

ALAMEDA MARINA MASTER PLAN

Final Environmental Impact Report
SCH # 2016102064

Prepared for
City of Alameda

May 2018



ALAMEDA MARINA MASTER PLAN

Final Environmental Impact Report
SCH # 2016102064

Prepared for
City of Alameda
Planning and Building Department
22631 Santa Clara Avenue, Room 190
Alameda, CA 94501

May 2018

550 Kearny Street
Suite 800
San Francisco, CA 94108
415.896.5900
www.esassoc.com



Bend	Oakland	San Francisco
Camarillo	Orlando	Santa Monica
Delray Beach	Pasadena	Sarasota
Destin	Petaluma	Seattle
Irvine	Portland	Sunrise
Los Angeles	Sacramento	Tampa
Miami	San Diego	

160044.01

OUR COMMITMENT TO SUSTAINABILITY | ESA helps a variety of public and private sector clients plan and prepare for climate change and emerging regulations that limit GHG emissions. ESA is a registered assessor with the California Climate Action Registry, a Climate Leader, and founding reporter for the Climate Registry. ESA is also a corporate member of the U.S. Green Building Council and the Business Council on Climate Change (BC3). Internally, ESA has adopted a Sustainability Vision and Policy Statement and a plan to reduce waste and energy within our operations. This document was produced using recycled paper.

TABLE OF CONTENTS

Alameda Marina Master Plan FEIR

	<u>Page</u>
Chapter 1, Introduction and List of Commenters	1-1
1.1 Purpose of this Document	1-1
1.2 Organization of the Final EIR.....	1-1
1.3 Summary of Proposed Project.....	1-2
1.4 Required Jurisdictional Approvals.....	1-4
1.5 Public Participation and Review.....	1-6
1.6 List of Commenters.....	1-6
Chapter 2, Comments and Responses.....	2-1
2.1 Introduction	2-1
2.2 Master Responses.....	2-1
2.3 Individual Responses.....	2-19
Chapter 3, Revisions to the Draft EIR.....	3-1
3.1 Introduction	3-1
3.2 Text Changes to the Draft EIR.....	3-1
Chapter 4, Mitigation Monitoring and Reporting Program	4-1
4.1 Introduction	4-1
4.2 Mitigation Measures.....	4-1
4.3 MMRP Components	4-1

List of Tables

4-1	Alameda Marina Master Plan Mitigation Monitoring and Reporting Program.....	4-3
-----	---	-----

This page intentionally left blank

CHAPTER 1

Introduction and List of Commenters

1.1 Purpose of this Document

This Final Environmental Impact Report (Final EIR) document includes all agency and public comments received on the Draft Environmental Impact Report (Draft EIR, SCH #2016102064) for the Alameda Marina Master Plan project (proposed project). Written comments were received by the City of Alameda during the public comment period from December 27, 2017 through February 15, 2018. Verbal comments were also received during a public comment session before the Alameda Planning Board on February 12, 2018. This document includes written responses to each comment received on the Draft EIR. The responses correct, clarify, and amplify text in the Draft EIR, as appropriate, and these text changes are included in Chapter 3 of this document. These changes do not alter the conclusions of the Draft EIR.

This Final EIR document has been prepared in accordance with the California Environmental Quality Act (CEQA), and will be used by the decision-makers during project hearings.

1.2 Organization of the Final EIR

The Final EIR is organized as follows:

Chapter 1 – Introduction and List of Commenters: This chapter summarizes the project under consideration and describes the contents of the Final EIR. This chapter also contains a list of all of the agencies, organizations, and individuals that submitted comments on the Draft EIR during the public review period.

Chapter 2 – Comments and Responses: This chapter contains the comment letters received on the Draft EIR, followed by responses to individual comments. Letters are grouped by agencies, organizations, and individuals, but are otherwise presented in the order in which they were received. Each comment letter is presented with brackets indicating how the letter has been divided into individual comments. Each comment is given a binomial with the letter number appearing first, followed by the comment number. For example, comments in Letter 1 are numbered 1-1, 1-2, 1-3, and so on. Immediately following the letter are responses, each with binomials that correspond to the bracketed comments.

Some comments that were submitted to the City do not pertain to CEQA environmental issues or do not address the adequacy of the analysis contained in the Draft EIR. When a comment does not directly pertain to environmental issues analyzed in the Draft EIR, does not ask a question about the adequacy of the analysis contained in the Draft EIR, expresses an opinion related to the merits of the project, or does not question an element of or conclusion of the Draft EIR, the response notes the comment and may provide additional information where appropriate. The intent is to recognize the comment. Many comments express opinions about the merits or specific aspects of the proposed project and these are included in the Final EIR for consideration by the decision-makers.

Chapter 3 – Revisions to the Draft EIR: This chapter summarizes refinements and text changes made to the Draft EIR in response to comments made on the Draft EIR and/or staff-initiated text changes. Changes to the text of the Draft EIR are shown by either a line through the text that has been deleted, or is underlined where new text has been inserted. The revisions contain clarification, amplification, and corrections that have been identified since publication of the Draft EIR. The text revisions do not result in a change in the analysis and conclusions presented in the Draft EIR.

Chapter 4 – Mitigation Monitoring and Reporting Program: This chapter contains the Mitigation Monitoring and Reporting Program (MMRP) to aid the City in its implementation and monitoring of measures adopted in the EIR, and to comply with the requirements of Public Resources Code Section 21081.6(a).

Appendices: This Final EIR contains two appendices that provide additional clarification for several issues, as requested by several commenters. These additional informational resources do not result in a change in the analysis and conclusions presented in the Draft EIR.

- **Appendix A:** *Alameda City Attorney Memorandum Regarding California Housing Laws, Encinal Terminals Project, and Future Housing Project Decisions.* February 8, 2018.
- **Appendix B:** Economic & Planning Systems, Inc. *Alameda Marina Master Plan Market Assessment.* November 18, 2016.

1.3 Summary of Proposed Project

The project sponsor, Alameda Marina, LLC, is proposing a Master Plan and Density Bonus Application for the redevelopment of Alameda Marina, a new residential and mixed use waterfront community on both land and water. The project would include the following components, which would be constructed on the approximately 44-acre Alameda Marina project site:

1. Approximately 160,000 square feet of non-residential commercial space.
2. Approximately 760 residential units comprised of multifamily units and attached townhomes. For the purposes of this EIR, a maximum of 779 units was also analyzed for environmental impacts.

3. A Transportation Demand Management Program that includes transit passes for all residents and employees, annual surveys of resident and employee travel habits, and annual assessments to fund transportation services.
4. Improvements to existing roads on the site and provision of public access from Clement Avenue at Alameda Marina Drive, Schiller Street, Lafayette Street, Stanford Street, and Willow Street; with Emergency Vehicle Access (EVA) provided from Clement Avenue between Chestnut Street and Stanford Street.
5. Park areas, paths, trails, and shoreline improvements, including new waterfront and Bay Trail Open Space which would provide a new segment of the San Francisco Bay Trail, providing bicycle and pedestrian access throughout the site, with access to public open space on the site, a maritime boardwalk promenade, parks/maritime amenity areas, and open space areas on both sides of the existing graving dock.
6. A Maritime Commercial Core design, to maintain a working waterfront environment, with limited public waterfront access in this portion of the site.
7. Other components, such as the replacement of existing onsite infrastructure with new systems including:
 - Repair or replacement of approximately 4,000 linear feet of seawalls and bulkheads, including the existing graving dock, which would be retained;
 - Flood and sea level rise protection measures with elevated shorelines and/or floodwalls for sea level rise of a minimum height of 36 inches;
 - Stormwater management system updates that incorporate current stormwater treatment measures for water quality standards, with new inlets and pipelines within project site ROWs and with new outfall structures to the Oakland Estuary;
 - New onsite wastewater collection system to include new pipelines within the project site ROWs with connections to existing buildings to be preserved, new buildings and the Marina uses, connecting to the City of Alameda Sewer System which conveys flow to the EBMUD Interceptor trunk main at Clement Avenue;
 - New potable water distribution throughout the project site to provide domestic and fire water supply;
 - Dry utility updates including electric, natural gas, and telecommunications;
 - Marina (water side) infrastructure updates, including plans for ongoing dredging, dock maintenance, potentially some reconfiguration of Pier 1, and maintenance of the existing graving dock.

The project would be developed in up to four phases, with shoreline and land side infrastructure improvements occurring in each phase as necessary. All private and public improvements within the Master Plan area would be consistent with the requirements of the final Master Plan, and with the Alameda Municipal Code.

1.4 Required Jurisdictional Approvals

City of Alameda

Project implementation would require a series of interrelated planning and regulatory approvals by the City of Alameda, as Lead Agency. Specifically, the City is considering taking the following approval actions:

- Certification of the Alameda Marina Project EIR pursuant to CEQA;
- Approval of Master Plan and Planned Development Plan;
- Subdivision Map Approval;
- Approval of Design Review Permits for the design of structures, common areas, and Marina spaces;
- Certificate of Approval for Demolition by the Alameda Historical Advisory Board;
- Other local approvals that may be required, such as:
 - Construction Waste Management Plan (for construction waste),
 - Grading permits,
 - Demolition permits,
 - Encroachment permits,
 - Building permits,
 - Other City approvals as necessary to develop the project, and
 - Lot line adjustments if the Tidelands boundaries are adjusted.

The project would require review and recommendation by the Planning Board to the City Council, followed by consideration and action by the City Council. The EIR is intended to provide the CEQA-required environmental documentation for use in considering these and any other City approvals required to implement the project.

Other Governmental Agency Approvals

As the Lead Agency and as appropriate under CEQA, the City also intends this EIR to serve as the CEQA-required environmental documentation for consideration of this project by other Responsible Agencies and Trustee Agencies which may have limited discretionary authority over development proposals associated with the project. Under the CEQA *Guidelines*, the term “Responsible Agency” includes all public agencies, other than the Lead Agency, which have discretionary approval power over aspects of the project for which the Lead Agency has prepared an EIR (Section 15381); and the term “Trustee Agency” means a state agency having jurisdiction by law over natural resources affected by the project which are held in trust by the people of California (Section 15386).

Responsible Agencies and Trustee Agency approvals for the project may include, but are not limited to, the following:

Local Agencies

- Alameda County Congestion Management Agency review of the traffic analysis is required because the project is expected to result in an increase in peak hour traffic of more than 100 trips.
- Alameda County Environmental Health Department review and permits may be required, if wells or soil borings are required (for environmental cleanup, for example), or if abandoned wells or septic tanks, if any, are proposed to be destroyed during construction.

Regional and State Agencies

- East Bay Municipal Utility District (EBMUD) approvals will be required for water hookups and water lines as well as for sewer hookups and any upgrades to the backbone sewer system. EBMUD review of the project's water needs assessment will also be required.
- San Francisco Bay Conservation and Development Commission (BCDC) approvals will be required for Bay fill and shoreline development within 100 feet of the mean high tide line.
- San Francisco Bay Regional Water Quality Control Board (RWQCB) required approvals will include:
 - National Pollution Discharge Elimination System (NPDES) General Permit for storm water discharges associated with construction activity;
 - Clean Water Act Section 401 Water Quality Certification and Notice of Intent for construction activities;
 - Storm Water Pollution Prevention Plan (SWPPP) for on-site storm water management and pollution prevention; and
 - Lead agency review and oversight over remaining remediation of contaminated soils or groundwater impacting the project site, including approvals related to Remedial Action Plans, Remedial Action Completion Certifications, and No Further Action Letters.
- California State Lands Commission (SLC) for approval of uses within the tidelands leasehold for consistency with the Public Trust and approval of tidelands exchange, if pursued.
- Bay Area Air Quality Management District (BAAQMD) review of project plans may be required.
- California Department of Fish and Wildlife (CDFW): CDFW would review and comment on specific sensitive species aspects of the project if potential effects are found.

Federal Agencies

- U.S. Army Corps of Engineers (USACE) approval of Section 404 Permit under the Federal Clean Water Act for project impacts to jurisdictional waters of the United States resulting from fill in waters of the U.S. and Section 10 of the Rivers and Harbors Act for work in the waters of the United States; for construction of storm drain outfalls or alterations to the shoreline revetment; and as lead for federal Endangered Species Act (ESA) and Essential Fish Habitat (EFH) consultations.

- Dredged Material Management Office (DMMO) – Review of dredging; would include dredged material characterization requirements and a separate permit for dredging (separate from USACE).
- USFWS approval involving a Section 7 Consultation/Biological Opinion may be required under the Federal Endangered Species Act for project impacts to federally-listed special status species or their habitat.
- NOAA Fisheries approval involving a Section 7 Consultation/Biological Opinion may be required under the Federal Endangered Species Act for project impacts to federally-listed special status marine species or their marine habitat.
- U.S. Coast Guard (USCG) approvals may be required under Section 10 of the Federal Rivers and Harbor Act.

1.5 Public Participation and Review

The City of Alameda has complied with all noticing and public review requirements of CEQA. This compliance included notification of all responsible and trustee agencies and interested groups, organizations, and individuals that the Draft EIR was available for review. The following list of actions took place during the preparation, distribution, and review of the Draft EIR:

- On October 27, 2016, the City sent a Notice of Preparation (NOP) to the State Clearinghouse [SCH No. 2016102064], responsible and trustee government agencies, organizations, and individuals potentially interested in the project. The NOP requested that agencies with regulatory authority over any aspect of the project describe that authority and identify relevant environmental issues that should be addressed in the EIR. Interested members of the public were also invited to comment. A scoping meeting was held on November 14, 2016.
- Based on input from the public, and following consultation with the City, a revised Master Plan was submitted in May, 2017, and a revised NOP was released on July 13, 2017. The revised NOP was distributed to the State Clearinghouse and interested parties in an identical manner as outlined above.
- On December 27, 2017, a Notice of Completion (NOC) was filed with the State Clearinghouse to announce the availability of the Draft EIR. Copies of the Draft EIR were distributed to the Clearinghouse and interested agencies following the requirements of CEQA Guidelines Sections 15085 and 15206. Notices of the Draft EIR's availability were also distributed to interested agencies, organizations, and individuals using the same distribution process as outlined above. An announcement was also posted in a newspaper of general circulation. The Draft EIR was also published on the City's website and filed at the County Clerk's office. The 45-day public comment period began on December 27, 2017, and ended on February 15, 2018.
- On February 12, 2018, a hearing and listening session was held before the City of Alameda Planning Board to solicit public comment.

1.6 List of Commenters

The City received 15 comment letters during the comment period on the Draft EIR for the proposed project, and also received verbal public comments from the public during a City Planning Board hearing held on February 12, 2018. The table below indicates the numerical

designation for each comment letter, the author of the comment letter, and the date of the comment letter. Letters are grouped by agencies, organizations, and individuals, but are otherwise presented in the order in which they were received.

COMMENT LETTERS CONCERNING THE ALAMEDA MARINA MASTER PLAN DRAFT EIR

Letter #	Entity	Author(s) of Comment Letter/e-mail	Date Received
Agencies			
1	East Bay Municipal Utility District (EBMUD)	David J. Rehnstrom, Manager of Water Distribution Planning	January 26, 2018
2	California Department of Fish and Wildlife (CDFW)	Arn Aarreberg, Environmental Scientist	February 5, 2018
3	Alameda County Transportation Commission (ACTC)	Saravana Suthanthira, Principal Transportation Planner	February 15, 2018
Organizations			
4	Pacific Gas and Electric Company (PG&E)	Plan Review Team	February 5, 2018
5	Alameda Citizens Task Force (ACT)	Paul S. Foreman, Board Member	February 7, 2018
6	Alameda Architectural Preservation Society	Christopher Buckley, President	February 15, 2018
7	Island Yacht Club	Chris Nicholas, Commodore	February 15, 2018
8	Save Alameda's Working Waterfront (SAWW)	Author not specified	February 15, 2018
Individuals			
9		Alan Teague	February 12, 2018
10		Amelia Rose	February 12, 2018
11		Charles Olson	February 15, 2018
12		Nancy Hird	February 15, 2018
13		Rachel Mansfield-Howlett	February 15, 2018
14		William J. Smith	February 15, 2018
15		Eugenie P. Thompson	February 15, 2018
Public Hearings			
16	Planning Board Hearing	Multiple commenters	February 12, 2018

This page intentionally left blank

CHAPTER 2

Comments and Responses

2.1 Introduction

This section contains the comment letters that were received on the Draft EIR. Following each comment letter is a response by the City intended to supplement, clarify, or amend information provided in the Draft EIR or refer the reader to the appropriate place in the document where the requested information can be found. Comments that are not directly related to environmental issues may be discussed or noted for the record. Where text changes in the Draft EIR are warranted based upon the comments, those changes are discussed in the response to comments and also included in Chapter 3, *Text Changes to the Draft EIR*.

2.2 Master Responses

This section presents responses to environmental issues raised in multiple comments. Rather than responding individually, master responses have been developed to address such comments comprehensively and these master responses are organized per topic in this section. The Master Response number is then identified in the individual response to comment so that reviewers can readily locate all relevant information pertaining to the following issues of concern.

Master Response 1: MX and MF Zoning Ordinances, General Plan Consistency, and Regional Housing Needs Allocation

Several comments raised concerns over the level of density proposed under the Master Plan and the Master Plan's consistency with the General Plan.

Generally, the density of a development project is not considered to be a California Environmental Quality Act (CEQA) issue. However, because some commenters have suggested that two significant and unavoidable traffic impacts identified in the Draft EIR might be eliminated if the City had correctly calculated the project's permissible residential density under state and local law and that the density calculation made by the City is inconsistent with the City's General Plan, the following discussion is provided for informational purposes to assist the public and decision-makers in evaluating this issue.

The City determined the maximum allowable density for the Alameda Marina Master Plan based upon Alameda's General Plan, Alameda Municipal Code (AMC) zoning regulations, including AMC Section 30-17 Affordable Housing Density Bonus, State Density Bonus Law (Government

Code §§ 65915-65918) and the size and current zoning designations of the applicant's property. A number of comments were submitted concerning the number of residential units allowed under the Mixed Use (MX) and Multifamily Housing (MF) designations and the number of additional units allowed under the State Density Bonus Law. Some commenters have asserted that the density bonus should be based upon the “net residential land” available at the project site by deducting the acreage of that portion of the site that is planned to be used for streets, parks, commercial or other non-residential uses. The City Attorney has issued a legal opinion concerning this issue, and has prepared a memorandum for use by the City Council and other City entities to assist them in determining the City’s obligations under the law. That memorandum is attached to this Final EIR as Appendix A (Memorandum Regarding California Housing Laws, Encinal Terminals Project, and Future Housing Project Decisions dated February 8, 2018), and is incorporated by reference. Although the City Attorney memorandum focuses in part specifically on the Encinal Terminals Project, its analysis and conclusions are also applicable to Alameda Marina as both properties are zoned MX/MF.

Zoning

The proposed project has a base density of 30 units per acre. The project site’s zoning designation under the zoning ordinance is MX, with a MF overlay. Between the two zoning designations, MF is controlling for proposed residential use pursuant to AMC 30-4.23(b)(1), which states, “Proposed residential use within the MF district shall comply with the provisions of the MF District, the provisions of the underlying zoning district and all other provisions of the Alameda Municipal Code. In the event of a conflict between the provisions of the MF Combining District and the provisions of the underlying district or the Alameda Municipal Code or Alameda City Charter Article 26, the provisions of the MF District shall govern.”

The MX zoning designation permits the density of residential development to be one dwelling unit per 2,000 square feet of lot area for land designated on the Master Plan for residential use [AMC 30-4.20(e)]. However, the maximum permitted residential density under the MF overlay zoning designation is 30 units per acre, which is greater than the permitted residential density under the MX zoning [AMC 30-4.23(e)]. Additionally, while the MX zoning designation indicates that density should be calculated based on the portion of a project site designated for residential use on a Master Plan, the MF zoning designation contains no such limitation. The MF zoning designation, which permits the higher residential density, and which does not restrict the calculation of residential density to a portion of a site designated on the Master Plan for residential use, is thus in conflict with the underlying MX district, and therefore governs the permitted residential density for the project site per the requirements of the Alameda Municipal Code. Assertions that there is no conflict between the two zoning districts ignore the express language contained in AMC 30-4.23(b)(1), and the maximum residential densities permitted under the MX and MF designations.

General Plan Housing Element and Land Use Element Consistency

Contrary to the assertions of some commenters, there is no inconsistency between the City’s Housing Element and the Land Use Element with regards to the proposed residential density allowed in the Alameda Marina Master Plan. The goals and policies cited by some of the

commenters ignore the fact that the Alameda Marina project site has a General Plan land use designation of Specified Mixed Use, which does not specify residential density, unlike other areas of Alameda that are given the land use designation of Residential under the General Plan. Accordingly, this situation does not fit within the concept that “[a] document that, on its face, displays substantial contradictions and inconsistencies cannot serve as an effective plan because those subject to the plan cannot tell what it says should happen or not happen” [see *Concerned Citizens of Calaveras County v. Board of Supervisors* (1985) 166 Cal. App. 3d 90, 97]. The City’s General Plan is clear as to the goals and policies it seeks to promote under both the Housing Element and the Land Use Element for the Alameda Marina site and adjacent Northern Waterfront sites.

The Alameda Marina Master Plan is also consistent with the City’s General Plan Land Use Element. Pursuant to the City’s Land Use Element, the Alameda Marina Master Plan site has a General Plan designation of Specified Mixed Use, ‘MU4 Northern Waterfront, Grand Street to Willow Street;’ it does not have a land use designation of Residential as suggested by some commenters. The guiding and implementing policies in the Land Use Element provide flexibility for land uses and residential density in Specified Mixed Use areas. For example, Implementing Policy 2.4k in the Land Use Element for residential areas states, “Include a specified minimum number of residential units in appropriate Specified Mixed Use areas. *This policy ensures that housing will be included in mixed-use development proposals. Other uses also could be required or some Specified Mixed Use areas could be developed exclusively for housing at the discretion of the developer. See Section 2.6.*” (Emphasis in original). Section 2.6 provides that the purposes of the Specified Mixed Use classification are to stimulate economic development, encourage creativity, provide flexibility, and avoid monotony in development of large sites. The guiding policies in Section 2.6 of the Land Use Element set broad limits to the use mix for each mixed use area and establish a minimum required housing component where appropriate.

Housing Element, Regional Housing Needs Allowance and “Realistic Capacity”

Some comments incorrectly assert that the project site is limited to the “realistic capacity” stated in the Housing Element of Alameda’s General Plan. In fact, and as noted in the City Attorney’s memorandum, the “realistic capacity” and the suggested ratios for development are not established or required by state law, but were included at the California Department of Housing and Community Development (HCD)’s direction as a precondition to certifying the City’s Housing Element. (See City Attorney’s memorandum, page 5.) The “realistic capacity” identified for the Alameda Marina (Site #4a and 4b) in the City’s Housing Element is not a limitation on the number of units permitted on the site.

State law requires Alameda to adopt a Housing Element as a component of the City’s General Plan to demonstrate it has adequate sites available to accommodate the City’s Regional Housing Needs Allocation (RHNA) for lower income, moderate income, and above moderate income households. A Housing Element must include an inventory of land or list of sites that includes the number of housing units that can be accommodated on the sites given zoning and other constraints. HCD is responsible for reviewing every Housing Element to determine its compliance with State law, and HCD’s approval is required before a local government can adopt

its Housing Element as part of its overall General Plan. As part of HCD's review of both the 2007-2014 draft Alameda Housing Element and the 2015-2023 draft Alameda Housing Element, HCD directed Alameda to use different ratios depending on zoning to determine a "realistic capacity" for each site included in the land inventory, as typical mixed-use projects in the Bay Area include a residential component. Based on the City and HCD's evaluation of current development standards, the City assumed a 60 percent realistic unit capacity for mixed-use sites, and a 90 percent realistic unit capacity for sites solely devoted to residential uses. However, the percentage ratios provided for the realistic unit capacity are not mandated by State law, and are merely HCD's estimate of how much land would be needed to accommodate buildout of Alameda's full RHNA.

The City's Housing Element identifies the Alameda Marina project site as vacant and/or underutilized, and thus available to help meet the City's RHNA. The realistic capacity identified for Alameda Marina (Site #4a and 4b) is 396 units. This calculation is based on the estimated total acreage of the site, approximately 22 acres, multiplied by a density of 30 units per acre, yielding a potential total of 660 units. Sixty percent of 660 units results in a "realistic capacity" of 396 units, which should be taken as a floor for development for the Alameda Marina project site, with an upward base density capacity of approximately 660 units prior to any density bonus calculation.

City Charter and the Housing Accountability Act

Charter cities are subject to state law preemption on matters of statewide concern. Some commenters have incorrectly cited *Domar Electric, Inc. v. City of Los Angeles* (1994) 9 Cal.App.4th 161 for the general proposition that "any act that is violative or not in compliance with the charter is void," however, the particular facts of the case relate to competitive bidding and that particular city's relevant charter provisions, and are inapplicable to the Alameda Marina Master Plan. In this instance, the plain language of the State's Housing Accountability Act (HAA) applies to charter cities because the Legislature has found that the shortage of housing in California is of statewide concern [Government Code § 65589.5(g)]. As such, the HAA applies to all housing development projects, whether affordable, market rate, or mixed use, where at least two-thirds of the square footage is designated for residential use. The HAA protects housing development projects that comply with all applicable objective General Plan, zoning, and subdivision standards and criteria, unless the local agency can make specific written findings supported by a preponderance of the evidence on the record that the following two conditions exist: (1) the housing development project would have a specific, adverse impact upon the public health or safety unless the project is disapproved or approved upon the condition that the project be developed at a lower density; and (2) there is no feasible method to satisfactorily mitigate or avoid the adverse impact identified other than the disapproval of the housing development project or the approval of the project upon the condition that it be developed at a lower density [Government Code § 65589.5(j)(1)(A) and (B)].

The Alameda Marina Master Plan qualifies as this type of housing development project because it complies with all objective general plan, zoning, and subdivision standards and criteria, such as numerical setbacks, height limits, universal design requirements, lot coverage, and parking

requirements. At least two-thirds of the square footage for the Alameda Marina Master Plan will be designated for residential use.

The HAA's standards apply to the Alameda Marina Master Plan and restrict Alameda's ability to deny, reduce the density of, or make infeasible a project when it is consistent with objective development standards, putting the burden of proof on the City to justify any action to deny, reduce the density of, or make such a housing project infeasible [Government Code § 65589.5(j)(1)]. The Alameda Marina Master Plan is thus entitled to the density allowed by the zoning and the General Plan unless the City makes a finding that the full density proposed would result in a specific, adverse impact on public health and safety that cannot be mitigated unless the housing project is denied or the density is reduced. In order to make such a finding, the City would have to point to an objective, identified written public health or safety standard, policy, or condition as existed on the date the application was deemed complete. Inconvenience resulting from lack of parking, traffic congestion, or longer wait times are not public health or safety impacts, nor are any of the other objections that have been raised by commenters.

State Density Bonus Law

The project sponsor has submitted a density bonus application for a 20 percent density bonus pursuant to the requirements of the City's local ordinance, AMC Section 30-17, which was adopted in compliance with the State Density Bonus Law. The requirements of the State's Density Bonus Law thus apply to the Alameda Marina Master Plan. As discussed in the City Attorney's memorandum and below, the "net residential land" interpretation being presented by the commenters is in conflict with the State Density Bonus Law because the law requires that density be calculated based upon the total acreage that is zoned residential, i.e. gross residential density.

If a developer agrees to build a certain percentage of affordable housing that meets statutory criteria, the State Density Bonus Law requires a jurisdiction to permit the construction of additional residential units for a project and to allow other regulatory incentives and additional concessions for a project, if requested by the developer. The law was amended in 2016 to explicitly state that the law must be interpreted liberally to produce the maximum number of housing units [Government Code § 65915(r)]. The amendments also clarified that each component of any density bonus calculation resulting in a fractional unit must be rounded up to the next highest whole number, including the base density, the number of bonus units, and the number of units necessary to qualify for a density bonus [Government Code § 65915(q)].

As defined in the State Density Bonus Law, "density bonus" means "a density increase over otherwise maximum allowable *gross* residential density as of the *date of application* to the city, county, or city and county, or, if elected by the applicant, a lesser percentage of density increase, including, but not limited to, no increase in density" [Government Code § 65915(f) (emphasis added)]. For density bonus projects that provide on-site affordable housing, base density is thus based on "gross residential density" (i.e., the entire site, including those portions of the site that might otherwise be netted out because of development constraints). This means that for the purposes of the density bonus calculation, the site acreage should not be reduced to account for

open space, topography, streets, or other non-buildable features. As stated in the City Attorney's memorandum, the law's use of the term "gross" when describing residential density in Section 65915(f) reflects the Legislature's intent that the entirety of the site be utilized in calculating the base density for density bonus projects that provide on-site affordable housing.

The "maximum allowable residential density" means the density allowed under the zoning ordinance and land use element of the general plan [Government Code § 65915(o)(2)]. In the land use element of Alameda's General Plan, the Alameda Marina Master Plan site has a General Plan designation of "Specified Mixed Use, MU4 Northern Waterfront, Grand Street to Willow Street." The land use element does not provide a range of residential densities for MU4 Northern Waterfront. As such, the maximum residential density allowed can be found in the City's zoning ordinance for the site. As discussed above, sites with the MF overlay zoning designation have a maximum residential density of 30 units to the acre as the base density, which can be increased from 36 to 41 units per acre with a density bonus of 20 percent to 35 percent, depending on the number of affordable units being proposed.

In the case of the Alameda Marina Master Plan, the gross residential density is based on the MX/MF zoned portion of the property, which is 21.62 acres. The MX/MF designation allows for a base density of 30 units per acre, which would yield a total allowable residential density of 649 units for that portion of the property. Based on the number of affordable units being proposed, the project developer has applied for a 20 percent density bonus, which would provide for an additional 130 units, for a total of 779 residential units at the property. This is the number of units presented in the Project Description on page 3-14 of the EIR. As provided above, the proposed residential density on the Alameda Marina Master Plan project site is in compliance with the requirements of State law, as well as the requirements of the City's General Plan and the Alameda Municipal Codes zoning regulations. Assertions otherwise are incorrect.

Master Response 2: Affordable Housing

Some commenters indicated that the project should develop more affordable housing units or suggested that the Draft EIR must also analyze the impact of displacement on low-wage workers, but these comments do not present any environmental issues that have not been adequately addressed in the Draft EIR.

Generally, affordability of housing is an economic and social effect that is not treated as a significant effect on the environment under CEQA (see CEQA Guidelines Section 15131). Evidence of social or economic impacts that do not contribute to, or are not caused by, physical impacts on the environment are beyond the scope of CEQA [see Public Resources Code Section 21082.2(c) and CEQA Guidelines Section 15384]. No evidence has been provided by any commenter relating to displacement of low-wage workers leading to physical environmental impacts. Indeed, the purpose of CEQA is to analyze a project's impacts on the environment of persons in general, not whether particular persons will be adversely affected [see *Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4th 477]. Potential effects on property values need not be analyzed under CEQA, no matter how potentially severe [see

Porterville Citizens for Responsible Hillside Development v. City of Porterville (2007) 157 Cal. App. 4th 885, 903]. Pressure on housing prices from the development of new market-rate units therefore does not need to be analyzed as part of the CEQA process.

The project would provide 103 affordable housing units, which is in excess of what is required by the City. Many other residential units would be small in size and “affordable by design.” Overall, units would range from studios to 4-bedrooms containing between approximately 700 to 2,300 square feet. There is a substantial market for these housing types, and the project would assist the City in meeting the region-wide shortage of housing for families of varying income levels.

Comments suggesting that work force market rate units are not affordable or that the low-income houseboat community is threatened by the proposed project merely represent the opinions of the commenters and do not raise any environmental issues. No further analysis is required.

One commenter expressed support for a so-called Affordable Housing and Preservation Alternative that would preserve more historic buildings by constructing 528 market rate units and 528 affordable units in 4-8 story buildings located on the easternmost 10 acres of the project site. As required by CEQA, the Draft EIR provided an analysis of a range of reasonable alternatives to the proposed project. A lead agency is not required to consider every project alternative proposed by members of the public or project opponents [CEQA Guidelines Section 15126.6; see also *Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4th 477 (EIR need not consider in detail every conceivable variation of alternative stated)]. Nonetheless, the proposed alternative, while likely reducing somewhat the significant and unavoidable impacts on historical resources, would not fully eliminate the impact on historic resources or on tribal cultural resources and would likely exacerbate significant and unavoidable transportation and circulation impacts because of the nearly 300 additional units on the site. In addition, the soil conditions in portions of the eastern area of the site make 8-story construction problematic. For a more complete discussion of this constraint, please see response to comment 14-1, below. Per CEQA, the Draft EIR does not choose an alternative; it simply evaluates the alternatives. It is the City Council’s decision whether to choose the proposed project or a proposed alternative.

In summary, the various comments provided with respect to affordable housing do not alter the conclusions of the Draft EIR, nor do the comments present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

Master Response 3: Feasibility of Alternatives

Numerous commenters presented their views concerning project alternatives, particularly with respect to the feasibility of the alternatives evaluated in the Draft EIR and other alternatives put forth by the commenters. This master response is divided into various subheadings, each of which respond to the major themes as presented in the comments.

CEQA requires that an EIR describe a range of reasonable alternatives to the proposed project, or to its location, that would feasibly obtain most of the project’s basic objectives while reducing or avoiding any of significant effects of the project, and to describe the comparative merits of the

alternatives as compared to the project. CEQA Guidelines Section 15126.6(a). The term “feasible” is defined in Public Resources Code Section 21061.1 as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.” CEQA Guidelines Section 15364 also adds legal factors to be taken into account when determining feasibility. The discussion of the alternatives should also include sufficient information about each alternative to allow evaluation, analysis, and comparison with the proposed project. CEQA Guidelines Section 15126.6(d). Per CEQA, the Draft EIR does not choose an alternative; it simply evaluates the alternatives. It is the City Council’s decision whether to choose the proposed project or an alternative.

The Alameda Marina Master Plan EIR adequately describes a range of reasonable alternatives to the project. As discussed in Chapter 5 of the Draft EIR, these include Alternative 1: Preservation Alternative, Alternative 2: Extensive Adapted Reuse Alternative, Alternative 3: Reduced Project Alternative and Alternative 4: No Project Alternative. The EIR need not analyze every possible alternative; the lead agency need only identify suitable alternatives that meet the threshold criteria of reducing significant environmental impacts, attaining most of the basic project objectives, are potentially feasible, and are reasonable and realistic. Candidate alternatives that do not satisfy all four criteria may be excluded from the EIR. CEQA Guidelines Section 15126.6(c).

Contrary to the assertions of several commenters, the project sponsor has never indicated that the only reason for the proposed project is “to pay for the bulkhead repair and/or replacement.” While developing an economically sustainable and financially sound development that can fund the construction of public facilities and services is one of the project objectives, it is not the only one. As presented in Section 2.4, Project Objectives, of the Draft EIR, the project has thirteen project objectives, of which three touch on the need for infrastructure upgrades and one addresses economically sustainable development. This latter objective simply mirrors one of the City’s objectives for the Northern Waterfront General Plan amendment and reflects the reality that the City lacks sufficient resources to repair its aging shoreline infrastructure. Other project objectives include providing housing to fulfill the goals of the City’s Housing Element and to meet the City’s RHNA, providing different options of housing that meet the needs of a wide demographic, developing a mixed-use project that includes a mix of compatible uses at the site, and fulfilling the project sponsor's obligations under the Tidelands Lease, amongst others.

Feasibility of Off-Site Land Swaps

Some commenters present the option of a “land swap” between Alameda Point, which is owned by the City, and the fee simple portion owned by the project sponsor at Alameda Marina. This proposed alternative ignores the proposed project’s underlying purpose to create a mixed-use development at the Alameda Marina project site that maintains a maritime focus and to integrate existing uses with new opportunities to provide employment, residents, and recreation for current and future residents of the City as stated in Section 2.4, Project Objectives, of the Draft EIR. An alternative that analyzes the impact of developing a property located elsewhere has no relevance as to the decisions that must be made about the Alameda Marina project site. Such an off-site alternative would not achieve the proposed project’s fundamental goal of developing the Alameda

Marina project site for its best use. *See City of Long Beach v. Los Angeles Unified Sch. Dist.* (2009) 176 Cal.App.4th 889 (upholding exclusion of alternative sites that would not provide suitable location for new school); *Concerned Citizens of S. Cent. L.A. v. Los Angeles Unified Sch. Dist.* (1994) 24 Cal.App.4th 826 (upholding agency determination that alternative sites beyond those discussed in the EIR were not large enough to serve as suitable school site). In addition, the “land swap” proposal also ignores the necessity of obtaining the cooperation of the underlying fee owner for Alameda Point. Any potential land swap would require four affirmative votes from the City Council so its likelihood is very uncertain. See CEQA Guidelines Section 15126.6(f)(3) (“An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.”). A “land swap” is therefore excluded as a proposed alternative as infeasible because the project sponsor does not control the land of Alameda Point. This proposed alternative also precludes the project sponsor from meeting several of its project objectives, including developing a mixed-use project and fulfilling its obligations under the Tidelands and Marina Lease, which requires the project sponsor to develop a higher value project at the Alameda Marina site.

Physical Feasibility of Alternatives

Other comments relate to building high value market rate homes or apartment buildings around the graving dock and eastern edge of the Alameda Marina project site, or shifting the location of potential residential housing types around the project site to either preserve or rehabilitate some of the existing historic buildings in order to expand a full service boatyard. However, these proposed alternatives were not considered because of various environmental and economic factors that render such proposals infeasible. For example, the underlying soil conditions of Building 12, as described on page 4.6-6 of the Draft EIR, show lead at concentrations in excess of 100 milligrams per kilogram in all samples, and PCE to be present, which raises the question of PCE origin and would lead to substantial costs in rehabilitating Building 12 and removing contamination from underneath its foundation. Other existing buildings, like Buildings 33 and 34, are located on lands subject to the public trust, which must be reserved for uses related to commerce, navigations and fisheries, and cannot be used for the suggested purpose of high value housing units. Any such proposal for the rehabilitation and development of Buildings 33 and 34 would have to involve an exchange of tidelands area with the State Lands Commission, and the success of a tidelands exchange is unknown because the project sponsor does not have control over the agency’s decision.

Proposals for building higher density housing or more housing units beyond the 779 housing units proposed were also deemed infeasible. Developing higher density housing would result in a reduction of space available to be used for open space purposes or to provide access to the shoreline, in conflict with stated policies and requirements from the City and the San Francisco Bay Conservation and Development Commission. The project sponsor has examined the general soils condition for the eastern side of the Alameda Marina project site, which consists mainly of artificial fill overlying bay mud. These soils place limitations on the type of construction that can be built. The soils cannot support taller and correspondingly heavier buildings with more floors and more units without specialized construction techniques, which would substantially increase the cost of construction. Any suggestion to build additional housing units, above the analyzed

number of 779 housing units in the Draft EIR, would also increase identified significant and unavoidable impacts to traffic and circulation.

Feasibility of Larger Boatyard

Numerous comments have also suggested that the proposed boatyard contained in the Alameda Marina Master Plan should be expanded. As part of its application for approval of the Alameda Marina Master Plan by the City Council, the project sponsor submitted a market analysis conducted by Economic & Planning Systems, Inc. (EPS) of the proposed uses of the Alameda Marina property, which included a thorough analysis of trends in the maritime economy located across waterfront sites in the City. That market analysis is attached to this Final EIR as Appendix B (Economic & Planning Systems, Inc., Alameda Marina Master Plan Market Assessment, November 18, 2016). EPS found that in many case studies located in and around the City, maritime location and/or the presence of some maritime activity had little effect on the overall business mix and market performance of the surrounding real estate, and there was little evidence of notable increasing maritime economic activity. For example, Svendsen's Boat Works was acquired by Bay Ship & Yacht in 2017, and since then, Bay Ship & Yacht announced plans to move the former Svendsen's uses to Bay Ship & Yacht's boatyard located in the City of Richmond. The project sponsor would also have to locate a proposed operator for the boatyard. Despite the challenges related to developing the City's maritime economy, the project sponsor has allocated approximately 250,000 gross square feet (gsf) for maritime and commercial uses, which includes the anticipated amount of space necessary for any proposed boatyard. The proposed project would rearrange the uses on the existing project site into a more efficient footprint for maritime and commercial uses as described on pages 3-11 to 3-14 of the Draft EIR, such that approximately 7.98 acres of the landside portion of the project site would be dedicated to such uses, including approximately 57,500 gsf for the boatyard (20,000 gsf for the boatyard building, 24,000 gsf for the boatyard land area, and 13,500 gsf for the boatyard water area). About 17.10 acres of the site would continue to be dedicated to marina operations. An expanded boatyard would also not meet the project's objectives of providing housing of various types to fulfill the City's Housing Element goals and RHNA, provide various options for housing for a wide demographic, and lessens the ability of the project to create better and new open space and recreational areas for the Bay Trail.

Feasibility of Reduced Residential Density

Any alternative that is similar to the Reduced Project Alternative, which would provide approximately 180 units of housing, would not meet the project's objective to fulfill the goals of the City's Housing Element and meet the City's RHNA for the site. As discussed above in Master Response 1, the State's Housing Accountability Act (HAA) applies to the Alameda Marina Master Plan and restricts the City's ability to deny, reduce the density of, or make infeasible the project when it is consistent with objective development standards, putting the burden of proof on the City to justify any action to deny, reduce the density of, or make such a housing project infeasible. Government Code § 65589.5(j)(1). The project sponsor has proposed to include the maximum residential density allowed by the City's zoning ordinance and the General Plan in order to comply with the stated policies and goals of the HAA, and to address the social factors relating to California's housing crisis. The HAA prevents the City's Planning Board and City

Council from reducing the density of the project unless the City is able to make a finding that the proposed project would result in a specific, adverse impact on public health and safety that cannot be mitigated in any other way. A project with reduced residential density would thus be legally and socially infeasible. *See Sequoyah Hills Homeowners Ass'n v. City of Oakland* (1993) 23 Cal.App.4th 704 (reduced density alternative for housing project infeasible because no finding of adverse impact on health and safety could be made under Government Code § 65589.5(j)).

Furthermore, the City's funding capabilities and ability to obtain loans or grants are not relevant in analyzing the feasibility of the chosen alternatives.

Feasibility of the Preservation Alternative

As discussed on pages 5-7 to 5-9 of the Draft EIR, and in Table 5-13 of the Draft EIR, the Preservation Alternative's ability to meet the project objectives are marginally better than the No Project Alternative, but are much less than the proposed project. The proposed project would provide up to 779 housing units as compared to the Preservation Alternative's 475 housing units, and as such, it is axiomatic that by providing more housing units, there will be more capital generated for shoreline and infrastructure rehabilitation work. However, it is not the only goal of the proposed project to fund the marina's needed shoreline infrastructure improvements, but also to support the City's RHNA goals and its General Plan Housing Element goals and policies and to meet the project sponsor's obligations under the Tidelands Lease. As discussed above in Master Response 1 and in this Master Response 3 regarding the feasibility of a project with reduced residential density, the HAA limits an agency's ability to reduce the density of a proposed project absent a finding of specific, adverse impacts to public health and safety [Government Code § 65589.5(j)]. The Preservation Alternative would therefore be unable to meet any of the project objectives related to housing.

