT 2

[Top Exhibit A to the Resolution]

Land Use Diagram showing Urban Growth Boundary area.

Land Use Diagram 1
Marina Urban Growth Boundary*



* This Land Use Diagram 1 shows the limits of the Urban Growth Boundary established by the Marina Urban Growth Boundary Initiative. This Diagram also shows the location of the City of Marina's City Limits and Planning Area Boundary as of March 7, 2000 based on the most recently published and publicly available maps contained in the City's General Plan. The Marina Urban Growth Boundary Initiative does not adopt, readopt, alter, or amend the City Limits or the Planning Area Boundary.

City of Marina, California

Scale 0 1/2 1 mile

North

Legend

- Marina Urban Growth Boundary - where it overlaps with the Marina City Limits
- City Limits - where different than Urban Growth Boundary
- Marina Urban Growth Boundary - where different than City Limits
- Planning Area Boundary
- Urban Growth Boundary Overlay

Sources:

- North County General Plan, Local Coastal Program - Figure 1: Land Use Plan. Monterey County Planning Department, April 28, 1982; amended May 19,1987.
- City of Marina, Land Use and Circulation Element Map. Quad Consultants, Visalia, California. June 1982; amended August, 1985.

June 16, 2020 Item No. **11a**

Honorable Mayor and Members of the Marina City Council

City Council Meeting of June 16, 2020

CITY COUNCIL CONSIDER ADOPTING RESOLUTION NO. 2020-, ESTABLISHING APPROPRIATIONS LIMIT FOR FY 2020-21

REQUEST:

It is requested that the City Council:

1. Consider Adopting Resolution No. 2020-, establishing appropriations limit for FY 2020-21.

BACKGROUND:

Article 13B of the California Constitution states that a local government's annual appropriations shall not exceed the appropriations limit of the prior year, adjusted for the change in the cost of living and the change in population. Cost of living and population changes for all local governments are determined by the California Department of Finance.

The appropriations limit creates a restriction on the amount of revenue that can be appropriated in any fiscal year. Only revenues that are "proceeds of taxes" are subject to the limitation as defined by the law. Interestingly, this includes State subventions, which are "money received by a local agency from the State, the use of which unrestricted by the statute providing the subvention (Government Code Section 7903)."

Government Code Section 7910 requires a local government to establish its appropriations limit by resolution each year, for the following fiscal year, at a regularly scheduled or noticed special meeting. The meeting of June 16, 2020 has been noticed via regular agenda posting locations and City website.

ANALYSIS:

As part of the establishment of its annual appropriations limit, the City must formally adopt the two (2) variables used in the calculation as determined by the Department of Finance:

1. Cost-of-living change factor, and;
2. Population change factor.

In May 2020, the State of California Department of Finance has determined the change in California's per capita personal income factor as 3.73% ("**EXHIBIT A – Attachment A**"), the change in population for the City of Marina as -1.62% ("**EXHIBIT A – Attachment B**").

These figures combine to produce an appropriations limit calculation factor of 1.0205, which, when applied to the FY 2019-20 appropriations limit of $27,246,833 produces a FY 2020-21 appropriations limit of $27,805,277 ("**EXHIBIT B**").

Based upon the above FY 2020-21 appropriation limit of $27,805,277 and City FY 2020-21 estimated total applicable City local proceed of tax sources, State subventions and/or applicable interest income of approximately $22 million, the City is approximately $5.81 million (or 21%) below the limit. Therefore, the City is well within the limit and is compliant with this California State law.

Any challenge to the appropriations limit must be brought to the City of Marina's attention within forty-five (45) days of the effective date of this resolution.

FISCAL IMPACT:
None

CONCLUSION:
This request is submitted for City Council consideration and possible action.

Respectfully submitted,

_____
Marisol Gomez
Accounting Services Manager
City of Marina

_____
Eric Frost
Finance Director
City of Marina

REVIEWED/CONCUR:

_____
Layne P. Long
City Manager
City of Marina

RESOLUTION NO. 2020 -

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MARINA
ESTABLISHING APPROPRIATIONS LIMIT FOR FY 2020-21

WHEREAS, Article XIIIB of the California Constitution requires a governmental entity to establish an appropriations limit, and;

WHEREAS, California Government Code Section 7910 requires a local government to establish its appropriations limits by resolution each year, for the following fiscal year, at a regularly scheduled or noticed special meeting, and;

WHEREAS, the City discussed its budget at its regularly scheduled June 16, 2020 meeting, and;

WHEREAS, in May 2020, the State of California Department of Finance determined the change in California's per capita personal income factor ("EXHIBIT A - Attachment A"), the change in population for the City of Marina and the change in population for the County of Monterey ("EXHIBIT A - Attachment B"), and;

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Marina establishes appropriations limit for FY 2020-21 at $27,805,277 ("EXHIBIT B").

BE IT FURTHER RESOLVED that any challenge to the appropriations limit must be brought to the City of Marina's attention within forty-five (45) days of the effective date of this resolution.

PASSED AND ADOPTED by the City Council of the City of Marina at regular meeting duly held on the 16th day of June 2020, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

_____
Bruce C. Delgado, Mayor

ATTEST:

_____
Anita Sharp, Deputy City Clerk

DEPARTMENT OF FINANCE
OFFICE OF THE DIRECTOR

GAVIN NEWSOM - GOVERNOR
STATE CAPITOL ■ ROOM 1145 ■ SACRAMENTO CA ■ 95814-4998 ■ WWW.DOF.CA.GOV

May 2020

Dear Fiscal Officer:

Subject: Price Factor and Population Information

Appropriations Limit
California Revenue and Taxation Code section 2227 requires the Department of Finance to transmit an estimate of the percentage change in population to local governments. Each local jurisdiction must use their percentage change in population factor for January 1, 2020, in conjunction with a change in the cost of living, or price factor, to calculate their appropriations limit for fiscal year 2020-21. Attachment A provides the change in California's per capita personal income and an example for utilizing the price factor and population percentage change factor to calculate the 2020-21 appropriations limit. Attachment B provides the city and unincorporated county population percentage change. Attachment C provides the population percentage change for counties and their summed incorporated areas. The population percentage change data excludes federal and state institutionalized populations and military populations.

Population Percent Change for Special Districts
Some special districts must establish an annual appropriations limit. California Revenue and Taxation Code section 2228 provides additional information regarding the appropriations limit. Article XIII B, section 9(C) of the California Constitution exempts certain special districts from the appropriations limit calculation mandate. The code section and the California Constitution can be accessed at the following website: http://leginfo.legislature.ca.gov/faces/codes.xhtml.

Special districts required by law to calculate their appropriations limit must present the calculation as part of their annual audit. Any questions special districts have on this requirement should be directed to their county, district legal counsel, or the law itself. No state agency reviews the local appropriations limits.

Population Certification
The population certification program applies only to cities and counties. California Revenue and Taxation Code section 11005.6 mandates Finance to automatically certify any population estimate that exceeds the current certified population with the State Controller's Office. **Finance will certify the higher estimate to the State Controller by June 1, 2020.**

Please Note: The prior year's city population estimates may be revised. The per capita personal income change is based on historical data. Given the stay-at-home orders due to COVID-19, growth in the coming years may be substantially lower than recent trends.

If you have any questions regarding this data, please contact the Demographic Research Unit at (916) 323-4086.

/s/ Keely Martin Bosler

KEELY MARTIN BOSLER
Director

A. **Price Factor**: Article XIII B specifies that local jurisdictions select their cost of living factor to compute their appropriation limit by a vote of their governing body. The cost of living factor provided here is per capita personal income. If the percentage change in per capita personal income is selected, the percentage change to be used in setting the fiscal year 2020-21 appropriation limit is:

Per Capita Personal Income

Fiscal Year (FY)	Percentage change over prior year
2020-21	3.73

B. Following is an example using sample population change and the change in California per capita personal income as growth factors in computing a 2020-21 appropriation limit.

2020-21:

Per Capita Cost of Living Change = 3.73 percent
Population Change = 0.22 percent

Per Capita Cost of Living converted to a ratio: $\frac{3.73 + 100}{100} = 1.0373$

Population converted to a ratio: $\frac{0.22 + 100}{100} = 1.0022$

Calculation of factor for FY 2020-21: 1.0373 x 1.0022 = 1.0396

Fiscal Year 2020-21

Attachment B
Annual Percent Change in Population Minus Exclusions*
January 1, 2019 to January 1, 2020 and Total Population, January 1, 2019

County City	Percent Change 2019-2020	--- Population Minus Exclusions --- 1-1-19	 1-1-20	Total Population 1-1-2020
Monterey				
Carmel-By-The-Sea	0.25	3,939	3,949	3,949
Del Rey Oaks	-0.72	1,674	1,662	1,662
Gonzales	-0.70	8,566	8,506	8,506
Greenfield	0.97	18,109	18,284	18,284
King City	1.77	14,540	14,797	14,797
Marina	-1.62	22,688	22,321	22,321
Monterey	-1.45	24,554	24,199	28,170
Pacific Grove	-0.62	15,360	15,265	15,265
Salinas	-0.08	162,353	162,222	162,222
Sand City	0.52	383	385	385
Seaside	-2.10	29,964	29,335	33,537
Soledad	0.36	17,128	17,190	25,301
Unincorporated	-0.15	106,396	106,234	106,744
County Total	-0.31	425,654	424,349	441,143

EXHIBIT B
CITY OF MARINA
APPROPRIATION LIMIT FOR FISCAL YEAR 2020-21

The appropriations limit creates a restriction on the amount of revenue which can be appropriated in any fiscal year. Only revenues that are 'proceeds of taxes,' as defined by the State code, are subject to the limitation. The basis for calculating the limit began in fiscal year 1978-79 and is calculated each year based on population changes and inflation.

2018/19 Adopted Appropriation Limit					**$**	**25,770,277**
Annual Adjustment						
Change in Population %	1.81%					
Converted to Ratio			1.0181			
Change in Per Capita Income %	3.85%					
Converted to Ratio			1.0385			
Combined Factor	1.0181	x	1.0385	=		1.0573
2019/20 Appropriation Limit					**$**	**27,246,833**
2019/20 Adopted Appropriation Limit					**$**	**27,246,833**
Annual Adjustment						
Change in Population %	-1.62%					
Converted to Ratio			0.9838			
Change in Per Capita Income %	3.73%					
Converted to Ratio			1.0373			
Combined Factor	0.9838	x	1.0373	=		1.0205
2020/21 Appropriation Limit					**$**	**27,805,277**

Estimated FY20/21			
Taxes		$	21,483,500
Intergovernmental		$	238,700
Interest Income		$	275,000
Total General Fund Revenues Subject to Limit		$	21,997,200
Amount Below Limit ($)		$	5,808,077
As a Percent of Total (%)			21%

June 11, 2020 Item No. **11b**

Honorable Mayor and Members
of the Marina City Council

Special City Council Meeting
of June 16, 2020

CITY COUNCIL CONSIDER ADOPTING RESOLUTION NO. 2020-, ADOPTING FISCAL YEAR 2020-21 BUDGET, ESTABLISHING PROCEDURES FOR AMENDING BUDGET, AND AUTHORIZING THE FINANCE DIRECTOR TO MAKE NECESSARY ACCOUNTING AND BUDGETARY ENTRIES; CONSIDER ADOPTING RESOLUTION NO. 2020-, AUTHORIZING FINANCE DIRECTOR TO MAKE CERTAIN POST YEAR-END ACCOUNTING ADJUSTMENTS TO FY 2019-20 AND FY 2020-21 BUDGETS

REQUEST:

It is requested that the City Council:

1) Approve the budget adjustments as outline in the staff report;
2) Consider the budget amendments as proposed by Mayor Delgado and Councilman Urrutia;
3) Consider any other adjustments as proposed by Council;
4) Reaffirm Council policies on the General Fund emergency reserves and subfunds of Vehicles, Pension Stabilization, Other Post Employment Benefits and Library Maintenance; and,
5) Authorize the Finance Director to make accounting adjustment to reflect Council's direction.