One commenter incorrectly asserts that "approval of the demolition violates CEQA unless alternatives to demolition are infeasible." CEQA does not guarantee that agency decisions that may adversely affect historical resources will always favor historical preservation against potential demolition. *See Foundation for San Francisco's Architectural Heritage v. City & County of San Francisco* (1980) 106 Cal.App.3d 893, 913 (upholding agency's determination that EIR's preservation alternatives for building listed in national Register of Historic Places and listed as state historic landmark were infeasible due to many factors including the difficulty and cost of rehabilitating the existing building under the alternatives); *Dusek v. Redevelopment Agency of the City of Anaheim* (1985) 173 Cal.App.3d 1029 (CEQA does not require the retention of old buildings solely in the name of historical preservation and the redevelopment agency properly found that demolition of a historic building fostered its goal of redevelopment of the site). The Draft EIR has adequately analyzed the implementation of the project and its impacts on the significance of the historic resources located on the project site, and identifies feasible mitigation measures and alternatives to demolition of historic resources.

The Preservation Alternative would also prohibit the development of an aesthetically pleasing, cohesive and pedestrian-oriented development that would activate and reconnect the community to the waterfront because more than half the project site would have to retain its historic

commercial and industrial configuration. Existing spacing between the buildings, the size of the streets, and the orientation of the buildings do not allow the opportunity to create public amenities and opportunities for gathering spaces, or else allow for the development of new open space areas for the public to access the shoreline edge. The Preservation Alternative would therefore be unable to meet the project objective of fulfilling the project sponsor's obligations under the Tidelands Lease, which requires the development of a new higher-value project, and expressly allows for the demolition of potentially all existing improvements on the project site.

Other Proposed Alternatives from Commenters

As stated above, the Draft EIR does not need to consider every conceivable alternative to a project, but it does require that the lead agency consider a reasonable range of alternatives. CEQA Guidelines Section 15126.6; *see also Mira Mar Mobile Community v City of Oceanside* (2004) 119 Cal.App.4th 477 (EIR need not consider in detail every conceivable variation of alternative stated). The range of alternatives is governed by the "rule of reason", which only requires that an analysis of alternatives is necessary to permit a reasoned choice. The lead agency's duty to consider alternatives is not conditioned on project opponents demonstrating that other feasible alternatives exist. *Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 405. While some of the comments have proposed suggestions relating to a larger boatyard, more affordable housing units, preservation of certain buildings, or other reconfigurations of the project site, CEQA also does not require that the lead agency study specific alternatives that are suggested by other members of the public or other agencies. *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 234 Cal.4th 214, 256. Some comments merely assert the commenter's opinion on how the project should be developed and do not present any environmental issues that have not otherwise been adequately addressed by the Draft EIR. Other comments merely solicit that financial information or a detailed economic analysis needs to be presented in the Draft EIR, but conflate the fact that feasibility of alternatives is considered at two stages in the process: once when selecting alternatives to be included in the EIR, and once at the project approval stage when an agency's decisionmakers weigh the relative advantages or disadvantages of the project and the proposed alternatives in the EIR. Such comments ignore that an EIR is an informational environmental report, and as such need not contain analysis or ultimate conclusions as to the economic feasibility of the project or alternatives. *See Flanders Found. v. City of Carmel-by-the-Sea* (2012) 202 Cal.App.4th 603, 618 (holding that evidence of economic infeasibility does not need to be presented in the EIR itself, and can be in the supporting administrative record); *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656, 689 ("As is self-evident from its name, an EIR is an *environmental* impact report. As such, it is an informational document, not one that must include ultimate determinations of economic feasibility." (emphasis in original)).

While more alternatives can always be proposed in comments, this Master Response adequately addresses why certain alternatives were rejected because they did not satisfy project objectives, did not offer substantial environmental advantages, or were otherwise infeasible given economic, environmental, legal or other factors involved.

Master Response 4: Impacts to Historic Resources

A number of comments were received concerning impacts to historic structures on the site.

Several commenters asserted that proposed modifications to the interior of Building 19 and other historic buildings on the project site would constitute a significant impact under CEQA that was not disclosed in the Draft EIR. In response, commenters are referred to *Martin III v. City and County of San Francisco* (135 Cal.App.4th 392). As found in the court's opinion, modifications to the *interior* of a privately-owned structure are not subject to review under CEQA, even when the structure is listed as a landmark or is located within a designated historic district. Building 19, along with every other structure on the Alameda Marina site, is privately owned. The court also found that a local jurisdiction has no discretion to deny a permit to renovate the interior of a privately-owned structure when the plans comply with the jurisdiction's applicable building codes and zoning ordinances, so long as those interior modifications would not affect surrounding properties or residents. Since renovations to a privately-owned building's interior are not subject to CEQA, it thus follows that such renovations do not constitute an impact under CEQA.

This City's Historic Advisory Board Resolution No. HAB-17-07, which designated the Alameda Marina Historic District, did not address the interiors of any of the 17 contributing buildings to the District, including Building 19. It is also worth noting that even if interior modification to Building 19 do not meet the Secretary of the Interior's Standards, it does not necessarily mean that the building would not be eligible for the National Register, since the standards with respect to interiors are much more liberal than they are for exteriors, and allow for a greater degree of modification. Therefore, the assertions by commenters that any interior modifications to the structure would render it ineligible for listing is purely speculative, and is not supported by any evidence to demonstrate that it is not.

While the project's effects on the interiors of historic structures are not an impact under CEQA, effects to the *exteriors* of historic structures can be considered an impact under CEQA, since a building's exterior is viewable by the public, and is therefore an impact on the environment. As stated on page 4.4-17 of the Draft EIR, the impacts to Buildings 16, 19, and 27 would be less than significant, since the project applicant has committed to rehabilitating the exteriors of those structures to the Secretary of Interior's Standards [see CEQA Guidelines Section 15064.5(b)(3)]. However, the project's impact to some historic contributing buildings and the potential historic district would be significant and unavoidable, since many of the existing structures on the site would be demolished as part of the project's implementation, and the proposed location, arrangement, and design of the new buildings would not be consistent with the character-defining features of a shipbuilding and commercial maritime cultural landscape site (land uses, industrial activity, and the spatial and organizational relationships between buildings on the site during World War II), and there is no feasible mitigation available that would adequately lessen those effects below applicable significance thresholds. These findings were all disclosed in the Draft EIR under Impact CUL-1. Therefore, the findings of the Draft EIR are valid, and the commenters have not provided any additional or new information that would change those findings. For

purposes of clarification, updated information has been added to Chapter 3 of this Final EIR. Specifically, Page 4.4-16, Impact CUL-1, is revised to read:

Impact CUL-1: Project implementation would cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines, Section 15064.5. (*Significant and Unavoidable, with Mitigation*)

CEQA Guidelines Section 15064.5 requires the lead agency to consider the effects of a project on historical resources. A historical resource is defined as any building, structure, site, or object listed in or determined to be eligible for listing in the California Register, or determined by a lead agency to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, or cultural annals of California based upon substantial evidence.

Though the property as a whole appears ineligible for listing in the California Register due to loss of integrity, there are three buildings that appear individually eligible for the California Register under Criteria 1 and 3, including Buildings 16, 19, and 27. These three buildings are recommended as historical resources under Section 15064.5(a) of CEQA (Verplanck, 2017). Also, Buildings 1, 4, 6, 12, 15, 16, 17, 19, 21, 22, 27, 28, 29, 31, 32, 33, 34, and the graving dock are included as contributing buildings/structures to the locally designated Alameda Marina Historic District.

The project includes the demolition of 26 of the 37 buildings in the project area. Of the 17 buildings and one structure in the Alameda Marina Historic District, 11 would be demolished (Buildings 1, 4, 6, 12, 22, 28, 29, 31, 32, 33, and 34). Buildings 13, 14, 16, 17, 18, 19, 21, 25, 26, and 27 would remain. All three individually eligible buildings (16, 19, and 27) would be retained and rehabilitated, as needed, as part of the adaptive reuse of the structures. The demolition of many of the District's contributing buildings, which have been determined to be historical resources, and the construction of new residential and/or commercial buildings within the District boundaries is considered a significant impact under CEQA. This impact cannot be reduced to a less-than-significant level; however, implementation of the following mitigation measures would reduce impacts, to the extent feasible, to historical resources by documenting the resource and preserving the history of the site and buildings. Overall, the proposed project would cause a substantial adverse change in the significance of a historical resource, and this impact would be *significant and unavoidable with mitigation*.

Mitigation Measure CUL-1a: Treatment of Historic Properties (Buildings 16 19 and 27). Alterations, to the exteriors of Buildings 16, 19 and 27, shall conform to the Secretary of the Interior's Standards for the Treatment of Historic Properties and Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, if feasible (NPS, 1995) and PRC 5024.5.

Mitigation Measure CUL-1b: Documentation. The project proponent shall prepare a treatment plan including but not limited to photo documentation and

public interpretation of the Alameda Marina Historic District (Buildings 1, 4, 6, 12, 15, 16, 17, 19, 21, 22, 27, 28, 29, 31, 32, 33, 34, and the graving dock). Photo documentation will be overseen by a Secretary of the Interior–qualified architectural historian, documenting the affected historical resource. in accordance with the National Park Service’s Historic American Buildings Survey (HABS) and/or Historic American Engineering Record (HAER) standards. Such standards typically include large-format photography using (4x5) negatives, written data, and copies of original plans if available. The HABS/HAER documentation packages will be archived at local libraries and historical repositories, as well as the Northwest Information Center of the California Historical Resources Information System.

Mitigation Measure CUL-1c: Interpretive Display. Public interpretation of historical resources shall be provided and could include a plaque, kiosk, or other method of describing the Alameda Marina Historic District’s historic or architectural importance to the general public. The design and placement of the display(s) shall be reviewed and approved by the City of Alameda Historic Advisory Board.

Rehabilitation of the exteriors of Buildings 16, 19 and 27 consistent with the Secretary's of Interior’s Standards would mitigate the impacts to these historic resources to a less-than-significant level. The recordation of a building or structure to HABS/HAER standards and public interpretation efforts would reduce impacts on significant historic buildings and ~~structures~~ the District, but such efforts typically do not reduce those impacts to a less-than-significant level (CEQA Section 15126.4(b)(2)). Impacts to significant historic buildings ~~or structures~~ and the District under these circumstances would remain significant and unavoidable.

Significance after Mitigation: Significant and Unavoidable.

This additional information does not alter the conclusions of the Draft EIR, nor does this comment present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

Master Response 5: Impacts to Aesthetics

A number of comments were received concerning the proposed project’s aesthetic impacts, particularly views from Clement Avenue to the waterfront. The commenters generally asserted that views of and through the project site would be adversely affected by the proposed project, resulting in a potentially significant impact.

Aesthetic impacts are by their nature subjective, since what constitutes an agreeable or disagreeable view is highly dependent upon the preferences of each viewer. Section 4.1.2 of the Draft EIR presents an overview of the visual environment at the project site, which is primarily dominated by marine industrial and commercial uses, with a substantial portion of the site that is

not occupied by buildings dedicated to dry boat storage and parking areas. The site's frontage with Clement Avenue is dominated along much of its length by a series of multi-story industrial buildings that directly abut the roadway and adjacent sidewalk, with no setbacks or landscaping. The line of buildings along Clement Avenue essentially form a wall along much of the site's frontage. Those portions of the frontage that are not occupied by buildings are fronted with chain link security fencing with strands of barbed-wire atop the fence. The fences themselves are interwoven with wooden or metal slats that block views into the site. The several gated entryways into the site provide the only views into and through the site, and views through those gated areas are generally blocked by trailered boats, parked vehicles, and intervening structures. The few views that are available into the site are principally of an industrial and commercial compound, which are generally not resources that are considered scenic.

As presented in Section 4.4.1 of the Draft EIR, CEQA Guidelines Appendix G lists a number of thresholds that are to be used to determine potential impacts to visual resources. As analyzed in the Draft EIR, the site is not a scenic vista, which are view corridors that capture the total field of vision from a specific viewpoint, and that generally encompass a large geographic area for which the field of view can be quite wide and extend into the distance. Scenic vistas are formed by built and natural physical elements that guide lines of sight and control view directions available to pedestrians and motorists. Based upon the physical layout of the existing Alameda Marina site, there are no areas that constitute a scenic vista. As such, there are no scenic vistas on the site that could be impacted by the proposed project. Rather, and as determined in the Draft EIR, the layout of the proposed project would improve and enhance views through and from the site, and would eliminate most of the existing visual effects of buildings and other structures that lie immediately adjacent to Clement Avenue. New project buildings, even though some could be taller than what is currently present, would be set back from Clement Avenue, and those setback areas would be landscaped. Points of entry and roadways into the site would also be landscaped and would pass directly through the site, and views to the waterfront generally would not be blocked by fences, gates, parking and boat storage areas, and intervening buildings as is the case currently. Landscaping would be abundant throughout the site, which is not the case currently. The existing fences and gates along the Clement Avenue frontage would be removed. These project features would constitute an improved view of and through the project site when viewed from Clement Avenue, and views from within the site would also be improved. This is the same conclusion as that presented in the Draft EIR.

Several comments suggested that the project would be a de facto gated community, and would be uninviting to those outside of the project area. In fact, and as disclosed in the Draft EIR, the project's design would have the opposite effect, in that entryways would no longer be gated, and would instead be broad and landscaped, with sidewalks leading into the site. Visitors would retain access to commercial areas on the site, and would be provided with access to the public open space, waterfront parks and promenades, and other recreation areas. Finally, a Bay Trail segment would be constructed through the site along the shoreline, allowing pedestrians and cyclists to access and pass through the site from either side, once trail segments on the adjoining property to the east are completed. This is in contrast to existing conditions, where the site is fenced and gated and generally presents the look of a restricted compound, with some shoreline areas closed

to public access due to safety concerns raised by deteriorated infrastructure. Ultimately, the visual appearance of the site would be much more inviting to residents and non-residents alike, and public access to the area would be enhanced. This would represent an improved condition, which is the same conclusion as that presented in the Draft EIR.

In summary, while the project would change the visual character of the site, it would not substantially degrade that character, which is the criteria established in the CEQA Guidelines for determining a significant impact. While some commenters may have a preference for the existing visual characteristics of the site, or have a preference for a project that would present a different appearance than the one that is proposed, the proposed project would not substantially degrade or create a significant impact to aesthetics. Ultimately, the various comments provided with respect to aesthetics are only asserting the opinion of the authors as to how the project should be developed. The comments do not raise any new environmental issues that have not been thoroughly analyzed and disclosed in the Draft EIR, and additional analysis is not required (*Twain Harte Homeowners Ass'n v. County of Tuolumne* (1982) 138 Cal.App.3d 664, 679).

Master Response 6: Transportation Impacts

Some commenters argued or implied that the Draft EIR did not adequately disclose the transportation impacts of the project and that the impacts associated with the project would be worse than those disclosed by the Draft EIR.

Section 4.12, *Transportation and Circulation*, of the Draft EIR presents the impacts of the proposed project on various aspects of the transportation network serving the project area under Existing and Cumulative (2040) conditions. The data collected, and the assumptions and methodologies used to complete the transportation impact assessment for the project is consistent with State, regional, and City of Alameda guidelines and requirements. Specific aspects of the analysis raised by the commenters are discussed below.

Significant and Unavoidable Impacts

The Draft EIR found that the proposed project would result in significant and unavoidable transportation impacts. The Draft EIR recommended mitigation measures to reduce the severity of the impacts, but acknowledged that the measures would not result in the elimination of the significant impacts. Under CEQA, a significant and unavoidable environmental impact is the most severe impact that can be disclosed. There is no worse impact than a significant and unavoidable impact. As such, the assertion that the severity of transportation impacts was understated in the Draft EIR is not supported.

The Alameda County Transportation Commission's (ACTC) Travel Demand Model

To evaluate the potential transportation impacts of the project, the Draft EIR analysis used the standard transportation engineering models and methodologies recommended by regional transportation agencies. As described on page 4.12-27 of the Draft EIR, the Draft EIR analysis utilized the latest available version of the Alameda CTC Travel Demand Model to estimate the impacts of the project on the local and regional roadway system. As described below, both the land use database and transportation network in the Model were reviewed and modified to better

reflect the expected developments and roadway network in and around Alameda. As such, the assertion that the Draft EIR understates the project's impacts is not supported.

All Future Development and Future Roadway Changes Considered

The Alameda CTC Model that was used to forecast the 2040 traffic volumes accounts for both expected future developments and funded and approved transportation network changes in Alameda, Oakland and beyond. Overall, the Model assumes about 7,000 new households and about 10,000 new jobs between 2010 and 2040 in the City of Alameda. The Model land use database was reviewed and modified to accurately reflect the approved and planned development projects in Alameda. Appendix G.F of the Draft EIR shows the changes made to the Alameda CTC Model land use database to better reflect the planned development projects. Appendix G.F also lists the major development projects that are included in the Model land use database.

Similarly, the Model transportation network was also reviewed and modified to account for approved and funded transportation projects. The Draft EIR considered the anticipated changes to the transportation network that would likely occur over the next 25 years, including but not limited to:

- The I-880 Improvements at 29th Avenue and 23rd Avenue Overcrossings, which are currently under construction and would reconstruct the overcrossing structures at 23rd and 29th Avenues, reconfigure several on and off-ramps, extend the northbound auxiliary lane along I-880, and include various changes to the local roadway network around the ramps.
- The Clement Avenue extension between Entrance Road and Atlantic Avenue and through the Shell Oil property.
- The Cross Alameda Trail project, which includes a Class IV separated bikeway on the south side of Atlantic Avenue between Webster Street and Constitution Way.

The Model assigns peak hour traffic, including the project generated traffic, to the roadway network based on the relative travel time on each corridor. Thus, the analysis accounts for peak hour traffic diverting to less-congested corridors as long as it does not result in overall increased travel time. As discussed on page 4.12-23 of the Draft EIR, the project trip assignment is based on the results of the Alameda CTC Model (shown on Figure 4.12-4, *Trip Distribution*, of the Draft EIR), which accounts for estimated future congestion along all local and regional roadways resulting from traffic generated by current and future developments throughout the region. As such, the assertion that the Draft EIR understates the project's impacts is not supported.

Congestion Management Program (CMP) Analysis

As required by the Alameda CTC, the Draft EIR (pages 4.12-40 and 41, and Appendix G.I) includes an analysis of project impacts on the CMP roadways, which consists of freeways and major arterials in and around Alameda under 2020 and 2040 conditions. The analysis was completed using the Alameda CTC Model, which is described above.

Travel Time Analysis

As requested by the City's Planning Board, the Draft EIR evaluated the impacts of the proposed project on travel times along the major corridors connecting Alameda to the regional

transportation system: Webster/Posey Tubes, Park Street, and Fruitvale Avenue. As described on page 4.12-5 of the Draft EIR, the reported intersection delays are based on the delay at the intersection solely due to the intersection configuration and control, not downstream delays. Thus, the Draft EIR also evaluated the impacts of the project on travel time along the major corridors, which is more representative of drivers' experience along these corridors during the weekday peak congestion periods.

Vehicle Miles Traveled (VMT) Analysis

As described starting on page 4.12-4 of the Draft EIR, Senate Bill (SB) 743 (Steinberg, 2013) mandates a change in the way impacts on transportation are evaluated under CEQA. Thus, consistent with State of California Office of Planning and Research (OPR) guidelines, the Draft EIR evaluates VMT per capita to comply with SB 743. For the VMT analysis, the Draft EIR used the significance criterion and the methodology recommended by the OPR in its published guidelines.

Consistency with Previous Environmental Documents

The environmental document for each development project is prepared based on the existing conditions at the time, latest future forecasts, regulatory requirements, analyses methodologies, and tools available at the time. Considering that all these factors can and do change, environmental documents prepared at different times use different assumptions and methodologies and as a result, may have different conclusions. Thus, potential undisclosed impacts from previous environmental documents, such as for the Alameda Point Project or the Encinal Terminals Project, are not relevant to this project.

2.3 Individual Responses

This section contains the responses to comments submitted during the public review period. Commenters on the Draft EIR, their associated agencies, and assigned letter identifications are listed in the table below. This section presents the comment letters received on the Draft EIR and comments made during the public hearing on the proposed project held before the City's Planning Board on February 12, 2018. Each comment letter received during the public comment period was bracketed to identify individual topics, and individual responses to those comments are provided. In situations where the comment issue(s) was identified in multiple letters, a "Master Response" was prepared to address the general concern, and the response to comment may refer the reader to one of the Master Responses provided above. If a subject matter of one letter overlaps that of another letter, the reader may be referred to more than one group of comments and responses to review all information on a given subject. Where this occurs, cross-references are provided.

COMMENT LETTERS CONCERNING THE ALAMEDA MARINA MASTER PLAN DRAFT EIR

Letter #	Entity	Author(s) of Comment Letter/e-mail	Date Received
Agencies			
1	East Bay Municipal Utility District (EBMUD)	David J. Rehnstrom, Manager of Water Distribution Planning	January 26, 2018
2	California Department of Fish and Wildlife (CDFW)	Arn Aarreberg, Environmental Scientist	February 5, 2018
3	Alameda County Transportation Commission (ACTC)	Saravana Suthanthira, Principal Transportation Planner	February 15, 2018
Organizations			
4	Pacific Gas and Electric Company (PG&E)	Plan Review Team	February 5, 2018
5	Alameda Citizens Task Force (ACT)	Paul S. Foreman, Board Member	February 7, 2018
6	Alameda Architectural Preservation Society	Christopher Buckley, President	February 15, 2018
7	Island Yacht Club	Chris Nicholas, Commodore	February 15, 2018
8	Save Alameda's Working Waterfront (SAWW)	Author not specified	February 15, 2018
Individuals			
9		Alan Teague	February 12, 2018
10		Amelia Rose	February 12, 2018
11		Charles Olson	February 15, 2018
12		Nancy Hird	February 15, 2018
13		Rachel Mansfield-Howlett	February 15, 2018
14		William J. Smith	February 15, 2018
15		Eugenie P. Thompson	February 15, 2018
Public Hearings			
16	Planning Board Hearing	Multiple commenters	February 12, 2018



January 26, 2018

Andrew Thomas, Assistant Community Development Director
City of Alameda Community Development Department
2263 Santa Clara Avenue, Room 190
Alameda, CA 94501

Re: Notice of Availability of a Draft Environmental Impact Report – Alameda Marina Master Plan and Density Bonus Applications, Alameda

Dear Mr. Thomas:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Draft Environmental Impact Report (EIR) for the Alameda Marina Master Plan located in the City of Alameda (City). EBMUD has the following comment.

WASTEWATER SERVICE

Section 3.4.6 Utility Improvements of the Draft EIR states that the new wastewater collection system would be connected to EBMUD's interceptor pipeline in Clement Avenue; however, it appears that the City has sewer lines in Clement Avenue, Stanford Street and Chestnut Street. EBMUD suggests that the City consider connecting the new sewer system to the City sewer system, rather than directly to the EBMUD interceptor. The last sentence in the Wastewater section of Section 3.4.6 should then be edited to state: "The proposed system would connect to the City of Alameda Sewer System which conveys flow to the EBMUD Interceptor." If a new connection to the EBMUD interceptor is required, the City will be required to submit to EBMUD an application for an interceptor connection.

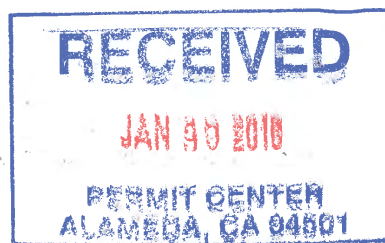
1-1

If you have any questions concerning this response, please contact Timothy R. McGowan, Senior Civil Engineer, Major Facilities Planning Section at (510) 287-1981.

Sincerely,

David J. Rehnstrom
Manager of Water Distribution Planning

DJR:SIR:dks
sb18_006



Andrew Thomas, Assistant Community Development Director
January 26, 2018
Page 2

cc: Alameda Marina LLC
c/o Bay West Development
2 Henry Adams Street, Suite 450
San Francisco, CA 94103

Letter 1 Response	David J. Rehnstrom, East Bay Municipal Utility District (EBMUD) January 26, 2018
------------------------------	--

- 1-1 The City appreciates EBMUD's interest in the project, and any suggestions it may have for improved utility service associated with the project. The City and the project applicant will continue to coordinate with EBMUD during the development of detailed utility designs.

ANDREW THOMAS

From: Aarreberg, Arn@Wildlife <Arn.Aarreberg@wildlife.ca.gov>
Sent: Monday, February 5, 2018 9:44 AM
To: ANDREW THOMAS
Subject: Alameda Marina Master Plan DEIR

Mr. Thomas,

My name is Arn Aarreberg. I work with the Marine Region of CDFW and conduct the CEQA/CESA review for Projects in San Francisco Bay that have impacts below the mean high water line. I have reviewed the draft EIR for the Alameda Marina Master Plan. Due to my schedule and timing issues, I will not be able to provide a comment letter. However, from my initial review, it appears that the mitigation measures described within the DEIR are in line with what CDFW would recommend. I am providing this email so that the City of Alameda has my contact information, see below. When the Project gets to the permitting phase, I will be your contact for the Marine Region of CDFW.

2-1

I look forward to working with the City of Alameda on the Alameda Marina Project. If you have any questions for me, please let me know.

Arn Aarreberg
Environmental Scientist
Marine Environmental Review and Water Quality Project
California Department of Fish and Wildlife - Marine Region
5355 Skylane Blvd. Suite B, Santa Rosa, CA 95403
Office: (707) 576-2889 Cell Phone: (707) 791-4195
Arn.Aarreberg@wildlife.ca.gov
www.wildlife.ca.gov

Every Californian should conserve water. Find out how at:



SaveOurWater.com · Drought.CA.gov

**Letter 2
Response**

**Arn Aarreberg, California Department of Fish and Wildlife
(CDFW)**
February 5, 2018

- 2-1 The City appreciates the Department's interest in the project. The City and the project applicant will continue to coordinate with the Department as the project moves forward.



1111 Broadway, Suite 800, Oakland, CA 94607

510.208.7400

www.AlamedaCTC.org

February 15, 2018

Andrew Thomas
 Assistant Community Development Director
 City of Alameda
 2263 Santa Clara Avenue, Room 190
 Alameda, CA 94501

SUBJECT: Response to the Draft Environmental Impact Report for the Alameda Marina Master Plan and Density Bonus Applications

Dear Mr. Thomas,

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the Alameda Marina Master Plan and Density Bonus Applications. The proposed project redevelops a 44-acre site located at 1801 Clement Avenue, within the City of Alameda, adding 160,000 square feet of commercial space and 760 residential units. The project also includes rehabilitation and reconstruction of up to 4,000 feet of existing seawalls and bulkheads, the existing marina, and existing infrastructure and utilities. The waterfront site is located along Clement Ave between Grand Ave and the United States Navy Support Center.

Alameda CTC respectfully submits the following comments on the DEIR:

- Alameda CTC notes that the project's residential uses are estimated to generate 509 new pm-peak trips—most of which would be new automobile trips. Transportation Demand Management (TDM) measures outlined in Impact TRA-1 (pages 4.12-26 and -27) include transit passes for residents and employees, unbundled parking, and car-share access. These TDM measures are estimated to reduce the Vehicle Miles Traveled (VMT) between five to seven percent and divert some auto trips to walking, biking, and transit trips. 3-1
- Page 4.12-22 of the DEIR lists the Congestion Management Program (CMP) roadways located within the project study area and also includes information on the significance criteria for the CMP roadway impact analysis purposes. However, the DEIR does not include the impact analysis details for these CMP roadways as identified in Alameda CTC's response to the Notice of Preparation of a DEIR for this project, dated November 30th, 2016. 3-2
- The DEIR states that southbound SR260 (the Webster Tube) from Seventh St to Atlantic is "grandfathered" under the CMP. While grandfathered segments are statutorily exempt from preparing a deficiency plan if found operating at LOS F during an LOS monitoring cycle, they are not exempt from review under the Land Use Analysis Program. Please include this roadway in the impact analysis. 3-3

Andrew Thomas
Thursday, February 15, 2018
Page 2

- The DEIR concludes that the impacts to transit will be less than significant. However, the DEIR also states that there likely will be significant and unavoidable auto delay at the Park Street Bridge due to the increased demand created by the project. Since, several bus routes also use this same roadway/bridge, there will be an impact to transit performance as well. Therefore, these inconsistent findings need to be clarified in the DEIR. 3-4
- To calculate volume-to-capacity (V/C) ratios, the DEIR provided per-lane capacity assumptions (pages 4.12-41) of 2,000 vehicles per hour for freeway segments, 800 vehicles per hour for surface streets, and 900 vehicles per hour for arterial roadways. The report should provide a source for these assumptions. 3-5
- The TDM measures outlined in Mitigation Measure TRA-1 (page 4.12-26) are robust and consistent with established best practices. To further reduce the amount of Vehicle Miles Traveled by the project, the project team could consider the list of TDM measures Alameda CTC publishes in the CMP (see Chapter 5, TDM Element, page 71-81). 3-6

Thank you for the opportunity to comment on this DEIR. Please contact me at (510) 208-7426 or Chris G. Marks, Associate Transportation Planner at (510) 208-7453, if you have any questions.

Sincerely,



Saravana Suthanthira
Principal Transportation Planner

cc: Chris G. Marks, Associate Transportation Planner

Letter 3 **Saravana Suthanthira, Alameda County Transportation**
Response **Commission (ACTC)**
February 15, 2018

- 3-1 Comment Noted. The comment states the project trip generation and the effectiveness of the project TDM Plan as summarized in the Draft EIR.
- 3-2 The CMP impact analysis is discussed on pages 4.12-40 and 4.12-41 of the Draft EIR. As stated on page 4.12-41, Appendix G.I presents the detailed calculations for the CMP impact analysis.
- 3-3 As stated on pages 4.12-22 and 4.12-40 of the Draft EIR, SR 260 (Webster Tube) is evaluated in the CMP analysis. Appendix G.I presents the detailed calculations for this segment.
- 3-4 As stated on page 4.12-18 of the Draft EIR, the project's impact on transit is considered significant if the project would degrade transit travel speed by 10 percent or more along transit corridors. Pages 4.12-33 thru 4.12-35 of the Draft EIR evaluate the project's impact on transit speeds along the major corridors serving the project, including Park Street, under both Existing and 2040 conditions. As stated in the Draft EIR, the project would have a less than significant impact on transit because it would degrade travel speeds along the transit corridors, including Park Street, by less than 10 percent.
- 3-5 For purposes of clarification, updated information has been added to Chapter 3 of this Final EIR. As presented therein, the second sentence of the first paragraph on page 4.12-41 of the Draft EIR is revised to the following:
- For freeway segments, a per-lane capacity of 2,000 vehicles per hour (vph) was used. ~~F, and~~ for surface streets, a per-lane capacity of 800 vph was used, based on the general hourly capacities in the Alameda CTC Model.
- This revised information does not alter the conclusions of the Draft EIR, nor does this comment present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 3-6 The TDM Measures listed in Mitigation Measure TRA-1 were selected because, considering the project size, location, and uses, they are the most appropriate measures to reduce the project's identified significant impact on VMT to a less than significant level. However, as the project applicant develops the detailed Project TDM Plan that will be reviewed and approved by the City's Planning Board, additional measures, such as those listed in Chapter 5, TDM Element, of the Alameda CTC Congestion Management Program, will also be considered.



Pacific Gas and
Electric Company

Plan Review Team
Land Management

PGEPlanReview@pge.com

6111 Bollinger Canyon Road 3370A
San Ramon, CA 94583

February 5, 2018

Andrew Thomas
Assistant Community Development Director
City of Alameda
2263 Santa Clara Avenue, Room 190
Alameda CA 94501

Re: Alameda Marina Master Plan and Density Bonus
1801 Clement Ave, Alameda CA

Dear Mr. Andrew Thomas:

Thank you for giving us the opportunity to review your plans. The proposed Alameda Marina Master Plan and Density Bonus does not appear to interfere with any PG&E's facilities or easement rights; therefore, we have no objection to your proposed plan.

4-1

Should your plans change or if you have any questions regarding our response, please resubmit or contact the PG&E Plan Review Team at (877) 259-8314 or pgeplanreview@pge.com.

Sincerely,

PG&E Plan Review Team
Land Management

Letter 4 Plan Review Team, Pacific Gas and Electric Company (PG&E)
Response February 15, 2018

- 4-1 The City appreciates PG&E's interest in the project, and any suggestions it may have for improved utility service associated with the project. The City and the project applicant will continue to coordinate with PG&E during the development of detailed utility designs.

ACT

Alameda Citizens Task Force

Vigilance, Truth, Civility

February 7, 2018

Andrew Thomas, AICP
 Assistant Community Development Director
 Planning and Building Department
 2263 Santa Clara Avenue, Room 190
 Alameda, CA 94501

RE: Alameda Marina DEIR: Submission of Comment and Request For Response

Dear Mr. Thomas:

Section 2.5 of the Alameda Marina Master Plan Draft Environmental Impact Report (DEIR) identifies two traffic impacts, TRA-2 and TRA-3 which are stated to be “unavoidable” and several other mitigatable traffic impacts. However the placement of 760 to 779 housing units on this site severely exacerbates all of these impacts and is in violation of our MX and MF Zoning Ordinances.

Sec. 3.3 at page 3-7 states that the MX/MF zoned portion of the parcel contains 21.62 acres. Sec. 3.4 establishes the proposed land uses for that acreage at 7.98 acres for commercial use (p. 3-11) and 4.25 acres for open space. (p. 3-14) While residential acreage is not stated, simple subtraction establishes the residential use acreage at 9.39 acres.

AMC 30-4.20 - M-X, Mixed-Use Planned Development District, Sec. e (2) states that the density calculation only applies “for land designated on the Master Plan for residential use.” AMC 30-4.23 - Multi-family Residential Combining Zone, at Sec. b (1), states that the provisions of the underlying zoning district shall apply if not in conflict with the overlay ordinance. There is no conflict regarding density calculation.

The application of the above Ordinances to the Alameda Marina Master Plan requires the calculation of maximum housing units by multiplying 9.39 times 30, yielding a unit count of 282 units plus the applicable 20% density bonus to reach a total of 338 units. It is obvious that the calculation of 779 units was achieved by multiplying the total 21.62 MX/MF zoned acres by 30, yielding 649 units and adding the 20% density bonus.

This calculation not only violates the above Zoning Ordinances, but also contradicts our Housing Element which identifies a reasonable capacity of residential units for Alameda Marina at 396 units based on an estimate that only 60% of the parcel would be

5-1

residential, thus calculating the unit count solely in relation to residential, not total, acreage.

The only avenue currently open to validate the 779 unit calculation is by establishing that our Municipal Code is pre-empted by State Law. Our examination of the relevant State Laws concerning housing reveals no such law. Therefore we ask for a response citing specific legal authority for this calculation. If, as we maintain, there is no such authority we seek a response that either amends the DEIR Project Description to provide for no more than 338 residential units or admits that an amendment to the MX Zoning Ordinance will be needed to allow for your 779 unit project description.

Sincerely,

A handwritten signature in cursive script that reads "Paul S. Foreman". The signature is written in dark ink and is positioned below the word "Sincerely,".

Paul S. Foreman, Board Member and Authorized Correspondent
Alameda Citizens Task Force

5-1
cont.

Letter 5 Paul S. Foreman, Alameda Citizens Task Force (ACT)
Response February 7, 2016

- 5-1 Please refer to Master Response 1 in Section 2.2 of this chapter for a discussion of the project's consistency with the MX and MF zoning ordinances, as well as how the project's residential density was calculated pursuant to the City's General Plan and Zoning Ordinance and the State Housing Density Bonus Law.



February 15, 2018

Andrew Thomas, AICP
Assistant Community Development Director
City of Alameda
2263 Santa Clara Avenue, Room 190
Alameda, CA 94501

RE: Alameda Marina DEIR: Submission of Comments and Request for Response

AAPS Contact: Nancy Hird, 510-523-0825
Nancy.alameda1@att.net

Dear Mr. Thomas,

The Alameda Architectural Preservation Society (AAPS) welcomes this opportunity to comment on the Draft Environmental Impact Report for the Alameda Marina.

Alameda is fortunate to have 37 fairly well preserved buildings as remnants of WWII ship building efforts contributing to our country's successful campaign in the Pacific during this war. The Alameda Historical Advisory Board determined these buildings form a Cultural Landscape and 11 of the buildings are included in Alameda's Alameda Marina Historic District. It is most unfortunate that the study completed by ESA fails to identify any alternative which does not result in Significant and Unavoidable Impacts.

6-1

Chapter 5 of the Draft Environmental Impact Report (EIR) identifies some Alternatives to the Alameda Marina Project proposed by Bay West. These alternatives include:

1. The Preservation and "environmentally superior" Alternative which retains the 11 structures of the Alameda Historic District along with the Graving Dock
2. The Extensive Adaptive Reuse Alternative which retains only 6 of the 11 Historic District buildings
3. The Reduced Project Alternative which has not been studied for its economic feasibility
4. The "No Project" Alternative which does not provide the revenue required to repair the Tidelands Trust infrastructure

The following additional Alternatives be studied and considered as part of the EIR. These alternatives include:

P.O. Box 1677 • Alameda, CA 94501 • 510-479-6489 • www.alameda-preservation.org

1. The City of Alameda could swap properties. "Site A" at Alameda Point, which is owned by the City, could be exchanged for the fee simple portion of the Alameda Marina that is owned by the developer. Allowing the developer to build at Alameda Point will pay for the replacement of the bulkhead/seawall at the Marina, which is the primary goal of the project. (Both entities say this is the given reason for the Project.) 6-2
2. Build high value market rate homes around the graving dock on the east end of the property to pay for the infrastructure on the Tidelands Trust property at the Marina. Rehab some of the historic buildings 9, 10, 31 and 36 as examples for live/work spaces in affordable buildings located towards the eastern end, and potentially at the western end, in buildings 28 and 29. Try to meet RHNA numbers assigned but not required since Alameda has already exceeded its number of approved market rate homes. 6-3
3. Build two apartment buildings on the eastern end that are tall enough to contain enough units to meet the financial goal to replace the bulkhead. 6-4
4. Consider "Master Plan #3" to expand the "Commercial Core" to include the area currently planned for a 6-story, 225 unit apartment building and move that building easterly to the location of the 3-story, 48 unit building, shifting it east to the land designated for the 148 unit duplex homes, and omit the duplex homes. This would at least allow retention of the boatyard but would not save additional historic buildings. 6-5

Regardless of the approach selected, AAPS is aware the developer intends to create a commercial center in Building 19 (Alameda Marina Building) by adding 3-4 stories within the frame of the building. This action would alter the interior of an otherwise intact and eligible resource for national recognition. AAPS would vigorously oppose this action.
Thank you for your consideration.

Please contact Nancy Hird at 510-523-0825 or Nancy.alameda1@att.net if you have questions or would like to discuss these comments

Christopher Buckley, President
Alameda Architectural Preservation Society

cc: Mayor and City Council (by electronic transmission)
Planning Board (by electronic transmission)
Historical Advisory Board (by electronic transmission)
AAPS Board and Preservation Action Committee (by electronic transmission)

**Letter 6
Response**

**Christopher Buckley, Alameda Architectural Preservation
Society**
February 15, 2018

- 6-1 The City appreciates the Society's interest in the project and its interest in architectural preservation throughout the City. In response to the Society's introductory comment, we would refer you to Master Responses 3 and 4 in Section 2.2 of this chapter, which provide additional detail on the feasibility of alternatives and the project's impacts to historic resources, respectively.
- 6-2 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of the feasibility of proposed alternatives.
- 6-3 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of the feasibility of proposed alternatives.
- 6-4 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of the feasibility of proposed alternatives.
- 6-5 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of the feasibility of proposed alternatives.
- 6-6 Please refer to Master Response 4 in Section 2.2 of this chapter for a discussion of the project's impacts to historic resources.



Island Yacht Club
Alameda Marina
1853 Clement Ave., Building 14
Alameda, CA 94501

February 15, 2018

To whom it may concern:

Island Yacht Club was founded in 1970 by a group of friends who liked recreation boating for family outings, racing after work, or sailing across the Pacific. Though long retired and now in their 80's, some of those same sailors attended our race this week, as they have ever since that time they were starting families and working long hours at startup companies. We are also the home to the Sea Scouts troop of the Boy Scouts, organized to promote better citizenship, water safety, boating skills, social and service experiences, and knowledge of our maritime heritage.

Recreational boating is a lifelong, social activity people, and Island Yacht Club's role is the social fabric that binds friendship, the boating community, and volunteering with Alameda Marina.

We want to grow that community. Towards that end, we would like to see the 'cost of entry' to recreation boating become as minimal as possible, and would like to see accommodation for

7-1

individual watercraft: rack space for stand-up paddle boards, kayaks, and individual rowing sculls. People would rent storage space for these craft from the marina, but instead of requiring a hoist, they should instead be able to launch with a hand dolly down a ramp, onto a section of dock low enough to slide boats on and off by an individual.

We believe direct, minimal cost access to individual watercraft after work or after school by complete novices at Alameda Marina would be in everyone's best interests and can be accommodated, perhaps by the graving dock, with minimal design impact.

Sincerely,

Chris Nicholas
Commodore, Island Yacht Club

7-1
cont.

ANDREW THOMAS

From: Chris Nicholas <chrisgnicholas@att.net>
Sent: Wednesday, February 14, 2018 7:39 PM
To: ANDREW THOMAS
Subject: Re: Alameda Marina project

I have also been asked by several of our members with trimarans to say the preliminary plan does not accommodate their class of boats on trailers, that majority of which are currently stored at Alameda Marina.

7-2

We would like some portion of the dry storage allocated for this larger class of boat.

Chris Nicholas
Commodore
Island Yacht Club

On Monday, February 12, 2018 11:07 AM, Chris Nicholas <chrisgnicholas@att.net> wrote:

greetings -

I am wondering when the 45 day period for public commentary regarding the Draft EIR are due; is that today?
Or is that Feb 15th?

thank you

Chris Nicholas
Commodore, Island Yacht Club
510-390-2960 mobile

Letter 7 **Chris Nicholas, Island Yacht Club**
Response February 15, 2018

- 7-1 The City appreciates the Island Yacht Club's comment, and acknowledges that the project's design and development is important to the Club and its mission. We encourage the Club and its members to continue to work with the City and the project applicant concerning the project's design to ensure that the project meets the needs of the boating community. The project would provide areas for storage and use of individual watercraft.
- 7-2 Comment noted. Please see the above response to Comment 7-1. The project would provide dry storage that can accommodate trimarans. The trimarans would be able to utilize the City of Alameda's boat ramp, which is located adjacent to the proposed dry storage area.

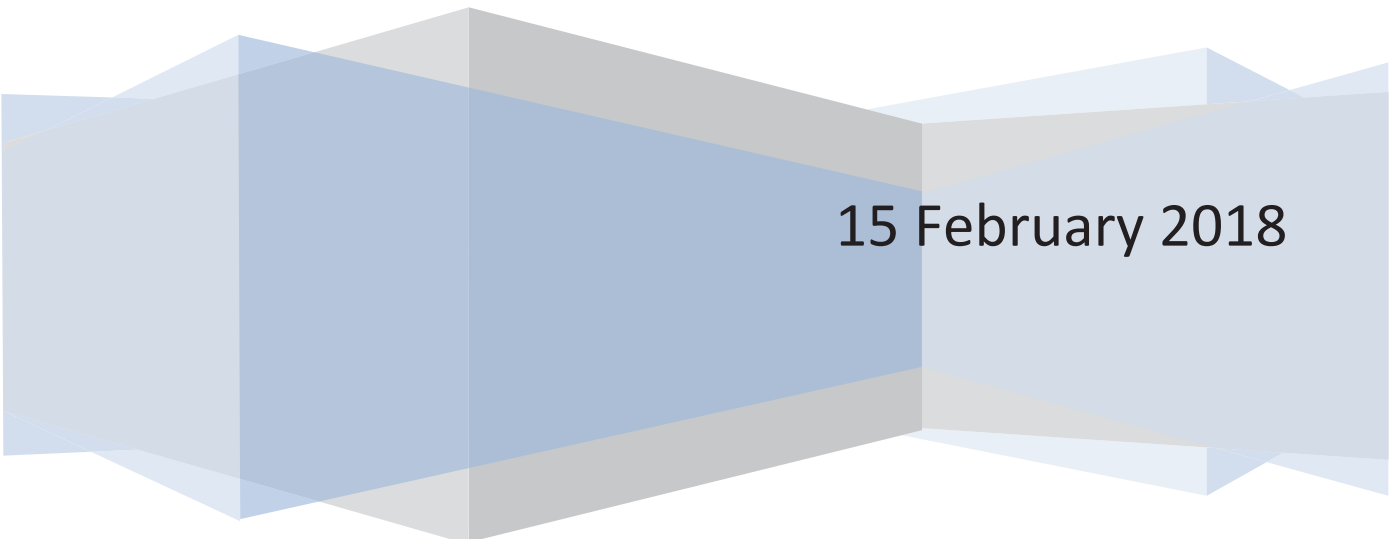
Save Alameda's Working Waterfront (SAWW)

Alameda Marina Development

Draft Environmental Impact Report: Public Response

Save Alameda's Working Waterfront

Andrew Thomas, AICP
Assistant Community Development Director
Planning and Building Department
2263 Santa Clara Avenue, Room 190
Alameda, CA 94501



15 February 2018

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

ALAMEDA MIXED USE PROJECT: SCH No. 2016102064 Response to the DEIR

TABLE OF CONTENTS

Purpose.....	3
Chapter 2, Summary	4
Chapter 3, Project Description	8
Chapter 4, Environmental Setting, Impacts, and Mitigation Measures	17
4.1 Aesthetics	17
4.2 Air Quality, Climate Change, Greenhouse Gasses, and Energy	21
4.3 Biological Resources	26
4.4 Cultural Resources	29
4.5 Geology, Soils, and Paleontological Resources	33
4.6 Hazards and Hazardous Materials	33
4.8 Land Use and Planning	35
4.10 Population and Housing	47
4.11 Public Services and Recreation	49
4.12 Transportation and Traffic	58
Chapter 5, Alternatives to the Proposed Project	64
Appendix A NOPs and Comments	72
CONCLUSION.....	76
Attachment 1 AFFORDABILITY OF HOUSING IN ALAMEDA	77
Attachment 2 HISTORY OF THE PREVENTION OF FOULING	80
Attachment 3 COMMENTS TO THE ALAMEDA MARINA MASTER PLAN EIR PROJECT	97
Attachment 4 ECONOMIC DEVELOPMENT ASSESSMENT	121

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Purpose

This document is a public response to the Draft Environmental Impact Report (DEIR) published by the City of Alameda for the proposed Alameda Marina mixed use development in Alameda, California.

This document is published by *Save Alameda's Working Waterfront* (SAWW) and is a contribution of responses by several individuals from Alameda and Northern California.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Chapter 2, Summary

Reference Page 1.1

Regional Setting

Regional access to the City of Alameda is provided by a variety of transportation modes. Interstate 880 (I-880) through Oakland—the nearest freeway to the project site—provides regional access for automobiles and transit. Regional traffic accesses the project site via State Route 61 (SR 61) through the Webster-Posey Tubes, the Park Street Bridge, the Miller Sweeney Bridge and the High Street Bridge connecting the island of Alameda and the City of Oakland.

Response: California State highway 61 is a regional highway and should be considered, and studied, as part of the regional traffic access. Highway 260, i.e. Webster Street, connects to highway 61 at Webster and Central Avenue, passing along Central Avenue to Encinal Avenue, then along Broadway, to Otis Drive and finally connects with Doolittle Drive at the Bay Farm Island Bridge. As the Northern transit corridors become increasingly congested, southbound traffic will overflow onto these city streets.

Alameda egress streets are already congested long after the commute hours. There has been reports that AC Transit and BART ridership were down 6% in 2017. The cause of the downturn has to be determined and resolved before continued traffic is added to our bridges and the tubes.

8-1

Reference Page 1-3

Project Description

The project would be developed in up to four phases, with shoreline and land side infrastructure improvements occurring in each phase as necessary.

Response: Completion of shoreline improvements need to be required to be completed in the first phase. Improvements to the shoreline are the driving reason for this development of the Marina and would be in jeopardy if later development phases fail to be completed.

8-2

Reference Page 1-4

Improve and Enhance the Maritime Commercial Marina

Maintain Alameda Marina as a working waterfront and retain and/or promote Alameda Marina's maritime uses by creating a Maritime Commercial Core that utilizes the maritime footprint more efficiently.

Response: Utilizing the maritime footprint more efficiently really means reducing the maritime business area to a size that dooms the maritime and boatyard business to

8-3

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

failure. It is impossible to operate a boatyard in this reduced space. The proposed layout from Exhibit 1, Item 7-B June 12, 2017 Planning Board meeting shows the boatyard at just 0.98 acre and fails to utilize the existing features that are required for a fully functional boatyard.

8-3
cont.



Exhibit 1, Item 7-B June 12, 2017 Planning Board meeting Page A4.1

Create a Dynamic New Neighborhood for Everyone

Provide options for housing that meet the need of a wide demographic that includes universally designed units, affordable, rental, work force market-rate and market-rate units.

Response: The term "Work force market-rate units" usually refers to smaller units that are more affordable for the developer to build. They still will not be affordable for Alameda's middle class work force.

8-4

See Attachment One: AFFORDABILITY OF HOUSING IN ALAMEDA

Reference Page 1-5

2.5 Proposed Project Impacts

Impact TRA-2: The proposed project would increase traffic volumes such that traffic conditions at the Park Street/Blanding Avenue and Park Street/Clement Avenue intersections

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

would either deteriorate from LOS D to LOS F or the proposed project would increase traffic volumes by three percent or more.

Response: The Boatworks Residential Project DEIR, SCH No. 2009102040, March 2010 has already determined that the intersections of Park Street/Blanding Avenue and Park Street/Clement Avenue will deteriorate to a level F. In a development where several large projects are planned, it is important that the all environmental elements be considered for cumulative effect on the Northern Waterfront district and the City of Alameda as a whole. Later discussion regarding cumulative effects in this DEIR does not adequately weigh problems that will be caused by the planned developments.

8-5

TABLE 4.B-14
CUMULATIVE (2030) BASE PLUS PROJECT PEAK-HOUR INTERSECTION LEVELS OF SERVICE (LOS)

Intersection	Traffic Control	AM Peak Hour				PM Peak Hour			
		Cumulative (2030) Baseline		Cumulative Base Plus Project		Cumulative (2030) Baseline		Cumulative Base Plus Project	
		Delay ^a	LOS	Delay ^a	LOS	Delay ^a	LOS	Delay ^a	LOS
1. Park Street and Blanding Avenue	Signal	>120.0	F	>120.0	F	101.6	F	>120.0	F
2. Park Street and Clement Avenue	Signal	100.0	F	109.1	F	>120.0	F	>120.0	F
3. Park Street and Buena Vista Avenue	Signal	13.0	B	13.0	B	19.3	B	19.3	B
4. Oak Street and Clement Avenue	AWSC	>80	F	>80	F	>80	F	>80	F
5. Oak Street and Buena Vista Avenue	Signal	10.6	B	10.9	B	12.7	B	13.5	B
6. Oak Street and Lincoln Avenue	Signal	14.2	B	14.2	B	163.7	B	16.9	B
7. Tilden Way and Blanding Avenue	Signal	119.5	F	>120.0	F	80.3	F	81.9	F
8. Grand Street and Clement Avenue	SSSC	12.5	B	13.3	B	32.5	C	34.3	C
9. Atlantic Avenue and Webster Avenue	Signal	45.9	D	46.1	D	41.1	D	41.2	D
10. Atlantic Avenue and Constitution Way	Signal	41.5	D	41.6	D	53.7	D	54.0	D
11. High Street and Fernside Boulevard	Signal	>120.0	F	>120.0	F	>120.0	F	>120.0	F
12. Clement Avenue and Project Access	SSSC	N/A	N/A	59.1	F	N/A	N/A	55.0	F
13. Oak Street - Blanding Avenue and Project Access	SSSC	N/A	N/A	16.1	C	N/A	N/A	20.7	C

^a The LOS/Delay for Side-Street Stop-Control (SSSC) intersections represents the worst movement or approach; for Signalized intersections, the LOS/Delay represents the overall intersection.

Bold signifies significant impacts

SOURCE: Dowling Associates, Inc., 2009.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Reference Page 1-5

Proposed Project Impacts

Impact TRA-2: The proposed project would increase traffic volumes such that traffic conditions at the Park Street/Blanding Avenue and Park Street/Clement Avenue intersections would either deteriorate from LOS D to LOS F or the proposed project would increase traffic volumes by three percent or more.

Impact TRA-3: In the event that the planned Clement Avenue extension is not completed prior to project opening, the proposed project could increase traffic volumes at intersections on Buena Vista Avenue such that traffic operations could deteriorate to substandard conditions.

Response: Section 2.5 of the DEIR identifies two traffic impacts, TRA-2 and TRA-3, which are stated to be “unavoidable” and several other mitigable traffic impacts. However the placement of 760 to 779 housing units on this site severely exacerbates all of these impacts and is in violation of our MX and MF Zoning Ordinances.

8-6



Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Chapter 3, Project Description

3.2.1 Project Overview

Reference Page 3-1

The project would include the following components, which would be constructed on the approximately 44-acre Alameda Marina project site:

6. A Maritime Commercial Core design, to maintain a working waterfront environment, with limited public waterfront access in this portion of the site.

Response: Public access to the boatyard area can be continued as it is today. There should be no problem with the Bay Trail along the waterfront. Some work areas can be safely separated with proper signage. In addition, the placement of building 12 or the proposed new building in its place will act as a barrier to the boatyard from the eastern approach.

8-7

Reference Page 3-2

This section states the project objectives for the CEQA review of the project. Clarifying information is provided for each objective. The project objectives are:

Improve and Enhance the Maritime Commercial Marina

Maintain Alameda Marina as a working waterfront and retain and/or promote Alameda Marina's maritime uses by creating a Maritime Commercial Core that utilizes the maritime footprint more efficiently.

Response: As stated earlier, the proposed Maritime Commercial Core is not large enough to provide for a viable boatyard or active maritime businesses. Most of the present features that have made the boatyard a productive business are scheduled to be demolished by the development.

A commercial goal should include space that will include light industry, maker space, blue economy and maritime space, R&D, technology, hospitality as well as retail space. Alameda needs a better jobs/housing balance and this project does little to address that in the near or far future.

8-8

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

3.3.2 Project Site (present)

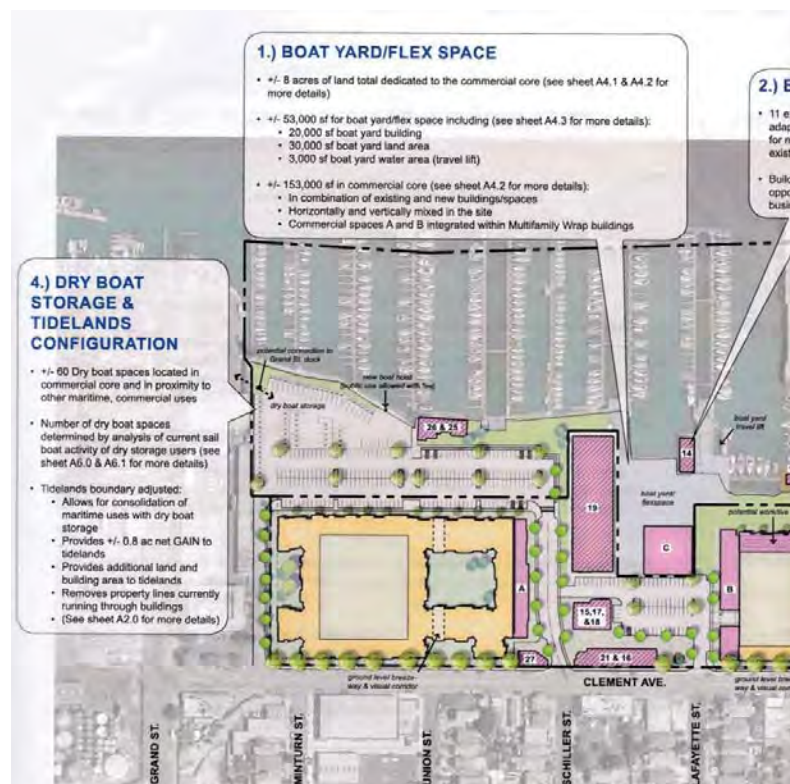
Reference Page 3-4

The land side of the site contains approximately 250,000 square feet of maritime, commercial and retail, warehouse, and dry storage uses.

Response: Reducing the present maritime, commercial and retail, warehouse, and dry storage to just 53,000 square feet is only 21% of the existing square footage. Reducing the boatyard and the dry storage of boats from approximately 300 to just 60 will leave the boating community in Alameda without resources to serve the present 3600 boating population. Boaters are already leaving the Alameda marinas to take their boats to other yards within the Bay Area.

Traveling to other cities on the San Francisco Bay to berth or service their boats is an inconvenience to residents of Alameda. Alameda is home to approximately 3600 berthed or dry stored boats. Traveling to Berkeley or Richmond to enjoy or service them is time consuming and adds to the traffic congestion on regional transit system.

8-9



Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Exhibit 1 Item 7-B, 6/12/2017 Planning Board Page 3.0

Reference Page 3-7

Existing Zoning Designations

2. Approximately 21.62 acres of adjacent uplands lies within the City's MX Mixed-Use Planned Development and MF Multi-Family Residential Combining zoning designations. The 21.62 acres is owned by PSI. In addition, PSI owns 5.46 acres of adjacent submerged land, which is zoned M-2.

Reference Page 3-11

Commercial Uses

**TABLE 3-1
 PROPOSED PROJECT LAND USE PROGRAM
 Shoreline Open Space 4.25 acres**

Approximately 7.98 acres of the landside portion of the site would be dedicated to commercial uses.

Response: Sec. 3.3 at page 3-7 the MX zoned portion of the parcel is quantified as 21.62 acres. Sec. 3.4 establishes the proposed land uses for that acreage at 7.98 acres for commercial use (p. 3-11) and 4.25 acres for open space. (p. 3-14) While residential acreage is not stated, simple subtraction establishes the residential use acreage at 9.39 acres.

Residential Uses

Reference Page 3-14

All residential buildings would be no taller than 65 feet, ranging from three to five stories.

Response: Replacing the "brown wall" along Clement Avenue is stated as an advantage of the project. The buildings along Clement are historical buildings and part of Alameda's history during the WWII effort. The tallest of these buildings are 3 stories.

8-10

8-11

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda



Photo 3a: View looking northeast of existing Alameda Marina facility from south of Clement Street on Union Street.

DEIR Page 4.1-5

The project proposes replacing the historical buildings along Clement Avenue with varied heights, but two of the buildings would be 5 stories high and will stretch a long distance along Clement. The rest of the buildings will be 3 stories high in areas where there are presently shorter buildings.

8-11

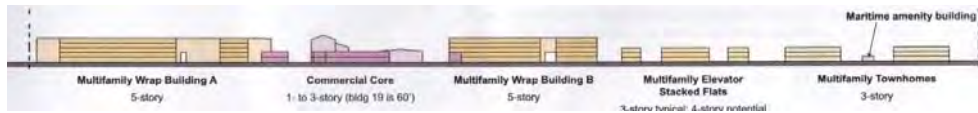


Exhibit 1 Item 7-B, 6/12/2017 Planning Board Page 3.0



Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

The project references views of the waterfront. The only views that will be available to those who travel down Clement Avenue will be down the streets that will be extended from Clement into the site. Actual views will be less than they are today with the existing historical buildings when three story buildings are replaced with five story buildings.

8-11
cont.

Demolition

Reference Page 3-19

• **Demolition of the boat yard “elevator.”**



Response: The Barnhill Marina is home to 41 houseboats which have been authorized by BCDC. The houseboat community is considered "low income housing" which is deficient in Alameda. Some of these houseboats will be unable to be maintained under a present plan to maintain them so we will actually loose affordable housing.

8-12



Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

The houseboat community is dependent on the elevator at the Alameda Marina for service on the underside of their homes. The elevator can lift a houseboat out of the water for repairs. If the elevator is removed, that service will no longer be available in Alameda without considerable effort and expense. Houseboats would have to be lifted by crane onto a barge, 3 at a time, and moved to another location within Alameda. Bay Ship and Yacht, in Alameda, has a boat repair facility near the Main Street Ferry on the estuary because that enterprise specializes in big commercial boats. Bay Ship and Yacht would be able to repair the houseboats, but such an operation would have to be performed on 3 houseboats at a time.

The repair yard in Berkeley does not have an elevator, but its operators state they would be able to work on houseboats under 16' wide. Each houseboat would have to be towed to Berkeley through choppy bay waters. Houseboats are not built to be out in the bay so the trip would be perilous and their survival could not be guaranteed.

Any alternatives for obtaining repairs for the houseboats would be a very expensive endeavour for the boat owner. Without the elevator and an adequate working boatyard in Alameda, the future of all houseboats slipped in Alameda would be very uncertain.

8-12
cont.

3.4.7 Project Construction

Reference 3-22

Conceptual Project Phasing

As shown in Figure 3-10, the project is anticipated to be developed in up to four phases, with the completion of the marina and shoreline improvements phase running parallel to the other phases. Construction is anticipated to begin in 2019 and complete by 2024.

Response: Also, all bulkhead improvements need to be completed prior to any permits being issued for housing units instead of being done in phases as building is done. This is a requirement in the Encinal Terminals project. Since bulkhead improvements are the reason for the project, this arrangement protects the city from the developer not completing all phases of the project which would leave the bulkhead improvements unfinished.

8-13

Reference Page 3-24

Grading and Site Preparation

Preparation of the site for construction of the proposed project would include the removal of remnant hardscape elements, as well as extensive site grading. Building demolition and site clearance are estimated to generate approximately 40,000 cubic yards (cy) of concrete, asphalt, and other waste materials, at least half of which would be reprocessed and reused

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

on site as road base and fill. Approximately 40 existing trees would be removed from the site, as would about 3,300 linear feet of inactive and abandoned railroad spurs.

Response: The London Plane tree trees along Clement Avenue are city street trees and should be saved. The trees are a great asset to this part of town and, with proper care, they can be protected during construction. Any mature trees within the site should be saved if at all possible.

Trees are especially important along a truck route because they help clean the air by absorbing odors and pollutant gases (nitrogen oxides, ammonia, sulfur dioxide, and ozone), and they filter particulates out of the air by trapping them on their leaves and bark.

As an example, several mature street trees were saved at the 2100 Clement project presently under construction just one block east of the project site.

8-14



Reference Page 3-26

Local Agencies

• Alameda County Environmental Health Department (CCEHD) review and permits may be required, if wells or soil borings are required (for environmental cleanup, for example), or if abandoned wells or septic tanks, if any, are proposed to be destroyed during construction.

Response: (Refer to Attachment 2 at the end of this document) - History of the Prevention of Fouling (Boat Fouling).

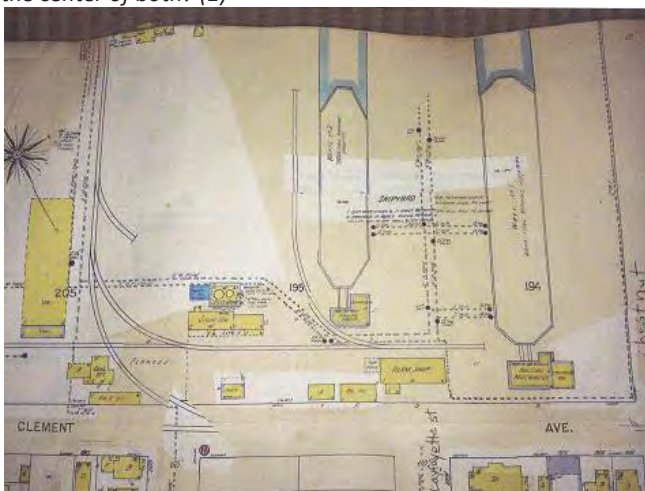
The Alameda Marina shipyard began in 1917, with two marine railways used for hauling ships out to clean and repaint the ship bottoms. Marine railways continued operation in

8-15

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

the same two locations until this shipyard closed around 1955. It's a fair conclusion that a lot of bottom paint was splashed or spilled there during all those years. We know that bottom paints used during the early years of the shipyard often contained the toxins arsenic sulfide and/or mercuric oxide as well as copper oxides. Why were only two core samples done on the perimeter of only one of the two historic marine railways but not in the center of both? (1)



Railroad Tracks Oakland Library

Over the years, the land surrounding the marine railways was built up with dredged fill, making the marine railways look like two scars in the earth. These two scars then were filled in with soil and debris after the early Pacific Shops owner called out to contractors to dump their fill for free in the two trenches that were formerly the marine railways. Since there is no proof of who dumped their loads and the characteristics of the dumped materials, shouldn't that also make it important to investigate further and to clarify what materials are there? This is especially true next to Building 19 and SAWW request that additional bore samples be obtained from this area in its Nov. 2017 letter.

In 1966, the area became a small boatyard where the bottom paints of choice contained Tributyltin (TBT) mixed with paints rich in copper oxide -- until around 1955 when TBT was banned for small boats because of its damaging affects to a wide variety of non-target marine life. Did the area become a reservoir of TBT contamination? I did not find a record of any testing for this compound or its tin ion breakdown product when I was looking through the lab test data.

Review of a 1915 report on water wells in the eastern San Francisco Bay (2) includes a map that shows three water wells on the land that was to become Alameda Marina. All three wells indicated in that area saw intense shipwork activity. We did not dig deeper in the report for additional details, but we understand that it includes both well depth and casing diameter for each mapped well.

8-15
cont.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

The map shows Chestnut Street going all the way to the estuary, with one well on the northwest side of Chestnut and two more close by on its southeast side. The EIR's "Hydrology Water Quality" section (4.7) admits that the developer might have to dig deep enough to find groundwater. It also admits that water might have to be pumped out of the excavation and treated for contamination before draining it into the sewer system. The water wells probably were not closed properly and could have let shipyard toxics flow directly into the aquifer. There is no mention of any previous water wells in the Steller Environmental property maps and reports, nor in maps in the appendix, nor is there any mention of them in Section 4.7, so what to do when a contractor finds them is not even addressed! The EIR maps should include locations of the old wells so they can be rediscovered, if possible, and dealt with by the appropriate experts.

Sources

*(1) Marine Fouling and Its Prevention
 Contribution No. 580, Woods Hole Oceanographic Institute
 Chapter 11. History of the Prevention of Fouling
 (c)1952 US Naval Institute, Annapolis, Maryland.*

*(2) Sources of Water Supply
 East Region of San Francisco Bay
 by J.H. Dockweiler, 1915*

8-15
cont.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Chapter 4, Environmental Setting, Impacts, and Mitigation Measures

Cumulative Impact Studies are Inadequate Attachment 3 Page

4.1 Aesthetics

Reference Page 4.1-17

Additional References Page 2-8

Impact AES-1: The project would not have a substantial adverse effect on a scenic vista nor substantially damage scenic resources. (No Impact)

“The only scenic vista or scenic resource in the vicinity of the project area is the Oakland-Alameda Estuary, as defined in the land use policies of the City of Alameda. ... The proposed project, on the other hand, would remove many of the physical barriers that currently block public views through the site to the Estuary.”

Response: The removal of the physical barriers (2-3 story buildings) that currently block the public’s view will then be substituted by large blocks of 4-5 story apartment buildings resulting in the continued lack of views of the estuary from the street. The overall “wall” effect does not change for the people living in the neighborhood on the south side of Clement Avenue.

Views in some areas along Clement, specifically at the East end, are not presently blocked by large buildings. The project would add buildings in this area that would block these views.

8-16



View from Clement Avenue, looking East, at the East End Gate 4

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Even though the streets will be extended into the Marina, it will not make the area inviting to those who exist outside of the development. The development is a de facto gated community, uninviting to those on the outside. Also, those inside will not become part of the community outside other than to go shopping or to leave town.

Removal of the gates to the development area may create a more inviting view from the street which will necessitate building gates at the entryways to the docks to provide security for the boats.

8-16
cont.

Reference Page 4.1-18

Additional References Page 2-8

Impact AES-2: The project would not substantially degrade the existing visual character or quality of the site and its surroundings. (Less than Significant, No Mitigation Required)

Response: As stated in AES-2, "The project would change the visual character and visual quality (collectively, "visual conditions") of the project site and its surroundings." The Master Plan does not indicate that there will be any additional waterside park facilities. In fact, the only planned areas for children to play in are the proposed parking lots. It can be argued that the project is not consistent with the city's General Plan in that it does not add to the visibility of the shoreline, does not contribute to a "small town feel", does not show respect for the city's historical contribution to the WWII effort, and does not aid in the retention of maritime industries or boating activities.

8-17

AES-2 further states, "... A number of the existing and historic industrial-style buildings on the site would be retained, which would serve to preserve substantial portions of the site's existing appearance. For instance, Building 19, which is the largest and most visually prominent and distinctive structure on the site, would be retained."

Response: Of the 37 historical buildings (17 in a designated historic district) currently located at Alameda Marina, only 11 will be saved, including Building 19. Building 19 is eligible for listing on both the State and National Registers of Historic Places as it stands today. The developer plans, "if feasible," to create 4 levels within the shell of Building 19 which will destroy its eligibility for any historic recognition. This plan is discussed briefly in the developer's Master Plan without Design Guidelines to preserve and restore existing historic buildings which could include restoration of the corrugated steel cladding. Note that the Glass Factory at the Fruitvale Bridge could be a resource for corrugated steel as it is demolished.

8-18

Alameda's General Plan currently states (as it applies to City Design Element and Alameda Marina):

3. CITY DESIGN ELEMENT

Implementing Policies: Edges, Vistas, Focal Points

3.2.d Maintain views and access to the water along streets and other public rights-of-way that extend to the bulkhead line. Construct benches, ramps, rails, and seating appropriate for viewing and access, and provide walls or other screening where needed to protect adjoining property. Westline Drive, Grand Street, Park Street, Central Avenue and Encinal Avenue are candidates for architectural or landscape features that would enhance the meeting of land and water.

3.2.e Encourage landmark structures at prominent locations. The Housing Authority site at the southwest corner of Webster and Lincoln is an example of such a location.

3.2.f Work to establish continuous greenways adjoining Main Street and Atlantic Avenue extending east through the railroad yard to Sherman Street, provided that the greenway design on each parcel allows for connection throughout the length of the greenway. (GPA 96-4) In addition to providing bike and pedestrian ways, a 100-foot-wide greenway could have landmark trees in the sector of the City that is most in need of a greater presence of nature.

3.2.g Work with BCDC staff to prepare a schematic plan for development of the 100-foot-wide strip above mean high tide on properties likely to require BCDC development approval. The schematic plan should provide for public access and provide shoreline streets wherever possible. Specific opportunities for shoreline streets should be identified. The plan should include design standards and guidelines for buildings, streets, pedestrian and bicycle routes, signage and landscaping.

3.2.i Ensure that sections of the Estuary waterfront remain visually unobstructed. Most of the Estuary waterfront not devoted to industrial use is developed as marinas which block vistas. The proposed Estuary Park will be on the most prominent viewpoint.

3.3.e Develop detailed design guidelines to ensure protection of Alameda's historic, neighborhood, and small-town character. Encourage preservation of all buildings, structures, areas and other physical environment elements having architectural, historic or aesthetic merit, including restoration of such elements where they have been insensitively altered. Include special guidelines for older buildings of existing or potential architectural, historical or aesthetic merit which encourage retention of original architectural elements and restoration of any

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

missing elements. The design guidelines include detailed design standards for commercial districts.

3.3.f Regulate development in neighborhood business districts to maintain a street-wall, with most structures built to the property lines, entrances directly facing the sidewalk, and parking at the rear.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

4.2 Air Quality and Climate Change

Reference Page 4-2.7

Diesel Particulate Matter

Mobile sources such as trucks and buses are among the primary sources of diesel emissions, and concentrations of DPM are higher near heavily traveled highways and rail lines with diesel locomotive operations.

Response: Clement Avenue is the truck route for large trucks that must enter Alameda across the Fruitvale Bridge. All truck traffic to locations West of Park Street will travel on Clement Avenue. Even if Clement is not extended through Penzance, trucks will travel on Clement Avenue between the Fruitvale Bridge and Grand Avenue, going past the Alameda Marina project site, emitting diesel particulate and greenhouse gasses directly in the neighborhood.

Alameda Marina lies within 0.76 of a mile of I880, a major, multi-lane highway, major rail lines, and the BART rail tracks. While prevailing winds are normally East to West, off shore winds do come from the inlands and will blow pollutants from the highway and rail traffic directly onto the Alameda Marina site.

8-19

Reference Page 4.2-8

Sensitive Receptors

The closest existing residences are immediately across Clement Avenue at several locations along the southern project boundary, with dense single-family housing abundant further south. There is also a relatively new residential neighborhood approximately 300 feet north west of the project site north of Fortmann Way. Although not technically a “sensitive receptor” for air quality, there are likely vessels used as live-a-board’s within the marina. Other existing receptors include Henry Haight School which is located at 2025 Santa Clara Avenue, approximately 0.6 mile southeast of the site.

Response: The 2100 Clement Avenue (Mulberry Homes) development of 52 units, presently under construction, is approximately 1000' east of the project site. Boatworks, a proposed development of 182 units is 0.5 mile east of the project site. Both projects are downwind from the development site. While Boatworks does not have a projected date for start of construction, it could overlap during the 15 years the Alameda Marina will be under construction.

8-20

Reference Page 4-2.13

Bay Area Emissions

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

The City of Alameda is expected to increase its annual GHG emissions to 329,867 tons of CO₂e by 2020 based on a 0.65 percent annual population growth rate;

Response: From World Population Review @ <http://worldpopulationreview.com/us-cities/alameda-ca-population/> Alameda California's estimated population is 78,906 according to the most recent United States census. A 0.65% increase would be 512 persons per year.

From this document on Page 4-10.1 Project Area, the average projected household populations will be 2.51.

"The project site is located in the City of Alameda, California, within U.S. Census Tract 4272, which covers an area in the north central portion of Alameda Island that measures about 20 blocks in length by 6 blocks wide, and also includes Coast Guard Island. As of 2010, this Census tract had a population of approximately 4,107 persons living in approximately 1,595 households, with an average persons-per-household rate of 2.51. The median income for a household in Census Tract 4272 was \$63,344 per year and the labor force comprised approximately 3,392 workers"

Presently Alameda has approximately 5046 units projected that should be completed between 2015 and 2035. This increase in units with a household population of 2.51 would mean that the yearly population would increase by 844. That means the population projections in this DEIR are miscalculated by 40%.

8-21

Reference Page 4.2-13

Additional reference page 2-28, 4.10-5

Impact POP-1: The proposed project would not induce substantial population or housing growth directly or indirectly. (Less than Significant)

"Up to 779 residential units could be constructed on the site pursuant to the State Law Density Bonus; the project sponsor is proposing to develop 760 units, comprised of approximately 569 multifamily wrap units, 48 multifamily elevator stacked flats, and 143 multifamily townhouse units, with approximately 103 of these dwelling units offered as affordable housing units distributed throughout the site."

Page 4.2-13 of the Alameda Marina DEIR states:

"The City of Alameda is expected to increase its annual GHG emissions to 329,867 tons of CO₂e by 2020 based on a 0.65 percent annual population growth rate"

Response: Applying this information to the current Alameda population of 78000 x .0065 = 507 population increase projected for each year -- If all the approved developments are populated by 2020.

<i>Approx. units proposed</i>	<i>4000</i>
<i>Alameda per house hold</i>	<i>2.57</i>

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Increase in population	10,280	when present approved housing is completed.
2015 to 2020 (5 years)	2056	population increase per year.
Even at 10 years (2025)	1028	population increase per year.

Alameda has a jobs/housing imbalance. This project has already displaced many jobs to off-island locations which means that Alamedans are crossing the few bridges and one tube to join the commuters on 880 and beyond. Exiting the island during commute hours in the morning hours becomes a greater problem every time a job that pays a living wage leaves Alameda. We should be adding local jobs that allow workers and families to stay on the island – not changing commercial and light industrial space into residential space which this project is proposing and actually doing.

As more housing developments are approved, the amount of acreage left where new businesses can be established diminishes.

8-22

Reference Page 4.2-37

Construction Health Risk Impacts

Construction-related exposure would be temporary because construction emissions would only occur during active construction of Phases 0, 1, 2, and 3.

Based on an analysis of construction of Phases 0, 1, 2, and 3 (assuming each phase immediately follows the preceding phase and Phase 0 occurs concurrently), the maximum project-level impact would occur during construction of the last few months of Phase 2 and construction of all of Phase 3. The maximum impact occurs during this period because of the project construction schedule, geographic distribution of the emissions on the project site relative to the locations of sensitive receptors, wind patterns, and the following set of conservative assumptions: (1) the Phase 3 project site is located relatively close to the sensitive residential receptors to the south of Clement Avenue; therefore the associated sources of construction emissions during Phase 3 are also located close to these sensitive receptors and thus generate the highest concentrations of diesel particulate matter at sensitive receptors according to the AEMOD dispersion modeling analysis; (2) in order to identify maximum health risk impacts, it was assumed the Phase 3 exposure at the sensitive receptor with the highest diesel particulate matter concentration would occur during the age 0 < 2 age cohort, which has the overwhelmingly highest age sensitivity and breathing rate exposure factors compared to all other age groups.

Response: Since this project will span 7 to 10 years, and occur in four phases, it is very likely that sensitive receptors at age 0 < 2 years of age will live in the housing units constructed in the previous phase. The above "Construction Health Risk Impacts" does not reference sensitive receptors actually living on the construction site.

8-23

Reference Page 4.2-38

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

The combined-level impacts are also summarized in Table 4.2-7. The combined-level impacts include health impacts associated with vehicles traveling on Clement Avenue based on BAAQMD's Roadway Screening Analysis Calculator (BAAQMD 2015), and health impacts associated with stationary sources within 1,000 feet of the project site based on BAAQMD's Stationary Source Screening Analysis Tool (BAAQMD 2012c). The totaled combined-level cancer risks, hazard indices and PM_{2.5} concentrations would not exceed the BAAQMD thresholds for multiple sources. The maximum combined-level impacts would occur at the sensitive residential uses to the south of the project site on the south side of Clement Avenue.

Response: One thousand feet south of the project site does not stop at the Clement Avenue but extends past Eagle Avenue to Buena Vista Avenue and covers several blocks along the project site. The number of sensitive receptors is much greater as Eagle Avenue and Buena Vista are more heavily populated than the south side of Clement Avenue which is predominately industrial.

8-24

Reference Page 4.2-40

PM₁₀ emissions result from vehicle exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways. Entrainment of PM₁₀ 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. Since much of the project traffic fleet would be made up of light-duty gasoline-powered vehicles, a majority of the PM₁₀ emissions would result from entrainment of roadway dust from vehicle travel.

Response: Presently Clement Avenue is and will continue to be a truck route for trucks traveling to and from parts of Alameda north of Park Street. The combined effect of existing truck traffic together with construction truck traffic must be considered.

8-25

Impact AQ/CC-3: The proposed project would not expose sensitive receptors to substantial pollutant concentrations (*Less than Significant*)

Reference Page 4.2-42

Impact AQ/CC-3: The proposed project would not expose sensitive receptors to substantial pollutant concentrations (*Less than Significant*)

The transportation analysis indicates that the highest volume intersection in the project area is Webster Street and Atlantic Avenue with an existing volume of 3,036 and a with-project volume of 3,089 vehicles per hour.

Response: Webster Street and Atlantic Avenue will be the primary exit intersection for traffic leaving the site for Oakland, San Francisco and other places to the North. With 779 units, it is illogical to believe that only 53 cars will be added to the traffic flow during peak

8-26

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

traffic times. Also, once all the traffic from the other proposed Northern Waterfront units will be added to the intersection, traffic will be even greater.

↑ 8-26
cont.

Reference Page 4.2-45

Reference Page 4.2-46

TABLE 4.2-11
MASTER PLAN CONSISTENCY WITH APPLICABLE CONTROL MEASURES OF THE 2017 CLEAN AIR PLAN

TR13 - Parking Policies - The master plan specifies that the TDM program may also include unbundled parking programs as part of the overall TDM strategy.

Response: Unbundled parking will result in more parking on city streets and in the commercial areas of the project site.

↑ 8-27

Reference Page 4.2-50

Cumulative Impacts

Methodology

Electricity and Natural Gas. Buildings represent 39 percent of United States primary energy use and 70 percent of electricity consumption (USDoE,2003). Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel.

Response: Calculations should consider Alameda Municipal Power reliance on renewable energy production for electricity.

↑ 8-28

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

4.3 Biological Resources

Project Site and Vicinity – Marine Resources Open Water, Aquatic, and Subtidal Habitat

Reference Page 4.3-5

Although it is not federally or State protected species, the San Francisco Bay Pacific herring fishery is one of the last remaining such fishery in the San Francisco Bay, and is currently suffering significant declines.

Reference Page 4.3-11

Special Status Terrestrial Species

The special-status species list presented in Table 1 of Appendix C includes marine animal species tax for which potential habitat (i.e., general habitat types for breeding or foraging) occurs in the general vicinity of the project or can reasonably be expected to be affected by project activities.

Response: The cumulative work on Alameda Marina and Encinal Terminals must be considered. Alameda Marina lies between 2200' and 4400' from the Encinal Terminals project. Both projects are extremely large, will span many years, and will repair the bulkheads and replace pilings in the Estuary waters. The Brooklyn Basin project may also be doing bulk head and shoreline work at the same time.

Extreme caution must be taken to make sure the cumulative work from these projects does not do more damage to all species than would be considered for each project on its own.

8-29

Local

5.1 Open Space for the Preservation of Natural Resources

5.1.j Use the City of Alameda Street Tree Management Plan as the guiding reference when considering action which would affect the trees contained in the urban forest. After presenting a thorough inventory of the location, composition, condition, and maintenance needs of City-maintained trees, the Street Tree Management Plan presents recommendations for planting and tree maintenance.

Response: As stated earlier, the existing Clement Avenue London Plane street trees must be saved.

8-30

Reference Page 4.3-35

Operational Impacts

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Construction disturbance from building demolition or vegetation and tree removal during breeding bird season in support of the proposed project could result in incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment of active nests within project structures or in trees of buildings in the vicinity of the proposed project site.

Response: Manmade nesting structures should be placed where nesting trees must be removed within the construction site. The manmade structures should remain until replacement trees mature enough to support re-nesting.

8-31

Reference Page 4.3-37

Nesting Birds

Mitigation Measure BIO-1e: To the extent practicable, construction activities including building renovation, demolition, vegetation and tree removal, and new site construction shall be performed between September 1 and January 31 in order to avoid breeding and nesting season for birds. If these activities cannot be performed during this period, a preconstruction survey for nesting birds shall be conducted by a qualified biologist.

In coordination with the City, surveys shall be performed during breeding bird season (February 1 – August 31) no more than 14 days prior to construction activities listed above in order to locate any active passerine nests within 250 feet of the project site and any active raptor nests within 500 feet of the project site. Building renovation, demolition, tree and vegetation removal, and new construction activities performed between September 1 and January 31 avoid the general nesting period for birds and therefore would not require pre-construction surveys.

Response: Climate change has been altering our normal weather patterns. Especially in California, spring is coming earlier and fall is lasting longer. Bird migration patterns have been changing. Since this project will extend several years, care must be taken to verify the beginning and end of migration times so construction does not interfere with nesting.

8-32

<https://www.cbsnews.com/news/california-ponders-bird-migration-changes/>

Reference Page 4.3-39

Fish-Eating Birds

Dredging and pile removal associated with rehabilitation or replacement of deteriorated wharf pilings could potentially affect submerged aquatic vegetation on the Bay floor or attached to wharf pilings, as well as affect native oysters or mussels. Potential effects from dredging and pile removal could range from short-term to permanent, depending on the extent and degree of disturbance, and would be expected to result in possible mortality, physical injury, or physiological stress resulting from reduction in habitat suitability, and physical disturbance/removal. Dredging and pile removal could result in direct mortality of native oysters. While eelgrass beds are not known to occur within the project area, their

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

presence in the Oakland-Alameda Estuary, approximately two miles northwest of the project, may subject them to indirect disturbance from such in-water work. Any such impacts resulting in significant damage to eelgrass beds or native oyster beds would be potentially significant because eelgrass beds are considered to be of critical importance to Bay marine life and native oysters are still generally quite rare throughout the Bay.

Dredging and pile removal associated with rehabilitation or replacement of deteriorated wharf pilings could potentially affect submerged aquatic vegetation on the Bay floor or attached to wharf pilings, as well as affect native oysters or mussels. Potential effects from dredging and pile removal could range from short-term to permanent, depending on the extent and degree of disturbance, and would be expected to result in possible mortality, physical injury, or physiological stress resulting from reduction in habitat suitability, and physical disturbance/removal. Dredging and pile removal could result in direct mortality of native oysters. While eelgrass beds are not known to occur within the project area, their presence in the Oakland-Alameda Estuary, approximately two miles northwest of the project, may subject them to indirect disturbance from such in-water work. Any such impacts resulting in significant damage to eelgrass beds or native oyster beds would be potentially significant because eelgrass beds are considered to be of critical importance to Bay marine life and native oysters are still generally quite rare throughout the Bay.

Response: "While eelgrass beds are not known to occur within the project area, their presence in the Oakland-Alameda Estuary, approximately two miles northwest of the project, may subject them to indirect disturbance from such in-water work."

Dredging and pile work will create a greater danger to eelgrass beds if the water work is done at the same time as dredging and pile work is happening at the Encinal Terminals project directly North West of the Alameda Marina job site.

Quote from page 4.3-51, this document.

"Although the project would develop the area with commercial, residential, recreational, and maritime uses that could disturb sensitive species or habitat, the project would implement mitigation measures that would ensure these impacts are less than significant. While there is no sensitive habitat located on land within the project site, the project could disturb aquatic habitat in the Oakland-Alameda Estuary. Other projects are located along Alameda's waterfront, and some will involve in-water work, such as Encinal Terminals and Shipways at Marina Village. These areas have limited habitat value for wildlife as they are already primarily or fully developed. However, the proximity of some projects to the waters of San Francisco Bay and the Oakland-Alameda Estuary could lead to potential cumulatively significant impacts on waterbirds and marine life and demolition of existing buildings or removal of existing vegetation could lead to significant cumulative impacts on nesting birds. These projects would include many of the same activities as would occur under the proposed project (e.g., dredging, pile driving, wharf improvements, increased boat traffic) and can be assumed to have similar effects on marine biological resources, resulting in a potentially significant cumulative impact."