BACKGROUND:

On June of 2019, the City Council adopted a two-year budget. This month, the City Council has reviewed that budget and determined that given the economic impacts of the COVID-19 pandemic, it is necessary to make budget adjustments to maintain a fiscally sound budget. The budget adjustment options were reviewed at the City Council meeting on June 16, 2020. That memo is attached as **Exhibit A**.

Without intervention, the City was facing in its General Fund, a $6.3 million deficit spending budget, as shown in Table I, General Fund Budget Calculation without Expenditure Adjustment.

Table I
General Fund Budget Calculation without Expenditure Adjustment

Net Balanced Budget Calculation				
1. Require that the city manager submit a proposed balanced general fund budget for fiscal year 2012-2013 and each year thereafter; and				
2. Agree that a proposed balanced budget shall be defined as the anticipated annual fiscal expenditures not exceeding the annual fiscal revenues less non-recurring fund transfers; and				
		Resolution 2012-46		
Proposed Budget				
Operating General Fund (100)				
All Amounts in Thousands	FY 19/20	FY 20/21	FY 20/21 Revised	
Resources (Revenues and Transfers)	26,238	26,059	22,059	
Uses (Expenditures and Transfers)	(27,770)	(28,411)	(28,411)	
Net Uses	(1,532)	(2,352)	(6,352)	
Add Back non-Replacement Vehicle Charges	507	580	580	
Add Back One-time Transfers to Capital	2,160	2,735	2,735	
Amount Exceeding Balanced Budget	1,135	963	(3,037)	
Proposed Budget Changes				
Add New SAFER Revenues			380	
Add Increased Traffic Citations			100	
Reduce salary cost - no new MOU increases			200	
Add Back Personnel Adjustments (Charge Outs)			450	
Amount Exceeding Balanced Budget			(1,907)	

Instead, the Council has reviewed the budget and proposes to make the following adjustments to ensure it adopts a balanced budget. as shown in Table II, Revised General Fund Budget for FY 2020/21.

Table II
Revised General Fund Budget for FY 2020/21

Net Balanced Budget Calculation								
1. Require that the city manager submit a proposed balanced general fund budget for fiscal year 2012-2013 and each year thereafter; and								
2. Agree that a proposed balanced budget shall be defined as the anticipated annual fiscal expenditures not exceeding the annual fiscal revenues less non-recurring fund transfers; and								
				Resolution 2012-46				
Proposed Budget								
Operating General Fund (100)								
All Amounts in Thousands			FY 19/20		FY 20/21		FY 20/21 Revised	
	Resources (Revenues and Transfers)		26,238		26,059		22,539	
	Uses (Expenditures and Transfers)		(27,770)		(28,411)		(24,476)	
	Net Uses		(1,532)		(2,352)		(1,937)	
	Add Back non-Replacement Vehicle Charges		507		580		580	
	Add Back Extraordinary Legal Costs						700	
	Add Back One-time Transfers to Capital		2,160		2,735		750	
	Amount Exceeding Balanced Budget		1,135		963		93	
			Revision Summary					
		Revenues						
			Revenue loss		-4000			
			Inc. Traffic Cita.		100			
			SAFER Grant		380			
					-3520			
		Exp.						
			Wage Reimburse.		450			
			No MOU inc.		200			
			Budget Red.		1200			
			Capital Reductions		2085			
					3935			

Explanation of Changes

Revenues

1. The forecast for next year is a $4 million loss of General Fund revenues due to COVID-19.
2. In reviewing the budget, Police is at full staffing and is able to field a traffic officer. The expected revenue increase by having an officer enforcing traffic laws is $100,000. If the officer is no longer assigned to traffic, the revenue would decrease but so would expense by a similar amount because the department would be working with vacant positions.
3. The Fire Department received a three-year grant to partially fund 4 added firefighters. The grant was awarded to the City after the adopted its budget.

Expenditures

1. In reviewing the budget, staff recognized that certain wage reimbursements into the General Fund were not being shown on the budget. As a result, the wage reimbursements need to be shown. The wage reimbursements come from charges to the Gas Tax fund for maintenance personnel working on streets and from the former Redevelopment Agency or Successor Agency for work done by staff.
2. Given the steep decline in revenues, the Council does not feel it is in a position to grant additional MOU wage increases this year. Employee groups have been communicated that message.
3. The City Manager has proposed specific budget reductions totaling $1.2 million as summarized below in Table III, Recommended Budget Solutions.

Table III
Recommended Budget Solutions

Recommended Budget Solutions		
Freeze some Open Positions	0.45	
Probably Retirements or turnover	0.30	
Reduce non-personnel costs	0.10	
Delete Special Events	0.10	
Cut Travel budget half	0.05	
Recreation Program - Hourly at 1/2 of orginal plan	0.15	
Cut part-time Police Staff	0.05	
Total		1.20

4. The City Manager also recommends that the following capital projects be deleted from the General Fund as shown in Table IV, One-time General Fund Capital 20/21.

Table VII
One-time General Fund Capital 20/21

City of Marina One-time General Fund CIP, FY 20/21			
Project	General		Recommended
City Hall and Anex Center Reconfiguration	335,000		-
Dunes Barracks Stabilization and Fire Station #3	400,000		-
Arts Village Building Stabilization	1,350,000		-
Retention Basin Annual Water Monitoring	25,000		25,000
Streetlight Replacement	125,000		125,000
Traffic Signal Maintenance and Upgrades	100,000		100,000
General Plan	500,000		500,000
Total	2,835,000		750,000

With these adjustments, the City Manager submits the revised budget as meeting the requirements of Resolution 2012-46 with the understanding that an unusual budget adjustment has been made for one-time legal costs in the City Manager's budget ($700,000).

Budget Amendment Proposals

At the June 9, 2020 City Council meeting, several budget amendment proposals were proposed that need Council action. The proposals are as follows:

Budget Proposal #1

Councilmember Urrutia believes there is more money that may be coming the City's way. As a result, wishes to consider proceeding ahead with some actions, namely:

The City manager has proposed to freeze certain positions as part of a cost saving effort. Councilman Urrutia proposes that certain positions be hired after the Nov. 2020 election if the commercial and industrial property tax reassessment initiative passes. The Secretary of State's website provides the following about the qualified proposition:

1851. (17-0055, Amdt.#1)
REQUIRES CERTAIN COMMERCIAL AND INDUSTRIAL REAL PROPERTY TO BE TAXED BASED ON FAIR-MARKET VALUE. DEDICATES PORTION OF ANY INCREASED REVENUE TO EDUCATION AND LOCAL SERVICES. INITIATIVE CONSTITUTIONAL AMENDMENT.
Summary Date: 02/20/18
Final Random Sample: ***10/15/18*** *(PDF)*
ELIGIBLE: 10/16/18
Signatures Required: 585,407
Proponents: Anthony Thigpenn, Helen Hutchison, Benjamin McBride

Taxes certain commercial and industrial real property based on fair-market value—rather than, under current law, the purchase price with limited inflation. Exempts agricultural property and certain small businesses. Dedicates portion of any increased revenue to local services and to supplement, not replace, state's minimum-funding guarantee to schools. Provides tax exemption for $500,000 worth of tangible personal property used for business and all personal property used for certain small businesses. Summary of estimate by Legislative Analyst and Director of Finance of fiscal impact on state and local government: **Net increase in annual property tax revenues of $6.5 billion to $10.5 billion in most years, depending on the strength of real estate markets. After paying for county administrative costs and backfilling state income tax losses related to the measure, the remaining $6 billion to $10 billion would be allocated to schools (40 percent) and other local governments (60 percent).** (17-0055.)

If the proposition passes, it appears Marina would gain $2 million a year in new property tax revenues.

The budget proposal then would be:

#1 If the qualified revision of commercial and industrial property tax assessment proposition passes in November of 2020, the City will proceed to hire the following positions:

Position		Budgeted Cost
Economic Dev.		132,295
Building Insp.		88,188
Sr. Planner		133,622
	Total	354,105

The actual cost of the proposal for FY 20/21 would be something on the order of $175,000, about half of the salary cost because it will take time to hire these individuals and the proposition's money will not come to the City before the next fiscal year.

Budget Proposal #2

Instead of reducing the Recreation Budget by $150,000, direct the Director of Recreation to bring back proposals to deploy the proposed $150,000 in ways that benefit the residents of Marina in such activities to include hiring our existing rec staff to do community organizing like Monica has done. This could be helping people who can't leave their homes to access food, providing para transit, phone banking the public to educate them about district elections, educate the public about community service offerings, calling businesses to educate them about potential changes to business license fees, working with businesses to help them comply with social distancing protocols.

#2 Redeploy the proposed cut in Recreation budget towards other programs for the benefit of the community, particularly during the COVID-19 event.

Cost: $150,000 from General Fund balance. The cost of the program could be recouped to the General Fund is a qualified State-wide proposition passes in November.

Budget Proposal #3

Casa Noche Buena in Seaside provides a homeless shelter. Their website states the following:

> *Casa de Noche Buena* will provide guests with a warm, safe place to stay while receiving intensive case management and supportive services, including linkages to employment and housing and mental health and substance abuse services based upon their individual needs.
>
> The shelter will feature 10 bedrooms, a laundry room, a kitchen, a multi-purpose dining room, a lounge, 5 full baths, including 2 family bathrooms with tubs, 2 offices and a lobby/reception area. There will be two respite beds for medically fragile hospital discharges. The shelter will accommodate between 28 and 36 people depending upon the ages of the children.
>
> Source: https://chservices.org/homelessness/casa-de-noche-buena/

The non-profit organization Community Human Services that operates the shelter has asked all the cities on the peninsula to contribute $1 per resident. This request was previously made to the City Council, and the Council pointed out that under this type of formula, the wealthier cities on the peninsula with much larger tax bases would pay much less per capital than cities such as Marina with much smaller tax bases.

#3 Contribute $22,000 to Casa Noche Buena for Fiscal Year 20/21 in recognition that this agency helps provide shelter to homeless, which could include individuals from Marina.

Cost: $22,000 from General Fund Balance

Budget Proposal #4

Mayor Delgado has pointed out that individuals from Marina are benefiting from food distributions in Marina. The City has been conducting these food distribution program since March, 3 days a week. Two of these days' have food sourced from the Food Bank of Monterey County. The food bank's website shows the following:

Food Bank for Monterey County
COVID -19 Drive-Thru Weekly Distribution Sites

Coastal & Carmel Valley
June / Junio 2020

Marina
Every Monday / Cada Lunes 9:30 a.m. - 10:30 a.m 188 Seaside Avenue
Every Friday / Cada Viernes 1:00 p.m. - 3:00 p.m 294 Hillcrest Ave.

Source: https://foodbankformontereycounty.org/wp-content/uploads/2020/06/6-JUNE-COVID-19-Coastal-Counties-2.pdf

#4 Contribute $10,000 to the Food Bank of Monterey County as a way to support a program that is distributing substantial commodities to households in Marina.