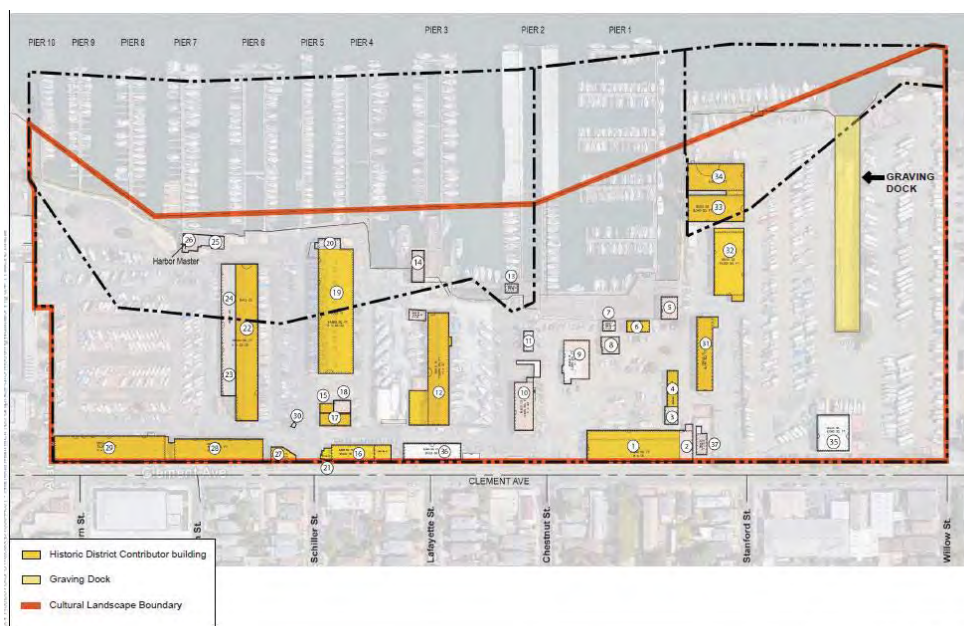
In addition to the developments in Alameda, the city of Oakland also is planning large housing developments simultaneously which will add to the disruption of marine life and biological resources in the Alameda Oakland Estuary.

8-33

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

4.4 Cultural Resources



SOURCE: Adapted from VerPlanck 2017

Alameda Marina Master Plan EIR

--Page 4.4-16 Additional References Page 2-18, 5-4, 5-37, 6-1

Impact CUL-1: Project implementation would cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines, Section 15064.5. (Significant and Unavoidable, with Mitigation)

“CEQA Guidelines Section 15064.5 requires the lead agency to consider the effects of a project on historical resources.”

Response: Both the consultant hired by the developer (VerPlanck) and the city’s consultant (Corbett) agree that Buildings 16, 19, and 27 appear individually eligible as historic resources under Section 15064.5(a) CEQA for the California Register under Criteria 1 and 3. There is a difference of opinion regarding the integrity of the remainder of the WWII buildings at Alameda Marina, all built prior to 1942, affecting their eligibility for protection under CEQA. (Buildings 1, 4, 6, 12, 15, 17, 21, 22, 28, 29, 31, 32, 33, 34, and the graving dock) VerPlanck downgraded the integrity findings primarily because the corrugated metal cladding had been replaced by plywood which is easily remedied by replacing the plywood with corrugated metal siding. Corbett, hired by the city in 1988 and again in 2017, disagreed with the findings of VerPlanck. The city’s Historical Advisory Board further demonstrates a

8-34

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

will to protect the buildings by creating a Historic District which includes 25 Contributor buildings, all located on the western two-thirds of the parcel. Further, the City of Alameda's Municipal Code Section 13-21.7 protects all the buildings from demolition at Alameda Marina because they were built prior to 1942.

Serious consideration should be given to the Preservation Project Alternative described in the DEIR in chapter 5.

8-34
cont.

Page 4.4-17

Additional References Page 2-18

Mitigation Measure CUL-1a: Treatment of Historic Properties (Buildings 16 19 and 27). Alterations, to the exteriors of Buildings 16, 19 and 27, shall conform to the Secretary of the Interior's Standards for the Treatment of Historic Properties and Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, if feasible (NPS, 1995) and PRC 5024.5.

*Response: The developer is stating that they will treat the **exteriors** of the buildings according to the Department of the Interior's Standards **if feasible**. The addition of four floors in Building 19 will alter the interior of that building in a manner that will destroy its eligibility for inclusion on state and national historic resource lists. The statement "If feasible" does not commit the developer to the Department of the Interior's Standards.*

8-35

Page 4.4-17

Additional Reference Page 2-18

Mitigation Measure CUL-1c: Interpretive Display. "Public interpretation of historical resources shall be provided and could include a plaque, kiosk, or other method of describing the Alameda Marina Historic District's historic or architectural importance to the general public." The design and placement of the display(s) shall be reviewed and approved by the City of Alameda Historic Advisory Board.

Response: See Comment to CUL 1b

Response: Comment- Photo documentation filed in a library or other historic repository does not offer a citizen of Alameda or visitor the opportunity to appreciate the expanse of the operation undertaken to ensure a successful conclusion in the Pacific during WWII.

8-36

Cumulative Mitigation Measures for CUL-1

Response: As the DEIR states, the above mitigations "typically do not reduce those impacts to a less-than-significant level (CEQA Section 15126.4(b)(2)). Impacts to significant historic buildings or structures under these circumstances would remain significant and unavoidable."

8-37

Page Reference 4.6-2 & 4.6-3

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

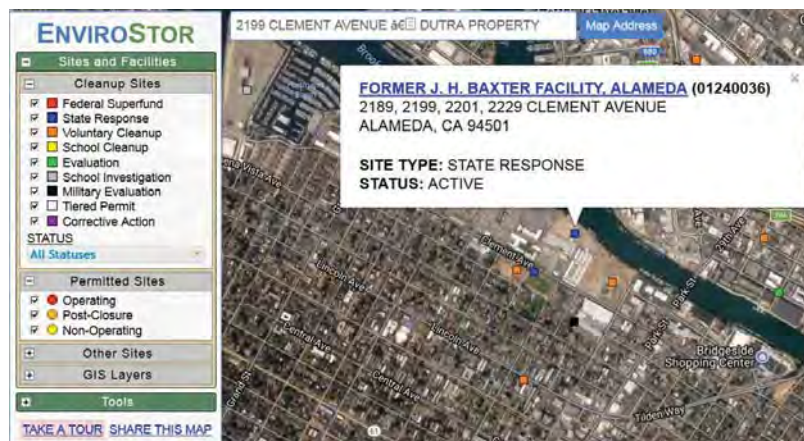
4.6.2 Environmental Setting

Soil and Groundwater Contamination

The lists and databases comprising the Cortese List were reviewed to identify any active cleanup sites at or within 1,000 feet of the project site (project vicinity). (Statuses of Cortese List sites are updated periodically and would need to be revisited prior to construction of the project.) Within the project site and vicinity, there are six listed LUST Cleanup sites, five Cleanup Program sites, one Voluntary Cleanup site, two Military UST sites, and one Military Cleanup site currently identified in the State Water Resources Control Board Geotracker and DTSC Envirostor databases, as described in Table 4.6-1 below (DTSC, 2017; SWRCB, 2017). No other cleanup sites were identified that could have the potential to affect the project site through migration of contaminants onto the project site.

Response: The "Former J.H. Baxter Facility", locally referred to as "The Dutra Property," is still an active clean-up site and is within 1000' of the east end of the Alameda Marina development location.

8-38



EnviroStor site at California State DTS: Active cleanup site.

<http://www.envirostor.dtsc.ca.gov/public/map/?myaddress=201632++%E2%80%902199+CLEMENT+AVENUE+%E2%80%90DUTRA+PROPERTY>

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda



Google Earth measurement from east end of site to Dutra site.

Reference Page 4.6-16

City of Alameda General Plan

Policy SN-45 Encourage residential, commercial and industrial property owners to test their properties for elevated levels of radon gas (more than 4 pico curies per liter).

Policy SN-45 Regulate land uses within designated airport safety zones, height referral areas, and noise compatibility zones to minimize the possibility of future noise conflicts and accident hazards.

Policy SN-46 Maintain a high degree of readiness to respond to aircraft crashes through participation in preparedness drills and mutual aid activities with the City and Port of Oakland to ensure quick and effective response to emergencies.

Response: This area is on the edge of the 5 mile restricted zone surrounding the Oakland International Airport. The Estuary is used as an air highway by small planes and helicopters. Coast Guard helicopters frequent Government Island. The aircraft using this air highway are flying at a relatively low altitude so noise is a frequent result of this air traffic .

8-39

4.5 Geology, Soils, and Paleontological Resources

4.6 Hazards and Hazardous Materials

Page 4.6-27

Impact HAZ-5: Development of the project would be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and could result in a safety hazard to the public or environment through exposure to previous contamination of soil or groundwater. (Less than Significant with Mitigation)

“As discussed above, the project site has a history of maritime industrial use, and releases of hazardous materials at the site have been well documented.”

“SAMPLING APPROACH & LOCATON RATIONALE

This section provides a general description and rationale of the sampling locations and the media and analyses selected. The bore locations and proposed sampling and analyses are based on the historical site data and the general development plans to determine the extent of the presence of soil, soil gas and groundwater contamination. Figure 2 shows the site plan with proposed bores. The six areas of general concern are described as follows:

- 1) Former (Potential) Coal Gas Manufacturing Plant (may be distribution only)
- 2) Historical and remnant Underground fuel storage tank(s), oil lines;
- 3) Railways spurs;
- 4) Plating and Paint shops;
- 5) Offsite and onsite VOC sources from general industrial uses; and
- 6) Elevated metal concentration associated with onsite fill material

RATIONALE FOR EXPLORATORY INVESTIGATION SAMPLE LOCATIONS

There are known, suspected and possible contaminants of concern at the Alameda Marina that the SAP is designed to identify or eliminate as potential chemicals of concern COCs). The known contaminants include the hydrocarbons associated with former USTs and the VOCs (specifically PCE) associated with onsite trenching data and a known offsite source. The suspected contaminants include potential PAHs /PNAs associated for the former coal gas manufacturing area, pesticides/herbicides associated with historical weed suppression and wood treatment, and metals associated with fill material. Unlikely COCs include PCBs and the full suite of SVOCs. If initial boring and sampling verifies the presence of COCs in the sample on which the full analytical suite is run, the soil samples held by the lab can be run for the identified additional COCs. Locations of subsequent exploratory borings, if needed, will be positioned to evaluate the soil and or groundwater quality within the lease area after permissions granted by the City of Alameda. The sampling matrix presented on the following pages presents the location rationale and sampling approach for the investigation across the three Alameda Marina parcels.”

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Response: On November 24, 2017, the Save Alameda's Working Waterfront (SAWW) group sent the City of Alameda a letter requesting that close attention be paid to the soil at the location of the original graving dock next to Building 19 when soil samples were studied to determine the existence of potentially dangerous contaminants in the soil. Stellar Environmental Services did not evaluate this area when they completed their studies of the parcel's subsurface soils. Since this letter was sent, SAWW members have identified an additional area of concern north of Chestnut Avenue. Both these locations were identified as graving docks on the 1897 Sanborn Maps (inserted below). These maps were used by the Stellar Consulting agency as listed in their bibliography, so it is surprising they did not identify these potentially contaminated areas when they were collecting soil samples.

8-40



1897 Sanborn Map

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

4.8 Land Use and Planning

Reference Page 4.8-7

Development of the Bay and Shoreline, Appearance, Design, and Scenic View

Policy 2 All Bayfront development should be designed to enhance the pleasure of the user or viewer of the Bay. Maximum efforts should be made to provide, enhance, or reserve views of the Bay and shoreline, especially from public areas, from the Bay itself, and from the opposite shore.

Response: Presently the project area is very open, views of the Oakland hills and the Estuary are great, and the land is open to the public. The public is welcome to come in and visit the shoreline. Since there are tall fences along the property edge on Clement Avenue, the public may not understand that the Alameda Marina is open space and that they may visit at any time during the day. Unfortunately, most of the gates seem to be locked on weekends making it harder to visit on days when most families are out and about. Gate #7, at the end of Schiller Street is always open during weekends until 9:00 p.m.

With the addition of 5 and 3 story buildings covering most of the land space, the Alameda Marina will become less inviting. The actual open space that will be left after construction is quite small. Views of the Oakland Hills and the Estuary will be blocked from most places within the project site and from Clement Avenue. Extending city streets into the property will not create an inviting feeling.

8-41

Reference Page 4.8-12

City of Alameda Zoning Ordinance

Alameda Municipal Code (AMC) Section 30-4.20 states that the purpose of the MX, Mixed-Use Planned Development District Zoning District is to: Alameda Municipal Code (AMC) Section 30-4.20 states that the purpose of the MX, Mixed-Use Planned Development District Zoning District is to: "...encourage the development of a compatible mixture of land uses which may include residential, retail, offices, recreational, entertainment, research oriented light industrial, water oriented or other related uses. The compatibility and interaction between mixed uses is to be insured through adoption of Master Plan (defined in subsection 30-4.20f) and development plan site plan (defined in subsection 30-4.20h), which indicate proper orientation, desirable design character and compatible land uses to provide for:

Response: Alameda City Ordinance AMC 30-4.20 - M-X, Mixed-Use Planned Development District, Sec. e (1) states that the density calculation only applies "for land designated on the Master Plan for residential use." AMC 30-4.23 - Multi-family Residential Combining Zone, commonly referred to as the Multi-family Overlay, at Sec. B (1), states that the provisions of the underlying zoning district shall apply if not in conflict with the overlay ordinance. There is no conflict regarding density calculation.

8-42

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

The application of the above Ordinances to the Alameda Marina Master Plan requires the calculation of maximum housing units by multiplying 9.39 times 30, yielding a unit count of 282 units plus the applicable 20% density bonus to reach a total of 338 units. It is obvious that the developer reached their calculation of 779 units by multiplying the total 21.62 MX zoned acres by 30, yielding 649 units and adding the 20% density bonus.

The developer's formula not only violates the above Zoning Ordinances, but also contradicts our Housing Element which identifies a reasonable capacity of residential units for Alameda Marina at 396 units based on an estimate that only 60% of the parcel would be residential, thus calculating the unit count solely in relation to residential, not total, acreage.

With our Municipal code clearly invalidating the developer's formula based on total acreage, the only avenue open to confirming that formula is by establishing that our Municipal Code is pre-empted by State Law. Our examination of the relevant State Laws concerning how to meet our housing needs reveals no such stipulation. Therefore we ask for a response citing specific legal authority for this calculation of 779 units or a response that amends the DEIR Project Description to provide for no more than 338 residential units.

8-42
cont.

Reference Page 4.8-13

Topics with No Impact or Otherwise Not Addressed in this EIR

The project would not conflict with an adopted habitat conservation plan or natural community conservation plan. The Habitat Conservation Plan nearest to the project site is the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP; ECCCHC, 2017 and EBRPD, 2017), whose closest boundary is located approximately 18 miles east of the project site across several urbanized areas (Oakland/Fruitvale, Moraga, Danville, etc.). The project site is not located within an area identified in a habitat conservation plan or natural community conservation plan. In addition, there are no habitat conservation plans or natural community conservation plans proposed for adoption that would include the project site. Thus, the project would have no impact on a habitat conservation plan or a natural community conservation plan. A discussion of special-status species that the project could potentially impact can be found in Section 4.3, *Biological Resources*.

Response: It's interesting that the only "Habitat Conservation Plan" found for this DEIR was 18 miles from Alameda Marina while Alameda Point is listed and is within just a couple miles from the future construction site.

8-43

The SFPUC Alameda Watershed Habitat Conservation Plan (HCP) will provide long-term conservation measures for threatened or endangered species that could be affected by ongoing water system operations and maintenance efforts within the

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

SFPUC-owned portion of the Alameda Watershed, or by recreation, lease, and easement activities. <https://sfwater.org/index.aspx?page=412>

Page 4.8-15

Additional Reference Page 2-27

Impact Analysis

Impact LU-2: The proposed project would not conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the General Plan and zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. (Less than Significant)

“The MX and MF overlay designations for Alameda Marina and other sites adopted in 2012 designate Alameda Marina as a site for mixed use/multifamily housing bring the City’s General Plan and Alameda Municipal Code into conformance with State Law. The proposed project is, therefore, compatible with the existing and planned land use within the surrounding area. Consistent with the General Plan’s Land Use Element, the proposed project would support the intent of the current City of Alameda General Plan. In particular, the project would be consistent with the General Plan’s policies for waterfront sites, mixed use housing development, shoreline 4. Environmental Setting, Impacts, and Mitigation Measures 4.8 Land Use and Planning Alameda Marina Master Plan 4.8-16 ESA / 160044.01 Draft Environmental Impact Report December 2017 access, and policies regarding architectural resources and historic resources.”

From the developer’s Master Plan: “Marina uses would remain relatively unchanged from that which is currently provided, with approximately 550 boat slips in the water. Currently, more than 50 percent of the existing boat slips are in need of repair or rebuilding. Dry boat storage is proposed to cover a maximum of approximately 1.75 acres on the north east end of the site with the capacity for 90 dry boat storage spaces (approximately 75 sail boats and approximately 15 power boats).

The proposed project would include approximately 250,000 sf of commercial space, with 115,000 sf dedicated to maritime uses and the other 135,000 sf for office and retail. The proposed maritime square footage would increase the existing maritime footprint by approximately 20 percent. Commercial space would be located in individual buildings centered around a Maritime Core and would include the preservation and repurposing, *if feasible*, (emphasis added) of several of the existing buildings on the site (one of them being the Alameda Marina building) for old and new maritime businesses”

Response: The number of housing units the developer can legally build on the acreage present at Alameda Marina depends the method used when calculating the number of units - whether based on the total acreage or the proportionate-use method. Per Robert Sullwold, a local attorney who writes the Blog “Alameda Merry-Go-Round”, January 28, 2018:

8-44

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

“The latest master plan for the Alameda Marina proposes a mixed-use development on a site on which 21.62 acres of land are zoned MX-MF and 4.89 acres are zoned for industrial use. The plan calls for 7.98 acres of commercial use and 4.25 acres of public open space. Assuming these uses will take place in the area zoned MX-MF, 9.39 acres will be left for residential development. Under the proportionate-use method, the maximum number of units on the site will fall to 282 (before any density bonus) from the 760 shown in the master plan (which includes the bonus units).”

8-44
cont.

It is important to remember that the primary reason to complete this project is to fund the bulkhead repair and replacement. Enough housing units must be built to accomplish this goal.

*Alternatively, the city may seek low cost governmental loans to replace the bulkheads, may include the bulkhead replacement in an infrastructure bond, or may partner with other local jurisdictions and/or manufacturing companies to both repair bulkheads and attract new businesses to Alameda Marina. Visit: http://dbw.parks.ca.gov/?page_id=28715 to learn the grants and loans available in California for boating concerns including infrastructure. For example, the CA Boating Infrastructure Grant described here which was for last calendar year: Boating Infrastructure Grants (BIG) **APPLICATION DEADLINE: August 1, 2017***

8-45

Division of Boating and Waterways (DBW) is now accepting applications for U.S. Fish and Wildlife, BIG Tier I and Tier II grants. DBW is the designated State entity for administering these programs. Funding is through the Wildlife and Sport Fish Restoration Program. These Federal grants are for boating infrastructure improvements that service transient recreational vessels at least 26ft long. Transient vessels are those “passing through” staying 15-days or less.

Projects completed using BIG funds must provide public access and may be publically or privately owned.

BIG Program is intended to Enhance access to recreational, historic, cultural and scenic resources

- *Strengthen community ties to the water’s edge and economic benefits*
- *Promote public/private partnerships and entrepreneurial opportunities*
- *Provide continuity of public access to the shore*
- *Promote awareness of transient boating opportunities*

Tier I: Up to \$200,000 is available for projects in California. All Tier I grants must meet the eligibility requirements of [50 CFR 86.20](#). Each Tier I grant cannot exceed \$200,000; however, the State of California may award more than one (1) Tier I grant as long as the total amount of awarded grants doesn’t exceed \$200,000.

Tier II: Up to \$1.5 million may be awarded to a California project in the national competition. A total of \$8 million is available for Tier II projects nationally. All Tier II grants must meet the eligibility requirements of [50 CFR 86.20](#).

Grant applications and supporting documentation must be received by DBW on or before AUGUST 1, 2017.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

*Division of Boating and Waterways
 ATTN: Lisa Fernandes
 One Capital Mall, Suite 500
 Sacramento, CA 95814*

In addition, Alameda's General Plan currently states (as it applies to Land Use and Alameda Marina):

LAND USE ELEMENT CHAPTER 2

Medium-Density Residential: Two family or one family units. Medium density residential development will provide at least 2,000 square feet of site area per unit. Existing densities range up to 70 units per net acre on blocks with mixed single- and units. Density range for additional units: 8.8 to 21.8 units per net acre. Projects of five or more units with 20 percent of the units affordable to lower-income households earn a state-mandated density bonus permitting up to 26.1 units per net acre. Congregate housing and single room occupancy facilities would be permitted and their density would be regulated by the bulk standards (setbacks, height, lot coverage) in each zoning classification.

Measure A Exception: The City Council agreed in the Settlement Agreement on the Guyton vs. City of Alameda case that Section 26-2 of the City Charter allows the Alameda Housing Authority to replace, with multifamily housing, 325 low cost housing units. Three hundred and twenty five represents the number of low cost units lost when the former Buena Vista Apartments were converted to Bridgeport Apartments. The City agreed that the 325 units of multifamily housing can be built at densities allowed as of January 1, 1990, even if Zoning and General Plan changes are subsequently adopted which reduce allowable densities.

SPECIFIED MIXED USE

Nine areas designated on the General Plan Diagram are to have combinations of uses specified to implement General Plan policies. Development programs that include limitations on development intensity are described in Sections 2.6. (See Table 2-1.)

The Specified Mixed Use Areas labeled on the General Plan Diagram are:

MU 1-3 Listed

MU4 Northern Waterfront (Grand Street to Willow Street)

MU 5-9 Listed

Guiding Policies: Residential Areas

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

2.4.a Maintain and enhance the residential environment of Alameda's neighborhoods.

2.4.d Limit residential development to one family detached and two family dwellings, in accord with the provisions of Measure A. Up to 325 low cost units may be built in Alameda as multifamily housing as replacement housing for the low cost units lost when Buena Vista Apartments were converted market-rate housing in 1988. Some or all of these replacement units may be located at one or more of the mixed-use sites, or in any area of the City where residential units are permitted.

Implementing Policies: Residential Areas

2.4.j Schedule hearings to consider amendments to the Zoning Map that would reclassify predominantly residential areas zoned for nonresidential use to bring the Zoning Map into consistency with the General Plan Diagram.

2.4.p Amend the Zoning Ordinance and zoning map to be consistent with Measure A, as necessary.

Chapter 2 - 14 - Land Use Element

2.4.q Require that all new development pay appropriate development impact fees.

Guiding Policies: Specified Mixed Use Areas

2.6.d Grand to Willow Street (Northern Waterfront): Continue efforts to minimize industrial -residential conflicts on the south side of Clement Avenue where current zoning matches current use at most locations. Live-work space for artists and artisans would be an appropriate use in many cases. To ensure maintenance of a working waterfront and to avoid employment densities that would create heavy traffic, office and retail space is to be limited to approximately its current share of total floor area. The intent is to maintain an environment suited to the types of businesses now located in the area—both those that are related to the waterfront and those that are not.

Chapter 2 - 24 - Land Use Element

The proposed Business and Waterfront Improvement Project would provide public actions to stimulate development of this site.

2.6.f (Northern Waterfront): Create a continuous shoreline access along the Estuary from the Miller Sweeney Bridge to the western tip of Alameda Point.
Implementing Policies: Specified Mixed Use Areas

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

2.6.h Grand to Willow Street (Northern Waterfront): Limit office/industrial/retail development to .5 FAR, excluding area serving open uses, providing shoreline access, or used for vehicular access to other facilities within the Specified Mixed Use area. **The intent of this provision is to support waterfront related and non-waterfront related uses of the types now existing. The policy would prevent overbuilding that would occupy open area needed to support viable marine-related activities. The industrial character is not to be replaced by typical business park landscaping or building intensity.**

2.8.d Continue working to eliminate residential-industrial conflicts. Where there is agreement that a boundary is firm, it is reasonable to expect development approvals to require developers to pay for improvements that mitigate conflicts.

2.8.e Maintain maritime character where the Northern Waterfront is to remain in industrial use.

Specified Mixed Use Area development programs in Policies 2.6.b,

2.6.d and 2.6.i provide safeguards against displacement of water related industries by offices or other commercial development.

2.8.f Encourage major employers to contribute towards child care facilities and/or programs to help attract and maintain a productive work force.

Implementing Policies: Business Parks and Industrial Areas

2.8.g Revise zoning regulations to remove cumulative provisions that permit all uses except housing in industrial areas. This policy may be critical to preservation of the sea-rail link and the existing industries that use it. If zoning regulations in force in 1990 are not revised, a strong demand for office space or waterfront hotels could suddenly displace industry. **If future economic conditions warrant a major change from the designated industrial use, the City of Alameda should initiate revision of the General Plan.**

2.8.h Review zoning regulation performance standards and revise if necessary to improve equity and enforceability. Current (1990) regulations permit uses from which "noise, smoke, dust, noxious fumes and gases, glare, heat and vibration are confined to the premises or held to volumes, intensities and levels at the perimeters of individual properties which are no greater than those in the general area. This does not meet regional standards and cannot be effectively enforced.

2.8.i Require that all new development pay appropriate development impact fees.

Guiding Policies: City-owned Land

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

*2.10.a Establish long-range management policies for City-owned real property based on comparative evaluation of potential for public use and enjoyment, public- or joint-venture enterprise development, or lease for development. **A Port Authority Task Force appointed by the City Council in 1989 has discussed steps that could lead to more profitable asset management by the City as part of the Task Force's investigation of ways to ensure preservation and development of marine/harbor facilities in the public interest.***

2.10.b Investigate and pursue potential opportunities to acquire underused State or Federal property in Alameda.

2.10c Stop the trend toward private use of public property.

10. NORTHERN WATERFRONT GENERAL PLAN AMENDMENT

10.1 Challenges and Issues

Financially Sound Development The General Plan policies and land use designations are designed to ensure that new development will fund the public facilities and services that are needed to serve the new development and that redevelopment of the area does not result in a negative financial impact on the City's ability to provide services to the rest of the City.

Facilitating a Jobs/Housing Balance. With an emphasis on mixed use development, the General Plan policies for the area are intended to facilitate a jobs housing balance in the area and in the City for the purpose of reducing citywide traffic and the associated environmental, economic and social impacts of long commute trips.

10.3. Guiding and Implementing Policies

The guiding and implementing policies provide a regulatory framework and guidance for the successful redevelopment of the area.

Guiding Policies: Land Use

10.3.a. Require that development in the Northern Waterfront is sensitive to the character of Alameda and the unique waterfront setting.

10.3.b. Require a mix of uses and open space near the Estuary and shoreline that provides for a lively waterfront and a pedestrian friendly environment.

Implementing Policies: Land Use

10.4.f. Encourage the development of residential units on the upper floors of small commercial buildings in the Mixed-Use designated areas, in compliance with the City Charter.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

10.4.g. Consider opportunities for a houseboat community in the Northern Waterfront area.

Implementing Policies: Circulation and Infrastructure

10.6.f. Non-residential uses should be located adjacent to the Clement Truck Route to minimize disturbances to residents from truck traffic on Clement Ave.; however, if residential uses are proposed adjacent to the Clement Truck Route, residential structures shall be adequately set back and/or provide design features to minimize disturbances to future residents. In accordance with policy

10.8.f, sound walls shall not be used to buffer residential uses from the truck route.

10.6j. Establish connections to the Bay Trail and other regional circulation systems.

10.6.k. Ensure that the public access path along the waterfront includes a separated path for bicyclists or is wide enough to minimize conflicts between pedestrians and bicyclists.

10.6.o. Require new development to provide facilities for pedestrians, bicyclists, and transit riders.

10.6.p. Ensure that all streets and pedestrian pathways include tree plantings.

Transit and other Alternatives to the Automobile

Northern Waterfront General Plan Amendment – Adopted March 17, 2007

10.6.q. Develop shuttle services to minimize parking demand and traffic in the area.

10.6.r. Establish a Transit District, amend the Citywide Development Fee Ordinance, or establish a comparable mechanism to fund expanded Northern Waterfront transit services in corridors through and between the Northern Waterfront and the high ridership generators inside and outside the City such as Oakland BART stations, airport, and transit hubs.

10.6.s. Maintain a public right of way for a future rail/transit corridor along Clement Avenue from Grand Street to Sherman Street as part of a citywide transit corridor.

10.6.z. Ensure that police, fire, educational, parks, opens space, and other public services are adequately funded to serve new development.

10.6.aa. Consider creation of a Northern Waterfront Assessment District to fund public improvements and or municipal services required to support new development in the area.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

10.8 Urban Design
Guiding Policies: Urban Design

10.8.a. Improve the visibility and public access to the Northern Waterfront Plan area and Oakland/Alameda Estuary.

10.8.b. Require that buildings at waterfront locations be designed with attractive and varied architecture style.

10.8.c. To ensure design compatibility with adjacent developments and neighborhoods; limit new building heights to 60 feet.

Implementing Policies: Urban Design and Aesthetics

10.8.b. On large sites with multiple buildings and with individual tall buildings adjacent to the water, require building heights to “step down” as they approach the water.

10.8.c. Require that new development provide a pedestrian-friendly scale with building sizes consistent with adjacent and historic land uses in the area.

10.8.d. Require new buildings to “face” the street.

Response: When city officials determined all the property along the Northern Waterfront could be used for housing, because it was “vacant and underutilized”, they were not aware that 250 people (many Alamedans) were employed at 85 businesses located in 37 historic buildings at Alameda Marina. The land at Alameda Marina was already being used for its highest and best purposes. Furthermore, the Alameda Marina is located east of the Northern Waterfront PDA, not within it.

In fact, a regional boatyard which is critical for maintenance of recreational small craft for mariners south of the Bay Bridge and the manufacturer of submersible craft used in deep ocean research and submersed infrastructure are being displaced. Alameda Marina was home to a microcosm of maritime businesses that served all the needs of the recreational boater in one location. These businesses supported the families of professional, technical, and skilled labor workers who were able to live and work on the island of Alameda. Recreational boaters were able to enjoy their hobby without traveling to off-island locations because the marina offered both wet and dry boat storage facilities. These amenities contributed to the small town feel of Alameda. The developer plans to reduce the number of dry storage spaces from 500 to 50 requiring Alamedans to leave our city to travel to far away marinas to store their boats and this has already begun happening due to the poor operations of the developer and lack of proper hoist maintenance resulting in the inability for sailors to put dry-stored vessels into the water as needed for races.

With or without the development, the amount of shoreline accessible to Alamedans does not change. Citizens can recreate at Alameda Marina riding their bicycles, walking their dogs or picnicking at the shoreline. As described above with the dry storage and hoist

8-46

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

situation, Alamedans are already experiencing a reduction in the enjoyment of the shoreline accessibility due to the actions of the developer. If anything, the development reduces general access because Alamedans who live in other areas of the island will consider the apartment complex to be a neighborhood for the residents of the apartments. This development, as well as the adjacent planned developments, will reduce the ability for Alamedans to get to the shoreline due to the volume of traffic in a small area.

10.4.g Suggests consideration of a houseboat community on the Northern Waterfront. The loss of a boatyard to service the city's existing houseboats has already been identified as problematic because of the dislocation of the boatyard at Alameda Marina. Adding more houseboats would compound the problem.

The developers planned demolition of the elevator at the marina would make it impossible for the houseboats to receive service in Alameda without greatly increased expense and inconvenience. The Berkeley boatyard reports that they can only service small house boats. Towing a houseboat through the bay waters would subject the houseboat to wave action that could tear the houseboat apart. Without service in Alameda houseboats would eventually be abandoned in the Estuary.

In 2016, members of the Alameda Planning Board's Sub-Committee determined the following attributes as priorities for Alameda Marina:

- a. There should be a maritime commercial focus and plans should provide the space and facilities to support a boatyard which may allow for flexible space since the city does not control the market.*
- b. The commercial plans should preserve the greatest number of existing buildings to provide opportunities for maritime and other commercial businesses and create a more interesting development plan to include a combination of the old existing and new buildings on the site.*
- c. The Graving Dock should be preserved (The developer's Master Plan in the Appendix describes using the graving dock as a place to fill in using dredging materials. "The walls of the graving dock, which is a fully concrete-lined structure excavated from the uplands, are failing, and the slip either needs to be filled, or extremely expensive repairs need to be undertaken to preserve the failing walls. The project sponsor proposes placement of dredged material or other soils from the site into this structure to allow the reclaimed land to be used to provide open space, provide access to public docks and launching areas, and to improve site circulation. Any dredged material and soils exceeding the fill capacity of the graving dock would be disposed of in-bay, offshore, or at an approved upland landfill or beneficial reuse site A new dock system would be constructed at the east end of the marina to accommodate the dry storage launching area and a public access launching area, which would include a hoist. The new system would include transient staging area for kayaks, small boats, and other uses.")*
- d. Consider adjusting the Tidelands property configuration to allow for consolidation of maritime uses such as dry dock boat storage with the other maritime facilities adjacent to the boatyard and to remove property lines that run through the middle of existing*

8-46
cont.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

buildings. There should be at least 50 dry boat spaces. Currently there are 500. The boating community lobbies for many more than 50.

↑ 8-46
cont.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

4.10 Population, Housing, and Employment

Reference Page 4.10-6

Additional reference page 2-28

Impact POP-2: The proposed project would not displace substantial numbers of people or housing units, necessitating the construction of replacement housing elsewhere. (Less than Significant)

Response: The Barnhill community of 41 houseboats is greatly impacted by this development. The boatyard loss where the hulls of these homes are maintained is critical. The houseboats can't traverse the waters of the San Francisco Bay to obtain services in the North Bay where the remaining boatyards with facilities large enough to do the work are located. The only alternative for keeping these households in Alameda is for multiple homes to schedule their maintenance simultaneously at Bay Ship and Yacht when needed. As previously stated, this would cause a great expense and inconvenience for those who live aboard the houseboats.

8-47

Page Reference 4.9-5

Existing Noise and Vibration in the Project Vicinity

Noise Environment

Long-term (48-hour) noise monitoring was conducted on the project site in August of 2017. The long-term noise monitoring location (LT-1) was at the southeastern end of the project site, approximately 50 feet from the center of Clement Avenue, on the portion of the site that is closest to the airport. Additionally, short-term (15-minute) noise monitoring was conducted at noise sensitive land uses surrounding the project site.

Response: As indicated earlier, Clement Avenue is a truck route now and will continue to be such in the future. Large trucks make more noise and generate more vibration than general transit. This could be a problem for those units that are next to the sidewalks on Clement Avenue's north side. Low flying air traffic along the Estuary could also be a noise problem.

8-48

4.10 Population, Housing, and Employment

Reference Page 4.10-7

Cumulative Impacts

Impact C-POP-1: Development facilitated by the proposed project, in conjunction with potential past, present, and future development in the surrounding region, would not result in unanticipated population, housing, or employment growth, or the displacement of existing residents or housing units on a regional level. (Less than Significant)

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

So long as the cumulative project scenario generates cumulative population, housing, and employment conditions that are within the projections of the City and ABAG, there would be no significant adverse growth impact related to population, housing, or employment.

Response: Job growth projected for the City of Alameda is not realistic. Most available land is being used for housing so the probability of increased employment is hampered. Companies that would provide good jobs that pay good wages will not happen. Without land for good jobs, there will be an adverse regional growth impact as residents of Alameda travel outside of Alameda for employment.

8-49

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

4.11 Public Services and Recreation

Reference Page 4.11-2

Schools

The project site is located within the service boundaries of the Alameda Unified School District (AUSD). AUSD operates a childhood development center, ten elementary schools, four middle schools, two comprehensive high schools, a continuation high school, an Early College High School, and an adult continuation school. AUSD's total enrollment was 11,201 students for the 2016-2017 school year (DataQuest, 2017). The District uses a boundary map to assign students to schools by home address. Students residing in the project area are served by Henry Haight Elementary, Wil C. Wood Middle School, and Encinal High School (AUSD, 2017). Henry Haight School is located at 2025 Santa Clara Avenue, approximately 0.6 mile southeast of the site. Wood Middle School is located at 420 Grand Street, about 1.2 miles south of the site and Encinal High School is located at 210 Central Avenue, approximately 2.3 miles from the project site.

Reference Page 4.11-10- Impact PSR-3: The proposed project would result in new students for local schools, but would not require new or physically altered school facilities to maintain acceptable performance objectives. (*Less than Significant*) Students generated from envelopment of the proposed project would attend Henry Haight Elementary School, Wil C. Wood Middle School, and Encinal High School. The AUSD uses a student yield factor as a basis for the determination of students generated by a specific project.

Response: Alameda High School is approximately 1 mile from the project site. Encinal High School is approximately 2.3 miles from project site. While Alameda High School is within walking distance from the project site, Encinal High School is not. High school students are of driving age so many will prefer to drive to school rather than take other means. This will put more cars on city streets during morning peak hours and generate a need for more parking space at the Encinal High School vicinity.

8-50

Reference Page 4.11-3

City Parks and Facilities

There are three existing parks, and one planned park, that are in proximity to the project site and would be within reasonable walking distance from the site:

Littlejohn Park is a 3.45-acre park located at 1401 Pacific Avenue, immediately south of the project site. Littlejohn Park features an unlighted multi-use field for baseball, softball, soccer, and football. The park has several picnic areas, two half basketball courts, a 2-12 year-old age group playground, a community building, and open lawn for informal play. There is enhanced planting at the entry near the community building. Parking is on-street only, and the park is surrounded on three sides by residences. There is ADA access to the group picnic area.

Marina Cove Waterfront Park is a 3.2-acre park located at 1591 Clement Avenue that runs

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

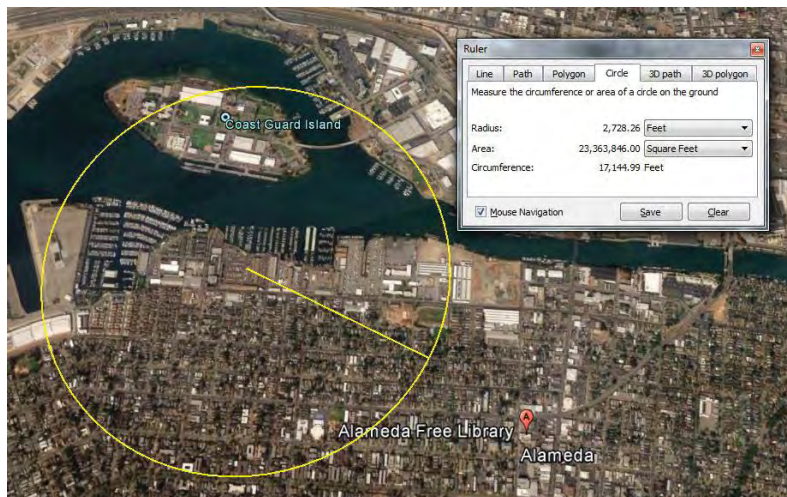
along the marina from Clement Avenue to the Alameda Yacht Club. The park features open lawn areas at each end connected by a walk overlooking the water, picnic areas, benches, and a play area, all of which provide opportunities to rest and enjoy the views. Park lighting enhances safety.

Jean Sweeney Open Space Park is a planned 22-acre park located a few hundred feet to the west of the project site, across Sherman Street. The park will feature passive and active recreation, with a bike path along a proposed extension of the CAT running east to west through the site, a community garden, play areas, lawns, and other features. Construction on the park has begun as of mid-July 2017.

Response: <https://en.wikipedia.org/wiki/Walking>

Although walking speeds can vary greatly depending on many factors such as height, weight, age, terrain, surface, load, culture, effort, and fitness, the average human walking speed is about 5.0 kilometres per hour (km/h), or about 3.1 miles per hour (mph).

A park should be a 10 minute walk from any residents within the city of Alameda. At 3.1 mph, a ten minute walk would cover 2748 feet. Children will walk slower.



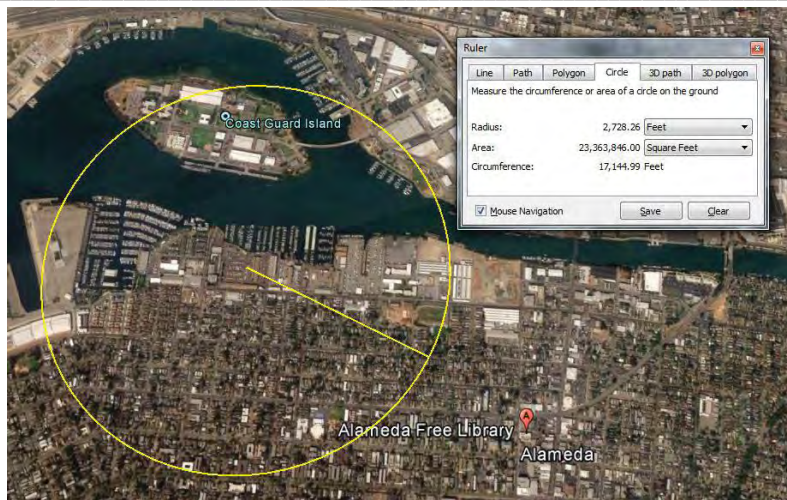
West end of project: 10 minute walk distance.

The West end of the development site is within a 10 minute walk to Marina Cove Waterfront Park. Littlejohn Park is just beyond the 10 minute walk, but the Jean Sweeney Open Space Park would be much further until the Clement Avenue extension is completed through the Penzoil site.

8-51

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda



East end of project: 10 minute walk distance.

The East end of the development site is within a 10 minute walk to the McKinley park which is not listed and is only 1.22 acres. McKinley Park is not a passive park except for very young children. There is only a basket hoop and a small concrete area with it.

Littlejohn Park is going to be extremely over-used. It is at near capacity now with existing neighborhood use.

Marina Cove Waterfront Park is open space only with a small playground for young children.

Jean Sweeney Open Space Park is not planned as an active park. An active park is generally considered to have ball fields for older children and adult, fields which the Jean Sweeney Park will not have. There will be bike riding, jogging, and walking paths plus playgrounds for young children.

Reference Page 4.11-8

4.11.4 Impacts and Mitigation Measures

Significance Criteria

Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

Response: The Northern Waterfront section of Alameda is the most park poor area in Alameda. With the cumulative addition of approximately 2000 units between Sherman Street and Park Street, Littlejohn Park and McKinley Park, substantial physical deterioration of both facilities is assured.

8-51
cont.

8-52

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Reference Page 4.11-11

Impact PSR-4: The proposed project would result in increased use of other governmental facilities, including libraries, but would not require new or physically altered government facilities to maintain acceptable performance objectives. (*Less than Significant*)

The Alameda Free Library offers library services to the residents of Alameda. The West End library branch, located 1.4 miles away from the project site at 788 Santa Clara Avenue, is the closest library. The Library offers a wide range of services, including answering reference questions, staging story times, providing summer reading programs, hosting class visits, and educational events.

Response: The West End branch of the Alameda Free Library at 788 Santa Clara Avenue is nearly twice the distance from the project site as the Alameda Main Library at the corner of Oak Street and Lincoln Avenue.

Reference Page 4.11-11 - 4.11-12

8-53

Impact PSR-5: The proposed project would increase the use of existing neighborhood and regional parks and recreation centers, but not to the extent that substantial physical deterioration of the facilities would occur or be accelerated, nor would it cause the necessity for new or expanded facilities. (*Less than Significant*)

“The proposed residential uses are located within easy walking distance of existing park and recreation areas that include both neighborhood and regional facilities. Although only a portion of new residents are expected to use neighborhood and regional parks in the area, the proposed project would cause an incremental increase in the use of these facilities with connectivity to park areas, paths, trails, and shoreline improvements.

The proposed project provides for development of up to 779 new housing units that are anticipated to result in a population of approximately 1,932 residents in the project site by 2035. These additional residents would generally utilize the 4.25 acres of public open space and 17.10 acres dedicated to marina open space that are proposed as part of the project, as well as the parks that are located in the vicinity of the project. The proposed project includes improvements to new waterfront and Bay Trail Open Space, which would provide a new segment of the San Francisco Bay Trail. This would provide bicycle and pedestrian access throughout the site, with access to public open space on the site, a maritime boardwalk promenade, a harbor view park, and open space areas on either side of the existing graving dock.”

Response: There will not be active park facilities within the development, only passive open space. The closest park will be across Clement Avenue in another new development and 1.22 acre McKinley Park, a 10 minute walk from development. Either park will require travel along Clement, a truck route from Grand to Park which makes the street more

8-54

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

dangerous. (Clement will remain a truck route even after the cut through to Sherman.) Clement will also be a portion of the route for the Cross Alameda Bike Trail which increases the danger.

Page 4.11-3 states that "about 95 percent of Alameda residents live within 3/8-mile of a park, the maximum radius for effective service as indicated by studies in other cities (City of Alameda, 1991)." The majority of the people who will live at the Alameda Marina development will not live within 3/8 of a mile from a park large enough to accommodate them and the existing community. Three eighths of a mile is 1980'.

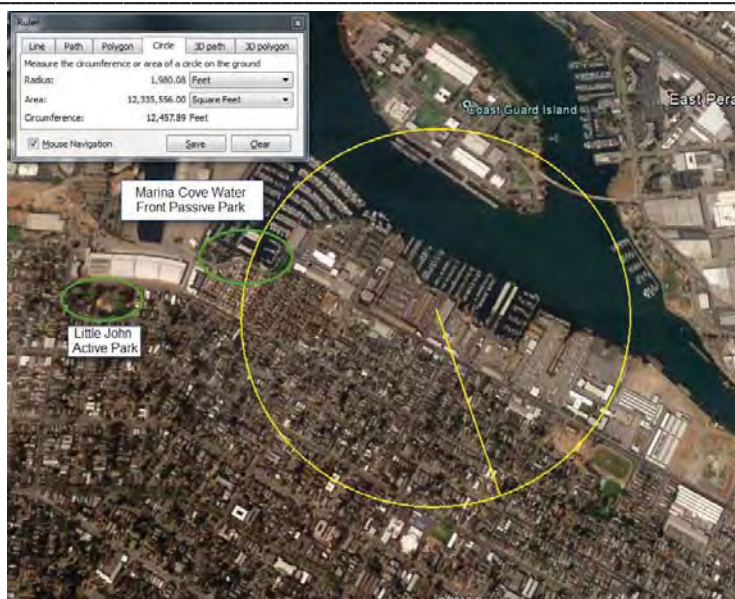


East end of development: 3/8 mile radius for parks space.

8-54
cont.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda



West end of development: 3/8 mile radius for parks.

This part of Alameda has the least amount active of park space within Alameda. The park space at Littlejohn Park, while outside the 3/8 mile of the development, is the nearest active park to the development site. Littlejohn, as the only active park space within this part of Alameda, will have to serve all of the planned developments on the Northern Waterfront East of Webster. The Jean Sweeney Park will serve only passive recreation: while there will be playgrounds for small children, walking, jogging, and bike riding will be the only activities allowed within the park.

At 2.5 people per residence in Alameda, this part of Alameda will become one of the most populated areas of the city. Over 8000 people will live within 1/2 mile of this site.

There are no everyday commercial service (food, drug store, liquor) planned for the development so everyone wanting to shop will have to travel on or across Clement for everyday items. While close to Park Street and Marina Village, these shopping activities will generate traffic other than bike and walking.

Alameda's General Plan currently states (as it applies to Public Services and Recreation and Alameda Marina):

6. PARKS AND RECREATION, SHORELINE ACCESS, SCHOOLS AND CULTURAL FACILITIES ELEMENT

8-54
cont.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Small boats have replaced large ships along most of the Northern Waterfront, as former shipyards and docks have become sites for marina on the General Plan Diagram, is the largest concentration in Northern California. With completion of Grand Marina in 1988 (362 berths), little space remains within the U.S. Pierhead Line for additional berths.

Chapter 6 6-8

Scores of marina-related businesses—from small shipyards and wood workers to yacht brokers and manufacturers of navigational instruments—constitute a thriving sector of the City's economy that has attained a critical mass and can expect continuing growth.

6.2.a Maximize visual and physical access to the shoreline and to open water. Despite recent progress in securing public access, opportunities are still very limited on the north and east shorelines of the Main Island. At marinas where access to the shoreline is available, long floating piers and a forest of masts still may block visual access to open water. Along much of the Northern Waterfront where there are no marinas, the bulkhead and pierhead lines are close together, so access to open water is assured.

Chapter 6 6-9

6.2.b Regulate development on City-owned shoreline property to maximize public use opportunities. Although the City's shoreline properties are under long-term lease, existing terms are sufficiently favorable to the leaseholders to enable development to include substantial public amenities and still be profitable. Unless the City regains full control of its shoreline holdings, this policy appears to be the best available response to the CLUP policy calling for stopping the trend toward private use of publicly owned shoreline.

6.2.c Ensure marina operating standards that prevent degradation of water quality. See also policies within Section 5.1 of the Open Space and Conservation Element.

6.2.d Through design review of shoreline property, give consideration to views from the water.

Implementing Policies: Shoreline Access and Development

6.2e Remove impediments to enjoyment of shoreline access where legal access exists.

Access points that are intentionally blocked or merely allowed to become overgrown prevent public use of public property.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

6.2.f Cooperate with property owners adjoining shoreline access points to ensure that public use does not cause unnecessary loss of privacy or unwarranted nuisance.

6.2.g Prepare a Shoreline Access Plan in consultation with BCDC for areas where development proposals are expected to provide opportunities to improve or extend access.

6.2.h Require shoreline access where appropriate as a condition of development approval regardless of whether development occurs within the area of BCDC regulation. Access should be provided even if there is no development within 100 feet of the water's edge.

6.2.i Require off-site access as a mitigation when public access on-site is infeasible.

Reference Page 4.11-12

Impact PSR-6: The proposed project includes recreational facilities and the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. (*Less than Significant*)

As discussed under Impact PSR-5, the proposed project would result in the construction of a new waterfront and Bay Trail Open Space, which would provide a new segment of the San Francisco Bay Trail for bicycle and pedestrian access throughout the site. In addition, the proposed project would provide access to new public open space on the site, and open space areas on either side of the existing graving dock.

Response: The proposed open spaces within the project are passive spaces. Passive open space is not the same as active open space which has fields where children and adults can play soccer, baseball, softball, track running, etc. The entire Northern Waterfront area only has a small amount of active space at Littlejohn Park. Littlejohn Park will be overused with all the new development the Northern Waterfront area is experiencing. The Jean Sweeney Open Space Park will provide only biking, walking, and jogging. There will be no active recreation facilities within that park.

8-55

Reference Page 4.11-15

Summary

The proposed project, in conjunction with other cumulative development, would not have a significant cumulative impact associated with public services and recreation, and the project's cumulative impact would be less than significant.

Response: The Northern Waterfront has been designated as a primary development area within Alameda. The number of units proposed in this area is greater than 2000 with an

8-56

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

increase in population of at least 4820 citizens. To state that the cumulative impact is less than significant, and that no mitigation for public services and recreation will be required is certainly not correct.

↑ 8-56
cont.

4.12 Transportation and Circulation

Reference Page 4.12-5

Travel Conditions

To provide information to the Alameda community and Alameda decision-makers about the relative impact of the proposed project on the transportation system, this EIR provides a Vehicle Miles Traveled (VMT) analysis, a Travel Time analysis, an intersection level of service (LOS) analysis, a transit LOS analysis, a pedestrian LOS analysis, and a safety assessment.

Response:

*a) This DEIR **does not report all the delay** at the two intersections of Clement and Blanding at Park Street. That omission is due to two things: 1) the use of lower forecasts than previous EIR's, and 2) the use of higher discharge vehicular flows in the delay calculations than possible (i.e. downstream overflows/blockages reduce the discharge rates over the stopbar. For example, the eastbound left turn at Clement cannot discharge when the northbound queue from Blanding on Park Street extends to Clement. All the intersection delay calculations assume downstream free flow conditions, like those conditions one finds in rural areas or outside the urban core. Those same calculations also ignore the downstream congestion, like that at Clement and Park, which will reduce the discharge rates.*

In addition, existing counts upon which the forecasts are based are lower in this DEIR than historical counts and in previous EIR's. It is possible diversion to other estuary crossings or outbound traveling earlier during the morning commute may have occurred during the DEIR's November 2016 traffic count surveys because of the construction at the 23rd/29th/I-880 project.

Another reason for the lower intersection delay calculations: the existing intersection configuration was assumed for the cumulative condition even though projects have been funded or are likely to occur that will eliminate lanes or add bicycle signal phasing that will result in more delay than has been calculated and reported in this DEIR.

b) The impact associated with additional travel on Alameda streets due to the increase in population has been omitted from this DEIR. Only Vehicles Miles Traveled (VMT) per capita is checked. First, missing are the additional Vehicles Miles Traveled on Clement and on other streets. Second, due to the constraints at the island crossings Vehicles Miles Traveled to other crossings is occurring today

8-57

8-58

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

and will continue with new projects. This induced additional diverted travel should also be addressed with respect to VMT impact.

c) The DEIR does not check VMT conformity with respect to the required overall reduction of VMT as per SB 743, see page 4.12-16 of the DEIR's Transportation Chapter which states that VMT's are to be reduced.

d) Substantial evidence of the facts regarding the traffic forecasts and the Vehicles Miles Traveled traffic data employed in this DEIR are missing from the appendices and the DEIR. For example, the Traffic Model input and output data was not available for review. What were the assumptions for the land use, the operating speeds, and so on?

A comparison of the traffic forecasts at five intersections in this DEIR with the Alameda Point EIR, Del Monte Negative Declaration, and the Encinal Terminals EIR, indicate grossly different forecasts while the Citywide land use assumptions are similar as per the Land Use Chapters in the EIR's.

Considering an aspect of the Marina Project which is different than other development projects, the majority of the project traffic is destined to travel to and from the island via Park Street. But now in this Marina DEIR, the traffic forecasts for the Park Street intersections at Blanding and Clement Avenues are 25% lower than the Alameda Point EIR, the Del Monte Negative Declaration, and the Encinal Terminal EIR. No evidence whatsoever is provided to explain why this gross reduction. Furthermore, at the west end, the traffic forecasts are grossly higher. This indicates that there are new traffic impacts not yet disclosed in the previous EIR for the Alameda Point Project.

↑ 8-58
 | cont.
 | 8-59
 |
 | 8-60
 |

Reference Page 4.12-8

Intersection LOS Analysis

To provide a baseline for identification of impacts on the local roadway network, existing peak hour traffic conditions were determined at the following eleven project area intersections:

1. Webster Street/Atlantic Avenue
2. Constitution Way/Atlantic Avenue
3. Challenger Drive/Atlantic Avenue
4. Atlantic Avenue/Buena Vista Avenue
5. Grand Street/Buena Vista Avenue
6. Grand Street/Clement Avenue
7. Park Street/Blanding Avenue
8. Park Street/Clement Avenue
9. Park Street/Tilden Way–Lincoln Avenue
10. Tilden Way–Fruitvale Avenue/Blanding Avenue–Fernside Avenue

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

11. High Street–Gibbons Drive/Fernside Boulevard

Response: As traffic congestion increases with development on the Northern Waterfront, traffic will divert to the Bay Farm Island Bridge and Doolittle Drive. Southbound traffic will choose to enter I-880 more to the south in order to escape the traffic being added to I-880 with new housing in Alameda, Brooklyn Basin, and replacement of the glass factory with housing at the Fruitvale Bridge. The intersection at Fernside and Otis, and at Island Drive and Doolittle are already congested intersections that will get worse and should be added to the study data.

8-61

Reference Page 4.12-10 & 4.12-11

Pedestrian, Bicycle, and Transit Travel Conditions

Pedestrian Travel

Pedestrian access between Downtown Oakland and the west side of the island is provided by a narrow, raised walkway in the Posey Tube that is shared with bicycle traffic. Pedestrians can also take AC Transit buses across the estuary via the Webster or Posey Tubes. The sidewalks across the Park Street and Miller-Sweeney (Fruitvale Avenue) Bridges on the east side of the island also provide pedestrian access between Oakland and Alameda, but these are more than three miles from the project site.

Response: Distance from center of development (Chestnut Street) to Park Street, then on to the Park Street Bridge is 4189'. Distance from center of development (Chestnut Street) to Miller-Sweeney Bridge is 6313'. The walking distance to these two locations is not "more than three miles from the project site". (One mile is 5280 feet.)

8-62

Reference Page 4.12-13

Transit Services

AC Transit provides fixed-route bus service in 13 cities and unincorporated areas in Alameda and Contra Costa counties, extending north to Richmond/Pinole, south to Fremont, east to Castro Valley, and west to San Francisco. Several AC Transit routes operate near the project site, as summarized in Table 4.12-5.

Response: Livermore, Pleasanton, and Dublin are located within Alameda County and are served by AC Transit so transit services provided "east to Livermore" would be correct.

8-63

Page Reference 4.12-24

Impact Analysis

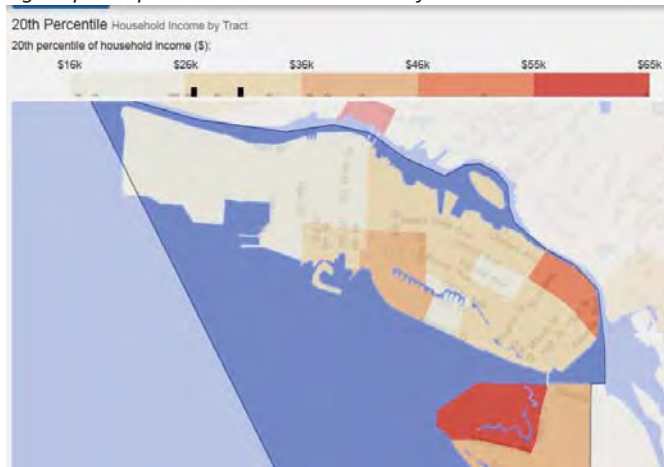
Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Impact TRA-1: The proposed project would not exceed the regional VMT per capita minus 15 percent. (*Less than Significant, with Mitigation*)

Within Alameda, the neighborhoods on the main island, including TAZ 948, where the proposed project is located, that have easy access and proximity to transit, commercial services, and other daily needs, have a lower average VMT per capita than the City average. The neighborhoods at Harbor Bay and Bay Farm Island, which are more suburban with fewer multifamily housing and less proximity to transit and services, have a higher per capita VMT than the City average.

Response: The higher VMT from Harbor Bay and Bay Farm Island has more to do with the higher per-capita income in this section of Alameda and not the housing type.



Map of household income by tract in Alameda
<https://statisticalatlas.com/place/California/Alameda/Household-Income>

People who have higher incomes tend to choose to drive rather than take public transit. The income levels required to purchase the new market rate homes in the Northern Waterfront developments will be within the higher percentile. While the location closer to public transit might entice more upper income earners to take such transit, a greater number will still prefer to drive their vehicles.

Young families that start or increase their family size find the need to have a family vehicle increases. Families that do not have a vehicle will soon add one with the first pregnancy.

Reference Page 4.12-26

Mitigation Measure TRA-1:

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Residents of the non-townhome units, who wish to have cars, will be required to lease parking spaces on a monthly basis in a shared parking lot or structure. The cost of the parking will be “unbundled” from the cost of the residential unit, which provides a financial incentive for residents to reduce car ownership and take advantage of the AC Transit passes, which are “bundled” into the cost of their residential units. (The 162 townhomes will have private parking.)

- Unbundling parking for residents (assume each parking space would cost about \$50 per month)

Response: If only 162 units of the development will have private parking, 598 will not. With unbundled parking many residents will choose to park on city streets, especially those households that possess more than one car. City streets in this area are already congested.

8-65

Reference Page 4.12-43

Impact TRA-11: The proposed project would generate temporary increases in traffic volumes on area roadways during construction. (*Less than Significant*)

Construction-generated traffic would be temporary and therefore would not result in any long-term degradation in operating conditions on roadways in the project site vicinity. The impact of construction-related traffic would be a temporary and intermittent reduction of the capacities of streets in the project site vicinity because of the slower movements and larger turning radii of construction trucks compared to passenger vehicles. Most construction traffic would be dispersed throughout the day. In addition, prior to issuance of grading and building permits, the project applicant is required to submit a Traffic Control Plan.

Response: The construction period for the project is projected to take 7 to 10 years and possibly as long as 15 years. Seven to fifteen years is not "temporary" so construction disruption to traffic on Clement Avenue from the Fruitvale bridge to the project site will not be temporary.

8-66

Reference Page 4.13-3

Wastewater

Wastewater Treatment

EBMUD operates three wet weather facilities that handle excess sewage during storm events when flows exceed the capacity of EBMUD's MWWTP. The excess flows are largely caused by stormwater and groundwater leaking into the region's aging sanitary sewer collection pipelines and through improper connections that allow stormwater to flow into the sewer system (infiltration and inflow, or "I&I"). These storage basins provide plant capacity for a short-term hydraulic peak of up to 415 MGD during wet weather events.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

When the wet weather flow capacity is exceeded, untreated sewage from the wet weather facilities gets discharged to the San Francisco Bay.

Response: If citywide wet weather is already causing local sewer lines to exceed the capacity of the sewer treatment system, the addition of 4000 to 5000 additional homes in Alameda is going to put more pressure on the system and cause more discharges into San Francisco Bay. A citywide problem should consider the cumulative effect of all projects and not one project at a time.

8-67

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

CHAPTER 5 Alternatives to the Proposed Project

5.2 Factors in the Selection of Alternatives

Reference Page 5-2

5.2.1 Project Objectives

Improve and Enhance the Maritime Commercial Marina

Maintain Alameda Marina as a working waterfront and retain and/or promote Alameda Marina's maritime uses by creating a Maritime Commercial Core that utilizes the maritime footprint more efficiently.

☐ Encourage the retention and development of waterfront and maritime-related job and business opportunities that relate to the area's waterfront location.

☐ Upgrade and rehabilitate facilities, unique buildings, as feasible, and provide land for existing maritime businesses, boat berthing and maintenance, boat storage, and waterfront commercial recreation businesses.

Response: Retaining a working boatyard at the Alameda Marina is a major consideration of city staff and city representation. Existing maritime businesses, boat berthing and maintenance, boat storage, and waterfront commercial recreation businesses do not comprise a working boatyard. While these listed maritime businesses are related to the Alameda marina and the berthing and dry storage of boats, they do not form an active repair boatyard.

8-68

As stated above, the selection of alternatives shall consider the basic objectives of the proposed project. As previously presented in Chapter 3, Project Description, the project objectives are to:

Improve and Enhance the Maritime Commercial Marina

- **Maintain Alameda Marina as a working waterfront and retain and/or promote Alameda Marina's maritime uses by creating a Maritime Commercial Core that utilizes the maritime footprint more efficiently.**

5. Alternatives Alameda Marina Master Plan 5-3 ESA / 160044.01 Draft Environmental Impact Report December 2017

- **Encourage the retention and development of waterfront and maritime-related job and business opportunities that relate to the area's waterfront location.**

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

- Upgrade and rehabilitate facilities, unique buildings, as feasible, and provide land for existing maritime businesses, boat berthing and maintenance, boat storage, and waterfront commercial recreation businesses.
- Provide sea level rise protection and other infrastructure upgrades to bring Alameda Marina up to date to make it a safe and accessible place.

Activate and Reconnect the Community to the Waterfront

- Reconnect the community to the waterfront by extending the existing city grid into the site to allow for additional view corridors and access points through the site to the shoreline edge.
- Create public amenities and opportunities for gathering spaces for existing and future community members by developing new open space areas within and along the shoreline edge with a Bay Trail component.

Create a Dynamic New Neighborhood for Everyone

- Provide housing of various types to fulfill the goals of the City's Housing Element and help meet the City's Regional Housing Need Allocation.
- Provide options for housing that meet the need of a wide demographic that includes universally designed units, affordable, rental, work force market-rate and market-rate units.
- Integrate Alameda Marina's core maritime uses, including those governed by the Tidelands Lease, with renovated and new compatible uses, including various types of housing.
- Develop a mixed-use project that allows for a mix of compatible uses at the site.
- Provide opportunities for the improvement of the existing boat Marina and shoreline infrastructure; maintain and generate new jobs; and create better and new open space and recreational areas.

Provide Financially Sound Development

Reference Page 5-3

- Develop an economically sustainable and financially sound new development that can fund the construction of the public facilities and services that are needed to serve the plan area and achieve General Plan objectives, while avoiding any financial impact on the City's ability to provide services to the rest of the City.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

• **Fulfill the project sponsor's obligations under the Tidelands and Marina Lease.**

Response: Both the developer and city staff have repeatedly stated, "The only reason to be doing this project is to pay for the bulkhead repair and/or replacement." This would allow the fulfillment of the last Objective listed above within this DEIR – "to fulfill the project sponsor's obligations under the Tidelands and Marina Lease." The lease states Pacific Shops (developer) "will facilitate the redevelopment of the property (Tideland Trust Lands) and certain adjacent "Fee Property". The lease requires "demolition and/or replacement and/or comprehensive rehabilitation of existing improvements on the property and Fee Property and construction of a higher-value project therein." The lease does not say the project must demolish all the buildings to build housing units. The RHNA allotment proposed for the property equals 396 housing units.

A more realistic statement of the objective of this project would be to garner enough funding to repair or replace the bulkhead and to meet the Regional Housing Needs Assessment (RHNA) required number of housing units (396).

When viewing the alternatives described in the DEIR and applying the realistic objective statement, the following could be met if the correct number and combination of market rate with required 15% reduced income level of housing were built on the eastern 9.75 acres of the Property:

<i>Land Use</i>	<i>Alternative 1: Preservation Alternative</i>	<i>Alternative 2: Extensive Adapted Reuse Alternative</i>	<i>Alternative 3: Reduced Project Alternative</i>
<i>Funding to repair or replace bulkhead</i>	Yes	Yes	Yes
<i>Meet RHNA</i>	Yes	Yes	Yes
<i>Substantially avoids or lessens SU Impact/s</i>	Yes	Yes	Yes

See TABLE 5-1 DESCRIPTION OF PROPOSED PROJECT AND ALTERNATIVES SELECTED FOR EVALUATION

8-69

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

When the lease was introduced to the Alameda City Council on May 1, 2012, then City Manager John Russo wrote: "Alameda Marina proposes to develop a mixed use project where the marina and marine-related industries are an integral component. The project may include a housing component and potentially some office, high-tech, biotech and retail. The final components will be determined based on the economic market."

Table 3-1 on Page 3-11 states that 53,985 square feet will be dedicated to "Maritime (includes boat yard/flex space)". This is not enough square footage to run a viable boatyard and would doom the boatyard to failure.

8-69
cont.

Reference Page 5-5

Higher Density/More Housing Units

The current housing shortage within the Bay Area would suggest that proposed projects should consider alternatives whereby the supply of housing would be increased to the greatest extent possible. For purposes of the proposed project, providing more housing units on the site beyond the 779 proposed could conceivably be accomplished in a number of ways: 1) decreasing open space and other areas of the proposed master plan and placing housing there instead; 2) decreasing commercial areas and substituting that use with more housing; 3) increasing the number of floors on buildings, thus providing more space for additional units; and 4) a combination of some or all of the above.

There are a number of constraints, however, that make a higher density development on the site infeasible, or substantially undesirable. Decreasing open space, for example, would conflict with established City policies concerning provision of open space. Decreases in shoreline public open space and public access would also conflict with San Francisco Bay Conservation and Development Commission (BCDC) policies and requirements.

Further reducing or eliminating commercial uses on the site and replacing those uses with housing would conflict with the public's stated desire (as conveyed during public hearings on the project) to retain maritime commercial uses and maintain a working waterfront on the site. Were these uses to be displaced from the site, they would presumably need to be relocated elsewhere, which would serve to create new impacts at those locations.

Soils on portions of the site and the ability of those soils to support taller and correspondingly heavier buildings present a constraint on constructing taller buildings with more floors and more units. Much of the site is artificial fill overlying bay mud. These soils place limitations on the types of structures that can be placed upon them. These limitations can potentially be overcome with specialized construction techniques, but those techniques substantially increase the cost of construction, and would therefore make the project financially infeasible.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Response: Since the real purpose of completing this project is to fund the replacement/repair of the sea wall, a financial analysis should be completed to test the specialized construction cost with the expense of the sea wall.

8-70

DEIR 5.2.3 Alternatives Considered but Rejected from Further Evaluation

Reference Page 5-6

Off Site Location

...“Because the basic purpose of the proposed project is to redevelop the Alameda Marina site and to fund improvements to the shoreline marina infrastructure there, an alternative site would not be feasible as an alternative to the proposed project. The purpose of the proposed project is to determine the best uses and development standards and requirements for the project site. Consideration of an alternative that analyzes the impact of developing a different property located at some other location would have no practical use or relevance to the decisions that must be made about the development of this particular piece of property. Therefore, an alternative site is not considered a feasible alternative to the proposed project, and is not analyzed in this EIR.”

Response: While it is true that this DEIR’s purpose is to evaluate the development of this particular site, is it possible that the city of Alameda could exchange land at the Alameda Point that is owned by the City with the land that is at Alameda Marina which is owned by Bay West? Alameda Point Partners have not made progress in obtaining funding for Site A and it would be of an appropriate size and waterfront location which could stimulate development at Alameda Point and provide the city with housing units and the developer with the funds to repair the bulkhead at Alameda Marina, which is the purpose of completing this project.

8-71

Preservation Alternative

Reference Page 5-7 & 5-11

“Under this alternative, mixed-use pedestrian-oriented development at Alameda Marina could only be developed on the eastern and western quarters of the site, leaving more than half of the project site in its historic commercial and industrial configuration. The historic structures and the overall layout of Alameda Marina was originally designed for the movement of large equipment and industrial operations, not for pedestrians and bicyclists.”

Response: Whether or not the space was designed for pedestrians and bicyclists, pedestrian and bicyclists currently use the site all day every day. People walk their dogs there and bikes are used throughout the site.

8-72

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

“The spacing between buildings, the size of the streets and the orientation of buildings were all designed for industrial and commercial uses, not mixed-use development.”

Response: The buildings house a variety of businesses creating a true mixed use complex at Alameda Marina that was organically populated over the years.

8-73

“By prohibiting development within the central core and the southern periphery of the site, this alternative would limit development opportunities at the heart of the project. Although this alternative would achieve more of the project objectives than the No Project Alternative, it would not achieve the project objectives as well as the proposed project because it would limit private reinvestment and redevelopment, thus it is less likely to attract sufficient private capital to fund the necessary public infrastructure improvements, build the planned open spaces, and rehabilitate the shoreline and marina infrastructure.”

Response: In addition to the private capital to fund necessary public infrastructure improvements, Pacific Shops, as part of its lease obligations for the Tidelands Trust property, is required to maintain the bulkheads and docks of the marina as part of their rental agreement. They are required to spend \$1.5M by the end of the first 15 years and \$500K at the end of every 5 year time period for maintenance of the marina and shoreline. Pacific Shops keeps 90% of the monthly slip fees they collect from the 530 slip marina facilities – income that they can invest into the project in addition to their earnings on 475 housing units they can build in the Preservation Alternative. The base rent they pay plus percentages of wet slip fees and building rents collected are to be put into Tidelands Trust Funds by the city which are additional funds that can be used to fund the rehabilitation of the shoreline and marina infrastructure.

8-74

As stated earlier, grants and loans are available to assist the City with necessary improvements.

Extensive Adapted Reuse Alternative

Reference Page 5-19

“This alternative would provide for retention of the existing contributing structures of the Alameda Marina Historic District, along with new development within the eastern and western quarters of the site, similar to that of the Preservation Alternative. This alternative would differ from Alternative 1 in that it would allow for adaptive reuse of the existing historic structures on the site rather than utilizing them solely in their current commercial/industrial use. Under this alternative, about 40 percent (100,000 square feet) of the existing structures in the central half of the site would be converted to residential uses, with about 60 percent (150,000 square feet) being retained in their existing commercial/industrial configuration. Such an alternative would provide a similar quantity of

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

commercial/industrial uses as that provided under the proposed project, while also providing for some expansion of residential uses within the historic core of the site. Under this alternative, it is assumed that the conversion of some of the existing commercial/industrial structures on the site to residential uses could provide for an additional 100 residential units. Together with the 475 units that would be constructed in the eastern and western quarters of the site, this alternative would provide for the construction of approximately 550 total residential units."

Response: A concern from a preservation view, while not discussed in the DEIR, is that the developer has proposed converting the large Alameda Marina warehouse which is eligible for the National and State Lists of Historic Resources into a 4 floor commercial complex thus destroying the integrity of the interior of the structure.

8-75

Reduced Project Alternative

Reference Page 5-26

"The Reduced Project Alternative assumes a mix of development across the site, but at a lower density than that of the proposed project. Rather than a mix of multi-family structures and townhomes, this alternative would include a mix of townhomes and detached, single-family residences. The development of new residential uses could occur throughout the site, and would not necessarily preclude the demolition of existing historic structures to make room for new residential uses. Under this alternative, approximately 100 townhomes would be constructed, and 80 detached single-family residences. Approximately 150,000 square feet of commercial and industrial uses would remain at the site. Although the economic feasibility of this alternative would be required to be confirmed (ability of this alternative to fund the necessary public infrastructure improvements, build the planned open spaces, and rehabilitate the shoreline and marina infrastructure, as well as the ongoing maintenance costs of the public improvements once constructed), this alternative is potentially feasible. The Reduced Project Alternative would generally meet all of the objectives of the proposed project, in that it would transform much of the site into a new waterfront residential community, provide access to waterfront open space for public use, and generate capital investment in the aging marina and shoreline infrastructure. However, conservatively presuming that this alternative would be economically feasible, it would achieve the last objective to a much lesser extent than the proposed project."

Response: If this alternative's economic feasibility has not been determined, we do not know if the project objective to provide funding for the bulkhead is possible. It does not meet the criteria of the General Plan's or the Planning Board's requirement to preserve historic buildings. The city of Alameda has several new waterfront residential communities

8-76

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

already approved or being planned and the marina currently has great open space being enjoyed by pedestrians and bicyclers who have access to the estuary vistas.

↑ 8-76
cont.

Reference Page 5-37

5.5 Environmentally Superior Alternative

CEQA requires that that a second alternative be identified when the “No Project” alternative is the environmentally superior alternative (CEQA *Guidelines*, Section 15126.6(e)). Therefore, the **Preservation Alternative** would be the Environmentally Superior Alternative for the purpose of this analysis, even though it would still result in some of the significant and unavoidable impacts associated with the proposed project.

Response: The Preservation Alternative would fulfill the desired outcomes for the project:

- *Repairs the bulkhead/shoreline*
- *Retention of the necessary space for maritime business including retaining the working boatyard which supports good paying jobs*
- *Construction of necessary housing for Alameda*
- *Preservation of an important historical section of Alameda for future generations.*

8-77

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Appendix A NOPs and Comments

160044.01 Alameda Marina MP DEIR Appendix DEC2017.pdf states:

Section: Infrastructure and Shoreline Page 4 Para. 3

Flood and Sea Level Rise Protection

“Overall, the infrastructure supporting the maritime uses and protecting the shoreline has weakened to likely unsafe conditions, posing life and safety concerns. In addition, sea level rise poses a potential approximately 24 inch rise which the existing infrastructure does not address. The 24 inch rise prediction is based upon a risk assessment for the life of the project. In addition, the land/water interface presently does not meet modern seismic resistance criteria. Engineering surveys conducted in June 2016 of the shoreline edge resulted in the decommissioning of one of two boat hoists on the site.

Flood and Sea Level Rise Protection

The shoreline would be reconstructed to achieve an elevation that provides built-in sea level rise protection for the waterfront and the project site. Most of the shoreline would be reconstructed as a revetment, sloped with rip -rap. Certain shoreline areas adjacent to existing buildings to be preserved or where other site constraints are present would require installation of a new seawall/bulkhead. Proposed elevations of the public access areas and proposed building foundations would be established to provide built -in protection against a minimum of 24 inches of sea level rise. Shoreline design would also accommodate future adaptive measures for potential future sea level rise in excess of 24 inches. This built-in protection would be estimated to provide protection for 60 to 75 years.”

Response: The developer will receive a Development Agreement with the city of Alameda that will cover at least 15 years. The lease on the Tideland Trust property that the developer, DBA Pacific Shops, holds with the city will be in effect until 2037 (19 years left on a 25 year lease) with the ability to extend an additional 41 years, that is, until 2078. Do we expect the housing units located on this property to have a life expectancy of only 60 years? What if the bulkhead is not sufficient to meet the rising sea or the rip rap fails? Will the city of Alameda, i.e. tax payers, be expected to pay for a new bulkhead? By that time, any development fees paid to the city will have been spent. BCDC estimates a 66" sea level rise by 2100 and the state of CA updated its estimate to 85" in April of 2017.

This projected sea level rise translates into a need for higher sea walls, higher raising of the ground elevation, on fill, and in an area that is within full proximity of two earthquake faults, Loma Prieta and Hayward.

In addition to the bulkhead height to combat sea rise, if the developer must add dirt to increase any elevation in order to (1) meet the demands of combating sea rise, and (2) meet the demands of required ground for foundation purposes beneath housing structures, the added weight and compaction action push out the “toe” of the land underwater making the overall structures weaker.

8-78

Developers often receive entitlements and then do not build for a number of years afterwards. Expected Sea Level rates should be used at the time when building actually commences, not when entitlements are given. Also, the entire bulkhead improvements need to be completed prior to any permits being issued for housing units instead of in phases as building is done. This is a requirement in the Encinal Terminals project. Since bulkhead improvements are the reason for the project, this arrangement protects the city from the developer starting work and not completing, which would leave the bulkhead improvements unfinished. It is understood that increased building cost, for whatever reason, will result in a higher number of housing units being built to cover the expense of the bulkhead repair and replacement.

8-78
cont.

Alameda's General Plan currently states (as it applies to Flooding and Sea Level Rise and Alameda Marina):

8.3 FLOODING AND SEA LEVEL RISE

Due to its relatively flat topography and proximity to the San Francisco Bay, Alameda is uniquely sensitive to flooding caused by high tides, storm events, and climate change induced sea level rise. The City of Alameda normally experiences tides that range from -0.2' Mean Lower Low Water (MLLW) to +6.4' Mean Higher High Water (MHHW), based on the NAVD88 datum. (The NAVD88 datum or zero elevation is approximately the same as the elevations used in local tide tables.) The highest tide of the year, or "king tide," normally occurs during the winter months of November thru February, and is usually about 7.4'. Every year, there is a 1 percent chance the king tide will exceed 9.4'. The ten highest king tides recorded by NOAA in Alameda for the last 75 years measured 8.6' to 9.5' elevation.

Global warming and sea level rise will have severe long-term effects on Alameda. The Bay Conservation and Development Commission (BCDC) and Alameda County Flood Control Water Conservation District predict a likely 12-inch increase in sea level on the Alameda County coastline by 2050, and a likely 24-inch increase in sea level in the same area by 2100 (Adapting to Rising Tides: Alameda County Shoreline Vulnerability Assessment, May, 2015). The study identified a 66-inch inundation level when combining the 24-inch sea level rise with a 100-year storm event (see Figure 8-3). In addition to residential and commercial properties, the Webster and Posey Tubes, Ron Cowan Parkway and the Alameda Gateway Terminal Ferry and other major public improvements are vulnerable to inundation.

SN-15. Develop sea level rise adaptive strategies for different areas of the City for public discussion and evaluation, including but not limited to: avoidance/planned retreat, enhanced levees, setback levees to accommodate habitat transition zones, buffer zones, beaches, expanded tidal prisms for enhanced natural scouring of channel sediments, raising and flood proofing structures, and/or provisions for

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

additional floodwater pumping stations, and inland detention basins to reduce peak discharges.

- a. *Develop for public discussion and evaluation potential financing strategies and partnership opportunities with regional and state agencies such as the Oakland International Airport, and other agencies to fund and build selected adaptive strategies.*

SN-16. Protect and upgrade public infrastructure, including but not limited to streets, wastewater systems and pump stations, stormwater systems and pump stations, and electric systems and facilities, to ensure capacity and resilience during storm events, high tides, and sea level rise, and to decrease the chance of flooding of nearby streets, utilities, and private property.

SN-17. Reduce the risk of tsunami inundation through public tsunami education, with special emphasis in low-lying shoreline properties, including the maritime communities and marinas

SN-18. Design street rights-of-way, parks, other public spaces, street trees and landscaping to be resilient to temporary flooding.

SN-19. Require new development adjacent to the shoreline, lagoons and low elevations to plan for 50 years of sea level rise. Ensure that the design of future developments incorporate flood protection measures to protect improvements from a 100-year storm event and anticipated sea level rise.

- a. *Require new development to provide adequate setbacks along waterfront areas for the future expansion of seawalls and levees to adapt to sea level rise.*

SN-20. Require the creation and maintenance of easements along drainage ways necessary for adequate drainage of normal or increased surface runoff due to storms.

Transportation

Per the developer's Master Plan: "Bicycle lanes are proposed on Clement Avenue in accordance with the Alameda Bicycle Master Plan. The proposed internal street network and Bay Trail segment within the project site would allow for bicyclists to access the site's commercial core, residential neighborhoods, waterfront, and open spaces"

Alameda's General Plan currently states (as it applies to Transportation and Alameda Marina):

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

4. TRANSPORTATION ELEMENT

Virtually every street in Alameda is a residential street. Therefore, transportation decisions need to balance the goals of moving traffic smoothly and quickly with Alamedans much loved quality of life. As they have in previous Transportation Workshops, including the 1990 General Plan update meetings, Alamedans have made is clear that they are willing to forgo high speed streets in order to accommodate the community aspects that are fostered by slower speeds.

Policies

4.1.3.a Consider emergency response goals in long-range transportation planning and while designing current projects.

4.1.3.b Work with public safety agencies to adequately consider emergency response needs.

Chapter 4 - 4 - Transportation Element

4.1.3.c Develop a network of emergency response routes, balancing emergency service needs with vehicular, pedestrian and bicycle safety consistent with the adopted street classification system.

3. Develop shoreline access design guidelines.

Objective 4.4.2: Ensure that new development implement approved transportation plans, including the goals, objectives, and policies of the Transportation Element of the General Plan and provides the transportation improvements needed to accommodate that development and cumulative development.

Policies

4.4.2.a Roadways will not be widened to create additional automobile travel lanes to accommodate additional automobile traffic volume with the exception of increasing transit exclusive lanes or non-motorized vehicle lanes.

4.4.2.b Intersections will not be widened beyond the width of the approaching roadway with the exception of a single exclusive left turn lane when necessary with the exception of increasing transit exclusive lanes or non-motorized vehicle lanes.

Response: The addition of approximately 2,000 more people living in developments along Clement Avenue, a truck route between Park and Grand Streets, invites more opportunity for the need of emergency vehicles to transport people to healthcare facilities. Between the volume of lives and safety concerns, emergency routes should be planned and evaluated for timely response in the event a healthcare or accidental crisis occurs.

8-79

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Conclusion:

In conclusion, Save Alameda’s Working Waterfront (SAWW) advises the city of Alameda to strongly consider the Preservation Alternative to this project which creates enough housing units to meet the RNHA numbers assigned to the site. SAWW believes the profit generated by these units should provide enough revenue to rebuild the bulkhead and utilities. In the event more funding is necessary, both the developer and the city should look into infrastructure grants and low cost loans to complete both the bulkhead and the electrical/sewer to enable the marina to allow the maximum number of live aboard spaces (53 in the 530 slip marina) to help meet the affordable housing needs of the city.

Further, SAWW would like all the housing units to be located on the eastern portion of the property with the understanding that more units may be necessary to cover additional building costs due to soil conditions. This may require more vertical development.

8-80

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

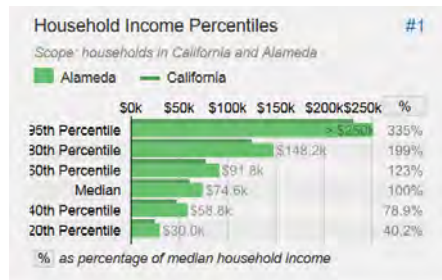
City of Alameda

Attachment 1

AFFORDABILITY OF HOUSING IN ALAMEDA

Affordable: 80% of area median income or less
Workforce: 80%-140% of area median income
Market Rate: 140%-260% of area median income
Luxury: 260% + of area median income or more

<https://statisticalatlas.com/place/California/Alameda/Household-Income>



Median Income \$74,600 = \$6216 per month Income

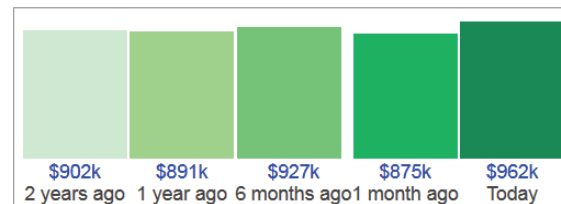
60th Percentile Median Income \$91,800 = \$7650 per month income

Alameda, California - Average Home Sizes and Asking Prices

Zipcode	Single Family Home			Townhome or Condo		
	4 BR	3 BR	Listings	3 BR	2 BR	Listings
94501		1,800 sf \$962,000	18	2,300 sf \$1,179,000	1,400 sf \$887,000	19
94502		1,400 sf \$880,000	5	1,700 sf \$799,000	1,500 sf \$755,000	8

* Number of Listings in each cell denotes Total in Zipcode. Data updated on Feb 4 2018, EDT/EST

Price of 3 Bedroom Homes for Sale in 94501



Inventory in Alameda



■ Single Family Homes 23 (46.0%)
□ Condos/Townhomes 27 (54.0%)

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

LOAN AMOUNT	TERM IN YEARS	INTEREST RATE
\$600,000	30	4.50 %
ANNUAL TAX	ANNUAL INSURANCE	
\$8,000		
Monthly Principal and Interest: \$3,040.11		
Monthly Tax: \$666.66		
Monthly Insurance: \$0.00		
Total Payment: \$3,706.77		

For a \$600,000 property:

Median Income \$74,600 = \$6216 per month. Income with a monthly mortgage + tax payment would be equal to 59.6% of monthly income.

60th Median Income \$91,800 = \$7650 per month. Income with a monthly mortgage + tax payment would be equal to 48.4 of monthly income.