Cost: $10,000 from the City's General Fund Balance

Budget Proposal #5
Recent events, starting with the death of George Floyd, have focused America on the problem of Racism. Mayor Delgado's proposal is to seek a consultant who will examine the City's practices and recommend methods to overcome institutional racism. Staff would publish a Request for Proposal seeking an expert to assist the City in improving its understanding and eradication of institutional racism.

#5 Release a request for proposal seeking a consultant to examine the City's practices and processes and recommend changes to eradicate institutional racism in the City of Marina's organization.

Cost: The RFP would set the consultant contract at $20,000. The program would be funded by the City's General Fund Balance.

Council Request for Additional Information.
Councilman O'Connell asked about the age of the City's street sweeper that is proposed to be replace for $220,000. The street sweeper is more than 13 years old. Over the life of the vehicle, more than $100,000 in repairs have been made. In the last two years, $44,000 of the $100,000 has been spent. Because of the caustic environment the sweeper works in, the metal rusts, the robber hoses become brittle and decay and the mechanism fails more often. Staff recommends buying this piece of equipment. and for the last several years, has been broken down and not available for service several times in the year for several weeks each time. Staff is working to gather additional information.

Mayor Delgado asked how to move the pump track at Gloria Jean Tate Park forward. The main problem is that the pump track does not have all its funding in place. It needs another $50,000 in donations or grant funding. Further, the project's design needs to be accomplished.

Mayor Delgado asked to see what vehicles are not in the current vehicle fund. To recap, the plan has been that when vehicles are not in the vehicle fund, when they are replaced, the City would begin paying depreciation in addition to making that one-time capital contribution. The current annual depreciation contribution is $325,000 a year. When all the vehicles are in vehicle fund, the annual

General Fund Depreciation will be $425,000. The vehicles that are not currently in the replacement program as shown below:

Vehicle Number	Department	Vehicle Make	Model Year	2019 Est. Replacement Cost	Note
956	Community	2008 Ford Ranger Supercab XLT	2008	$31,837	
862	Airport	2003 Ford F-250 Truck	2003	$58,720	
5411	Fire Dept.	2007 MF FERRARA IGNITER	2007	$635,604	
5412	Fire Dept.	1998 Spartan Ferrera	1998	$600,000	
5461	Fire Dept.	1988 Ford Marion Type 2 Medical	1988	$1,000,000	To be replaced by a truck if grant funding can be secured.
5413	Fire Dept.	1994 Pierce Saber	1994	$600,000	First replacement installment in 2021
5431	Fire Dept.	2003 International Wild land Engine	2003	$324,911	
878	Police	Community Service Truck	2008	$28,638	
886	Police	2012 Chevrolet Colorado	2012	$33,487	
520	Public Works	2008 Ford F-350 Flat Bed	2008	$39,539	
521	Public Works	2009 F-350 XL SUPER DUTY Utility Bed	2009	$42,941	
551	Public Works	2015 F-250 4x4 Truck	2015	$27,799	
591	Public Works	1999 Ford F-450 Lift Truck	1999	$207,703	Lift has failed electical ground test and can no longer be used for Traffic Signals and Streetlights.
594	Public Works	2003 Ford F-350 XL Utility Bed	2003	$46,045	
595	Public Works	2006 Ford F-450 4x2 Flat Bed	2006	$54,750	
596	Public Works	2006 F-150 Pickup Truck	2006	$24,314	
597	Public Works	2007 F-250 Pickup Truck w/Lift gate	2007	$28,462	
360	Parks & Rec	2009 FORD ESCAPE HYBRID	2009	$38,040	
605	Parks & Rec	2007 Ford Ranger Truck	2007	$19,062	
607	Parks & Rec	2012 FE350 Van 13-PASSENGER	2012	$34,015	
608	Parks & Rec	2013 Ford E-350 XL Ext Van	2013	$34,015	
			Total	$3,909,881	

Several councilmembers wanted to have an improved Council Priorities document. Councilwoman Morton suggested that the document show which items are mandatory and which are discretionary. City Manager Long is revising the document and will present it to Council with ideas about how to seek public input.

Policy Reaffirmations.

The City has several policies on how it manages its General Fund Balance. The purpose of this section is to reaffirm those policies, namely:

Emergency Reserve – The City will keep an emergency reserve equal to 20% of its annual operating budget.

Sub-fund designations. The City has created several sub-funds of the General Fund to set-aside money for various purposes. The monies placed in those funds are reserved for those purposes and can only be spent by a Council appropriation. The sub-funds designated by Council are:

- Vehicle Replacement Fund
- Other Post-Employment Benefits Fund
- Pension Stabilization Fund
- Library Fund

Matters still to be resolved

The City Council has adopted a two-year budget in June of 2019. No action is necessary now because a budget has already been adopted for FY 2020/21. However, due to changes in the fiscal situation of the City, changes have been recommended. Remaining reviews that the City still needs to accomplish include:

- A review of the Preston and Abrams Parks budgets;

- A plan for how to deploy the bond proceeds from the FORA Blight Removal Bonds. $8.5 million is immediately available and potentially another $6.5 million may be available in the future depending upon the growth in tax increment; and,
- A review and revision of the Council Priorities Document.

These items will shortly be brought to Council.

FISCAL IMPACT: The actions recommended in the report will allow the City to function in a fiscally responsible manner.

CONCLUSION:
This request is submitted for City Council consideration and possible action.

Respectfully submitted,

_____
Eric Frost
Finance Director
City of Marina

REVIEWED/CONCUR:

_____
Layne P. Long
City Manager
City of Marina

RESOLUTION NO. 2020-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MARINA ADOPTING THE FISCAL YEAR 2020-21MID-CYCLE BUDGET ADJUSTMENTS, ESTABLISHING PROCEDURES FOR AMENDING THE BUDGET, AND AUTHORIZING THE FINANCE DIRECTOR TO TAKE ALL NECESSARY ACCOUNTING AND BUDGETARY ENTRIES

WHEREAS, the City and Agency budget is an estimation of resources, revenues and expenditures for a fiscal year period, which is July 1st through June 30th and;

WHEREAS, the City Council held multiple public meetings to discuss the proposed FY2020-21 budget in June 2020, and;

WHEREAS, the City Council approved its original Fiscal Year 2020-21 budget in June of 2019 as part of the City's two-year budget process, and;

WHEREAS, Staff made presentations and addressed questions, and Council provided direction.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Marina:

1. That the City Council adopts the General Fund changes as shown below and detailed in the accompanying staff report.

Net Balanced Budget Calculation				
1. Require that the city manager submit a proposed balanced general fund budget for fiscal year 2012-2013 and each year thereafter; and				
2. Agree that a proposed balanced budget shall be defined as the anticipated annual fiscal expenditures not exceeding the annual fiscal revenues less non-recurring fund transfers; and				
		Resolution 2012-46		
Proposed Budget				
Operating General Fund (100)				
All Amounts in Thousands	FY 19/20	FY 20/21	FY 20/21 Revised	
Resources (Revenues and Transfers)	26,238	26,059	22,539	
Uses (Expenditures and Transfers)	(27,770)	(28,411)	(24,476)	
Net Uses	(1,532)	(2,352)	(1,937)	
Add Back non-Replacement Vehicle Charges	507	580	580	
Add Back Extraordinary Legal Costs			700	
Add Back One-time Transfers to Capital	2,160	2,735	750	
Amount Exceeding Balanced Budget	1,135	963	93	
	Revision Summary			
Revenues				
	Revenue loss	-4000		
	Inc. Traffic Cita.	100		
	SAFER Grant	380		
		-3520		
Exp.				
	Wage Reimburse.	450		
	No MOU inc.	200		
	Budget Red.	1200		
	Capital Reductions	2085		
		3935		

2. Establish procedures for amending the budget as follows:

   BUDGET ADJUSTMENTS, REALIGNMENTS & AMENDMENTS
   The Marina City Manager and Executive Director of the Successor Agency to the Marina Redevelopment Agency, or his/her designee, shall be authorized to modify the budget(s) hereby adopted as follows:
   a. transfer revenues/appropriations within General Fund department
   b. transfer revenues/appropriations within projects/departments of any fund
   c. transfer revenues/appropriations between/among General Fund departments
   d. transfer revenues/appropriations between/among projects/departments of any fund

   Only the City Council or the Successor Agency to the Marina Redevelopment Agency Board of Directors shall be authorized to:

   a. Increase/decrease the total revenues/appropriation budget(s) of any fund
   b. Transfer cash, revenues and/or appropriations from one fund to another
   c. Authorize any interfund loan of cash or other resources
   d. Authorize expenditure, transfer, or encumbrance of the fund balance of any fund

3. Authorize the Finance Director to make all necessary and budgetary accounting entries.

BE IT FURTHER RESOLVED that copy(ies) of the adopted budget shall be available for Public viewing in the office of the City Clerk, and copy(ies) shall be filed as required by law.

PASSED AND ADOPTED by the City Council of the City of Marina at a regular meeting duly held on the 16th day of June 2020, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS: None
ABSENT: COUNCIL MEMBERS: None
ABSTAIN: COUNCIL MEMBERS: None

_____
Bruce C. Delgado, Mayor

ATTEST:

_____
Anita Sharp, Deputy City Clerk

RESOLUTION NO. 2020-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MARINA AUTHORIZING THE FINANCE DIRECTOR TO MAKE CERTAIN POST-YEAR-END ACCOUNTING ADJUSTMENTS TO THE FY 2019-20 AND FY 2020-21 BUDGETS

WHEREAS, in adopting the 2020-21 fiscal year budget, actual 2019-20 revenues, expenditures, encumbrances, fund balances, existing (continuing) contracts and other carry-overs are necessarily unknown; and

WHEREAS, after the 2019-20 fiscal year-end, various audit and accounting accruals, deferrals and other adjustments must be made based on information not available at year end; and

WHEREAS, routine, required post year-end adjustments could cause inadvertent budget variances that could be avoided except that such adjustments cannot be known in advance; and

WHEREAS, inadvertent budget variances might result in unnecessary adverse audit comments.

NOW, THEREFORE, BE IT RESOLVED that after the 2019-2020 fiscal year has been closed and year-end adjustments recorded to reflect actual amount(s) of carryover balances, revenues, expenditures, encumbrances and continuing contracts for authorized programs and activities, the City of Marina Finance Director shall record such budget adjustments and realignments for the 2019-20 and 2020-21 fiscal year(s) budget(s) necessary to reflect carry-forward items and avoid inadvertent variances.

PASSED AND ADOPTED by the City Council of the City of Marina at a regular meeting duly held on the 16th day of June 2020, by the following vote:

AYES: COUNCIL:
NOES: COUNCIL MEMBERS: None
ABSENT: COUNCIL MEMBERS: None
ABSTAIN: COUNCIL MEMBERS: None

_____
Bruce C. Delgado, Mayor

ATTEST:

_____
Anita Sharp, Deputy City Clerk

EXHIBIT A

Date: June 3, 2020 Item No:
Honorable Mayor and Members City Council Meeting
of the Marina City Council of June 2, 2020

DICUSSION ITEM TO CONSIDER MID-CYCLE ADJUSTMENT TO FISCAL YEAR 2020/21 BUDGET AND TO PROVIDE APPROPRIATE DIRECTION FOR ADOPTION CONSIDERATION AT THE COUNCIL'S JUNE 16, 2020 MEETING.