LOAN AMOUNT	TERM IN YEARS	INTEREST RATE
\$800,000	30	4.50 %
ANNUAL TAX	ANNUAL INSURANCE	
\$8,000		
Monthly Principal and Interest: \$4,053.48		
Monthly Tax: \$666.66		
Monthly Insurance: \$0.00		
Total Payment: \$4,720.14		

For an \$800,000 property:

Median Income \$74,600 = \$6216 per month. Income with a monthly mortgage + tax payment would be equal to 75.9 of monthly income.

60th Median Income \$91,800 = \$7650 per month. Income with a monthly mortgage + tax payment would be equal to 61.7% of monthly income.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

LOAN AMOUNT	TERM IN YEARS	INTEREST RATE
\$962,000	30	4.50 %
ANNUAL TAX	ANNUAL INSURANCE	
\$8,000		
Monthly Principal and Interest: \$4,874.31		
Monthly Tax: \$666.66		
Monthly Insurance: \$0.00		
Total Payment: \$5,540.97		

Per the chart above, the average 3 bedroom home in Alameda costs \$962,000

For a \$962,000 property:

Median Income \$74,600 = \$6216 per month. Income with a monthly mortgage + tax payment would be equal to 89% of monthly income.

60th Median Income \$91,800 = \$7650 per month. Income with a monthly mortgage + tax payment would be equal to 72% of monthly income.

Note: All property taxes were estimated using base tax plus approved bond issues for a total estimated tax. Calculations also do not take into consideration any down payment which would have to be considerable to get the \$600,000 mortgage below the 48.9% of monthly income.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Attachment 2 The History of the Prevention of Fouling

Marine Fouling and Its Prevention
Contribution No. 580 from the Woods Hole Oceanographic Institute
Copyright 1952 by U. S. Naval Institute, Annapolis, Maryland
George Banta Publishing Co., Menasha, WI
Original Publishing Date 1897

Response: Fouling is a condition that happens to the hulls of boats that sit in the water. The bottoms of sailboats need to have the hulls scraped every 1 to 3 years. This requires the boats be lifted out of the water and worked on in appropriate areas to collect the residue from the scraping.

This history covers the many materials, some very hazardous, that have been used on boat hulls to prevent fouling.

Boat hull scraping has been a service provided at the Alameda Marina for many decades.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Attachment 2

Marine Fouling and Its Prevention,
Contribution No. 580 from the Woods Hole Oceanographic Institute
Copyright 1952 by U. S. Naval Institute, Annapolis, Maryland
George Banta Publishing Co., Menasha, WI

1897

CHAPTER 11

The History of the Prevention of Fouling

The effects of fouling have only recently been subject to systematic scientific inquiry. Its seriousness, however, has been recognized from very ancient times. Although written records of the treatment of ship bottoms as early as the 5th century B. C. have been found, the search for an antifouling surface undoubtedly began with even earlier ships about which we have little information.

Historically, the development of these surfaces falls readily into three parts: (1) the repeated introduction and use of metallic sheathing, culminating in the discovery of copper sheathing as an effective antifouling surface; (2) the invalidation of the use of metallic copper on iron hulls because of galvanic effects, which followed the development of iron ships; and (3) the eventually successful efforts to devise antifouling paints that, in the case of iron or steel hulls, could be applied over an anti-corrosive coating.

Numerous other antifouling devices were continually being tried or suggested. In periods of peace, the tendency has been to use the current antifouling system regardless of its efficiency. Periods of war have always intensified experimental investigation.

EARLY SHIPBOTTOM SURFACES

The history of both ships and sea power is older than written records, some of the great maritime nations of the ancient world being known to us only through the records of a later period. But even the earliest records, although they say little or nothing about shipbottom treatment, tell of large fleets and big ships, of long voyages and naval battles. We can assume, therefore, that fouling was a problem to ancient ships even though we do not know what measures were taken against it.

The early ships and fleets were larger, and the voyages longer, than is generally realized. Ancient Egyptian ships were sometimes 160 feet long (23) and traded as far as the land of Punt (Somaliland) (22, 77). The Phoenicians in 1000 B. C. were reputed to have circumnavigated Africa, voyaged to Cornwall in Britain for tin, and as early as the 6th century B. C. explored the west coast of Europe (60, 73). Early sea fights involved fleets of hundreds, and sometimes thousands, of ships (52, 85, 93). While the warships of the ancient world were

often intended to be beached, or even transported overland, the merchant ships were not and were correspondingly larger (22, 93). An Egyptian corn ship at Piraeus in Roman times was described by Lucian (66) as "180 feet long, over a quarter of that in width, and 44 feet from deck to keel," with a crew like a small army, and carrying as much corn as would feed every soul in Attica for a year".

The earliest mention of fouling that we have found is a casual reference to it in connection with the Echineis or Remora; the fabled "ship-stopper". This comparatively small fish, mentioned by Aristotle as early as the 4th century B. C., is credited by both ancient and modern writers with being able to slow down ships going at full speed, or even to stop them entirely as if they were tied to one spot in the ocean. In commenting on this belief, Plutarch (82) pointed out that fouling rather than the Echineis might be responsible. He stated that it was usual to scrape the weeds, ooze, and filth from the ships' sides to make them go more easily through the water. In 1559 Laevinus Lemnius (64) wrote "shell-fish and a little fish called Echineis stick so fast that they will stop ships, and hinder their courses, therefore our men use to rub them off with sharp brushes, and scrape them away with irons that are crooked for the purpose, that the ship being tallowed and careened well and smoothly may sail the faster".²

The ancient Phoenicians and Carthaginians were said to have used pitch and possibly copper sheathing on their ships' bottoms (69). Wax, tar, and asphaltum also have been used from very early times (21, 55, 77, 95). We can not be certain of the purpose of these surfaces even in later times when written records exist. While it is probable that some of them were at least in part an attempt to prevent fouling, they may also have been applied for water-tightness, to achieve a smooth surface, for structural strength, or, particularly in the case of metallic sheathing, as protection against ship worms.

There is a record of the use of arsenic and sulfur mixed with oil in 412 B. C. (27). The Greeks are known to have used tar or wax, and, at least as

¹ This ship, the *Golden Fleece*, was not unusually large (23); other Roman corn ships were up to 200 feet long (55). As a comparison, the U.S.S. *Conquistador* was 174 feet 10 inches on the main deck (43).

² See Gudge (46) for a full discussion of this subject.

early as the 3rd century B. C., lead sheathing (77, 95). The wax was applied hot and was burnt into the hull with hot irons, a process that became known as "encaustic" or as "ship-painting". According to Pliny, coatings of this nature applied to vessels "will never spoil from the action of the sun, winds, or salt water" (81). When lead sheathing was used, it was attached to the ship's hull with copper or gilt nails, usually over an insulating layer of paper or cloth (4, 21, 77). According to Chatterton (22), this suggests strongly that the corrosive effect of lead on iron, which finally forced the discontinuance of lead sheathing altogether, was recognized even then.

In spite of its corrosive action, lead sheathing was perhaps the material most frequently tried for the protection of ship bottoms prior to the 18th century. Repeated attempts to use it had been made from the time of the ancient Greeks. The ships of Archimedes of Syracuse (287-212 B. C.), for example, were sheathed with lead and fastened with heavy copper bolts (9, 95). The Romans also used lead sheathing (54), and several of their ships, with the lead sheathing intact, have been recovered within comparatively modern times (11, 104).

Although forgotten for several centuries, lead was used in 15th century England. In the reign of Henry VI (1421-1471), a report of a ship sent on a voyage of discovery records as an "invention" that "they cover a piece of the Keeles of the Shippe with their sheets of Leade, for they have heard that in certain partes of the ocean a kind of wormes is bredde which many times pearseth and eateth through the strongest oake that is". While lead sheathing is a poor antifouling surface, it would be, as this 15th century report suggests, a good protection against ship worms. This report suggests, also, that in England lead sheathing was not usually used at that time. Its use was said to be copied from contemporary Spanish ships (22).

Leonardo da Vinci designed a rolling mill in 1500 for making sheet lead (51). Early in the 16th century, Spain officially (34) adopted lead sheathing, and its use spread to France and England (14). In the reign of Charles the Second (1660-1685), a monopoly was granted to Howard and Watson for the use of milled lead for sheathing; and it was ordered that no other sheathing be used on His Majesty's ships (38, 49). Accordingly, the *Phoenix* and some twenty other ships were sheathed with lead fastened with copper nails (18). Shortly after, however, complaints were made of the corrosive effect of lead on iron,¹ the *Plymouth* and other

ships having had their rudder irons so eaten as to make it unsafe for them to go to sea (68, 79). In 1682, a commission was appointed to make an investigation, and on the basis of its report, lead was officially abandoned by the Admiralty (79, 104).

In spite of the commission's findings, rollers for milling lead into sheets for sheathing were patented in 1687. Even after the successful introduction of copper sheathing in 1761, lead was still occasionally tried. In 1768, the *Marlborough* was sheathed with lead; but two years later, when she was docked at Chatham, the iron fastenings were found to be so deeply eaten away that the lead was stripped off and replaced with wooden sheathing (104).²

In the time of Henry VIII (1509-1547) and during the 17th century, wooden sheathing was put on over a layer of animal hair and tar. This was reported to prevent the worms from penetrating to the planking, although it greatly increased the cost of building (22, 30, 104).³ An outer wooden sheathing was not new. Although it is said to have been introduced by Hawkins under Queen Elizabeth, it appears to have been used in the 15th century (22, 49). In the 18th century, after lead, with which it apparently alternated, had been pronounced a failure, wood sheathing was again in general use (12, 49). It was sometimes filled with iron or copper nails having large heads, put in so closely that the heads were touching and formed a kind of metallic sheathing (38, 69). This wooden sheathing also was often painted with various mixtures of tar and grease; with sulfur, oil, "and other ingredients"; or with pitch, tar, and brimstone (12, 18, 38, 49).

Other early shipbottom surfaces besides wood or lead sheathings were also recorded. The Vikings of the 10th century A. D., although they generally painted their boats above the water line, used nothing on their ships' bottoms (36, 84). They tell in one of their sagas, however, of a small boat that was protected from the worms by "seal tar" (91). In Aragon, a sheathing of hides was used in the 14th century (34). Pitch was commonly used from the 13th to the 15th centuries, sometimes mixed with tar, oil, and resin, or with tallow (12). The great Venetian fleets of the 15th century used tar (63).

Morison (74), in his life of Columbus, says that

¹ Hay differs in saying that the *Marlborough* was docked, not at Chatham, but at Sheerness, where the lead sheathing was found to have been nearly all lost due to its rotting (49). (See also Fincham (38).)

² It was also believed to increase the ship's resistance. In 1663, the officers of a fleet under Sir Thomas Allen fitting out to attack the Algerians petitioned that they might not have their vessels "so encumbered" (with sheathing) as they would be unable to overtake the light-miling unsheathed vessels of the enemy (104). A letter from Holland in 1686 pointed out that "the hair, lime, etc. does not altogether frighten the worms while it much retards the ship's course" (7).

THE HISTORY OF THE PREVENTION OF FOULING

213

the ships' bottoms of that period were "covered with a mixture of tallow and pitch in the hopes of discouraging barnacles and teredos"—in spite of which the vessels had to be careened every few months to have the marine growths removed. In the time of Vasco da Gama (1469–1524), the Portuguese charred the outer surface of the ship's hull to a depth of several inches; and several centuries later, in 1720, the British built at least one ship, the *Royal Williams*, entirely from charred wood (7, 69, 84).

With the discovery of the antifouling qualities of copper sheathing, however, and the subsequent widespread use of copper, these earlier shipbottom surfaces fell quite generally into disuse.

COPPER SHEATHING

The first successful antifouling surface to receive general recognition was copper sheathing. Although it has been stated that copper sheathing was used in ancient times (55, 84), the evidence is not clear, and its use as sheathing on ships' bottoms is denied by some authorities (22, 77). The actual ships that have been recovered have been lead sheathed (11, 104). The first certain use of copper on ships seems to have been in the bronze-shod rams of the Phoenician warships and as copper fastenings in the Greek and Roman boats, rather than as antifouling surfaces.

More extensive early use of copper is certainly possible. Prehistoric civilization knew copper and had shown great technical ability in casting and working copper and bronze for statues and other art work (72). Copper foundries of the 10th century B. C. have been excavated (41). Copper and tin were a staple in trade in 800 B. C., and the need for tin with which to make bronze was one of the chief reasons for the early voyages to Britain.¹ Thin sheets of copper were known to be in use for roofs from the 12th to the 15th centuries (72). However, no authentic case of sheathing ships with copper prior to the 18th century has been established. If copper sheathing was known to the ancients, it is difficult to understand why its use was lost while that of lead sheathing persisted.

The use of copper as an antifoulant was suggested as early as 1625 when a patent was granted for a composition that very probably contained some form of copper (6, 83 84). In 1728, another patent was obtained for "a new method of sheathing and preserving the planks of ships" consisting

of "rooled" copper, brass, tin, iron, or tinned plates, although no record of its immediate use has been found (79, 104). Later in the 18th century, wooden sheathing was filled with copper nails whose heads touched each other (38, 69). In spite of these desultory efforts, apparently it was not until the experiment of H.M.S. *Alarm* that the antifouling qualities of copper were recognized.

In 1758 H.M.S. *Alarm*, a 32-gun frigate, was sheathed with thin copper "for an experiment of preserving it against the worm" (70, 75). This first authenticated use of copper sheathing was, therefore, probably as a substitute for lead or wood sheathing, and largely for protection against ship worms. The report of the results of this experiment, made on her return from a voyage to the West Indies, is reprinted as an appendix to this Chapter.

The report took note of the plates washed off the bow of the ship where they were exposed to the full force of the sea, and the amount of waste due to the wear of the water. It recorded the soundness of the planking except for one spot that had been rubbed bare at the start of the voyage. It remarked on the freedom of the bottom from fouling, except on the rudder where iron nails had been used purposely to vary the experiment. It notes, with surprise, the corrosion of the iron where it had contacted the copper. Finally, it compared the cost of the copper with the cost of wooden sheathing, finding them about equal.

The report stated three conclusions: that copper was a protection against worms, that it did not injure the planking, and that it did not foul. These advantages were considered so important that further experiments were recommended in which thicker plates and copper nails were to be used throughout; the copper to be insulated from, or kept at a distance from, the iron.

A second ship, the *Aurora*, was coppered by the British Admiralty in 1765; a third, the *Stag*, in 1770; four more in 1776; and nine in 1777.² Within the next three years the use of copper became general throughout the British Navy (38, 49). In 1779, the British felt that it would enable them to overtake the faster sailing French vessels that were subject to fouling (28). By 1789, two boats had been built in England entirely of copper, "without any planking whatever" (104).

The first American naval vessel to be coppered was the frigate *Alliance*. This was done in 1781.

¹ Alexander the Great (336–323 B. C.) demanded as tribute from the Kings of Cyprus "tassie or copper, flax and sails" with which to equip a fleet (22).

² Robert Bunsell's submarine is said to have been foiled in its attack on H.M.S. *Eagle* in New York harbor in 1776 because the copper sheathing prevented the penetration of the screw with which the explosive charge was to have been attached to the ship's bottom (90). Another account attributes the failure to the screw striking an iron bar (13).

The ships built under the Naval Act of 1794 for the United States Navy were also coppered (70). The *Constitution* was sheathed in 1795 with copper imported from England (40). Robert Fulton's submarine built on the Seine for Napoleon in 1801, was also copper covered (98). The clipper ships of 1843-1869 (25), and the later American whalers were coppered as a matter of course (24).

Although copper was the best antifouling surface known, it was by no means perfect. Its antifouling action was not always certain; and its corrosive effect on iron nearly caused it to be discontinued by the British Navy within a few years of its adoption. Although this was corrected by the use at first of mixed-metal and later of copper bolts, its excessive rate of wear proved a heavy expense. To reduce this expense as much as possible, the British Admiralty started the manufacture of copper sheathing at Portsmouth dockyard in 1803, re-working old copper sheathing and experimenting with different copper ores, and with ways of treating them. In 1823, they sought the advice of the president and council of the Royal Society to determine the best method of manufacturing copper and of preventing, if possible, its excessive wear (10, 38, 49).

In 1824, Sir Humphry Davy read two papers before the Royal Society detailing the results of his experiments on these questions (31, 32). He showed that the corrosion was due, not to the impurities in the copper as had been supposed, but to the sea water reacting with it. Knowing that copper was weakly positive in the electro-chemical scale, he considered that if it "could be rendered slightly negative, the corroding action of sea water upon it would be null." This he accomplished by attaching pieces of zinc, tin, or iron to the copper. By experiment, he found that a piece of zinc as small as a pea would protect 50 square inches of copper from corrosion; and that this was true regardless of the shape of the copper or of the position of the zinc upon it. After several experimental trials, the Admiralty adopted Sir Humphry Davy's protectors for ships in service, using cast iron surfaces of an area equal to 1/250 of the copper surface (33).¹

The problem was not solved, however, for the protected copper fouled badly. Davy pointed out that the protectors prevented the solution of the copper through galvanic action, and that this was

the reason why it fouled. He was thus the first to relate the antifouling action of copper to its rate of solution.

In 1831, after experimenting with shifting protectors, and protectors of mixed-metal, it was decided to use them only on ships lying in harbor. Shortly after, even this was abandoned, although experiments were still carried on with various foreign copper ores in the search for a more durable material (38, 49). The loss of copper was a serious expense, but it was felt that this was fully compensated for by the protection against teredos and fouling (49).

The introduction of iron hulls invalidated the use of copper sheathing because of the corrosive action of copper on iron. Throughout the 19th century, therefore, and in spite of the growing importance of iron in shipbuilding, it was frequently seriously suggested that a return be made to wooden ships that could be coppered (103). Even late in the century most warships and other ships that had to be at sea for long periods were still built of or sheathed with wood for that reason alone (45, 62, 71).

THE PROBLEM OF PROTECTING IRON HULLS

Iron hulls, appearing late in the 18th century,² developed so rapidly that in 1810 Sir Samuel Bentham proposed in Parliament that the British Admiralty start building ships of iron (104). At that time, however, there was widespread prejudice against the use of iron, which had not proved altogether satisfactory in shipbuilding, and the motion was voted down (37, 104). Nevertheless, expensive repairs, a serious scarcity of wood, and the introduction of steam engines were already forcing the change from wood to iron (5, 12, 35, 56, 86).

Wooden ships were limited in size and strength, and even with improved methods of construction could not compete economically with iron ships (1, 87, 101). Repairs frequently amounted to more than the original cost (26). Occasionally a ship had to be broken up because of dry rot without making even one sea voyage. The need for proper shipbuilding timbers was acute, and the lack of them often caused long delays, even to badly needed war ships. Nor were the large wooden ships strong enough to support the vibration of the early engines or the propellers (86, 104). It is question-

¹ Cast-iron was used in preference to zinc because it was cheaper and more easily procured. Davy cites several successful applications of protectors in which the proportion of the protecting metal varied from 1/70 to 1/125. Differing with Davy's statement, Hay (49) says that the Navy Board ordered protectors of 1/80 of the copper surface.

² Although iron and steel were known in the 10th century B. C., iron was not used for ships' plates much before 1800, nor steel before 1865 (44, 51, 57, 88, 96, 98).

THE HISTORY OF THE PREVENTION OF FOULING

215

able whether any of them could run their engines at full speed without serious results.¹

In spite of this, it was not until the middle of the century that the terrible destruction caused to wooden ships by explosive shells at Sinope in 1853, and the success of the French armored floating batteries at Kinburn in 1855, finally proved to the Admiralty the necessity for iron ships (14). But aside from prejudice, there were two serious objections to the use of iron hulls: corrosion and fouling (50).

Early in the history of iron ships, it was found that copper sheathing could not be used because its electrolytic action corroded the hull dangerously (10, 79). Among many similar cases, H.M.S. *Jackal* foundered at Greenock from the corrosion having eaten through her plates, apparently unnoticed; and H.M.S. *Triton*, in 1862, had her plates corroded to such paper thinness that, according to her commander, she was only kept from foundering by her fouling; practically sailing home on her barnacles (104).

Although fouling was by no means a new problem, its importance was so emphasized by the greater speeds, and by the substitution of costly and bulky fuel for sails, that many have felt that fouling became an important problem only with the introduction of iron ships. A man-of-war on commission in foreign waters for an extended period might become so fouled as to be almost unmanageable and unseaworthy before she came home and could be cleaned. The most extreme example reported was an iron whaler on the African coast, only six months out from England. Even though she had been cleaned every month with brooms and ropes, she was not safe, as she could neither sail nor steer, owing to her heavy fouling. So great did the problem become that in 1847 the Admiralty contemplated the total disuse of iron ships, and actually commenced the sale of all the iron ships then in the Navy. They were deterred, however, by the impossibility of meeting naval requirements with any other material (8, 104).

As a consequence of having invalidated the use of copper sheathing for an antifouling surface, the adoption of the iron hull started search for some less harmful metallic sheathing, and for some way of insulating copper sheathing from the iron hull.

Zinc, the only metal that could be used to place the plates of the ship in an electro-negative condi-

tion, was tried repeatedly as sheathing. It was claimed that when in contact with the iron hull of a ship, electrolysis increased the exfoliation of the zinc sufficiently to prevent fouling, and at the same time protected the ships' plates from corrosion (29). Although zinc sheathing achieved some standing as a substitute for copper, experience showed that it sometimes became brittle and wasted away too fast to be of real value (16, 65, 67, 79).

Muntz metal, sheet lead, galvanized iron, and nickel were tried, as well as alloys of lead and antimony, and of zinc and tin. Other metals or metallic alloys were suggested, and combinations of metals, such as iron scales covered with lead and copper, sheets of lead and antimony painted with mercury, or zinc plates coated with tin. Many of these sheathings presumably never passed beyond the experimental stage.²

Nonmetallic sheathings were also tried or suggested. These surfaces included felt, canvas, and rubber; ebonite, cork, and paper. They also included various forms of glass, enamels, glazes, and tiles. Cement was frequently used, but more as a protection against corrosion than for fouling.

For insulating copper sheathing from the iron hull of the ship, felt soaked in tar was often used; and sometimes cork, rubber, or plain brown paper. At one time, warships were built in a composite fashion, i.e., wooden planks were put on iron frames. While various other considerations led to this development, the practice was favored also because such ships could be coppered safely (71, 92). About 1862, this system was replaced by wooden sheathing put on over the metal hull. This was wedged between ridges on the hull, or bolted on in various ways, and then coppered. The wooden sheathing served only as an insulation. Although it was reported to have been satisfactory during the Spanish-American war (1898-99), and was used in both the British and the United States Navies, this method was too expensive for general use (10, 92).

A second and more important effect of the introduction of iron hulls, however, was to renew interest in the use of antifouling compositions. This eventually led to the development of the modern paint systems which have replaced copper sheathing almost altogether, except when special needs warrant the extra expense.

¹ As late as 1864, at the Institute of Naval Architects, Admiral Halsted described the flagship, undergoing an engine test at Shoemew, as shaking and trembling so that the master shipwright ran out, shouting, "For God's sake stop those engines as you'll drive the stern posts out of the ship" (69).

² The invention of these many substitutes for copper sheathing is reviewed in the following chapter.

ANTIFOULING PAINTS

The use of some form of paint or composition on ships' bottoms is undoubtedly very old. An early record tells of a mixture in use about 412 B. C. composed of arsenic and sulfur, mixed with Chian oil and applied to a ship's sides so that she could sail through the water "freely and without impediment" (27). Many other examples could be noted, from the tar and wax of ancient Greek boats to the various compositions used on the wooden sheathing of the 18th century.

Although some were said to be for protection against shipworms, in most cases the purpose of these various compositions was not stated. The first coating recorded explicitly as a protection against fouling appears to be a composition patented by William Beale in 1625, which was composed of powdered iron, cement, and probably a copper compound (6, 83, 84). Possibly, this was the first use of copper as an antifoulant.¹ Two other patents for unknown compositions for "gravings against the worm" were also granted in the 17th century; and a third was granted in 1670 to Howard and Watson for a coating composed of tar and resin in a varnish of beeswax, crude turpentine, and granulated lac dissolved in grain alcohol (68, 69).

Three more patents were granted in the following century. One was for a composition containing pounded glass in a mixture of tar, oil, and lime; and a second for molten tin in a paste of zinc, limewater, black soap, and salts of zinc (68). The third, granted to William Murdock in 1791, was for a composition of iron sulfide and zinc roasted in air and mixed with varnish. Arsenic was the toxic (6, 69).

But even though these early patented compositions were few and scattered, other unpatented compositions are also occasionally mentioned in the literature; and the use of some form of paint or composition on ships' bottoms was not uncommon.

Nicolaes Witsen, a naval architect, wrote of the surprise of the Dutch that a British yacht captured in 1673 was neither tarred nor painted, which was apparently most unusual (94). Marseilles states that fishermen on the Sea of Tiberius near Palestine are said to have used a mixture of crude turpentine, resin, suet, and asphalt in the 17th century (69). He also tells of a "coat hardening under water composed of suet, resin, fish-oil, and

sometimes chalk," that was used on the French coast in the 18th century and that is still occasionally employed.

Several compositions were tested comparatively at Portsmouth in 1737. The best of these, a mixture of pitch, tar, and brimstone, was successful enough against ship worms to come into general use, but it was felt that it was highly important to find some surface that would also prevent fouling. Complaints were still being made of ship worms, however, particularly in the West Indies. This was represented to the Admiralty in a letter from the Navy Board in 1761, and in the same letter it was proposed to experiment with copper sheathing on some vessel going to the West Indies (38, 49). The experiment on H.M.S. *Alarm* followed immediately (75). Two years later, the report on this experiment established the antifouling qualities of copper sheathing as so outstanding that for the next forty years there was only negligible interest in antifouling paints or compositions.

With the growing use of iron ships in the 19th century, attempts were made at first to adopt the new methods of sheathing so as to overcome the difficulties introduced by corrosion of galvanic origin. But by 1835 the futility of these efforts began to be recognized and attention was again turned to shipbottom paints.

From that time on, the number of paints and compositions increased rapidly. According to Young, by 1865 more than 300 patents for antifouling compositions had been issued in England alone (104).

The early patented compositions, for the most part, were entirely useless. Their ingredients included every useable material, organic and inorganic, from guano to plain kitchen salt (12, 68, 78, 104). Owing to the great need for protection against fouling, however, many of even the most worthless of them were tried in service; although, as Admiral Sir Edward Belcher said, they seemed designed rather to encourage fouling than to discourage it. The Admiral added that his sailors got ten shillings each for the magnificently over-size specimens of shellfish that the various antifouling paints and manures succeeded in growing on the *Ardent* at Bermuda (15).

Antifouling paints had a bad reputation for many years. Even as late as 1872, Robert Mallet, in presenting the Institute of Naval Architects with a catalog of British shipbottom patents, stated that the majority of them were useless or worse, and that the best were mere palliatives

¹ The copper compound was possibly chalcocite or copper sulfide (23), or a copper-arsenic ore (84). Andes (6) and Marseilles (69), however, state that this ingredient was an unknown mineral from England or Wales.

THE HISTORY OF THE PREVENTION OF FOULING

217

(68). This was due in part to wide-spread lack of understanding of the problem, but not entirely so. Mallet himself, in 1841, had patented an antifouling paint in which slightly soluble coatings of poisonous materials were applied over a coat of varnish.¹ He stated that the paint failed because he could not control the solution rate of the toxics within useful limits, and because of abrasion.

"McIness" the first practical composition to come into widespread general use, was introduced in Liverpool about 1860. It was a metallic soap composition applied hot, in which copper sulfate was the toxic. This antifouling paint was put on over a quick-drying priming paint of rosin varnish and iron oxide pigment (3). Soon after this, a similar hot plastic composition appeared in Trieste, Italy. Known as "Italian Moravian," it was one of the best antifouling paints of that time; and in spite of being both expensive and difficult to apply, was used well into the present century.

In 1863, Tarr and Wonson patented a successful copper paint, a composition of copper oxide in tar, with naphtha or benzene; and later Rahtjen's equally successful shellac type paint, using mercuric oxide and arsenic as the toxics, was introduced. The use of shellac as a rust-preventive coating for ships' bottoms reduced the corrosion of ships to such an extent that in 1861 Admiral Halsted stated that corrosion was no longer important (47).

Owing in part to the commercial value of a successful antifouling paint, nearly all were patented, and our knowledge of them is derived largely from the various patent records. A résumé of this material will be found in the following chapter.

According to these records, the most frequently used toxics were copper, arsenic, and mercury together with their various compounds. They were used both singly and in combination with each other. Often several different compounds of the same toxic would be used in a single composition. Solvents included turpentine, naphtha, and benzene. Linseed oil, shellac, tar, and various resin or shellac varnishes composed the matrix.

By the end of the century, the most widely used paints were the hot plastics such as Moravian and McIness, the shellac type paints such as Rahtjen, and the various copper paints such as Tarr and Wonson's copper oxide in tar with naphtha or benzene. These paints were generally applied over a first or anticorrosive coat of shellac or

varnish, or of the same composition without the toxic. Most naval vessels were using copper over a wood sheathing, or hot plastic compositions on their ships' bottoms. Other ships used the less expensive commercial paints; and wooden ships were still frequently sheathed with copper. These antifouling surfaces, however, although reasonably successful, were expensive, often short-lived, and occasionally uncertain; and fouling was still a major problem.

The commercial shipbottom paints used by the United States Navy prior to 1908 were purchased by competitive bidding; and there were no technical specifications and no inspections other than checking the quantity of paint delivered. In an effort to standardize the quality of the ingredients as well as for various practical considerations,² the Navy decided to manufacture its own antifouling coatings; and in 1906, experiments were begun on both shellac and hot plastic shipbottom paints (2, 99, 102).

The first tests of its own experimental paints were begun in June, 1906, at the Norfolk Navy Yard on 21 different shipbottom paint formulations of spirit varnish paints. By October of the following year, these tests indicated that one formula was outstanding. Further tests were made on naval bottoms at various Navy Yards with paints made from this formula, comparing it with commercial shipbottom paints; and on June 8, 1908, a report was made favorable to the Norfolk test paints. Not long after, manufacture of the first naval shipbottom paints was started at Norfolk Navy Yard (2).³

The formula of an early Norfolk antifouling paint, as given by Adamson, shows that the toxic was red mercuric oxide suspended in grade A gum shellac, grain alcohol, turpentine, and pine tar oil. Zinc oxide, zinc dust, and Indian red were also added. Although the formula was continually varied, the shellac type paint was used by the Navy from 1908 until 1926, when it was abandoned (2, 3).

From 1911 to 1921 further experiments were conducted at Norfolk, both to find substitutes for scarce materials and to improve the paint. In 1911, gum shellac of an excellent grade could be obtained from India, although the supply was limited. As wider use developed, it became both expensive

¹Among the practical considerations were the necessity of maintaining complete stocks of all the various brands of paint used at each of the Navy Yards, and the difficulties caused by the efforts of the competing paint manufacturers to get their paints accepted by the Navy.

²Convincing proof of the value of the Norfolk formula, as compared to commercial paints, came from a service test on the ships of the U. S. Fleet on its cruise around the world in 1907 (56).

³For toxics, Mallet used oxychloride of copper and sulfuret of arsenic.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

218

MARINE FOULING AND ITS PREVENTION

and difficult to get. Inferior grades lacked adhesion, and experiments with various possible substitutes were carried on. Among these, rosin was of particular interest, both because of its successful use by some foreign navies, and because of the cheap and plentiful supply in this country. A substitute was also sought for the toxic, mercuric oxide, which in addition to being expensive and of foreign origin was difficult to handle (2).

In 1921, the American Society for Testing Materials had formed a subcommittee on antifouling paints, with the object, if possible, of setting standard specifications for the toxic ingredients. They found, however, that factors other than the toxic were almost equally important (3); and an extensive investigation of the entire problem of fouling was begun in September, 1922, under the direction of the Bureau of Construction and Repair, U.S. Navy (97). At this time, most foreign navies were reported to be using commercial paints such as Holzapfel, Rahtjen, and Hempel; and the average effectiveness of the shellac type antifouling paints was said to be about nine months (2, 3).

At the same time, the U. S. Navy renewed experiments with hot plastic paints. In the beginning of the century, the consensus of opinion had been that the Italian Moravian hot plastic was the best antifouling paint available. Analyses of commercial paints of this type had been made at the Brooklyn Navy Yard in 1906, and ways of producing them worked out; but with the official acceptance of the Norfolk-shellac type paint in 1908, work on hot plastics had been dropped (99).

In 1922, at the request of the Navy Department experiments in hot plastic antifouling paints were begun again by the Chemical Warfare Service at the Edgewood Arsenal. Various hot plastic compositions, based on analyses made at Edgewood in 1922, were made up and tested on steel panels at the Beaufort, N. C., station of the Bureau of Fisheries during the next two years. As a result of these tests, the Navy Department sent representatives from the Edgewood Arsenal to supervise a test application of the U. S. S. *King*, at the Norfolk Navy Yard. After nearly a year's cruising, the ship was docked at Mare Island on April 10, 1925; and it was reported that although the antifouling qualities had been excellent in the panel tests, the paint was not as successful in actual service. The film adherence, however, was good and further experiments were planned (99).

About 1926, the Navy substituted a coal tar-

rosin formulation¹ for the shellac type antifouling paint (2). Although coal-tar-rosin paints were used by the Navy until comparatively recently, the Mare Island Navy Yard, interested by the experiment on the U. S. S. *King*, had also developed a hot plastic shipbottom paint which used cuprous oxide and mercuric oxide as the toxics. Repeated tests have proved the Mare Island hot plastic superior to other available coatings. Extensive experience during the early years of the war has confirmed this superiority, and the hot plastic formula is currently the preferred paint for naval use on steel bottoms.²

Hot plastic paints are troublesome because they require elaborate apparatus for application. Since the availability of such apparatus is limited, a need is still felt for superior antifouling coatings which may be applied by brush. This need led to the development of several satisfactory formulations known as cold plastics, which dry by evaporation of the solvent yet produce heavy films having much of the virtue of the hot plastic coatings.

As a result of the improvement in the coatings it is reported that naval vessels are now able to remain out of dry dock as long as 18 months with no reduction in speed or increase in fuel consumption due to fouling (59).

RESEARCH AND DEVELOPMENT

The earliest published works concerned with the prevention of fouling of which we are aware are the papers of Sir Humphry Davy which appeared in the Philosophical Transactions of the Royal Society of London in 1824 (31, 32). Doubtless many reports of practical tests, such as that on the *Alarm*, and the tests of bottom compositions made at Portsmouth in 1737, existed in naval archives prior to this date (38, 75). Davy's studies are noteworthy, however, because he made experiments, based on the best scientific knowledge of the time, to develop the principles controlling the fouling and corrosion of copper sheathing, and only then tested the methods which these experiments suggested on ships in service.

¹ Vischer (97) gives the formula of a Navy standard coal tar-rosin antifouling paint of 1925 as:

1,196 grs. mineral spirits	923 grs. zinc oxide
306 grs. pine oil	616 grs. iron oxide
364 grs. coal tar	410 grs. mercuric oxide
923 grs. rosin	515 grs. cuprous oxide
	329 grs. silica

For coal tar-rosin formulas of 1937, see Adamson (3).

² For an account of the history of the development of plastic paints by the Navy and a discussion of their merits, see Reference 42.

THE HISTORY OF THE PREVENTION OF FOULING

217

(68). This was due in part to wide-spread lack of understanding of the problem, but not entirely so. Mallet himself, in 1841, had patented an antifouling paint in which slightly soluble coatings of poisonous materials were applied over a coat of varnish.¹ He stated that the paint failed because he could not control the solution rate of the toxics within useful limits, and because of abrasion.

"McIness" the first practical composition to come into widespread general use, was introduced in Liverpool about 1860. It was a metallic soap composition applied hot, in which copper sulfate was the toxic. This antifouling paint was put on over a quick-drying priming paint of rosin varnish and iron oxide pigment (3). Soon after this, a similar hot plastic composition appeared in Trieste, Italy. Known as "Italian Moravian," it was one of the best antifouling paints of that time; and in spite of being both expensive and difficult to apply, was used well into the present century.

In 1863, Tarr and Wonson patented a successful copper paint, a composition of copper oxide in tar, with naphtha or benzene; and later Rahtjen's equally successful shellac type paint, using mercuric oxide and arsenic as the toxics, was introduced. The use of shellac as a rust-preventive coating for ships' bottoms reduced the corrosion of ships to such an extent that in 1861 Admiral Halsted stated that corrosion was no longer important (47).

Owing in part to the commercial value of a successful antifouling paint, nearly all were patented, and our knowledge of them is derived largely from the various patent records. A résumé of this material will be found in the following chapter.

According to these records, the most frequently used toxics were copper, arsenic, and mercury together with their various compounds. They were used both singly and in combination with each other. Often several different compounds of the same toxic would be used in a single composition. Solvents included turpentine, naphtha, and benzene. Linseed oil, shellac, tar, and various resin or shellac varnishes composed the matrix.

By the end of the century, the most widely used paints were the hot plastics such as Moravian and McIness, the shellac type paints such as Rahtjen, and the various copper paints such as Tarr and Wonson's copper oxide in tar with naphtha or benzene. These paints were generally applied over a first or anticorrosive coat of shellac or

varnish, or of the same composition without the toxic. Most naval vessels were using copper over a wood sheathing, or hot plastic compositions on their ships' bottoms. Other ships used the less expensive commercial paints; and wooden ships were still frequently sheathed with copper. These antifouling surfaces, however, although reasonably successful, were expensive, often short-lived, and occasionally uncertain; and fouling was still a major problem.

The commercial shipbottom paints used by the United States Navy prior to 1908 were purchased by competitive bidding; and there were no technical specifications and no inspections other than checking the quantity of paint delivered. In an effort to standardize the quality of the ingredients as well as for various practical considerations,² the Navy decided to manufacture its own antifouling coatings; and in 1906, experiments were begun on both shellac and hot plastic shipbottom paints (2, 99, 102).

The first tests of its own experimental paints were begun in June, 1906, at the Norfolk Navy Yard on 21 different shipbottom paint formulations of spirit varnish paints. By October of the following year, these tests indicated that one formula was outstanding. Further tests were made on naval bottoms at various Navy Yards with paints made from this formula, comparing it with commercial shipbottom paints; and on June 8, 1908, a report was made favorable to the Norfolk test paints. Not long after, manufacture of the first naval shipbottom paints was started at Norfolk Navy Yard (2).³

The formula of an early Norfolk antifouling paint, as given by Adamson, shows that the toxic was red mercuric oxide suspended in grade A gum shellac, grain alcohol, turpentine, and pine tar oil. Zinc oxide, zinc dust, and Indian red were also added. Although the formula was continually varied, the shellac type paint was used by the Navy from 1908 until 1926, when it was abandoned (2, 3).

From 1911 to 1921 further experiments were conducted at Norfolk, both to find substitutes for scarce materials and to improve the paint. In 1911, gum shellac of an excellent grade could be obtained from India, although the supply was limited. As wider use developed, it became both expensive

²Among the practical considerations were the necessity of maintaining complete stocks of all the various brands of paint used at each of the Navy Yards, and the difficulties caused by the efforts of the competing paint manufacturers to get their paints accepted by the Navy.

³Convincing proof of the value of the Norfolk formula, as compared to commercial paints, came from a service test on the ships of the U. S. Fleet on its cruise around the world in 1907 (58).

¹For toxics, Mallet used oxychloride of copper and sulfuret of arsenic.

and difficult to get. Inferior grades lacked adhesion, and experiments with various possible substitutes were carried on. Among these, rosin was of particular interest, both because of its successful use by some foreign navies, and because of the cheap and plentiful supply in this country. A substitute was also sought for the toxic, mercuric oxide, which in addition to being expensive and of foreign origin was difficult to handle (2).

In 1921, the American Society for Testing Materials had formed a subcommittee on antifouling paints, with the object, if possible, of setting standard specifications for the toxic ingredients. They found, however, that factors other than the toxic were almost equally important (3); and an extensive investigation of the entire problem of fouling was begun in September, 1922, under the direction of the Bureau of Construction and Repair, U.S. Navy (97). At this time, most foreign navies were reported to be using commercial paints such as Holzapfel, Rahtjen, and Hempel; and the average effectiveness of the shellac type antifouling paints was said to be about nine months (2, 3).

At the same time, the U. S. Navy renewed experiments with hot plastic paints. In the beginning of the century, the consensus of opinion had been that the Italian Moravian hot plastic was the best antifouling paint available. Analyses of commercial paints of this type had been made at the Brooklyn Navy Yard in 1906, and ways of producing them worked out; but with the official acceptance of the Norfolk shellac type paint in 1908, work on hot plastics had been dropped (99).

In 1922, at the request of the Navy Department experiments in hot plastic antifouling paints were begun again by the Chemical Warfare Service at the Edgewood Arsenal. Various hot plastic compositions, based on analyses made at Edgewood in 1922, were made up and tested on steel panels at the Beaufort, N. C., station of the Bureau of Fisheries during the next two years. As a result of these tests, the Navy Department sent representatives from the Edgewood Arsenal to supervise a test application of the U. S. S. *King*, at the Norfolk Navy Yard. After nearly a year's cruising, the ship was docked at Mare Island on April 10, 1925; and it was reported that although the antifouling qualities had been excellent in the panel tests, the paint was not as successful in actual service. The film adherence, however, was good and further experiments were planned (99).

About 1926, the Navy substituted a coal tar-

rosin formulation¹ for the shellac type antifouling paint (2). Although coal-tar-rosin paints were used by the Navy until comparatively recently, the Mare Island Navy Yard, interested by the experiment on the U. S. S. *King*, had also developed a hot plastic shipbottom paint which used cuprous oxide and mercuric oxide as the toxics. Repeated tests have proved the Mare Island hot plastic superior to other available coatings. Extensive experience during the early years of the war has confirmed this superiority, and the hot plastic formula is currently the preferred paint for naval use on steel bottoms.²

Hot plastic paints are troublesome because they require elaborate apparatus for application. Since the availability of such apparatus is limited, a need is still felt for superior antifouling coatings which may be applied by brush. This need led to the development of several satisfactory formulations known as cold plastics, which dry by evaporation of the solvent yet produce heavy films having much of the virtue of the hot plastic coatings.

As a result of the improvement in the coatings it is reported that naval vessels are now able to remain out of dry dock as long as 18 months with no reduction in speed or increase in fuel consumption due to fouling (59).

RESEARCH AND DEVELOPMENT

The earliest published works concerned with the prevention of fouling of which we are aware are the papers of Sir Humphry Davy which appeared in the Philosophical Transactions of the Royal Society of London in 1824 (31, 32). Doubtless many reports of practical tests, such as that on the *Alarm*, and the tests of bottom compositions made at Portsmouth in 1737, existed in naval archives prior to this date (38, 75). Davy's studies are noteworthy, however, because he made experiments, based on the best scientific knowledge of the time, to develop the principles controlling the fouling and corrosion of copper sheathing, and only then tested the methods which these experiments suggested on ships in service.

¹ Visscher (97) gives the formula of a Navy standard coal tar-rosin antifouling paint of 1925 as:

1,196 grs. mineral spirits	923 grs. zinc oxide
306 grs. pine oil	616 grs. iron oxide
364 grs. coal tar	410 grs. mercuric oxide
923 grs. rosin	315 grs. cuprous oxide
	329 grs. silica

For coal tar-rosin formulas of 1917, see Adamson (3).

² For an account of the history of the development of plastic paints by the Navy and a discussion of their merits, see Reference 42.

THE HISTORY OF THE PREVENTION OF FOULING

219

No man of Davy's scientific stature has since concerned himself with the fouling problem, and for more than three-quarters of a century no one approached the problem from the scientific angle followed by Davy. It is interesting to note in passing that a generation later another great English scientist, Charles Darwin, became the authority on barnacles and thus contributed valuable knowledge of the subject without apparently becoming concerned with its practical aspects.

The development of antifouling compositions during the 19th century appears to have been strictly empirical. The publications of this period consist of general discussions based on the experience of practical men: naval officers, naval architects, and shipbuilders. There was some speculation on how fouling is prevented, but never any controlled experiment designed to test principles or theories. The paints themselves were developed privately as proprietary products. How much systematic investigation underlay the patented or secret formulations is not recorded.

When paint research was first undertaken by the Navy, in 1906, the data available consisted largely of records of submersion tests which compared one commercial paint with another. Very little was known about the formulae. In starting tests, it was necessary to try many combinations of ingredients, and through a process of substitutions, eliminations, and alterations finally to arrive at formulae which would produce satisfactory paints (2). Some additional information was obtained by analyzing paints of commercial origin which showed promise (19, 20, 99), but because of the nature of paint ingredients the knowledge to be gained in this way was limited. Performance on panel test and in service remained the only guide to performance, and no means of judging the cause of failure was at hand.

The trial and error method of research gradually led to formulations which became more and more complicated, since each component which was introduced into a promising formulation tended to be carried along into subsequent modifications. In 1939 this tendency was reversed by an experiment conducted jointly by the Mare Island Navy Yard and W. F. Whedon of the Scripps Oceanographic Institution at La Jolla, in which the currently accepted hot plastic formulation was broken down into a series of simplified mixtures of its components (100). The object was to determine which ingredients were really essential. The outcome was the demonstration that the mercury and Paris

green present in the original formula added nothing to its antifouling characteristics. The tendency to simplification which this experiment initiated is illustrated by a comparison of the composition of formula for a standard Navy paint of 1925, given as a footnote on page 218, which contained nine components, with the present standard wood bottom formula, 16X, which has only five specified ingredients.

Prompted by a desire to obtain more fundamental knowledge of how to prevent fouling, the Navy arranged, from time to time, for biological investigations. This work supplied valuable information on the toxicity of potential paint ingredients to marine organisms, on the nature of the fouling population, its rate of growth, its seasonal and geographical incidence, and the relation of the service in which ships are employed to their tendency to foul (17, 97). Similar studies were also conducted in Germany at the Laboratorium für Bewuchsforschung in Cuxhaven, in Turkey, Russia, and Japan (76), and in England (39, 80).

The proposal that slimes, produced by bacteria and diatoms on submerged surfaces, had an important bearing on subsequent fouling aroused much interest and led to investigations which culminated in the establishment of the Naval Biological Laboratory at San Diego, and also initiated work at the Woods Hole Oceanographic Institution.

While this earlier biological work provided useful background knowledge that was requisite to intelligent attack on the problem, the idea that it would produce some unthought-of method of circumventing fouling proved illusory. However, the study of slimes led indirectly to two important results. First, the variability in the tendency of various paint surfaces to slime, and an apparent relation between slime formation and fouling, focused attention on the question of what property of the paint is responsible for its antifouling action. Second, experiments which were made to study the tendency of slimes to accumulate copper led to the development of techniques for measuring the rate at which copper or other toxics are given off by the paint surface. These methods, in turn, appear to have provided the answer to the above mentioned question: the antifouling action of currently successful shipbottom paints depends upon the rate of solution of the toxic material (61).

Armed with a definite physical objective, the problem of formulating antifouling coatings can now proceed in a more rational manner. What needs to be discovered is how to formulate so as

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

220

MARINE FOULING AND ITS PREVENTION

to control correctly the discharge of toxic from the paint surface. The problem becomes one of applied physical chemistry rather than a game of permutations and combinations. Like Sir Humphry Davy, the paint technician can make experiments, based on the best available scientific information, to develop and employ the principles controlling the fouling of paint surfaces. Subsequent chapters contain an account of the first steps toward the development of such principles.

APPENDIX: NAVY BOARD'S REPORT TO THE ADMIRALTY ON THE FIRST COPPERING EXPERIMENT¹

31st August 1763

Sir

His Majesty's Ship *ALARM* whose bottom has been covered with Copper for an experiment of preserving it against the Worm, and this Ship being returned from her Voyage to the West Indies to Woolwich, and that We might examine her bottom, and be informed how far the Experiment had answered the intention; We sent directions to Our Officers there, to take an immediate Survey of the State and condition of the Copper, also an Account of the number of Plates that might be rubbed off; and the number that should be continued on, and to distinguish such as were in a State of decay from those which should appear unimpaired, to examine likewise with regard to the Copper being Clean or foul'd with Barnacles, Weeds, which usually collect and grew upon the bottom of Ships in long Voyages, and in case of finding any of the Plates rubbed off, to observe the effect the Worm had on that part. They were then to cause all the Copper that should be remaining to be carefully taken off and collected: And these several Injunctions being complied with, they were strictly to inspect the Ships bottom, and report their Observations, as well on the Heads aforementioned as on every thing else that might occur in the course of their examination: And having received their report, We send you enclosed a Copy thereof with a profile sketch of each side of the Ship, shewing the manner in which the bottom was at first covered, the part that remains so, and also that which was found uncovered when the Water left her in the Dock; all which We desire you will please to lay before the Rt. Hon^{ble} the Lords Commis^s of the Admiralty, for their information.

And their Lordships having directed Us on the 21st October 1761, to report Our remarks upon this Experiment, We beg you will upon presenting the Sketches, observe that the Copper is most deficient upon the Bows; from thence ranging Aft a little beyond the Midships, and for four or five Strakes under the surface of the Water all which parts are most exposed to the force of the Sea. Upon discoursing the Officers on board the *ALARM*; We find the plates began to wash off from the Bows in fifteen or sixteen Months, after She sailed, gradually wasting in the middle, till reduced to the substance of the finest paper, and too thin to resist the wash of the Sea; the Edges and fastenings only remaining as when first put on.

The plates upon the lower part of the bottom also in the run of the Ship, quite Aft (except a few whose defects

can be imputed to Workmanship), are wasted very little.

In two hundred superficial feet that were taken from these parts and Weighed, the plates were found to have wasted in Twenty Months only 13^{lb} 12^{oz} which seems to confirm that the quick Waste of those Plates laid on the Midships forward, can only be from the Wear occasioned by resistance of the Water to those parts. We are further to observe that the Copper which was remaining upon the bottom had been on near twenty Months and had kept perfectly clean without any means whatever having been used to render it so. But the Copper which covered the Rother was foul'd with Barnacles; and this difference We cannot Account for unless it may be supposed, that the Plates there being fastened with Iron Nails which was done to vary the Experiment the rust from thence with what might come from the Straps of the Pintles, draining down and spreading the surface of the Rother should have occasioned it.

The Copper being every where taken off the Plank of the bottom was very carefully examined, so likewise the Caulking, and in neither was there found the least Impair from Worm or any other Cause. The Plank was entirely sound, and the Seams and Butts were full of Oakum, hard and good, except upon one Spot on the Starboard side, distinguished on the Sketch by a red Circle, where the Copper for about a foot diameter being rubbed off the Plank was covered with Barnacles as close as it was possible; and upon inspection it was found the Worm had then made a deep impression.

The Copper upon this Spot, We apprehend must have been rub'd off very early, probably before the Ship went out of the River, as in all other parts of the bottom where the Copper had remained till gradually worn away as before described, the Worm had but slightly gribled the Surface, which plainly shews that it was owing to the Copper only that they were preserved from being in the same Condition.

We were greatly surprized to perceive the Effect the Copper had had upon the Iron where the two Metals touch'd; but it was most remarkable at the Rother Iron and in the fastenings of the false Keel, upon the former, the pintles and Necks of the Braces were as corroded and Eat.—particularly the two lower Ones, that they could not have continued of sufficient strength to do their Office many Months longer, and with respect to the false Keel it was entirely off.

The loss of the false Keel was at first supposed to have happened from the Ship having been on Shore, but upon examining it, the Nails and Staples that fastened it were found dissolved into a kind of rusty paste; which was also the Case of every Nail that had been used in fastening on the thick Lead to the Gripe and fore part of the Knee.

The same effect, but not to so great a degree; was observable upon all the Bolts and Iron under water, except where brown paper (with which the bottom was Covered) remained undecayed, and thereby separated the two Metals; and where this Covering was perfect, the Iron was preserved from Injury.

Having now informed their Lordships of the most material Observations We have made upon this subject, We shall observe upon the whole.

1st That as long as Copper plates can be kept upon the bottom, the Plank will be thereby entirely secured from the Effect of the Worm.

2nd That neither the Plank or Caulking received the

¹ William L. Clements Library, Ann Arbor, Michigan. Reprinted from *The American Neptune*, July 1941.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

THE HISTORY OF THE PREVENTION OF FOULING

221

least Injury with respect to its duration, by being covered therewith.

3^d That Copper bottoms are not incident to foul by Weeds, or any other Cause.

All which are Advantages very desirable to be attained, provided Methods could be fallen upon to obviate the difficulties we have before pointed out; the greatest of which is, the bad Effect that Copper has upon Iron.

It has been shewn that where brown paper continued perfect between them, the Iron was not injured; whence We presume, if the Heads of the Bolts and other surfaces of Iron were covered with flannel and a very thin leaf of Lead, they could be better secured from the corrosion of the Copper, and with respect to the Rother Irons, if the back and sides of the Stern port and sides and bearding of the Rother were also covered with thin Sheet Lead instead of Copper, the effect that has appeared upon the Pintles and Necks of the Braces would be kept at least a greater distance and though We doubt it would not answer the end of entirely securing the Rother Irons, and it might lengthen their Service beyond the hazard of failing within a three Years Station.

As to the difficulty about the false Keel, that may be got over by having all the Staples made of Copper.

There is still another difficulty which is the Accident that Copper Sheathing has been found liable to in the Course of this Experiment, but as We imagine these have been partly owing to the thinness of the Plates made use of, which were only twelve Ounces to the foot, it appears to Us this difficulty would be removed by adding to their substance; which would render the Plates stiffer, not so liable to rub off, and also consequently of greater duration, with respect to their Wear.

We must not in Our Observations to their Lordships upon this subject forget the Expence that attends covering a Ships bottom with Copper; That upon the ALARM amounted to about £650. and to increase the Plates to the thickness that would be requisite to answer the aforementioned Advantages and bring the Charge to about £945. which is at least an Expence of four times the cost of Wood; but when it is considered how much more durable Copper will be than Firr Sheathing, also the worth of the old Copper when returned, We are inclined to think the difference (if any) in the end will be immaterial, the intrinsic value of the Copper rec^d back from this Experiment is £199.15.9.

And having maturely considered all the Circumstances that attend the Sheathing Ships with Copper, and seeing the extensive advantages it is capable of; supposing it can be brought into Use, We are induced to recommend it to their Lordships consideration,—whether a further tryal may not be made of it, with the improvements We have mention^d And in Case a Ship of 32 Guns should be wanted on the West India Station, We would propose that the ALARM may be again made use of for the Occasion, All which is nevertheless submitted to their Lordships by &c^t

JS. WB. HB. RO.

Philip Stephens Esq^r

P.S. We have ordered a Box to be sent to their Lordships containing several Plates in their different degrees of Wear.

REFERENCES

1. AREGG, G. L. On the Combined System of Wood and Iron in Ship Building. *Trans. Inst. Nav. Arch.*, 5, 304-315. 1864.

2. ADAMSON, N. E. U. S. Navy's Research of Ship Bottom Paint. Scientific Section, circ. No. 156, Educational Bureau, Paint Manufacturers' Assoc. of U.S., Washington, 15-34. 1922.
3. ADAMSON, N. E. Technology of Ship Bottom Paints and Its Importance to Commercial and Naval Activities. C & R Bull. No. 10, 1-36, Bur. Construction and Repair, Navy Dept., Washington. 1937.
4. ALBERTI, L. B. *De Re Aedificatoria*, 1470. German transl. by V. Hoffman, Frankenberg. 1883.
5. ALBION, R. G. Forests and Sea Power: The Timber Problem of the Royal Navy, 1652-1862, 485 pp., Cambridge. 1926.
6. ANDES, L. C. Iron Corrosion, Antifouling and Anticorrosive Paints. Transl. by Chas. Salter, 275 pp., London. 1900.
7. ANONYMOUS. Of a Letter written from Holland about preserving of ships from being worm eaten. *Trans. Roy. Soc.*, London, 1, 190-191. 1665-66.
8. ANONYMOUS. Our National Defenses: Corrosion of Iron Ships. *Standard*, Aug. 10, 1866. Reprinted in C. F. T. Young, *Fouling and Corrosion of Iron Ships*, 141-148. 1867.
9. ATHENAEUS. *The Deipnosophists, or Banquet of the Learned*. Vol. 40. Transl. by C. D. Yonge in Bohn's Classical Library, London. 1854.
10. ATHERTON, W. H. The Fouling of Ships. *Trans. North-East Coast Inst. Engineers and Ship-builders*, 16, 161-181, 241-244, 269-272. 1899-1900.
11. BADDELEY, ST. CLAIR. Caligula's Gallies in the Lake of Nemi. The 19th Century and After. March, 1909.
12. BARNABY, N. On Mechanical Invention in Its Relation to the Improvement of Naval Architecture. *Trans. Inst. Nav. Arch.*, 1, 145-159. 1860.
13. BARNES, R. H. *United States Submarines*. 195 pp. 1944.
14. BAXTER, J. P. 3RD. The Introduction of the Iron Clad War-ship. 398 pp. 1933.
15. BELCHER, SIR EDWARD. In discussion of C. P. Coles, On the Preservation of Iron Ships' Bottoms. *Trans. Inst. Nav. Arch.*, 7, 163-170. 1866.
16. BELL, BENJAMIN. On Zinc Sheathing for Ships. *Trans. Inst. Nav. Arch.*, 10, 174-195. 1869.
17. BRAY, A. W. Report of the toxic action of certain chemical compounds on marine organisms. 27 pp. Nov. 8, 1919. (Privately published.)
18. BULTEEL, JOHN. A letter written to the publisher concerning a new way by an English manufacture to preserve the hulls of ships from the worm etc., better for sailing and more cheap and durable than any sheathing or graving hitherto used. *Phil. Trans. Roy. Soc. London*, 8, 6192-6194. 1673.
19. Bureau of Standards. Report on chemical analysis of Moravian green paste (antifouling composition) submitted by Bureau of Construction and Repair, Navy Department, Washington, D. C., September 23, 1922.
20. Bureau of Standards. Experimental reproduction of Moravian green paint. Letter to Bur. Construction and Repair. March 16, 1923.
21. CHARNOCK, JOHN. *History of Marine Architecture*. 2 vols. London. 1800.
22. CHATTERTON, E. K. *Sailing Ships and Their Story*. 362 pp. 1914.
23. CHATTERTON, E. K. *Sailing Models, Ancient and Modern*. 95 pp., London. 1934.
24. CHURCH, A. C. *Whaleships and Whaling*. 179 pp. 1938.
25. CLARK, A. H. *The Clipper Ship Era: 1843-1869*. 404 pp. 1910.
26. COLES, C. P. On the Preservation of Iron Ships' Bottoms and the Means of Keeping Them Clean. *Trans. Inst. Nav. Arch.*, 7, 155-170. 1866.
27. CULVER, H. B., and G. GRANT. *The Book of Old Ships*. 306 pp. 1928.
28. CUTLER, C. C. *Greyhounds of the Sea: The Story of the American Clipper Ship*. 592 pp. 1930.

Author: SAWW

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

222

MARINE FOULING AND ITS PREVENTION

29. DAFT, T. B. The Construction of Iron Ships, and Sheathing the Same. *Trans. Inst. Nav. Arch.*, 6, 145-147. 1865.
30. DAMPIER, W. A New Voyage Around the World. Dampier's Voyages, Vol. 1, Chapt. 13. 1729.
31. DAVY, SIR HUMPHRY. On the Corrosion of Copper Sheathing by Sea Water, and on Methods of Preventing this Effect; and on their Application to Ships of War and Other Ships. *Phil. Trans. Roy. Soc., London*, 151-158. 1824.
32. DAVY, SIR HUMPHRY. Additional Experiments and Observations on the Application of Electrical Combinations to the Preservation of the Copper Sheathing of Ships, and to other Purposes. *Phil. Trans. Roy. Soc., London*, 242-246. 1825.
33. DAVY, SIR HUMPHRY. Further Researches on the Preservation of Metals by Electro-Chemical Means. *Phil. Trans. Roy. Soc., London*, 328-346. 1825.
34. DIARTIRANO, G. The *Santa Anna*. *Mariner's Mirror*, 10, 212. 1924.
35. DOUGLAS, SIR HOWARD. On Iron Ships and Iron-cased Ships. *Trans. Inst. Nav. Arch.*, 2, 2-7. 1861.
36. DU CHAILLU, P. The Viking Age. 2 vols. 1890.
37. FAIRBAIN, W. On the Construction of Iron Plated Ships. *Trans. Inst. Nav. Arch.*, 4, 1-20. 1863.
38. FINCHAM, J. A History of Naval Architecture. 1851.
39. First Report, Marine Corrosion Sub-Committee of the Corrosion Committee, Iron and Steel Institute and the British Iron and Steel Federation. April, 1943.
40. FORBES, E. Paul Revere and the World He Lived In. 510 pp. 1942.
41. GLUECK, N. The Excavation of Solomon's Seaport Esion-Gaber. Annual Report of Board of Regents, Smithsonian Inst., 453-478. 1941.
42. GRAHAM, D. P. Some Factors in the Use of Plastic Ship Bottom Paints by the United States Navy. *Soc. Nav. Arch. and Mar. Eng.* November, 1947.
43. GRANT, G. Ships Under Sail. 25 pp. 1939.
44. GRANTHAM, J. The Strength of Iron Ships. *Trans. Inst. Nav. Arch.*, 1, 57-71. 1860.
45. GRANTHAM, J. On Copper Sheathing for Iron Ships Considered at the Present Stage of Our Experience. *Trans. Inst. Nav. Arch.*, 10, 166-174, 182-195. 1869.
46. GUDGER, E. W. The Myth of the Ship-holder: Studies in Echeis or Remora—1. *Annals and Magazine of Nat. Hist.*, Ser. 9, 2, 271-307. 1918.
47. HALSTED, E. P. In discussion of a series of papers on iron ships. *Trans. Inst. Nav. Arch.*, 2, 42-91. 1861.
48. HALSTED, E. P. On Screw Ship Steerage. *Trans. Inst. Nav. Arch.*, 5, 82-114. 1864.
49. HAY, W. J. On Copper and Other Sheathing for the Navy. *Trans. Inst. Nav. Arch.*, 4, 79-98. 1863.
50. HAY, W. J. On the Protection of Iron Ships from Fouling. *Trans. Inst. Nav. Arch.*, 4, 149-162. 1863.
51. HIGGINS, J. W. The Forge of Vulcan. *Nature Outlook*, Worcester Nat. Hist. Soc., 1, 23-29. 1943.
52. History of Herodotus. Everyman's Library edition, Vol. 2. 1910.
53. HOLLAND, R. S. Historic Ships. 390 pp. 1926.
54. HOLMES, SIR GEORGE. C. V. Ancient and Modern Ships. 1906.
55. HOLZAPFEL, M. The Corrosion and Fouling of Iron Ships: Antifouling Compositions. *Shipping and Mercantile Gazette*, Sept. 17, 1889. Also printed in *The Steamship*, 136-137. Oct. 1, 1889.
56. HØYGAARD, W. Modern History of Warships. London. 1920.
57. HOWELL, F. B. On Steel as Applied in Shipbuilding. *Trans. Inst. Nav. Arch.*, 12, 14-19. 1871.
58. INGRAM, H. A. Personal communication.
59. INGRAM, H. A. Research in the Bureau of Ships. *Journ. of Applied Physics*, 15, 215-220. 1944.
60. KENNEY, J. F. The Voyage of Pytheas of Massilia. The Sources for the Early History of Ireland, Vol. 1. 1929.
61. KETCHUM, B. H., J. D. FERRY, A. C. REDFIELD, and A. E. BURNS, JR. Evaluation of Antifouling Paints by Leaching Rate Determinations. *Ind. and Eng. Chem., Ind. Ed.*, 37, 456-460. 1945.
62. LANCASTER, C. W. On the Preservation of the Bottoms of Iron Ships. *Trans. Inst. Nav. Arch.*, 3, 178-182. 1862.
63. LANE, F. C. Venetian Ships and Shipbuilders of the Renaissance. 285 pp. 1934.
64. LEBENTUS, LAEVITUS. Concerning the Secret Miracles of Nature. Book 3, Ch. 9. 1658.
65. LEWES, V. B. The Corrosion and Fouling of Steel and Iron Ships. *Trans. Inst. Nav. Arch.*, 30, 362-389. 1889.
66. LUCIAN. The Ship, or the Wishes. The Works of Lucian of Samosata. Transl. by H. W. and F. G. Fowler. Vol. 4, 33-52. 1905.
67. MACKIE, S. J. On the Construction of Iron Ships and their Preservation from Corrosion and Fouling by Zinc Sheathing. Reprinted in C. F. T. Young, Fouling and Corrosion of Iron Ships, 173-203. 1867.
68. MALLET, R. On the Corrosion and Fouling of Iron Ships. *Trans. Inst. Nav. Arch.*, 13, 90-162. 1872.
69. MASSEILLE, H. Notes sur la salissure et les procédés d'entretien des carènes immergées. *Peintures Pigments Vernis*, 10, 232-234. 1933.
70. MAURES, M. Coppered Bottoms for the United States Navy, 1794-1803. *U. S. Naval Inst. Proc.*, 71, 693-699. 1945.
71. McLANE, A. On Composite Construction in Ships of War. *Trans. Inst. Nav. Arch.*, 6, 141-145, 150-157. 1865.
72. MIDDLETON, J. H. Metal Work. *Ency. Brit.* 11th ed., 18, 205-214. 1911.
73. MOREY, W. C. Ancient Peoples. 634 pp., New York. 1915.
74. MORISON, S. E. Admiral of the Ocean Sea. 680 pp. 1942.
75. Navy Board's Report to the Admiralty on the First Coppering Experiment. *American Neptune*, p. 304. July 1941. Reprinted as Appendix to Chapter 11.
76. NEU, W. Die Forschungen über den Schiffsbewuchs. *Forschungen und Fortschritte*, 10, 248-249. 1934.
77. NEUBERGER, A. The Technical Arts and Sciences of the Ancients. Transl. by H. L. Brose. 518 pp. 1930.
78. NEWMAN, J. Metallic Structures: Corrosion and Fouling and their Prevention. 374 pp. 1896.
79. NINNIS, H. On Sheathing Iron Ships. *Trans. Inst. Nav. Arch.*, 12, 270-281. 1871.
80. ORTON, J. H. Experiments in the Sea on the Growth-Inhibitive and Preservative Value of Poisonous Paint and Other Substances. *Jour. Mar. Biol. Ass'n., Plymouth, N.S.*, 16, 373-452. 1930.
81. PLINY. Natural History. Bks. 9, 32, 35. Transl. by Bostock and Riley. 1857.
82. PLUTARCH. Miscellanies-Symposiaca. Book II, Question 7. Ed. by A. H. Clough and W. W. Goodwin.
83. RABATÉ, H. Sur la constitution et l'efficacité des peintures sous-marines pour couches de surface dites antifouling. *Bull. de l'assoc. tech. maritime et aeronautique*, No. 40, 239-267. 1936.
84. RAGG, MANFRED. Die Schiffsboden und Rostschutz Farben. 256 pp., Berlin. 1925.
85. RAWLINSON, G. The Five Great Monarchies of the Ancient Eastern World. Vol. III, Ch. 7. 1873.
86. REED, E. J. On Iron Cased Ships of War. *Trans. Inst. Nav. Arch.*, 4, 31-55. 1863.
87. RITCHIE, J. H. Introduction to Lloyds revised rules. *Trans. Inst. Nav. Arch.*, 4, 289-290. 1863.
88. ROCHUSSEN, T. A. On the Application of Steel in the Construction of Ships. *Trans. Inst. Nav. Arch.*, 7, 57-64. 1866.
89. RUSSELL, W. C. The Ship: Her Story. 158 pp. 1899.
90. SABIN, E. L. The American Turtle: 1776. *The Nautical Gazette*, p. 35. March, 1943.
91. Saga of Eric the Red. The Original Narratives of Early American History, edited by J. E. Olson, 14-44. 1906.
92. SCOTT, M. On an Improved Method of Constructing Composite Ships. *Trans. Inst. Nav. Arch.*, 6, 147-157. 1865.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

THE HISTORY OF THE PREVENTION OF FOULING

223

93. SHEPARD, A. MACC. *Sea Power in Ancient History*. 286 pp., Boston. 1924.
94. T'HOOFT, C. G. *The First Yachts of 1660*. *Mariner's Mirror*, 5, 116. 1919.
95. TORR, C. *Ancient Ships*. 139 pp., Cambridge. 1894.
96. TURNER, T. *Corrosion of Iron and Steel*. *Metallurgy of Iron*, p. 413, 3rd ed., 463 pp., London. 1908.
97. VISSCHER, J. *Nature and Extent of Fouling of Ships' Bottoms*. *Bull. Bur. Fish.*, 43, 193-252. 1927.
98. WATTS, SIR PHILLIP. *Ship*. *Ency. Brit.* 11th ed., 24, 860-920. 1911.
99. WEHMHOF, B. L., A. M. JORDAN, and H. C. KNIGHT. *Hot Plastic Ship Bottom Paints*. *Chem. Warfare Service*, 15, 675-680. 1929.
100. WHEEDON, W. F. *Investigations Pertaining to the Fouling of Ships' Bottoms*. Annual Report for 1939 to research section, BuShips. June 29, 1939.
101. WHITE, J. *On an Improved Method of Building Diagonal Ships*. *Trans. Inst. Nav. Arch.*, 1, 112-120. 1860.
102. WILLIAMS, H. *Notes on Fouling of Ships' Bottoms and the Effect on Fuel Consumption*. *Jour. Am. Soc. Nav. Engineers*, 35, 357-374. 1923.
103. WILLIAMS, H. *Paints for Ships*. *Ind. Eng. Chem.*, 23, 1340-1343. 1931.
104. YOUNG, C. F. T. *The Fouling and Corrosion of Iron Ships; Their Causes and Means of Prevention with the Mode of Application to Existing Ironclads*. 212 pp., London, 1867.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064


City of Alameda



Save Alameda's Working Waterfront

Issue Date: 2/15/2018

Author: SAWW



Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Attachment 3

ADDITIONAL COMMENTS TO THE ALAMEDA MARINA MASTER PLAN EIR PROJECT

<u>COMMENT</u>	<u>PAGE</u>
1. DISCUSSION OF CUMULATIVE IMPACTS INADEQUATE	98
A. INCLUDED PROJECT IMPACTS	
B. OMITTED PROJECT IMPACTS	
2. NO SUBSTANTIAL EVIDENCE TO SUPPORT FINDINGS	101
3. STATEMENT OF OVERRIDING CONSIDERATIONS	102
4. INCONSISTENCIES WITH THE GENERAL PLAN	103
5. INCONSISTENCIES WITH THE GENERAL PLAN OF THE CITY OF ALAMEDA	105
6. DEIR MINIMIZES SEISMIC RISK BY USE OF OUTDATED MAPS	105
7. CHAPTER 5 ALTERNATIVES TO PROPOSED PROJECT ARE INADEQUATE	105
8. ALAMEDA MUNICIPAL CODE 30-4.23 MULTI-FAMILY RESIDENTIAL COMBINING ZONE, AND MX OVERLAY ARE VOID	112
9. CITY MAY NOT APPROVE THIS PROJECT	117
10. THIS PROJECT VIOLATES STATE PLANNING AND ZONING LAW	118
11. RECIRCULATION OF DEIR IS REQUIRED	119

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

COMMENTS TO THE ALAMEDA MARINA MASTER PLAN EIR PROJECT (hereinafter referred to as "DEIR")

1. DISCUSSION OF CUMULATIVE IMPACTS INADEQUATE

Facts:

A. INCLUDED PROJECT IMPACTS. The DEIR misstates the number of units at Alameda Point, which is up to 4000 residential units.

The DEIR omits, **Boatworks**, 182 residential units; **North Housing**, 435 residential units; **Main Street Neighborhood**, 269 residential units; **Corp Yard plus Shelter** 45 residential units; **Pennzoil**, 18 units; **Ron Goode**, 11 units; **Fernside**, 11 units. These misstatements undermine the accuracy of any study of cumulative impacts.

Table 4.0-1 of the DEIR includes only:

Alameda Point Rehabilitation and construction of 1,425 residential units and rehabilitation, reuse, and new construction of approximately 5.5 million square feet of commercial at the former Alameda Naval Air Station.

Alameda Landing construction of approximately 342 residential units and 360,000 square feet of maritime commercial adaptive reuse. Approximately 1.5 miles west of Alameda Marina

Del Monte Adaptive reuse of former warehouse and surrounding land into approximately 380 housing units and 30,000 square feet of commercial/retail space on Buena Vista Avenue approximately one-half mile from Alameda Marina.

Encinal Terminals A proposal to construct approximately 589 housing units and up to 50,000 square feet of commercial uses and waterfront public parks On waterfront approximately one-half mile from Alameda Marina.

Shipways Proposal to construct approximately 300 housing units and an approximately 2.5 acre public park along the waterfront 1100 Marina Village Parkway, approximately 1.5 miles northwest of Alameda Marina SOURCE: City of Alameda, Fehr & Peers, 2017.

B. OMITTED PROJECT IMPACTS. The DEIR includes none of the impacts of current traffic improvement projects. Although the traffic evidence and assumptions that support any traffic projections are not provided, traffic flows and projections based thereon are referred to as "constricted". These constrictions are based in part on roads and highway access which are under the control of CALTRANS and MTC, and not the City of Alameda. Two major projects currently underway and in which the City of Alameda is an active participant will affect these "constrictions": (1) the Broadway Jackson Interstate 80 project for the Alameda tubes, and (2)

8-81

8-82

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

the I80, 23rd Avenue Improvements project. These projects and their impacts are not addressed in the DEIR. As they have the potential to greatly alleviate or exacerbate traffic flows into and out of Alameda, these projects and their impacts are required to be included in any discussion of cumulative impacts.

↑
8-82
cont.

Applicable Law:

CEQA Guidelines §15130. DISCUSSION OF CUMULATIVE IMPACTS

(a) An EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in section 15065 (a)(3). Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

(1) As defined in Section 15355, a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR.

(2) When the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. A lead agency shall identify facts and analysis supporting the lead agency's conclusion that the cumulative impact is less than significant.

(3) An EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. The lead agency shall identify facts and analysis supporting its conclusion that the contribution will be rendered less than cumulatively considerable.

(b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact. **The following elements are necessary to an adequate discussion of significant cumulative impacts: (1) Either:**

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or

(B) A summary of projections contained in an adopted local, regional or state wide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency.

(2) When utilizing a list, as suggested in paragraph (1) of subdivision (b), factors to consider when determining whether to include a related project should include the nature of each environmental resource being examined, the location of the project and its type. Location may be important, for example, when water quality impacts are at issue since projects outside the watershed would probably not contribute to a cumulative effect. Project type may be important, for example, when the impact is specialized, such as a particular air pollutant or mode of traffic. (3) Lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used. (4) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and (5) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

(c) With some projects, the only feasible mitigation for cumulative impacts may involve the adoption of ordinances or regulations rather than the imposition of conditions on a project-by-project basis.

(d) Previously approved land use documents, including, but not limited to, general plans, specific plans, regional transportation plans, plans for the reduction of greenhouse gas emissions, and local coastal plans may be used in cumulative impact analysis. A pertinent discussion of cumulative impacts contained in one or more previously certified EIRs may be incorporated by reference pursuant to the provisions for tiering and program EIRs. No further cumulative impacts analysis is required when a project is consistent with a general, specific, master or comparable programmatic plan where the lead agency determines that the regional or area wide cumulative impacts of the proposed project have already been adequately addressed, as defined in section 15152(f), in a certified EIR for that plan. (e) If a cumulative

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

impact was adequately addressed in a prior EIR for a community plan, zoning action, or general plan, and the project is consistent with that plan or action, then an EIR for such a project should not further analyze that cumulative impact, as provided in Section 15183(j).

Note: Authority cited: Sections 21083, 21083.05, Public Resources Code. Reference: Sections 21003(d), 21083(b), 21093, 21094 and 21100, Public Resources Code; Whitman v. Board of Supervisors, (1979) 88 Cal. App. 3d 397; San Franciscans for Reasonable Growth v. City and County of San Francisco (1984) 151 Cal.App.3d 61; Kings County Farm Bureau v. City of Hanford (1990) 221 Cal.App.3d 692; Laurel Heights Homeowners Association v. Regents of the University of California (1988) 47 Cal.3d 376; Sierra Club v. Gilroy (1990) 220 Cal.App.3d 30; Citizens to Preserve the Ojai v. County of Ventura (1985) 176 Cal.App.3d 421; Concerned Citizens of South Cent. Los Angeles v. Los Angeles Unified Sch. Dist. (1994) 24 Cal.App.4th 826; Las Virgenes Homeowners Fed'n v. County of Los Angeles (1986) 177 Cal.App.3d 300; San Joaquin Raptor/Wildlife Rescue Ctr v. County of Stanislaus (1994) 27 Cal.App.4th 713; Fort Mojave Indian Tribe v. Cal. Dept. Of Health Services (1995) 38 Cal.App.4th 1574; Santa Monica Chamber of Commerce v. City of Santa Monica (2002) 101 Cal.App.4th 786; Communities for a Better Environment v. California Resources Agency (2002) 103 Cal.App.4th 98; and Ass'n of Irrigated Residents v. County of Madera (2003) 107 Cal.App.4th 1383.

2. NO SUBSTANTIAL EVIDENCE TO SUPPORT FINDINGS

Facts:

There is no Substantial evidence to support the Findings. ESA uses erroneous Traffic counts, which are not included in the DEIR; thereupon ESA makes unsupported findings. ESA's "data" show no or relatively minimal VMT impact in spite of actual traffic flows which are reported in concurrent MTC, and CALTRANS actual traffic counts for the same areas, and indicate there will be an increase of over 40% of traffic by 2040. ESA figures "show" traffic increases will result in less traffic than actually exists in 2017. The actual traffic counts must be provided, and any assumptions affecting "constrictions" must be provided to ascertain their adequacy.

8-83

Applicable Law:

CEQA Guidelines §15384 (a) SUBSTANTIAL EVIDENCE "Substantial evidence" as used in these guidelines means enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. Whether a fair argument can be made that the project may have a significant effect on the environment is to be determined by examining the whole record before the lead agency. Argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly erroneous or inaccurate, or evidence of social or economic impacts which do not contribute to or are not caused by physical impacts on the environment does

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

not constitute substantial evidence.(b) Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts. Note: Authority cited: Section 21083, Public Resources Code; References: Sections 21080, 21082.2, 21168, and 21168.5, Public Resources Code; No Oil, Inc. v. City of Los Angeles (1974) 13 Cal.3d 68; Running Fence Corp. v. Superior Court (1975) 51 Cal.App.3d 400; Friends of B Street v. City of Hayward (1980) 106 Cal.App.3d 988.

3. STATEMENT OF OVERRIDING CONSIDERATIONS

Facts:

The “evidence” used in the traffic impacts and projections, show “No substantial impact” yet the DEIR makes findings of substantial impacts based on VMT thus enabling the Lead Agency to wrongfully make a statement of Overriding Considerations, rather than provide accurate facts. These Overriding Considerations are not based on “traffic counts or their impacts” validly derived from the DEIR and are not based on Findings which is supported by Substantial Evidence.

8-84

Applicable Law:

CEQA Guidelines § 15093. STATEMENT OF OVERRIDING CONSIDERATIONS

(a) CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered “acceptable.”(b) When the lead agency approves a project which will result in the occurrence of significant

effects which are identified in the final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the final EIR and/or other information in the record. The statement of overriding considerations shall be supported by substantial evidence in the record.

(c) If an agency makes a statement of overriding considerations, the statement should be included in the record of the project approval and should be mentioned in the notice of determination. This statement does not substitute for, and shall be in addition to, findings required pursuant to Section 15091.

Note: Authority cited: Sections 21083 and 21083.05, Public Resources Code; Reference: Sections 21002 and 21081, Public Resources Code; San Francisco Ecology Center v. City and

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

County of San Francisco (1975) 48 Cal.App.3d 584; City of Carmel-by-the-Sea v. Board of Supervisors (1977) 71 Cal.App.3d 84; Sierra Club v. Contra Costa County (1992) 10 Cal.App.4th 1212; Citizens for Quality Growth v. City of Mount Shasta (1988) 198 Cal.App.3d 433; City of Marina v. Board of Trustees of Cal. State Univ. (2006) 39 Cal.4th 341.

4. INCONSISTENCIES WITH THE GENERAL PLAN OF THE CITY OF ALAMEDA

Facts:

The DEIR fails to include inconsistencies with the City of Alameda General Plan. See No. 7, below for some but not all of the inconsistencies not listed in the DEIR which are incorporated by this reference thereto as though fully set forth herein.

Applicable Law:

CEQA Guidelines §15125. ENVIRONMENTAL SETTING

(d) The EIR **shall** discuss any inconsistencies between the proposed **project and applicable general plans**, specific plans, and regional plans. Such regional plans include, but are not limited to, the applicable air quality attainment or maintenance plan or State Implementation Plan, area-wide waste treatment and water quality control plans, regional transportation plans, regional housing allocation plans, regional blueprint plans, plans for the reduction of greenhouse gas emissions, habitat conservation plans, natural community conservation plans and regional land use plans for the protection of the Coastal Zone, Lake Tahoe Basin, San Francisco Bay, and Santa Monica Mountains.

(e) Where a proposed project is compared with an adopted plan, the analysis shall examine the existing physical conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced as well as the potential future conditions discussed in the plan. Note: Authority cited: Sections 21083, 21083.05, Public Resources Code; Reference: Sections 21060.5, 21061, and 21100, Public Resources Code; E.P.I.C. v. County of El Dorado (1982) 131 Cal.App.3d 350; San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus (1994) 27 Cal.App.4th 713; Bloom v. McGurk (1994) 26 Cal.App.4th 1307.

The Project's potential impacts on neighboring cities include but are not limited to international navigation, seismic safety, green house gases, traffic. All access to Alameda is through its neighboring cities. It has neither direct freeway not transit access. Anything constructed in the estuary has the potential to interfere with navigation and interstate commerce. It is on fill, and adjacent to a multitude of seismic faults.

8-85

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Applicable Law:

5. CEQA Guidelines §15206. PROJECTS OF STATEWIDE, REGIONAL, OR AREA WIDE SIGNIFICANCE

(a) Projects meeting the criteria in this section **shall be deemed to be of state wide, regional, or area wide significance.**

(1) A draft EIR or negative declaration prepared by any public agency on a project described in this section shall be submitted to the State Clearinghouse and should be submitted also to the appropriate metropolitan area council of governments for review and comment. The notice of completion form required by the State Clearinghouse must be submitted together with the copies of the EIR and may be submitted together with the copies of the negative declaration. The notice of completion form required by the State Clearinghouse is included in Appendix C. If the lead agency uses the on-line process for submittal of the notice of completion form to the State Clearinghouse, the form generated from the Internet shall satisfy this requirement (refer to www.ceqanet.ca.gov).

(2) When such documents are submitted to the State Clearinghouse, the public agency shall include, in addition to the printed copy, a copy of the document in electronic format on a diskette or by electronic mail transmission, if available.

(b) The Lead Agency shall determine that a proposed project is of state wide, regional, or area wide significance if the project meets any of the following criteria:

(2) A project has the potential for causing significant effects on the environment extending beyond the city or county in which the project would be located. Examples of the effects include generating significant amounts of traffic or interfering with the attainment or maintenance of state or national air quality standards. Projects subject to this subdivision include:

(A) **A proposed residential development of more than 500 dwelling units.**

(B) A proposed shopping center or business establishment employing more than 1,000 persons or encompassing more than 500,000 square feet of floor space.

(C) A proposed commercial office building employing more than 1,000 persons or encompassing more than 250,000 square feet of floor space.

(E) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or encompassing more than 650,000 square feet of floor area.

8-86

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

6. DEIR MINIMIZES SEISMIC RISK BY USE OF OUTDATED MAPS

Facts:

The analysis of Geophysical impacts is based on factually outdated USGS maps which minimize the seismic dangers and risks in the Project Area. The Regional Fault Map ESA included as Figure 4.5-1, is Base Map, U.S. Geological Survey, National Seismic Hazards Map - Fault Sources, 2008. As this Base Map was updated in 2014 by USGS, it is unclear why ESA used the outdated map showing lesser fault sources in a DEIR dated December 2017.

8-87

Applicable Law:

See No. 2, supra.

7. CHAPTER 5 ALTERNATIVES TO PROPOSED PROJECT ARE INADEQUATE

Facts:

In considering the Alternatives ESA admits that increasing the density above 30 units **“per acre would conflict with existing City land use and zoning policies, and would require an amendment to the City Charter. Such an amendment would require voter approval, which would be a time-consuming and costly effort, with an unknown chance of success.”** (DEIR Page 5-6 Paragraph 4.) However the DEIR fails to include that the Proposed Project itself conflicts with the Charter, General Plan, and Alameda Municipal Codes Sections on density, minimum square footage per footprint per unit, and prohibition against use of common open space to satisfy open space requirements for privately held units.

8-88

Applicable Law:

Inconsistencies with the City of Alameda’s Charter, General Plan And Municipal Code were omitted from the DEIR. See No. 4 above, CEQA Guidelines §15125. ENVIRONMENTAL SETTING

8-89

(d) The EIR **shall** discuss any inconsistencies between the proposed **project and applicable general plans**. . . These inconsistencies include but are not limited to the following:

A. CHARTER OF THE CITY OF ALAMEDA

ARTICLE XXVI

Multiple Dwelling Units

Sec. 26-1. **There shall be no multiple dwelling units built in the City of Alameda.**

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Sec. 26-2. Exception being the Alameda Housing Authority replacement of existing low cost housing units and the proposed Senior Citizens low cost housing complex, pursuant to Article XXV of the Charter of the City of Alameda.

Sec. 26-3. The maximum density for any residential development within the City of Alameda shall be **one housing unit per 2,000 square feet of land**. This limitation shall not apply to the repair or replacement of existing residential units, whether single family or multiple-unit, which are damaged or destroyed by fire or other disaster; provided that the total number of residential units on any lot may not be increased. This limitation also shall not apply to replacement units under Section 26-2.

B. GENERAL PLAN OF THE CITY OF ALAMEDA

LAND USE ELEMENT CHAPTER 2

Medium-Density Residential: Two family or one family units. Medium density residential development will provide at least 2,000 square feet of site area per unit. Existing densities range up to 70 units per net acre on blocks with mixed single- and units. Density range for additional units: 8.8 to 21.8 units per net acre. **Projects of five or more units with 20 percent of the units affordable to lower-income households earn a state-mandated density bonus permitting up to 26.1 units per net acre.** Congregate housing and single room occupancy facilities would be permitted and their density would be regulated by the bulk standards (setbacks, height, lot coverage) in each zoning classification.