REQUEST:
Discussion and recommendations for proposed changes to consider the FY 20/21 Budget. No action will be taken at this meeting. It is proposed that the Council may consider adoption of budget revisions at their June 16, 2020 meeting. The actions that would be considered at that meeting would include:

1) Adopt budgetary changes necessary to balance the 2020/21 budget.
2) Approve the prop. 4 spending-limit
3) Approve the Council reserve designations

Background and Analysis
The City adopted a two-year budget in June of 2019. The City's general budget is in place, but as with all financial plans, it should be adjusted for current events. The biggest event since the June 2019 budget adoption is the COVID-19 shelter in place order. This order has brought business activity to a standstill, particularly industries based upon leisure or gathering. Some 25% of the US economy depends upon such activities which have been brought to an abrupt halt.
Fortunately, we are starting to see some reopening of businesses that were once closed. However, it will take some time to bring back some of these businesses, particularly large gathering special events and conventions. As a result, although some recovery is expected, the City should expect reduced revenues in this next year.

Resolution 2012-46 requires that the City Manager present a balanced General Fund budget to Council. When the City adopted the current budget, the FY 20/21 budget had a surplus of almost $2 million dollars according to Resolution 2012-46. Things have changed. If the current COVID 19 restrictions remained for the full year, the City's General Fund would have an $8 million reduction in revenues. We don't believe this will be the case. While the State is beginning to open up economic restrictions, we still believe it could take a year or longer for our city revenues to recover. As a result, the working hypothesis is that the City should expect a $4 million revenue loss in FY 2020/21.

When will the economy recover?
Deciding on what to expect in revenues is the first part of the budget process. This forecast relies upon what type of recovery will occur as the nation emerges from shelter in place orders. Chart I, Recovery Alphabet, illustrates various types of recoveries.

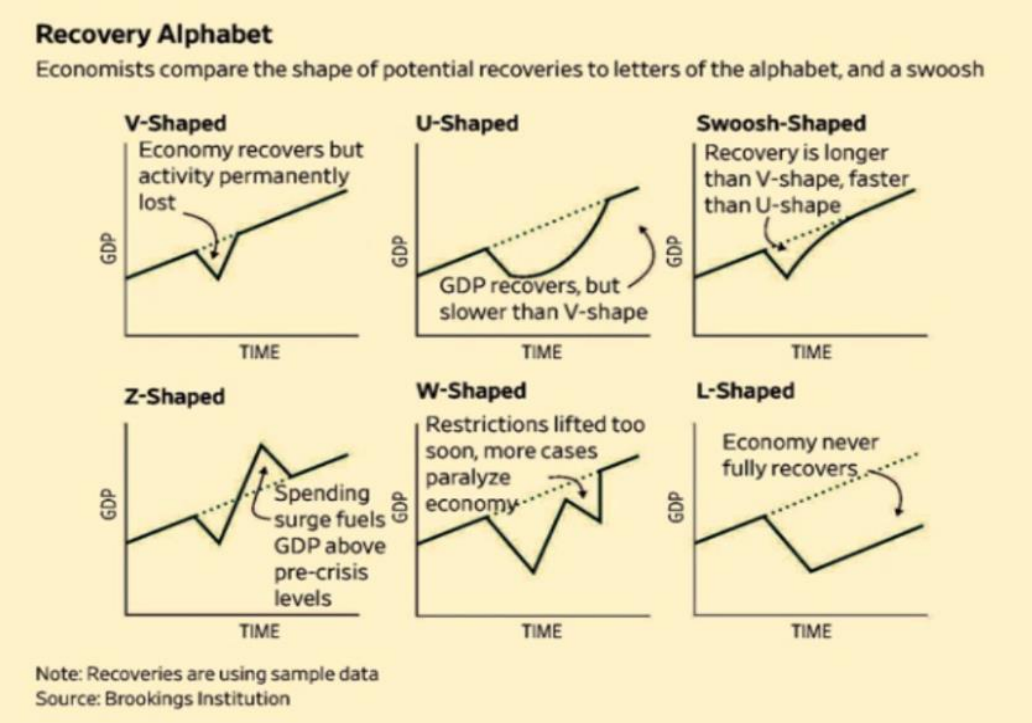
At the beginning of the COVID 19 event, economist suggested that the recovery might be a V-shaped economic event, sudden drop down and a quick recover. The thinking was that nothing physically has been destroyed and that all we had to do was put out a sign saying, "let's go back to normal."
As events have unfolded, this does not appear to be the case. We now know that some businesses can go back to work almost without change such as construction. Because they are outdoors, they mainly need to concern themselves with creating some new social distancing protocols and then they are off and running. Retail stores and restaurants are beginning to re-open and this will continue to be a

phased approach. Indications are that the State will begin moving into phase 3 in the near future which will allow more businesses to reopen. Hotels are lucky to have 20% occupancy whereas in the past they might be at 80% because tourist travel is not allowed yet. Thus, from our Recovery Alphabet chart a Swoosh-shaped recovery appears most likely.

The next question is how long the swoosh will continue. Three factors come into play, namely:

1) When might a vaccine become widely available?
2) If a vaccine is not available, when would enough people become immune to the disease in order to provide herd immunity?
3) When will consumer psyche recover sufficiently to want to go out in a group setting?

Chart I



A vaccine usually takes a year to develop. Given the emphasis on developing a vaccine quickly, we might see a vaccine this fall. So, our timeframe for a vaccine is fall to spring.

For herd immunity to occur, a majority of the communities' individuals need to be exposed and overcome the disease. Coronavirus spread has been greatly arrested but the disease frequently does not present any symptoms in health adults. It would not be unusual for herd immunity, the condition when a majority of individuals in the community have overcome the disease, to take 12-18 months. Finally, the psyche of the consumer is the biggest issue. Given that people are uncertain as to how to act, it appears appropriate to assume it will take some time for consumers to be comfortable in acting as they did before the pandemic.

Given these factors, Finance is using a working assumption that it will take at least the next fiscal year for the economy to substantially recover. This is consistent with the forecast Finance made in its March 2020 forecast of City financial losses, shown in Attachment A, Mid-Year Financial Forecast. Thus, instead assuming a $8 million revenue loss, the high-end forecast, Finance recommends using a $4 million loss revenue budget next year. At the same time, we expect other communities to take longer to recover because they may be much more dependent upon tourism (Monterey and Pacific Grove) or car sales (Seaside).

It is also significant to note that entering the current budget shock, the City had fully funded its emergency reserve ($4.6 million) and had an undesignated General Fund balance of $7.5 million, a total of $12.1 million, also discussed in the March 2020 memo.

Calculating the Expected Budget Shortfall.

Marina took a conservative approach with the current budget and did not commit all its revenues to ongoing projects and is facing a budget shortfall much less than $4 million. Table I, Adopted Net Balanced Budget Calculation, provides an indication of the magnitude of the challenge facing Marina, about $2.1 million.

Note the following in the General Fund:

1) The original budget projected $26.1 million in revenues. The revised budget revenues are $22.1.
2) If left unchanged, the City would have a $6.4 million deficit. Now, the City's Balanced Budget Resolution 12-46 allows for the spending of one-time capital outside the balance budget amendment, reducing the number required to meet 12-46. However, the large amount of capital was a function of the City's ability to acquire more capital because of past accumulated balances. That assumption needs to be reexamined.
3) In preparing the new budget, finance reviewed major changes in the budget and recommends four adjustments, namely:

    a. Recognize that the City was awarded a three-year SAFER grant for increased personnel. That grant will continue until 2023, adding $380,000 to the General Fund's budget. In 2024, the City will need to absorb this cost for the 4 grant firefighters.
    b. Because Police is fully staffed and the Council has adopted a new traffic study which will permit radar enforcement, the department has been able to start up their traffic division again. This will lead to an additional $100,000 a year in fine revenue to the City.
    c. Since the City is facing significant revenue losses, it is difficult to grant additional MOU increases this year. The $200,000 that was set-aside for salary increases may be removed.
    d. In reviewing the budget, the General Fund provides personnel time to the former redevelopment agency and the gas tax fund. These costs in the other funds are a reimbursement to the General Fund. This is not reflected in the current budget. As a result, the reimbursement should be reflected, reducing the balanced budget deficit.

Table I
Adopted Balanced Budget Calculation

Net Balanced Budget Calculation						
1. Require that the city manager submit a proposed balanced general fund budget for fiscal year 2012-2013 and each year thereafter; and						
2. Agree that a proposed balanced budget shall be defined as the anticipated annual fiscal expenditures not exceeding the annual fiscal revenues less non-recurring fund transfers; and						
			Resolution 2012-46			
Proposed Budget						
Operating General Fund (100)						
All Amounts in Thousands		FY 19/20		FY 20/21		FY 20/21 Revised
Resources (Revenues and Transfers)		26,238		26,059		22,059
Uses (Expenditures and Transfers)		(27,770)		(28,411)		(28,411)
Net Uses		(1,532)		(2,352)		(6,352)
Add Back non-Replacement Vehicle Charges		507		580		580
Add Back One-time Transfers to Capital		2,160		2,735		2,735
Amount Exceeding Balanced Budget		1,135		963		(3,037)
Proposed Budget Changes						
Add New SAFER Revenues						380
Add Increased Traffic Citations						100
Reduce salary cost - no new MOU increases						200
Add Back Personnel Adjustments (Charge Outs)						450
Amount Exceeding Balanced Budget						(1,907)

The revised budget, before adjusting service and capital investment is shown in Table II, General Fund Summary, Fiscal Year 2020/21. Table III, Detailed General Fund, FY 2020/21, provides breaks down the summary further.

Table II

General Fund Summary	
All Amounts in Thousands	
Fiscal Year 2020/21	
Rev.	22,539
Op. Exp.	(22,071)
Over/(Under)	468
Ongoing Ca. & Trans.	(2,375)
One-time Capital	(3,315)
Reduction in Fund Balance	(5,222)

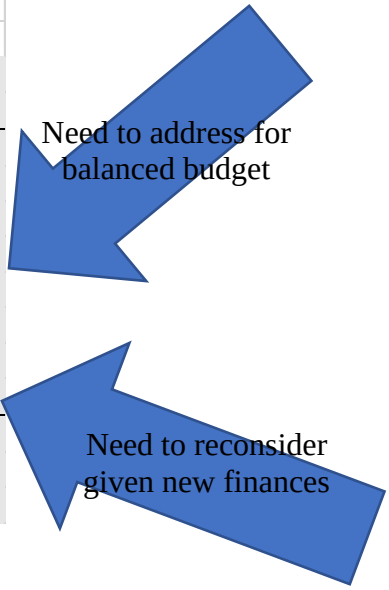


Table III
Detailed General Fund Summary

Recap of Revised 20/21 General Fund Budget			
All Amounts in Thousands			
Budgeted Revenues			
Original Estimate		26,059	
Covid reduction		(4,000)	
Revised Revenue amount			22,059
Add SAFER Grant		380	
Add Traffic Citations		100	
			480
	Revised Revenues		22,539
Budgeted Expenditures			
Original Estimate		(28,411)	
Less: One-time capital		3,090	
Less: Ongoing street funding		1,600	
Less: Ongoing Vehicle Dep. Charge		325	
Less: Pension Stabilization Charge		450	
Operating Budget			(22,946)
Recommended Revisions			
Reduced budgeted salaries - MOU		200	
Reflect staff reimbursements		450	
			650
	Revised Operating Exp.		(22,296)
	Oper. Surplus/(Shortfall)		243
Budgeted Ongoing Capital and other Charges			(2,375)
Budgeted One-time Capital			(3,090)
	Total Shortfall		(5,222)

Recommend Budget Actions

1) Make budget revisions sufficient to meet the Balanced Budget Resolution; and,
2) Review the one-time capital to determine if the project should continue. As a matter of fact, all one-time capital will probably come from City fund balance.

Recommended Actions

The proposed actions and alternatives are discussed further in the report. However, the proposed plan to have a balanced budget according to Resolution 2012-46 is shown in Table IV, City Manager Proposed Balanced Budget Alternative.

Table IV
City Manager Proposed Balanced Budget Alternative

General Fund Summary		Proposed	FY 20/21
All Amounts in Thousands		Changes	Proposed
Fiscal Year 2020/21			
Rev.	22,539	-	22,539
Op. Exp	(22,071)	(1,300)	(20,771)
Over/(Under)	468	(1,300)	1,768
Ongoing Cap & Trans.	(2,375)	-	(2,375)
One-time Capital	(3,315)	(2,265)	(1,050)
Reduction in Fund Balance	(5,222)	(3,565)	(1,657)
Projected Available Fund Balance 6/30/20			10,000
Projected Available Fund Balance 6/30/21			8,343

After adjusting for better budget accounting for new grants and proper staff reimbursements, the current 20/21 budget is projected to use $5.2 million of the City's $10.0 in available fund balance. Available fund balance is the emergency reserve plus undesignated fund balance. This number was $12.1 million as of June 30, 2019, but Finance is estimating $2.1 million will be used to cover shortfalls in FY 19/20.

The plan envisions making $1.3 million in operating reductions and $2.3 million in capital reductions. The plan would still use $1.7 million of fund balance, mainly for highly need capital expenditures and unusual but anticipated legal costs.

City management has met with all the departments and discussed strategies for achieving these budget revisions. The proposed revisions and alternatives are further discussed below.

Expenditure Reductions.
Table V, General Fund Expenditure Reductions, shows what potential expenditure reductions were consider and which ones are recommended. Total expenditure reductions represent $1.3 million.

Table V
General Fund Expenditure Reductions
FY 2020/21

Recommended Budget Solutions			
Freeze some Open Positions	0.45		See list
Probably Retirements or turnover	0.30		
Reduce non-personnel costs	0.10		line-items
Delete Special Events	0.10		
Cut Travel budget half	0.05		
Cut Recreation Special Events	0.10		
Recreation Program - Hourly at 1/2 of orginal plan	0.15		
Cut part-time Police Staff	0.05		
Tota		1.30	
Options considered but not recommended			
Reduce Recurring transfers	0.88		(Pension Stabilization ($450k) and new GF Capital Cont. ($325k) due to Enterprise contract)
5% Personnel Reduction	0.70		5% staffing reduction or 5% furloughs for year
Freeze Assoc. Engineer Position	0.13		Replaces contract that costs $140 an hour
		1.71	

The proposed positions to freeze are as follows in Table V - a, Potential Open Positions to be Frozen.

Table V - a
Potential Open Positions to be Frozen

Vacant Positions			
Freeze		Full Cost	
	CM Intern	14,548	
	Economic Dev.	132,295	
	Executive Asst.	90,000	
	Building Insp.	88,188	1
	Senior Planner	133,622	
	Assoc. Engineer	130,000	2
	Fin. Intern	15,598	
	Fin. Extra Help	25,727	
	Maintenance W. I	75,051	
Add Back			
	Streets Superintender	(130,000)	
	Assoc. Engineer	(130,000)	
Net Savings		445,029	
1	Assumes Bldg Official able to inspect		
2	Costs less than CSG contract		

Review of Recurring Transfers

The recurring capital and other transfers from the General Fund are three, namely:

Street Maintenance	$1,600,000
Pension Stabilization	$450,000
Vehicle Depreciation	$325,000
	$2,375,000

These monies are set aside to assure the continue operation of the City and the maintenance of City streets at a 70 PMI level. Although the amounts could be decreased, ***management does not recommend any changes to these transfers***.

Table VI, Vehicle Replacement, shows the list of vehicles to be replaced.

Table VI
Vehicle Replacement

Recommended FY 20/21 Vehicle Replacements

Department	Replacement Vehicle	Replacement + Outfitting Cost	Accumulated Amortization (Vehicle Fund)	Remaining Amount (General Fund)
PD	Chevrolet Caprice	$71,500	$71,500	$0
PD	Chevrolet Caprice	$71,500	$71,500	$0
PD	Chevrolet Caprice	$71,500	$71,500	$0
Fire	4x4 Utility	$60,000		$60,000
Fire	Type 1 Engine	$300,000		$300,000
PW	Street Sweeper	$220,000		$220,000
	Total FY 20/21=	**$794,500**	**$214,500**	**$580,000**

Management recommends purchasing the General Fund vehicles. The vehicles are essential the provision of City services. Please note that the Fire engine is the first of a two-year set-aside to purchase a new, front line engine. The City last year replaced one engine. However, the other front-line engine is nearing 20 years in service.

City One-time Capital

At the time the City prepared its 2020/21 budget, the City recently increased its revenue base with new tax measures and revenues were growing. As a result, the City budgeted to spend down the accumulating fund balance on various projects. Despite a desire to reduce these one-time projects, some budgeted projects need to continue. Table VII, One-time General Fund Capital 20/21, shows budget projects and which ones are recommended to continue with.

Table VII
One-time General Fund Capital 20/21

City of Marina One-time General Fund CIP, FY 20/21			
Project	General		Recommended
City Hall and Anex Center Reconfiguration	335,000		-
Dunes Barracks Stabilization and Fire Station #3	400,000		-
Arts Village Building Stabilization	1,350,000		-
Retention Basin Annual Water Monitoring	25,000		25,000
Streetlight Replacement	125,000		125,000
Traffic Signal Maintenance and Upgrades	100,000		100,000
General Plan	500,000		500,000
Total	2,835,000		750,000

Balanced Budget Calculation

With the recommended changes, the General Fund Balanced Budget Calculation would yield the result as shown in Table VIII, Balance Budget Calculation for FY 20/21.

Table VIII
Balance Budget Calculation for FY 20/21

Balanced Budget Calculation	
FY 2020/21 - GF	
All Amounts in Thousands	
Rev.	22,539
Op. Budget	(20,771)
Recurring Trans.	(2,375)
Over/(under) Bal. Bud	(607)
Consider Extraordinary	
Legal Costs	700
Revised	
Over/(under) Bal. Bud	93

The balanced budget calculation compares expected revenues to the operating budget and recurring transfers. With recommended changes to the budget, the balanced budget calculation has a $600,000 shortfall. However, the City has budget an extraordinary $700,000 in legal costs in the FY 20/21 budget. Because this legal cost is not expected to continue, this amount can be deducted from the calculation, achieving the balanced budget required by Resolution 2012-46.

Summary

The City is facing unusual times. It requires adjustments as recommended in this memo. By making the proposed changes, the City can maintain its fiscal house in order. Table IX, Balanced Budget Calculation with Proposed Budget with Revisions for General Fund, FY 20/21 show that the City would plan to use $1.8 million of its General Fund balance in FY 20/21 and have a balanced budget by almost $200,000, following the Resolution 2012-46 calculation.

Table IX
Balanced Budget Calculation with Proposed Budget with Revisions for General Fund, FY 20/21.

		Resolution 2012-46		
Proposed Budget				
Operating General Fund (100)				
All Amounts in Thousands	FY 19/20	FY 20/21	FY 20/21 Revised	
Resources (Revenues and Transfers)	26,238	26,059	22,539	
Uses (Expenditures and Transfers)	(27,770)	(28,411)	(24,376)	
Net Uses	(1,532)	(2,352)	(1,837)	
Add Back non-Replacement Vehicle Charges	507	580	580	
Add Back Extraordinary Legal Costs			700	
Add Back One-time Transfers to Capital	2,160	2,735	750	
Amount Exceeding Balanced Budget	1,135	963	193	
	Revision Summary			
	Revenues			
	Revenue loss	-4000		
	Inc. Traffic Cita.	100		
	SAFER Grant	380		
		-3520		
	Exp.			
	Wage Reimburse.	450		
	No MOU inc.	200		
	Budget Red.	1300		
	Capital Reductions	2085		
		4035		

INTEROFFICE MEMORANDUM

to:	***Layne Long, City Manager***
from:	***Eric Frost, Finance Director***
subject:	***Mid-year financial***
date:	***March 31, 2020***
CC:	***Department heads***

Finance prepared a financial forecast in mid-February. The forecast was limited to the General Fund because most of the volatility in revenues occurs in the General Fund. At the time, it was not apparent what rational there was for a recession. Within in less than a month, that thinking changed. The analysis contrasts the Feb. Forecast compared to the March Forecast.

Revenues.
General Fund revenues are projected to be down $2.2 million from budget as shown on Table I, Current Year Forecast, FY 19/20, General Fund – Revenues.

Table I

Current Year Forecast, FY 19/20				
General Fund - Revenues				
All Amounts in Thousands	FY 19/20			
Revenues	Budget	Forecast Jan 2020	Forecast Mar 2020	Change from Budget	Change from Jan. 2020
Property Tax	6,542	6,961	6,961	419	(0)
Sales Tax	8,012	7,937	7,143	(869)	(794)
TOT	4,160	4,079	2,991	(1,169)	(1,088)
Business Licenses & Card Room	1,675	1,635	1,591	(84)	(44)
Franchise Taxes	1,060	1,089	1,089	29	-
Housing Rents	2,231	2,170	2,170	(61)	-
	23,680	23,871	21,945	(1,735)	(1,926)
All Others	2,882	2,827	2,461	(420)	(366)
Total	26,562	26,698	24,406	(2,155)	(2,292)

The revenues that are showing the largest decline are:

Transient Occupancy Tax. The hotels are running at less than 20% of their former occupancy. The forecast assumes this will continue until at least the end of the fiscal year.

Sales Tax. Marina's per capital sales tax is less than other Peninsula cities. As a result, staff examined the make up of the City's sales tax and applied a discount by category as shown on Table II, Projected COVID 19 Declines in City Sales Tax.

Table II
Projected COVID 19 Declines in City Sales Tax

Sales Tax Categories					
3Q 2019					
Amounts in Thousands					
	Tax Reciepts	Share		Adjust.	Forecast
Auto and Transportation	14	2.3%		-75%	3.5
Building and Construction	25	4.0%		0%	25
Business and Industry	25	4.0%		-10%	22.5
Food and Drug	43	6.9%		20%	51.6
Fuel and Service Stations	104	16.7%		-10%	93.6
General Consumer	301	48.4%		-30%	210.7
Restaurants and Hotels	110	17.7%		-60%	44
	622				450.9
					Change
					-28%

Licenses and Card Room Tax. This category was down because when a new home sells in Marina, it is subject to the City's Business Tax. New home sales have been down a bit. The most recent decline, however, was due to Card Room Business stopping.

All Others. This catch all category covers transaction fees from planning, building and recreation. Recreation has stopped and planning and building activity is somewhat less.
The COVID 19 impact for the City is dramatic in how it has slowed economic activity. For the remainder of this fiscal year, the City's General Fund revenues will be off about $2.3 million or $2.2 million from budget.

As for the lingering impact of COVID 19, the greatest impact will be to the City's revenues. Table III shows what to expect if the COVID 19 impact remained at this level for a year, probably decreasing the City's General Fund revenues by almost $8 million shown in, Table III, Full Year COVID 19 Impact on

General Fund Revenues.

Table III
Full Year COVID 19 Impact on General Fund Revenues

Current Year Forecast, FY 19/20				
General Fund - Revenues				
All Amounts in Thousands	FY 19/20			
Revenues	Budget	Forecast Mar 2020	Change from Budget	Change if continued for full year
Property Tax	6,542	6,961	419	(696)
Sales Tax	8,012	7,143	(869)	(2,381)
TOT	4,160	2,991	(1,169)	(3,263)
Business Licenses & Card Room	1,675	1,591	(84)	(491)
Franchise Taxes	1,060	1,089	29	
Housing Rents	2,231	2,170	(61)	(217)
	23,680	21,945	(1,735)	
All Others	2,882	2,461	(420)	(848)
Total	26,562	24,406	(2,155)	(7,896)

Notice that for this analysis the impacts start to spread to property tax revenues and Housing rents from Abrams and Preston Park. This assumption is made because eventually economic impacts in other areas will begin to drive down property values and people will be unable to pay their rent.

Expenditures. ***Overall, expenditures are projected to be substantially less than budget, by $1.9 million.*** This positive variance is mainly due to vacant positions. If the positions are filled, the budgetary savings would not occur, as shown on Table I, Current Year Forecast, FY 19/20, General Fund – Expenditures. The scheduled is the Feb. 2020 forecast. The one adjustment that could be made is that Recreation expenditures will probably be down another $70,000 because recreation is essentially closed, therefore the hourly costs for the remainder of the year has been eliminated.

Analysis of Major Variances.

City Manager - The budget had a large amount for legal costs. Although legal costs remain high, they are less than budget. These costs should decline over time.

City Attorney - Legal costs are higher than anticipated due to unusual litigation expenses.

Non-Departmental – Costs are higher than anticipated due to increased pension costs. These costs will persist.

Police – Police costs are less than budgeted as the department has had a large number of vacancies. These savings will decline as the Police fills all its positions.

Table II

	Current Year Forecast, FY 19/20			
	General Fund - Expenditures			
	Compared to Budget			
	All Amounts in Thousands			
Expenditures				
		FY 19/20		Percent of
	Department	Budget	Forecast	Change	Total
100	Council	24	20	(4) -17.9%	0.1%
120	City Manager	2,012	1,650	(362) -18.0%	6.3%
125	I.T.	304	304	0 0.1%	1.2%
130	Finance	850	850	(0) 0.0%	3.2%
150	City Attorney	222	384	162 73.2%	1.5%
190	Non-Departmental	7,694	7,850	156 2.0%	29.9%
195	Conveyance	-	8	8 0.0%	0.0%
210	Police	7,531	7,109	(422) -5.6%	27.1%
250	Fire	3,727	3,528	(199) -5.3%	13.4%
310	Public Works	2,090	1,450	(640) -30.6%	5.5%
410	Planning	871	871	0 0.0%	3.3%
420	Engineering	899	601	(298) -33.2%	2.3%
430	Building Inspection	451	440	(11) -2.3%	1.7%
440	Economic Dev.	268	150	(118) -43.9%	0.6%
510	Recreation & Culture	1,103	1,060	(43) -3.9%	4.0%
	Total Expenditures	28,045	26,275	(1,770)	
	Planned Addition/(Use) to Fund Balance	(1,719)	188		
	Note: FY 19/20 had substantial one-time capital expenditures of $2.3 million				

NOTE: Recreation costs should be about $70,000 less because all Rec Hourly employees are idled as of Mid March.

Analysis of Major Variances. (Continued)

Fire – Fire was allocated 4 new firefighters this year. They have been hired at the end of February. The savings in this department will not continue.

Public Works - Employee costs in this division are partially offset by charges to the gas tax fund. It is expected that about $300,000 annually will be charged to the gas tax fund. As a result, this budget should be reduced by $300,000.

Engineering – The Council allocated another Engineering position to this budget. Recruitments so far have not yielded a new employee. The budget savings only occurs due to the vacancy. In addition, some of the costs of this division is being charged to projects.
Economic Development – has a vacant position and budgetary savings.

Overall Situation

The overall, the City is facing a $1.8 million deficit for this fiscal due to the impacts of COVID-19. The length of this economic impact will greatly determine the length of this impact. If the COVID-19 impact continues, Finance estimates that the economic impact will be about $8 million to the City of Marina.

Table V

	Current Year Forecast, FY 19/20		
	General Fund - Revenues		
	All Amounts in Thousands	FY 19/20	
Revenues		Budget	Forecast Mar 2020
	Total	26,562	24,406
Expenditures			
	Total Expenditures	28,045	26,210
	Revenues Over/(Under) Expenditures	(1,484)	(1,804)

Reserves Available for Emergencies

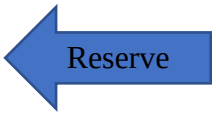
The City Council has set-aside monies for fiscal emergencies. As of 6/30/19, the City had set-aside $4.6 million for emergencies. In addition, the Council had in the General Fund $7.5 million in undesignated reserves. Thus, the Council has $12.1 million available as the City address the COVID-19 event as shown on Table VI, General Fund Balance Components, 6/30/19.

Potential Responses

The appropriate response depends upon the length of the COVID 19 revenue shock to the City's finances. The event will almost certainly last until the end of this fiscal year. Thus, the City is facing a $1.8 million deficit, although the City originally budgeted a $1.5 million deficit in anticipation of using it unallocated fund balance for capital projects.

Table VI
General Fund
Fund Balance Components
6/30/2019

	General Fund
Nonspendable:	
Prepaid Expenses	$ 12,000
Total Nonspendable	12,000
Restricted:	
Economic Development	-
Debt Service	4,065
Capital Projects	-
Street & Special District	-
Community Development	-
Recreation	-
Public Safety	235,432
Total Restricted	239,497
Committed:	
OPEB	200,000
Library Maintenance	310,627
Future Vehicle & Equipment Replacement	2,055,000
Future Facility Repairs	500,000
Community Improvement	641,268
Employee Compensated absences	400,000
Pension Stabilization	950,000
Capital Projects	-
Emergency Reserves	4,587,543
Public Education Government	-
Total Committed	9,644,438
Unassigned	7,528,302
Total	$ 17,424,237



The bigger concern is that is the current event continues well into next year and the City experiences an $8 million loss of revenues, what should the City do? The range of options are:

- Funding some or all of the shortfall from undesignated fund balance or emergency reserves.
- Cancel one-time capital projects found on page 122 and 123 of the current budget. The City has over $8 million in budgeted General Fund Projects.
- Consider service cut-backs. $8 million represents 30% of the General Fund budget.
- Consider personnel actions, such as:

    - Freezing or closely reviewing all vacancies (It may be appropriate to continue to fill positions that will advance the City's purposes in planning and street work.)
    - Considering other personnel options such as layoffs and/or furloughs (These are not being recommended but would be consider if financial circumstances do no allow other options)

Summary

The economic impact of COVID-19 is dramatic and almost without precedent. The question will be now is how long the event will continue. Some indications are that after such an outbreak, the population after 12-18 months develops a collective immunity which greatly decreases the impact of the disease. This would require the nation to suffer through a prolonged disruption. At the same time, if the tourist industry is able to come back at all, the City's fiscal picture would markedly

improve. Management recommends using reserves until the end of the fiscal year and consider all options before the beginning of FY 20/21 when the outlook is clearer.

For the remaining of the fiscal year, the City is facing a $1.8 million loss. If the event continues for another year, the City will be facing another $8 million loss in revenues.

May 27, 2020 Item No: **11c(i)**

Honorable Mayor and Members
of the Marina City Council

City Council Meeting
of June 2, 2020

CITY COUNCIL CONSIDER ADOPTING RESOLUTION NO. 2020-, REVISING THE LOAN PROGRAM FOR RESIDENTS AND BUSINESSES OF THE CITY IN RESPONSE TO THE COVID-19 PANDEMIC, VESTING DISCRETION IN THE CITY MANAGER, CITY FINANCE DIRECTOR AND CITY ATTORNEY TO MAKE REQUIRED CHANGES TO THE PROGRAM GUIDELINES NECESSARY TO IMPLEMENT AND ADMINISTER THE PROGRAM, AUTHORIZING THE CITY MANAGER TO EXECUTE ANY AGREEMENTS AND PROMISSORY NOTES NECESSARY TO IMPLEMENT THE PROGRAM, AND AUTHORIZING THE FINANCE DIRECTOR TO MAKE NECESSARY ACCOUNTING AND BUDGETARY ENTRIES

REQUEST:

It is requested that the City Council revise its COVID-19 residential and business:

1. The loan program will continue until August 31, 2020 or until the funds are exhausted.

2. The income requirements for the business loans will be modified as follows:

   - For businesses open during March and April 2020 increase the income requirement by 25%, allowing incomes up to 112.5% of Monterey County Median to be eligible for the business loans.

   - For closed businesses for March and April 2020 increase the income requirement by 50%, allowing incomes that are 135% of Monterey County Median to be eligible for the business loans.

3. Decrease the total funding for the residential loan program from $100,000 to $50,000 and increase the total funding for the business loan program from $100,000 to $150,000.

BACKGROUND:

Current Results. At the City Council's April 21, 2020 meeting, a City COVID-19 support loan program for businesses and resident was authorized, providing $100,000 for each program. The loan program was authorized to run until May 31,2020. At this writing, the statistics for the loan program are shown on Table I, Loan Status.

City of Marina

Loan Status Report

				Review Status				
Loan Type	Program authorization	Received	Potential Funding Request	Approved	Declined	Loans awaiting review	Approval Rate	Loan Amount Funded
Residential	100,000	5	10,000	4	1	0	80%	6,500
Business	100,000	14	140,000	7	5	2	50%	62,300
Total	200,000	19	150,000	11	6	2		68,800

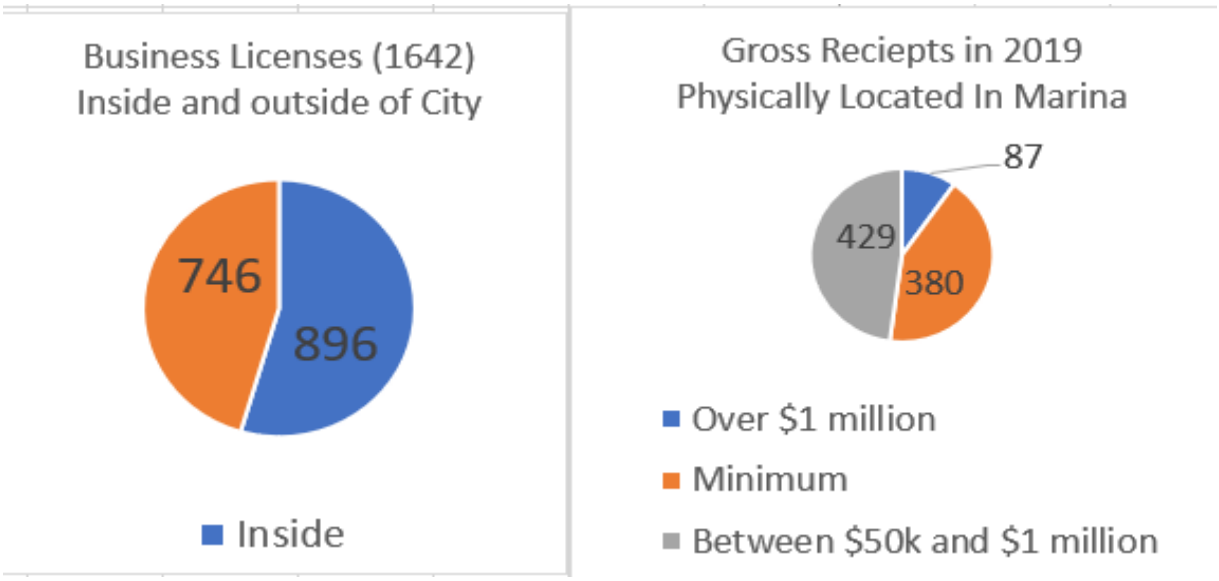
Loan summary information is attached as **EXHIBITS A** and **B** but generally, the loans required:

- The business or resident to be in Marina;
- Have had some economic loss due to COVID 19; and,
- Be available to residents or business owners with incomes less than the County of median.

Residential Loans were available up to $2,000 and Business Loans were available up to $10,000 until May 31, 2020. Loan evaluations were done by Supervising Accountant Marisol Gomez and presented to the loan review committee of Councilman O'Connell, Assistant City Manager Mogensen and Finance Director Frost.

Business Outreach. The City has made significant efforts to reach out to our local businesses. The City of Marina has 1,642 registered business licenses. 896 of these businesses are within Marina and 430 businesses pay the minimum payment, meaning that their gross receipts are less than $50,000 a year. 87 Marina businesses had gross receipts in excess of $1 million and were not targeted beyond the 5 business support letters issued by the Business Support Committee. Pie Charts I, Business License Statistics, recaps the make-up of Marina's business licenses. This left 429 businesses with receipts between $50,000 and $1,000,000 a year which the City targeted for personal outreach.

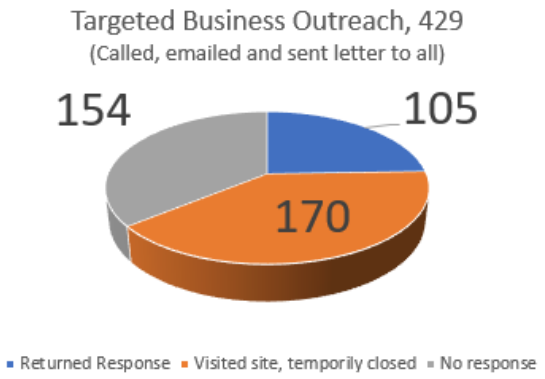
Pie Charts I
Business License Statistics



The assigned 429 small business to the City's Business Outreach Worker, Monica Kim. Monica was hired by the City on April 22, 2020 to focus on small businesses. The outreach list was prioritized, with an emphasis of contacting businesses with gross receipts under $1 million, but above $50,000. Thus, businesses that made over $1 million in gross receipts a year were not contacted unless they directly called into the office.

The results so far are (numbers updated as of May 28, 2020), Pie Chart II, Targeted Outreach Results.

Pie Chart II
Targeted Outreach Results



Responding Businesses	
Closed	1
Did Not Require Assistance	43
Received Assistance	61
Total	105

Consultation provided included any of the following:

- PPP/disaster loan applications;
- Cal coastal loan information;
- Marina Local loans;
- nonprofits grant applications;
- for-profit grant applications;
- filing unemployment on Employment Development Department; and,
- general information.

Monica has been able to reach English-limited business owners because she has some foreign language skills and is able to access other language resources to contact businesses. She will continue reach out to small businesses, at least until the City ends its small business loan program. **Residential Loan Outreach**. The residential loan outreach has not had a dedicated worker but has been presented through the following methods:

- Television reports of the two loan programs were aired
- City's website explains the program
- Police Facebook has discussed the program
- All residents received COVID-19 card from Council which included a loan program reference
- Council members have regularly shared the loan information at various community forums.

ANALYSIS:

Residential Program. Of the five residential loan program application, one has been declined. The loan was declined due to the individual living just outside the City's limits in the County. Otherwise, all loans were approved. It is also worth noting that the four that were funded were for some reason or other not able to access the enhanced unemployment benefits, at least at the time the individual applied for the City loan.

Monica Kim, our Business Outreach Worker, did work with some of business individuals who could apply for unemployment benefits which were not normally available except for the COVID-19 event. Further, from various newspaper reports about the enhanced unemployment benefits and individual stimulus checks, it is apparent that some lower income wage earners are receiving more in unemployment benefits than when working. Thus, they may not need the residential loans. This may change when the current Federal enhanced unemployment benefits which provides an extra $600 per week ends as of July 31, 2020.

Potential Program Modification: The demand for the program may increase after the extra $600 a week in unemployment benefits ends in July. If the Council wanted to continue this program, they may want to continue to program until August 31, 2020 in case there was demand for the loan program after the $600 per week enhanced unemployment benefits ended.

Business Loan Program. Fourteen applications have been presented to the City and seven have been approved. Two more required additional information awaiting a final determination. Five of the loans were declined. Table II, Example of Business Loan Review Spreadsheet illustrates the type of information gathered and considered by the loan committee.

The five loan applications that were declined were all declined because they exceeded the allowed household income of 90% of Monterey's median income. Some exceed this amount by a small amount. Others exceed the amount substantially. Further, some businesses were closed at the time of application. Others were at least partially open.

Table II
Example of Business Loan Review Spreadsheet

Number	Date Initiated	Business Name	Status	Notes	Bus License Verified
3301	4/24/2020		application completed 5/11/2020	emailed 4/28/20 for documentation called 4/29 for follow up - 6 kids 2 adults, will send over supporting docs soon 5/11 supporting docs show household income is too high	Yes

(Continued)

Open for business?	Household Income	90% limit based on sz	(Over limit)	Applied for EIDL/PPP or other?	Requested Amount	Award Amount 5/6
No	##################	$ 96,930	##############	EIDL	$ 10,000	not at this time

Potential Program Modification: If Council wanted to continue this program, it may want to consider relaxing the income qualifications which currently are:

3. Must have a household income (which includes business income) of less than 90% of the Monterey County Median, adjusted for household size as evidenced from Federal Tax returns from 2018 or 2019 or sufficient alternate data.

Staff would recommend relaxing the requirement at different levels based upon whether the business was closed or open during the Shelter in Place order as follows:

- ***For open businesses, increase the income requirement by 25%, allowing incomes that are 112.5% of Monterey County Median.***

- ***For closed businesses for March and April, increase the income requirement by 50%, allowing incomes that are 135% of Monterey County Median.***

If this new threshold was the standard in May, 3 of the five declined loans would have been approved. The remaining loans that were declined exceeded the income requirements by over $100,000 each.

Summary

The City's loan program to support businesses and residents began approximately 6 weeks ago. Those receiving the loans, although not many, have expressed their gratitude for the City's help. If the Council wished to modify the loan process to encourage more usage, staff would recommend the following for Council's consideration:

1) Residential loans – extend the availability period until August 31, 2020 to allow those no longer receiving the enhanced unemployment Federal unemployment benefits to apply.

2) Business loans – relax the income requirements for business loans to be as follows:

- For businesses open during March and April, increase the income requirement by 25%, allowing incomes that are 112.5% of Monterey County Median.

- For closed businesses for March and April, increase the income requirement by 50%, allowing incomes that are 135% of Monterey County Median.

3) Finally, the City Council may wish to move $50,000 from the residential support program to the business support loan program, funding business loans at $150,000 total and residential loans at $50,000 total.

FISCAL IMPACT:

The loan program is being funded from General Fund Fund Balance. The current forecast for this year's ending General Fund fund balance is as follows:

	Available Reserves		
	Amounts in Millions		
Reserves			
	Emergency	4.50	
	Undesignated Fund Balance 6/30/19	7.50	
	6/30/19 Reserves		***12.00***
	COVID Support Loans	(0.20)	
	Use of reserves 6/30/20	(1.80)	
			(2.00)
	Estimated 6/30/20		***10.00***

CONCLUSION:
This request is submitted for City Council consideration and possible action.

Respectfully submitted,

_____
Eric Frost
Finance Director
City of Marina

REVIEWED/CONCUR:

_____
Layne Long
City Manager
City of Marina

SOURCE OF FUNDING:

General Fund

RESOLUTION NO. 2020-___

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MARINA REVISING THE LOAN PROGRAM FOR RESIDENTS AND BUSINESSES OF THE CITY IN RESPONSE TO THE COVID-19 PANDEMIC, VESTING DISCRETION IN THE CITY MANAGER, CITY FINANCE DIRECTOR AND CITY ATTORNEY TO MAKE REQUIRED CHANGES TO THE PROGRAM GUIDELINES NECESSARY TO IMPLEMENT AND ADMINISTER THE PROGRAM, AUTHORIZING THE CITY MANAGER TO EXECUTE ANY AGREEMENTS AND PROMISSORY NOTES NECESSARY TO IMPLEMENT THE PROGRAM, AND AUTHORIZING THE FINANCE DIRECTOR TO MAKE NECESSARY ACCOUNTING AND BUDGETARY ENTRIES

WHEREAS, on March 13, 2020, the City Manager in his role as the Director of Emergency Services, issued a "Proclamation of a Local Emergency Related to COVID-19 (Coronavirus) pandemic; and

WHEREAS, the impacts from the COVID-19 virus; the associated measures to protect public health; and local, regional, and national orders for residents to shelter in their places of residence has had a dramatic negative effect on many resident's financial resources; and

WHEREAS, many residents face destabilized housing situations due to the impacts of the COVID-19 pandemic which has created undue hardship for residents due to a lack of alternative housing; and

WHEREAS, individuals most impacted may need a very rapid response from local agencies, lenders, and support providers to survive these impacts; and

WHEREAS, it is in the community interest to support residents of the City of Marina by ensuring adequate access to capital while other sources of state and federal funding are pending; and

WHEREAS, the City has One Hundred Thousand dollars available in its Emergency Fund which could be budgeted to fund the Stabilizing Loan Program for Residents; and

WHEREAS, the Stabilizing Loan Program for Residents is necessary to protect the health, safety, and welfare of the citizens of Marina; and

WHEREAS, the Stabilizing Loan Program for Residents was effective as of April 21, 2020; and

WHEREAS, COVID-19 therefore has and will continue to cause conditions of peril to the health, safety, and welfare of City of Marina residents.

WHEREAS, the City Council has reviewed the results of the City's COVID-19 loan program and determine it needs to change certain provisions of the program to better serve the businesses and residents of Marina;

NOW, THEREFORE, be it resolved by the City Council of the City of Marina that:

A. The City Council hereby finds that the above-described conditions and as described in the Proclamation of Local Emergency related to the COVID-19 outbreak warrant and necessitate the creation of the Stabilizing Loan Program for Residents and the establishment of this Program is in the best interest of the public.

B. Direct that the underwriting requirements of these two loans be revised as follows:

1. The loan program will continue until August 31, 2020 or until the funds are exhausted.

2. The income requirements for the business loans will be modified as follows:

- For businesses open during March and April 2020 increase the income requirement by 25%, allowing incomes up to 112.5% of Monterey County Median to be eligible for the business loans.

- For closed businesses for March and April 2020 increase the income requirement by 50%, allowing incomes that are 135% of Monterey County Median to be eligible for the business loans.

3. Decrease the total funding for the residential loan program from $100,000 to $50,000 and increase the total funding for the business loan program from $100,000 to $150,000.

C. The Finance Director is authorized to make necessary accounting and budgetary entries.

PASSED AND ADOPTED, at a regular meeting of the City Council of the City of Marina, duly held on the 16th day of June 2020, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

_____
Bruce C. Delgado, Mayor

ATTEST:

_____
Anita Sharp, Deputy City Clerk

City of Marina Business Loan Program Summary

Program

Total Funding:	$100,000
Source:	General Fund
Decision Authority:	City Determination is final. Additional applications based upon on changed circumstances are allowed.

Loan Terms

Maximum Loan:	$10,000 per business.
Limitation:	May not receive residential loan also.
Basis of Loan Amount:	Documented delinquent bills for rent, employee wages and health benefits, utilities, or mortgage on business located in Marina if not closed during COVID event. If closed, any unpaid business expense during the COVID event.
Interest Rate:	0% in repaid by May 31, 2021; or, 3% from loan's funding date to be repaid by May 31, 2022.

Qualifications

1. Must have a business license of the City Marina as of January 1, 2019

2. Business must have had 10 or fewer employees before March 1, 2020. The requirement for restaurants is 20 or fewer employees.

3. Must have a household income (which includes business income) of less than 90% of the Monterey County Median, adjusted for household size as evidenced from Federal Tax returns from 2018 or 2019 or sufficient alternate data.

Median Income for Monterey County	As of 4/16/2020 (90% of HCD Published AMI)
Household Size	**Income**
1	$46,665
2	$53,370
3	$60,030
4	$66,690
5	$72,045

Calculation	Example
2019 or 2018 Federal Business Tax income from tax forms	20,000
Business Depreciation	10,000
Household income including any business salary taken as a business expense	30,000
Adjusted business income	$ 60,000

Note: If the household size is three people, the business qualifies for business loan.

4. Must have had applied for SBA Economic Injury Disaster Loan (EIDL) or Payroll Protection Program Loan (PPP) due to the COVID 19 event or explain why unable to apply.

5. **Applications to be submitted to the City with supporting documentation on or before May 31, 2020**, or award of loans totaling $100,000.00, whichever occurs first. ***The first round of funding will consider all applications received by May 1, 2020.*** Thereafter, completed applications will be processed on a first come, first served basis.

Applications are available at the City's website: CityofMarina.org under "Help for Businesses" button

EXHIBIT B

City of Marina Residential Loan Program Summary

Program

Total Funding:	$100,000
Source:	General Fund
Decision Authority:	City Determination is final. Additional applications based upon changed circumstances are allowed.

Loan Terms

Maximum Loan:	$2,000 per household
Basis of Loan Amount:	Documented delinquent bills for rent, utilities, or mortgage on property located in Marina for a primary residence.
Interest Rate:	0% in repaid by May 31, 2021; or, 3% from loan's funding date to be repaid by May 31, 2022.

Qualifications

1. Must be a resident of the City Marina as of January 1, 2020

2. Must have a household income of less than 80% of the Monterey County Median, adjusted for household size; or, non-discretionary debt (mortgage, one car payment, etc.) more than 25% of monthly income.

3. Must have had economic damage due to the COVID 19 event due to unemployment or reduction of hours in excess of 50% of work income.

Due Dates

Applications to be submitted to the City with supporting documentation on or before May 31, 2020, or award of loans totaling $100,000.00, whichever occurs first. The first round of funding will consider all applications received by May 1, 2020. Thereafter, completed applications will be processed on a first come, first served basis.

Applications are available at the City's website: CityofMarina.org under "Help for Residents" button

For More Information, call Eric Frost, Finance Director, 831-884-1221

Date: May 28, 2020 Item No: **11c(ii)**

Honorable Mayor and Members of the Marina City Council

City Council Meeting of June 2, 2020

CITY COUNCIL CONSIDER ADOPTING RESOLUTION NO. 2020-, AUTHORIZING AN ABATEMENT OF BUSINESS LICENSE PENALTIES UNTIL OCTOBER 2020 AND OFFERING TO WAIVE PAST PENALTIES FOR UNREGISTERED BUSINESSES WHICH REGISTER AND PAY THEIR PAST DUE TAXES BY OCTOBER 31, 2020.

REQUEST:

That the City Council consider a resolution:

1) Abating all penalties for business license taxes until Oct. 1, 2020;

2) Offering to waive all past due penalties for unregistered business who pay all past due business taxes by Oct. 1, 2020

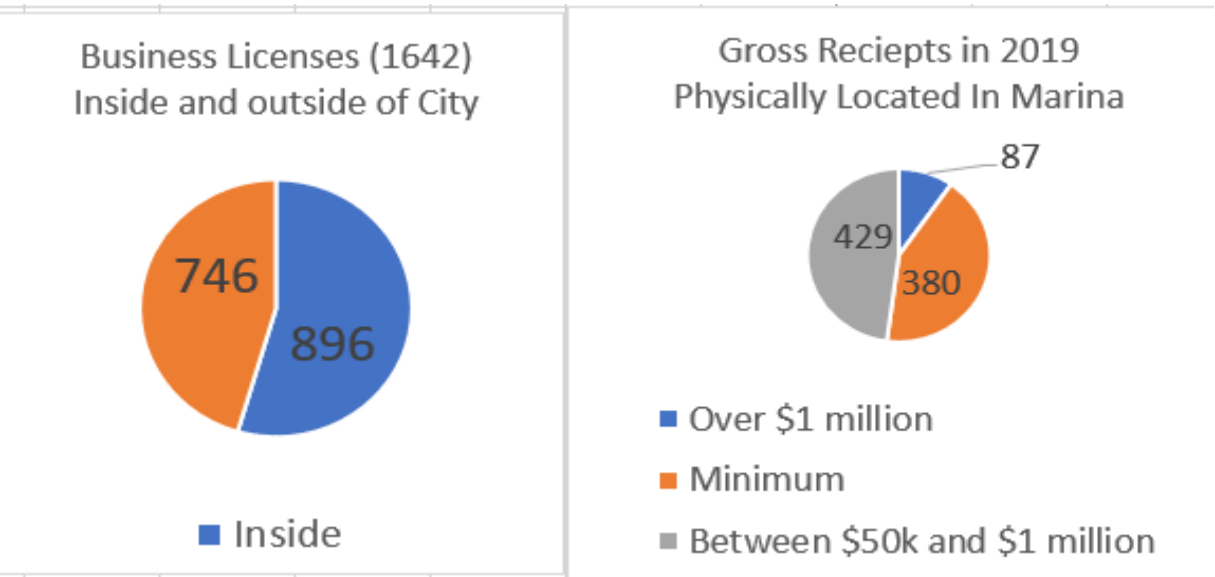
BACKGROUND:

Business License Background. The Marina voters in November of 2016 passed the current business tax law. The City of Marina has 1,642 registered business licenses. These businesses pay 0.2% business license tax, with the minimum tax being $100 or $50,000 in receipts. The tax in past years has generated annually about $1.5 million. The business license is paid in advance for the full year. The City sends the following notices to businesses:

April	Request for businesses to declare their gross receipts
June	Business License, due by the end of July
August	10% penalty if not paid before this month
Sept.	10% + 25% penalty, if not paid before this month
October	10% + 25% + 15% penalty, total 50%, if not paid before this month

A substantial number of business located outside Marina pay the business license tax when they conduct business inside Marina, a little less than ½ of the businesses. Inside the City, Marina has a total of 896 businesses. Of this number, 430 businesses pay the minimum payment, meaning that their gross receipts are less than $50,000 a year. 87 Marina businesses have gross receipts more than $1 million. Pie Charts I, Business License Statistics, recaps the make-up of Marina's business licenses. Thus, 429 businesses have receipts between $50,000 and $1,000,000 a year.

Pie Charts I
Business License Statistics



ANALYSIS:

Potential Council Action. In response to the COVID 19 event, many cities have modified their business license process to allow some relief to businesses. The biggest relief might be to give the business a little more time to determine if they will continue as a business. Thus, if a business could assess its situation, it would feel better about paying its business license, although .002% of a business' revenue is typically a nominal amount.

One approach would be to abate the business license tax penalties until October 31, 2020, providing 3 months for a business to assess their situation and be properly be charged for their license based upon their COVID 19 adjusted gross receipts. (It should be noted that if a business has had its receipts decline dramatically, their tax should also decline proportionally. Finance estimates a 13 - 25% decline in business license receipts for next year.)

Thus, for this year, penalties would be abated until the following dates:

November	10% penalty if not paid before this month
December	10% + 25% penalty, if not paid before this month
January	10% + 25% + 15% penalty, total 50%, if not paid before this month

As an alternative, the Council does have the power to adjust the rate below .002%. However, Business Tax receipts will down this next year due to reduced economic activity. Thus, businesses will be paying smaller business tax fees already. The tax represents .002% of their gross receipts, $200 per $100,000 of sales. Staff does not recommend this option.

Optional Program. Some cities have used this time to allow businesses which have previously been unregistered to register and pay their past due business tax without incurring penalties. Each year, the City will discover businesses that have not obtained a business license. The City will assess them three years of business taxes in such case, including penalties of 50% for the past years.

Finance recommends letting businesses that have gone unregistered that the Council will waive past penalties if the business pays all past due business tax fees before November 1, if Council abates the business tax fees until then.

FISCAL IMPACT:
Business license tax is deposited into the General Fund. It is expected to drop this next year due to the general downturn in economic activity. An abatement of the tax penalty does not change the expect receipts and the economic loss of interest income on penalty revenue will be less than $1,500.

The amnesty program could potentially generate $10,000 to $20,000 in additional revenue.

CONCLUSION:
This request is submitted for City Council consideration and possible action.

Respectfully submitted,

_____
Eric Frost
Finance Director
City of Marina

REVIEWED/CONCUR:

_____
Layne Long
City Manager
City of Marina

SOURCE OF FUNDING: General Fund

RESOLUTION No. 2020-

A RESOLUTION OF THE CITY COUNCILOF THE CITY OF MARINA AUTHORIZING AN ABATEMENT OF BUSINESS LICENSE PENALTIES UNTIL OCTOBER 2020 AND OFFERING TO WAIVE PAST PENALTIES FOR UNREGISTERED BUSINESSES WHICH REGISTER AND PAY THEIR PAST DUE TAXES BY OCTOBER 31, 2020.

WHEREAS, the City of Marina authorized a business tax measure in November of 2016; and

WHEREAS, the City of Marina Council has some discretion on the administration of that tax; and

WHEREAS, the COVID-19 event has greatly depressed business activity in order to maintain the health of the community; and,

WHEREAS, the City Council actively seeks to support local businesses;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MARINA DOES HEREBY RESOLVE AS FOLLOWS:

SECTION 1. The City Council does abate business tax penalties until October 31, 2020

SECTION 2. For unregistered businesses, the City will waive penalties from prior years if the business registers and pays its past taxes by October 31, 2020.

PASSED and ADOPTED by the City Council of the City of Marina at a special meeting duly held on this 16th day of June 2020 by the following vote:

AYES, COUNCIL MEMBERS:
NOES, COUNCIL MEMBERS:
ABSENT, COUNCIL MEMBERS
ABSTAIN, COUNCIL MEMBERS:

_____
Bruce C. Delgado, Mayor

ATTEST:

_____
Anita Sharp, Deputy City Clerk