Guiding Policies: Residential Areas

2.4.a Maintain and enhance the residential environment of Alameda's neighborhoods.

2.4.d Limit residential development to one family detached and two family dwellings, in accord with the provisions of Measure A.

2.4.p Amend the Zoning Ordinance and zoning map to be consistent with Measure A, as necessary.

Chapter 2 - 14 - Land Use Element

2.4.q Require that all new development pay appropriate development impact fees.

Guiding Policies: Specified Mixed Use Areas

2.6.d Grand to Willow Street (Northern Waterfront): Continue efforts to minimize industrial -residential conflicts on the south side of Clement Avenue where current zoning matches current use at most locations. Live-work space for artists and artisans would be an appropriate use in many cases. To ensure maintenance of a working waterfront and to avoid employment densities that would create heavy traffic, office and retail space is to be limited to approximately its current share of total floor area. The intent is to maintain an

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

environment suited to the types of businesses now located in the area—both those that are related to the waterfront and those that are not.

2.6.e Willow Street to Oak Street (Northern Waterfront): Provide for redevelopment of existing industrial sites for up to 300 residential units, treating the area north of Clement Avenue as an extension of the residential neighborhood to the south. The proposed Business and Waterfront Improvement project would provide public actions to stimulate development of the site.

2.6.f (Northern Waterfront): Create a continuous shoreline access along the Estuary from the Miller Sweeney Bridge to the western tip of Alameda Point.

Implementing Policies: Specified Mixed Use Areas

2.6.h Grand to Willow Street (Northern Waterfront): **Limit office/industrial/retail development to .5 FAR, excluding area serving open uses, providing shoreline access, or used for vehicular access to other facilities within the Specified Mixed Use area.** The intent of this provision is to support waterfront related and non-waterfront related uses of the types now existing. The policy would prevent overbuilding that would occupy open area needed to support viable marine-related activities. The industrial character is not to be replaced by typical business park landscaping or building intensity.

2.6.i Willow Street to Oak Street (Northern Waterfront): Rezone existing nonresidential parcels to a residential-industrial mixed use district that would allow industrial use not more intense and not occupying more floor area than the 1990 use or residential development consistent with Measure A. Existing industry would not become nonconforming under zoning regulations, but could not expand in this area. Residential development would occur where a developer has a site large enough to create a residential environment. Uses would change only in accord with the plans and schedules of landowners.

(For most uses, a maximum permitted rate of gross floor area to site area is specified. The floor area ratio (FAR) is a broad control of building bulk that limits both visual prominence and traffic generated.)

Implementing Policies: Business Parks and Industrial Areas

2.8.g Revise zoning regulations to remove cumulative provisions that permit all uses except housing in industrial areas. This policy may be critical to preservation of the sea-rail link and the existing industries that use it. If zoning regulations in force in 1990 are not revised, a strong demand for office space or waterfront hotels could suddenly displace industry. **If future economic conditions warrant a major change from the designated industrial use, the City of Alameda should initiate revision of the General Plan.**

2.10.c Stop the trend toward private use of public property.

3. CITY DESIGN ELEMENT

Implementing Policies: Edges, Vistas, Focal Points

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

3.2.g Work with BCDC staff to prepare a schematic plan for development of the 100-foot-wide strip above mean high tide on properties likely to require BCDC development approval.

The schematic plan should provide for public access and provide shoreline streets wherever possible. Specific opportunities for shoreline streets should be identified. The plan should include design standards and guidelines for buildings, streets, pedestrian and bicycle routes, signage and landscaping.

3.2.i Ensure that sections of the Estuary waterfront remain visually unobstructed.

Most of the Estuary waterfront not devoted to industrial use is developed as marinas which block vistas. The proposed Estuary Park will be on the most prominent viewpoint.

3.3.e Develop detailed design guidelines to ensure protection of Alameda's historic, neighborhood, and small-town character. **Encourage preservation of all buildings, structures, areas and other physical environment elements having architectural, historic or aesthetic merit, including restoration of such elements where they have been insensitively altered. Include special guidelines for older buildings of existing or potential architectural, historical or aesthetic merit which encourage retention of original architectural elements and restoration of any missing elements. The design guidelines include detailed design standards for commercial districts.**

4. TRANSPORTATION ELEMENT

Policies

4.4.2.a Roadways will not be widened to create additional automobile travel lanes to accommodate additional automobile traffic volume with the exception of increasing transit exclusive lanes or non-motorized vehicle lanes.

4.4.2.b Intersections will not be widened beyond the width of the approaching roadway with the exception of a single exclusive left turn lane when necessary with the exception of increasing transit exclusive lanes or non-motorized vehicle lanes.

4.4.2.c Speed limits on Alameda's new roads should be consistent with existing roadways and be designed and implemented as 25mph roadways.

4.4.2.d All EIRs must include analysis of the effects of the project on the city's transit, pedestrian and bicycling environment, including adjacent neighborhoods and the overall City network.

4.4.2.e EIRs will not propose mitigations that significantly degrade the bicycle and pedestrian environment which are bellwethers for quality of life issues and staff should identify "Levels of Service" or other such measurements to ensure that the pedestrian and bicycling environment will not be significantly degraded as development takes place.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

4.4.2.f Transportation related mitigations for future development should first implement TDM measures with appropriate regular monitoring; transit, bicycle and pedestrian capital projects; and more efficient use of existing infrastructure such as traffic signal re-timing in order to reduce the negative environmental effects of development, rather than attempting to accommodate them. **Should appropriate regular monitoring indicate that these mitigations are unable to provide the predicted peak-hour vehicle trip reductions, additional TDM measures, development specific traffic caps, or mitigations through physical improvements of streets and intersections, consistent with policy 4.4.2.a and policy 4.4.2.b, may be implemented.**

4.4.2.g After the implementation of quantifiable/verifiable TDM measures (verified through appropriate regular monitoring), and mitigation measures consistent with 4.4.2.f and identification of how multimodal infrastructure relates to congestion concerns, some congestion may be identified in an EIR process as not possible to mitigate. **This unmitigated congestion should be evaluated and disclosed (including intersection delay length of time) during the EIR process, and acknowledged as a by-product of the development and accepted with the on-going funding of TDM measures.**

5. OPEN SPACE AND CONSERVATION ELEMENT

Implementing Policies: Open Space for the Preservation of Natural Resources 5.1.n Inventory existing wetlands and water-related and other habitats to create a comprehensive map of sensitive biological and botanical resources, to better protect these resources. 5.1.p Require that proposed projects adjacent to, surrounding, or containing wetlands be subject to a site-specific analysis which will determine the appropriate size and configuration of the buffer zone. The size and configuration of the buffer zone should be based on the characteristics and importance of the wetlands and the proposed project. The purpose of the buffer zone will be to ensure the long-term viability of the wetlands area, which may include provisions for off-site needs such as upland nesting habitat.

Implementing Policies: Climate and Air Quality

5.5.c Encourage use of public transit for all types of trips. See policies in Section 4.3 in the Transportation Element.

5.5.d Encourage development and implementation of Transportation System Management (TSM) programs.

See Transportation Element policies (4.2.a and 4.2.b).

5.5.e **Minimize commuting by balancing jobs and nearby housing opportunities. Buildout of Alameda will create four jobs for every three employed residents, minimizing out-commuting.** A surplus of jobs in Alameda is likely to result in less travel than if these office/business park jobs were at alternative outlying locations.

6. PARKS AND RECREATION, SHORELINE ACCESS, SCHOOLS AND CULTURAL FACILITIES ELEMENT

6.2.g **Prepare a Shoreline Access Plan in consultation with BCDC for areas where development proposals are expected to provide opportunities to improve or extend**

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

access. 6.2.h Require shoreline access where appropriate as a condition of development approval regardless of whether development occurs within the area of BCDC regulation. Access should be provided even if there is no development within 100 feet of the water's edge. 6.2.i Require off-site access as a mitigation when public access on-site is infeasible.

8. SAFETY AND NOISE ELEMENT

8.3 FLOODING AND SEA LEVEL RISE Due to its relatively flat topography and proximity to the San Francisco Bay, Alameda is uniquely sensitive to flooding caused by high tides, storm events, and climate change induced sea level rise. The City of Alameda normally experiences tides that range from -0.2' Mean Lower Low Water (MLLW) to +6.4' Mean Higher High Water (MHHW), based on the NAVD88 datum. (The NAVD88 datum or zero elevation is approximately the same as the elevations used in local tide tables.) The highest tide of the year, or "king tide," normally occurs during the winter months of November thru February, and is usually about 7.4'. Every year, there is a 1 percent chance the king tide will exceed 9.4'. The ten highest king tides recorded by NOAA in Alameda for the last 75 years measured 8.6' to 9.5' elevation.

Global warming and sea level rise will have severe long-term effects on Alameda. The Bay Conservation and Development Commission (BCDC) and Alameda County Flood Control Water Conservation District predict a likely 12-inch increase in sea level on the Alameda County coastline by 2050, and a likely 24-inch increase in sea level in the same area by 2100 (Adapting to Rising Tides: Alameda County Shoreline Vulnerability Assessment, May, 2015). The study identified a 66-inch inundation level when combining the 24-inch sea level rise with a 100-year storm event (see Figure 8-3). In addition to residential and commercial properties, the Webster and Posey Tubes, Ron Cowan Parkway and the Alameda Gateway Terminal Ferry and other major public improvements are vulnerable to inundation.

SN-15. Develop sea level rise adaptive strategies for different areas of the City for public discussion and evaluation, including but not limited to: avoidance/planned retreat, enhanced levees, setback levees to accommodate habitat transition zones, buffer zones, beaches, expanded tidal prisms for enhanced natural scouring of channel sediments, raising and floodproofing structures, and/or provisions for additional flood water pumping stations, and inland detention basins to reduce peak discharges.

a. Develop for public discussion and evaluation potential financing strategies and partnership opportunities with regional and state agencies such as the Oakland International Airport, and other agencies to fund and build selected adaptive strategies.

SN-19. Require new development adjacent to the shoreline, lagoons and low elevations to plan for 50 years of sea level rise. Ensure that the design of future developments incorporate flood protection measures to protect improvements from a 100-year storm event and anticipated sea level rise. a. Require new development to provide adequate

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

setbacks along waterfront areas for the future expansion of seawalls and levees to adapt to sea level rise.

10. NORTHERN WATERFRONT GENERAL PLAN AMENDMENT

10.1 Challenges and Issues

Financially Sound Development The General Plan policies and land use designations are designed to ensure that new development will fund the public facilities and services that are needed to serve the new development and that redevelopment of the area does not result in a negative financial impact on the City's ability to provide services to the rest of the City.

Facilitating a Jobs/Housing Balance. With an emphasis on mixed use development, the General Plan policies for the area are intended to facilitate a jobs housing balance in the area and in the City for the purpose of reducing citywide traffic and the associated environmental, economic and social impacts of long commute trips.

10.4.e. Rezone the Encinal Terminals, Grand Marina, and Pennzoil sites for mixed-use residential development.

10.4.f. Encourage the development of residential units on the upper floors of small commercial buildings in the Mixed-Use designated areas, in compliance with the City Charter.

10.4.g. Consider opportunities for a houseboat community in the Northern Waterfront area.

Implementing Policies: Circulation and Infrastructure

10.6.e. Extend Clement Avenue through the Northern Waterfront from Grand Street to Sherman to facilitate the movement of trucks, transit and/or rail, bicycles, and pedestrians.

10.6.f. Non-residential uses should be located adjacent to the Clement Truck Route to minimize disturbances to residents from truck traffic on Clement Street; however, if residential uses are proposed adjacent to the Clement Truck Route, residential structures shall be adequately set back and/or provide design features to minimize disturbances to future residents. In accordance with policy 10.8.f, sound walls shall not be used to buffer residential uses from the truck route.

10.6.g. Designate the extension of Clement Avenue through the Northern Waterfront as a Truck Route; remove the Truck Route designation on Buena Vista from Sherman to Grand Street. Do not extend the truck route through the Beltline property.

10.6.h. Implement traffic calming measures to slow and control traffic flow in and around the Plan area and protect adjacent neighborhoods.

10.6.z. Ensure that police, fire, educational, parks, opens space, and other public services are adequately funded to serve new development.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

10.6.aa. Consider creation of a Northern Waterfront Assessment District to fund public improvements and or municipal services required to support new development in the area.

10.8.c: To ensure design compatibility with adjacent developments and neighborhoods; limit new building heights to 60 feet.

HOUSING ELEMENT 2015–2023

Regional Housing Needs Allocation

In July 2013, the Association of Bay Area Governments (ABAG) issued the Regional Housing Needs Allocation (RHNA). **The City of Alameda was assigned a RHNA of 1,723 units.** To address state, regional, and local need for affordable housing, **444 of the units are to be affordable to very low-income households, 248 of the units are to be affordable for low-income households, and 283 of the units are to be affordable for moderate-income households.** The balance of the units **(748) may be market rate.** The City of Alameda Land Inventory, located in the Housing Resources section of the Housing Element Background Report on page 35, identifies adequate sites for over 2,000 units that are appropriately zoned to address the affordable housing demand. These identified sites provide support for state mandated requirements, but do not represent the full extent of Alameda’s available housing sites. In 2010, the City of Alameda, the Alameda Housing Authority, and their non-profit partner Resources for Community Development completed work on Shensi Gardens, a 39-unit multifamily housing project for very-low and low-income Alameda families. The award winning project exemplifies Alameda’s successful and ongoing efforts to transform the former Naval Air Station at Alameda into a mixed use, mixed income district.

State law requires that **“the general plan and elements and parts thereof comprise an integrated, internally consistent, and compatible statement of policies.”** Internal consistency avoids policy conflicts and provides clear policy direction for the future improvement and development of housing within the City. The City is evaluating the consistency of this element with other chapters of the general plan as part of the update process. It will continue to maintain General Plan consistency through ongoing review and revision conducted annually thereafter.

8. ALAMEDA MUNICIPAL CODE

30-4.20 - M-X, Mixed-Use Planned Development District.

e. Density.

1. The City Council shall determine the number of dwelling units that are appropriate for the M-X and the appropriate area of noncommercial development therein.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

2. Residential development within the entire M-X shall not exceed one (1) dwelling unit per two thousand (2,000) square feet of lot area for land designated on the Master Plan for residential use.

30-4.23 - Multi-family Residential Combining Zone.

a. Purpose. The Multi-family residential combining zone (MF District) is an overlay zone intended for lands in Alameda that are well located for transit oriented Multi-family housing, necessary to accommodate Alameda's share of the regional housing need, and available to facilitate and encourage the development of a variety of types of housing for all income levels, including Multi-family rental housing as required by California Government Code sections 65580 and 65583.

k. Affordable Housing Requirements. 1. All residential projects shall provide affordable housing pursuant to Alameda Municipal Code 30-16, Affordable Housing. 2. Projects that qualify for a residential density bonus pursuant to Section 30-17, Affordable Housing Density Bonus and Government Code § 65915 shall be entitled to: (a) Up to a thirty-five (35%) percent increase in maximum allowable density described in provision e of this section; (b) A maximum height of four (4) stories but not more than forty-five (45') feet; b. Alameda Municipal Code and Underlying Zoning District Provisions and Requirements. 1. Proposed residential use within the MF district shall comply with the provisions of the MF District, the provisions of the underlying zoning district and all other provisions of the Alameda Municipal Code. In the event of a conflict between the provisions of the MF Combining District and the provisions of the underlying district or the Alameda Municipal Code or Alameda City Charter Article 26, the provisions of the MF District shall govern. 2. Proposed non-residential use, if permitted or conditionally permitted by the underlying zoning districts, within the MF District shall comply with the provisions of the underlying zoning district and all other provisions of the Alameda Municipal Code. c. Housing Types Permitted. 1. The following housing types shall be permitted by right, without a conditional use permit or other discretionary review other than design review, in addition to those permitted by the underlying zoning district: (a) Multifamily; (b) Town homes; (c) Senior; (d) Transitional housing; (e) Supportive housing; (f) Shared living; (g) Live/work; 2. For the purposes of the MF District, live/work shall be defined as a residential unit that is the primary residence and place of employment for the owner or occupant of the live/work unit. d. Land Uses Permitted. 1. Residential uses are permitted by right in the MF Combining District in addition to the uses permitted and conditionally permitted by the underlying zoning district. 2. All properties with the MF Combining District designation that front on Park Street or Webster Street shall provide ground floor retail space fronting onto the Park Street or Webster Street public right-of-way. e. Permitted Residential Density and Lot Size. 1. Within the MF Combining District, the maximum permitted residential density shall be thirty (30) units per acre. 2. Minimum lot size requirements shall be modified as necessary to permit construction at the densities allowed by this section. f. Height Requirements. The maximum height permitted shall be three (3) stories or thirty-five (35') feet, except as provided in paragraph k.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

30-5.4 - Relationship to Other Regulations to and to Private Restrictions.

a. Where conflict occurs between the regulations of this article and any Building Code or other regulations effective within the City, **the more restrictive of any such regulations shall apply.**

30-5.12 Definition - of required open space.

Usable open space is comprised of private open space and common open space. **Usable open space is that area of a building site which is landscaped or otherwise developed and maintained for recreation or outdoor living by the occupants.** Usable open space shall not include yards or other areas having a width of less than eight (8') feet, except for balconies which may have a minimum horizontal dimension of five (5') feet, or areas devoted to automobile access or storage. The following areas shall constitute usable open space as required by subsections 30-4.2(d)(9), 30-4.3(d)(10), 30-4.4(d)(10), 30-4.5(d)(10), and 30-4.6(d)(10).

30-17.4 - Density Bonus Application.

a. In order to receive concessions and/or incentives, or waivers under this Section 30-17, an Applicant must submit to the City a Density Bonus Application which will be treated as part of the Development Application. At any time during the review process, the Planning and Building Director may require from the applicant additional information reasonably necessary to clarify and supplement the application or to determine the development's consistency with the requirements of this section.

b. The Density Bonus Application shall include the following:

1. **A development plan illustrating that the "base" project meets all existing general plan and zoning development standards.**
2. A description of the Development, including the total number of proposed affordable housing units, senior housing units, or age-restricted mobile home park units; a description of any land the applicant proposes to donate for low income housing units; and any child care facilities the applicant proposes to construct as part of the qualifying housing development premises or on an adjacent property.
3. The zoning and General Plan designations and assessor's parcel number(s) of the project site.
4. A vicinity map showing the location of the proposed project.
5. A set of preliminary project plans that include a site plan showing all building and structure footprints or locations, drive aisles and parking layout; floor plans of all structures and buildings; and architectural elevations of all buildings and structures, all drawn to scale.
6. A request for a concession or incentive shall include evidence to justify why it is necessary to provide for affordable housing costs. Specifically, the application shall include a financial report or pro forma demonstrating: i) whether the concessions or incentives sought would result in identifiable, financially sufficient, and actual cost reductions; ii) whether the concessions or incentives sought are necessary to reduce the cost of the housing project sufficiently to make feasible the provision of the affordable housing units; and iii) how any additional concession or incentive would contribute significantly to the economic feasibility of the construction of the child care facility if a child care facility is proposed.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

7. A request for a waiver shall include evidence to justify why it is necessary to allow construction of the development on the site. Specifically, any applicant requesting a waiver of development standards that physically preclude construction at the densities and/or concessions and incentives permitted shall submit evidence in the form of a site plan, drawing or written explanation describing why the waiver is needed to permit the project. A financial report or pro forma is not required to justify a waiver.

8. The Affordable Housing Unit Plan which shall include: (a) The location, structure (attached, semi-attached, or detached), proposed tenure (sale or rental), and size and number of bedrooms of proposed market-rate and affordable housing units and the proposed size of non-residential uses included in the development; (b) The income level to which each affordable housing unit will be made affordable; (c) For phased developments, a phasing plan that provides for the timely development of affordable housing units in proportion to other housing units in each proposed phase of development as required by this section.

9. Any other information reasonably requested by the Planning and Building Director to aid in the implementation of this Section 30-17.

c. In the event that construction of a project is to be: 1) phased over more than two (2) years, and those entitlements are vested by instruments such as a Development Agreement or other similar instrument, and 2) the vesting document(s) allows for the phased submittal of Design Review plans including the floor plans and elevations of proposed buildings, then the applicant may be allowed to phase submittal of the floor plans and elevations required by subsection 30-17.4.5 of all planned residential buildings until such time that the Design Review plans are submitted pursuant to the vesting documents.

d. A project with a Density Bonus Application, including a request for concessions, incentives or waivers, shall be reviewed for approval by the Planning Board; provided, however, that if a development involves another permit or entitlement requiring City Council approval, then the Planning Board may deny the development project or recommend its approval to the City Council.

e. A requested concession, incentive, or waiver shall be approved unless the findings for denial listed in subsection 30.17.9a., "Requests for Incentives or Concessions," or 30-17.12a., "Waivers of Development Standards the Physically Preclude Construction," are made in writing. f. Decisions of the Planning Board may be appealed to or reviewed by the City Council as provided in Section 30-25 of this Code, "Appeals or Calls for Review."

8. PROJECT IMPLEMENTING MF ZONE CANNOT BE APPROVED

Facts:

The Ordinance adopting the Multi-Family Residential Combining Zones, is void as a matter of law. The provision stating that the provisions of the MF District will govern any conflict is not supported in the law.

AMC §30-4.23 - Multi-family Residential Combining Zone.

8-91

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

a. Purpose. The Multi-family residential combining zone (MF District) is an overlay zone intended for lands in Alameda that are well located for transit oriented Multi-family housing, necessary to accommodate Alameda's share of the regional housing need, and available to facilitate and encourage the development of a variety of types of housing for all income levels, including Multi-family rental housing as required by California Government Code sections 65580 and 65583. b. Alameda Municipal Code and Underlying Zoning District Provisions and Requirements. 1. Proposed residential use within the MF district shall comply with the provisions of the MF District, the provisions of the underlying zoning district and all other provisions of the Alameda Municipal Code. **In the event of a conflict between the provisions of the MF Combining District and the provisions of the underlying district or the Alameda Municipal Code or Alameda City Charter Article 26, the provisions of the MF District shall govern.**

Applicable Law:

In 1916, Alameda became a Charter City pursuant to the California Constitution (Cal. Const. Art 9 §3a.) It's current Charter was adopted by the voters in 1937. Alameda's citizens circulated an Initiative which passed March 1, 1973, adding §§ 26-1 and 26-2, Article XXVI [Multiple Dwelling Units],

"to provide that there shall be **no multiple dwelling units** built in the City of Alameda, exception being the Alameda Housing Authority replacement of existing low cost housing units and the proposed Senior Citizens low cost housing complex, pursuant to Article XXV of said Charter."

This Charter Amendment was further strengthened by another amendment passed by the electorate and added March 5, 1991, § 26-3, Article XVI [Multiple Dwelling Units],

"to limit the maximum density for any residential development within the City of Alameda to **one housing unit per 2,000 square feet of land** excepting the repair or replacement of existing residential single-family or multiple-units which are damaged or destroyed by fire or other disaster and excepting replacement units under Charter Section 26-2."

Article XI, § 3, of the California Constitution states that the Charter can only be amended by vote of the City's electors, while Calif. Elections C. § 9255 provides the procedures for such an amendment. Chapter XXX of the AMC (hereinafter "AMC") was originally adopted to carry out the provisions of Measure A. AMC § 30.51 defines Multiple Dwelling Units, the type specifically excluded in Alameda as:

Multiple dwelling units shall mean a residential building, whether a single structure or consisting of attached or semi-attached structures, designed, intended or used to house, or for occupancy by, three (3) or more families, or living groups, living independently of each

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

other, located in districts or zones authorized there for. Each such family or group is deemed to occupy one (1) such dwelling unit.

Courts in California and other states, have long held that a charter city may not take any action which conflicts with the City's Charter, and that "(a)ny act that is violative or not in compliance with the charter is void." (*Domar Electric Inc. v. City of Los Angeles* (1994) 9 Cal.4th 161, 171, citations omitted.)

The City did not conduct an election to amend its charter prior to adopting Resolutions No.14718 and Ordinance No.3054 which implemented the MX and MF zoning.

In adopting Ordinance No. 3054, the City acknowledged the existence of conflicts between the new MF District and the Charter. In fact, AMS Subsection 30-4.23b.i. as added to the Code by Ordinance No. 3054, states that "In the event of any conflict between Article 26 and the provisions of the Code regarding the MF District, the latter provisions shall govern."

It is not possible for the City to paper over the conflict between the Ordinance No. 3054 and the Charter by stating that Ordinance No. 3054 controls in the event of a conflict. Rather, under the rationale outlined in *Domar, supra*, and numerous other cases, it is clear that Ordinance No. 3054 is void as a result of the conflict between Ordinance No. 3054, and the Charter.

The DEIR has attempted to circumvent the voters' mandate of Measure A as it applies the Project by using Housing Element and Municipal Code Sections that conflict with the Charter and General Plan, and without a vote of the people. The City of Alameda's Housing Element was certified by the State which constitutes a finding that it identified a sufficient number of vacant parcels to meet the 2023 housing availability requirement.

The City of Alameda has overwhelmingly met and surpassed the ABAG Housing Goals for market rate units. It falls short in the low and affordable income housing goals and this Project is not providing low income and affordable housing to justify the loss of the remaining traffic capacity through the bridges and tunnels to justify implementing a void MF, or MX Overlay without a vote of the people or judgment of a court of law.

8-91

9. THE CITY MAY NOT APPROVE THIS PROJECT AS IT IS INCONSISTENT WITH THE GENERAL PLAN AND OTHER REGULATIONS PRESCRIBED FOR THE USE OF LAND WITHIN THE CITY OF ALAMEDA

Facts:

This Project is inconsistent with the Charter, General Plan and Sections of the AMC. The Project appears to be consistent with some sections of the AMC which are void.

8-92

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Applicable Law:

AMC §30-94.1 - Decision by City Council.

a. The City Council shall hold a public hearing, after which it may accept, modify or disapprove the recommendation of the Planning Board.

b. **The City Council may not approve the development agreement unless it finds that the provisions of the agreement are consistent with the General Plan and other regulations prescribed for the use of land.**

(Ord. No. 2189 N.S.)

10. THIS PROJECT VIOLATES STATE PLANNING AND ZONING LAW

Facts:

See No. 9, above. State Law requires that this Project be rejected as there is no basis for making a determination that it complies with local laws as is required under State law.

Applicable Law:

A general plan must be integrated and internally consistent, both among the elements and within each element. (Gov.C. §65300.5). If there is internal inconsistency, the general plan is legally inadequate **and the required finding of consistency for land use approval cannot be made.**

All “lower tier” zoning regulations, approvals and enactments must be consistent with the governing “higher tier” general plan. (Gov. C. §§ 65359, 65454, 65860, *DeVita v. County of Napa*, (1995) 9 Cal.4th 763,803.) “Vertical consistency between an applicable general plan and the various layers of subordinate land use regulations has been aptly termed the “linchpin of California’s land use and development laws” because “it is the principle which infused the concept of planned growth with the force of law” (*De Botarri v. City Council*, (1985) 171 Cal.App.3d 1204, 1213.). In order to be consistent with its governing general plan, a zoning ordinance must “further the objectives and policies of the general plan and not obstruct their attainment” (*Corona-Norco Unified School District v. City of Corona* (1993) 17 Cal.App.4th 985, 994.).

If a subordinate land use regulation does not further and promote the policies of a general plan, it must be deemed inconsistent (*Building Industry Ass’n. V. City of Oceanside*. (1994) 27 Cal.App.4th 744, 767.) A land use decision (zoning ordinance) must be deemed inconsistent with a general plan if it conflicts with a single, mandatory general plan or policy or goal (*Families Unafraid to Uphold Rural El Dorado County v. El Dorado County Bd of Sup.* (1998) 62 Cal.App.4th 1332,1341.). A local land use decision that is inconsistent with the applicable general plan is invalid when passed, i.e., void *ab initio*. (*Leshar Communications Inc. V. City of Walnut Creek* (1990) 52 Cal.3d 531,540.).

8-93

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

General Plan Land Use Element Section 2.4.d includes the policy “to limit residential development to one family detached and two family dwellings, in accord with the Provisions of Measure A.” The Adoption of the Housing Element, and land use designation of Medium Density Residential as well as the Multifamily Combining Zone Conflicts with the General Plan Land Use Element, since it permits “by right” multifamily residential uses in densities greater than permitted under the General Plan Land Use Element. In addition, the City failed to adopt a Schedule to address these inconsistencies. The City cannot approve the Alameda Marina Project until the General Plan is amended.

8-93
cont.

11. RECIRCULATION OF THE DEIR IS REQUIRED.

Facts:

The (1) Failure to include a complete analysis of the cumulative impacts of all known projects, (2) omission of all of the inconsistencies with the City of Alameda applicable laws, Charter, Municipal Code, General plan, (3) use of outdated Geological information, (4) inadequate traffic impact analysis using erroneous traffic “studies” and failure to include assumptions thereon, which are directly contradicted by traffic measurements and projections used by MTC and CALTRANS, (5) misquoting these inadequate traffic studies which show no impact, basing findings upon them stating there are impacts entitling findings of overriding considerations, among other failures of the DEIR require that the DEIR be amended and updated to include the foregoing, and re-circulated.

8-94

Applicable Law:

CEQA Guidelines §15088.5. RECIRCULATION OF AN EIR PRIOR TO CERTIFICATION

(a) A lead agency is required to recirculate an EIR when significant new information is added to

the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification. As used in this section, the term “information” can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not “significant” unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project’s proponents have declined to implement. “Significant new information” requiring recirculation include, for example, a disclosure showing that:

- (1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
- (2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

(3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.

(4) **The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. (Mountain Lion Coalition v. Fish and Game Com. (1989) 214 Cal.App.3d 1043)**

(b) Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.

(c) If the revision is limited to a few chapters or portions of the EIR, the lead agency need only re-circulate the chapters or portions that have been modified.

(d) Recirculation of an EIR requires notice pursuant to Section 15087, and consultation pursuant to Section 15086.

(e) **A decision not to re-circulate an EIR must be supported by substantial evidence in the administrative record.**

(f) The lead agency shall evaluate and respond to comments as provided in Section 15088. Re-circulating an EIR can result in the lead agency receiving more than one set of comments from reviewers. The following are two ways in which the lead agency may identify the set of comments to which it will respond. This dual approach avoids confusion over whether the lead agency must respond to comments which are duplicates or which are no longer pertinent due to revisions to the EIR. **In no case shall the lead agency fail to respond to pertinent comments on significant environmental issues.**

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Attachment 4

Economic Development Assessment

Alameda Marina Master Plan Market Assessment Prepared for: Bay West Development
Prepared by: Economic & Planning Systems, Inc. December 16, 2016:

“The economic rebound from the 2008-9 recession enjoyed broadly throughout the Bay Area and recent approval of new multifamily housing has supported a modest surge in new residential development in the city in recent years.”

Response: Residential development is the most expensive type of development a city can undertake. Impact fees cover the additional expenses or additional city services initially and then the services become a liability for the city. Business development results in long-term revenues in the form of sales taxes that support the city services that are required to support the residents. Between this issue and Alameda’s jobs/housing imbalance, the city should be looking at more opportunities to preserve existing industrial and commercial space for long-term revenue generation.

Alameda’s geography, an island surrounded by water, lends opportunity to the development of blue economy businesses. The proximity to the Port of Oakland and deep water on the north shore of Alameda is particularly attractive for blue economy business development. Alameda Marina offers existing R&D space, warehouses, and startup/incubator space that is near the water.

The region’s population growth has squeezed out waterfront locations that have seen a reduction in water-oriented leisure space as it has become popular for residential development. The 530 berth marina will serve as a magnet to attract new residents who are interested in maritime recreational pursuits to the project site. Changes in zoning to allow specific types of mixed use development and new amenities to actively support maritime operations can help activate the marina and public areas with waterfront access.

Alameda’s many yacht clubs are great organizations for new residents to join in with the boating community of Alameda. There are groups that teach sailing to young and old. An active boating community will provide jobs for youngsters.

Job growth in the City of Alameda has been strong, but employment growth occurring since the recession has been concentrated in restaurant and retail sectors, while other markets in the Bay Area have attracted technology and professional services jobs and associated market demand for new workspace.

Alameda has enjoyed recent increases in its retail supply, and these significant new lifestyle and neighborhood centers have attracted credit tenants which are well positioned to compete with retailers outside the city, as well as internet retailers.

8-95

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Response: The investment Alameda made in the Alameda Theater and Parking Garage sparked the growth in restaurants on Park and Webster Streets. Residential development at Alameda Landing and other areas brought new retail establishments such as the shopping center at Alameda Landing. Unfortunately, restaurant and retail jobs do not offer living wages to allow employees to live in Alameda so the island job growth has actually served to increase congestion and carbon gases on the nearby freeways and other roads. Alameda needs professional, technical and trade jobs that will keep residents both living and working on the island. The 85 businesses at Alameda Marina prior to Bay West's plans for development provided 250 of these jobs in its workspaces. The Alameda Marina was home to a world renowned Oceanographer who started a business that reached to all corners of the world. Alameda needs to work to retain these types of businesses.

8-96

While Alameda possesses a rich history of maritime economic activity on its waterfront, the primary drivers of maritime business activity have stagnated or are in decline.

Response: Each year the Alameda Community Sailing Center trains about 175 local youth how to sail. In addition, the center also teaches classes to adults and families and has sailing activities for all Alameda residents throughout sailing season. In addition, Encinal Yacht Club also operates a youth sailing summer camp. Both training programs result in new participants who will purchase boats and look for marinas in which to store them. These new sailors will reverse the decline which began with the recession. People are just now beginning to have discretionary income to pursue leisure activities that will involve the use of waterfront activities in Alameda. Many of the new residents will move to Alameda for the marine activities if the services are available.

8-97

Young adults also are showing interest in personal watercraft such as paddleboards and kayaks which require access to the waterfront..

The redevelopment of Alameda Marina will maximize its market potential by offering residential uses, and some ancillary retail may serve as an amenity to the project, while office and industrial/flex space are significantly riskier, as the market reveals existing vacancy, limited recent development, and a strong pipeline of supply.

"Alameda Marina should seek to take advantage of the strong housing market and while some retail and workspace may be desirable for place making, market demand for commercial uses is relatively weak. Office and industrial space likely will be difficult to lease at rates that cover the cost of construction. One exception might be the adaptive reuse of industrial space as "maker space" (i.e., flexible space for artisans, craft manufacturers, or technology businesses). While demand for maritime uses exists, maritime-designated space within the project likely would satisfy the needs of existing Alameda businesses. Again, lease rates likely would be insufficient to cover the cost of construction. A maritime user requirement beyond what the market can support adds significant risk and cost to the project, which might be mitigated through establishment of a more flexible commercial program."

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

Response: Alameda has 4000 housing units in the pipeline for development. Alameda Marina currently has over 250,000 sq. ft. commercial/industrial space and Bay West proposes to reduce it to 150,000 sq. ft. – “if feasible”. Planned development of commercial space other than Alameda Point includes 22,000 at Harbor Bay, 364,000 of warehouse space at Alameda Landing owned by Bay Ship and Yacht for their inventory space, 50,000 sq. ft. at Encinal Terminals, 25,000 sq. ft. at Del Monte and 23,000 sq. ft. at Park Esquina, 712 Lincoln Ave., 1435 Webster St., and 11,000 sq. ft. on Minturn St. The amount of square footage coming online to develop jobs which pay an Alameda living wage is minor when compared to what is being allocated for housing which will further deteriorate Alameda’s jobs/housing imbalance.

8-98

(from city website):

Among the Guiding Principles determined by participants of the Economic Development Committee, as reported to City Council on February 21, 2017 under “Strategic Plan Strategies Framework”, was to first address Improvement of Alameda’s jobs/ housing balance, partially by attracting, retaining and expanding innovative commercial and light industrial businesses while promoting housing affordable to all sectors. Opportunities and Constraints identified that Alameda lags region in growing office-based jobs and that local workers have difficulty finding housing. Among proposed strategies to improve the balance of jobs and housing are to amend the General Plan to include strong policies preserving prime commercial sites for employment-generating uses. (Sites such as at the Alameda Marina where 250 jobs existed before Bay West started planning for this development.)

The second principle determined by participants of the Economic Development Committee was to “Preserve Alameda’s “quirky and magical” character and quality of life”. The committee sought to preserve and promote Alameda’s unique landmarks and destinations, which contribute to making Alameda a creative and inspiring place for innovators. Supporting marine-related industries and Providing an accessible waterfront for recreational activities were also identified as ways to support this goal for economic development. Opportunities and Constraints identified included Artists and “makers” being attracted to Alameda’s inexpensive and “funky” spaces such as those that existed at Alameda Marina. The fact that Alameda is one of few inner Bay Area locations with a working waterfront was seen as an opportunity. Strategies to Preserve Character and Quality of Life included:

- *Exploring the feasibility of a new technology incubator/co-working space*
- *Encouraging development and reuse of buildings to create cooperative spaces for artists and other “makers”*
- *Exploring the feasibility of a new technology incubator/co-working space*
- *Exploring working with other nearby cities that have maritime industries (e.g. Richmond, Oakland, Berkeley, and Emeryville) to identify joint funding and financing options for waterfront infrastructure improvements*

Project Name: Alameda Marina Mixed Use Project
SCH No. 2016102064

City of Alameda

The third principle of Economic Development identified was to maintain Alameda's fiscal stability. One proposed strategy to accomplish this goal was to invest in initiatives to create attractive, vibrant public spaces, especially in existing retail areas and waterfront locations, to attract experiential retailers.

Letter 8 **Save Alameda's Working Waterfront**
Response February 15, 2018

- 8-1 Section 4.12 of the Draft EIR evaluates the impacts of the project on the transportation system, including the regional highways. As explained in Master Response 6 in Section 2.2 of this chapter, the evaluation includes analysis of traffic operations at the major intersections along these corridors, analysis of travel times along three corridors connecting Alameda to Oakland, and analysis of traffic operations along major roadway segments as required by the Alameda CTC. Other intersections or roadway segments were not evaluated because the project would add minimal traffic to these locations as shown on Figure 4.12-4, Trip Distribution, of the Draft EIR. This comment does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- The reductions in BART and AC Transit ridership for 2017 referenced in the comment are system-wide and reflect ridership throughout the BART and AC Transit service area. Furthermore, during the same period, ferry ridership in Alameda continued to increase dramatically. The comment does not state how regional transit ridership may affect the traffic analysis presented in the Draft EIR, nor does it state how the proposed project would impact that ridership. Therefore, the comment does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-2 The project sponsor has never indicated that the only reason for the proposed project is improve the shoreline, as suggested by the commenter. Please see the list of Project Objectives at Section 2.4 of the Draft EIR. As discussed in Chapter 3 of the Draft EIR, the project would be developed in phases, with each phase funded and developed in succession. This process would be typical of standard development practice for larger projects, and would ensure that the cash flow and capitalization requirements needed to fund the next phase of development are maintained. In addition, Chapter 6 of the Master Plan for the project provides that shoreline and land side infrastructure improvements would occur in each phase and further provides that a building permit for the first building in the next phase would not issue until shoreline improvements in the prior phase have been completed based on the project sponsor's approved plans for the infrastructure work. Regardless, the comment does not address a specific environmental impact or effect. Rather, the comment asserts the opinion of the commenter as to how the project should be developed, and therefore does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required (*Twain Harte Homeowners Ass'n v. County of Tuolumne* (1982) 138 Cal.App.3d 664, 679).

- 8-3 This comment asserts the opinion of the commenter as to how the project should be developed, and therefore does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-4 Please refer to Master Response 2 in Section 2.2 of this chapter for a discussion of affordable housing and the project's requirements under the law. The project would provide 103 affordable housing units, which is in excess of what is required. There is a substantial market for these types of housing, and the project would assist in meeting the region-wide shortage of housing for families of varying income levels. Regardless, the comment does not address a specific environmental impact or effect, and does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-5 As stated in the comment, the Draft EIR is consistent with the Boatworks EIR in identifying both Park Street/Blanding Avenue and Park Street/Clement Avenue intersections as operating at LOS F under Cumulative (2040) Plus Project conditions. As discussed in Master Response 6 in Section 2.2 of this chapter, the Cumulative (2040) traffic impact analyses presented in the Draft EIR accounts for traffic generated by planned and proposed developments in Alameda, including the Boatworks project and other developments in the Northern Waterfront Area.
- 8-6 Please refer to Master Response 1 in Section 2.2 of this chapter for an overview of the project's consistency with the MX and MF Zoning Ordinances. The Draft EIR disclosed all significant and unavoidable transportation-related effects that would result from the proposed project. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-7 The Master Plan provides for public access throughout the site, with reasonable restrictions for purposes of public safety and security. This comment does not address a specific environmental impact or effect, and does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-8 The Master Plan provides for a mix of commercial uses, including those listed in the comment and as allowed for the site per the City's Municipal Code. The ultimate uses that may occupy the commercial areas of the site will largely be determined by the market, but the principal intent of the Master Plan with respect to commercial uses is to maintain a commercial core that includes a working waterfront centered around maritime uses, particularly in the Tidelands Lease portions of the site. With respect to conversion of a portion of the site to residential uses, the site's General Plan mixed use designation implies a specific

- intent to add housing onto a site that is currently 100 percent commercial. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-9 Please see Response 8-8, above. Adequacy of dry boat storage space is an economic and social issue, not an environmental issue, and is thus not subject to analysis during the CEQA process.
- 8-10 Please refer to Master Response 1 in Section 2.2 of this chapter for an overview of the project's consistency with the MX and MF Zoning Ordinances and how the City calculated the allowable residential density for the project site.
- 8-11 Please refer to Master Response 5 in Section 2.2 of this chapter for a discussion of impacts related to aesthetics.
- 8-12 The provision and retention of affordable housing, whether through house boats or residential units on land, is a social and economic issue outside the purview of CEQA. Nonetheless, as the commenter points out, Bay Ship and Yacht would not be able to repair the hulls of houseboats in Alameda if there is no elevator at Alameda Marina. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-13 Please see Response 8-2, above.
- 8-14 Page 4.3-48 of the Draft EIR assesses the project's impacts with respect to trees, as well as requirements associated with applicable City ordinances for tree preservation, which include specific requirements for street trees. As long as tree removal is consistent with all permitting conditions, such removal would not conflict with local ordinances or policies. As a general rule, however, healthy trees on the site or along the Clement Avenue frontage would be retained so long as they did not directly interfere with development activities. While the number of healthy and mature trees on the site is limited, those trees are viewed as assets and would not be removed unless necessary. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-15 Section 4.6.3 of the Draft EIR provides a listing of applicable federal, state, and local requirements concerning the handling and remediation of hazardous materials that may be present on the project site. Substantial information is available concerning evidence of past contamination and the presence of residual contamination on the site. This information is disclosed in the Draft EIR in Section 4.6.2. Additional information will be gathered through subsequent testing as the development proceeds, and it is possible that additional areas of

contamination may be found in the site's buildings and soils during the construction process. In that event, federal and state laws and regulations provide specific guidance as to how contaminated sites are to be managed, and those laws and regulations contain detailed requirements for remediation. These potential impacts, as well as a discussion of applicable requirements and mitigations are fully disclosed in the Draft EIR, under Impacts HAZ-1 and HAZ-2. Additional requirements would be developed and implemented during the permitting process, in accordance with applicable laws and regulations. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-16 Please refer to Master Response 5 in Section 2.2 of this chapter for a discussion of impacts related to aesthetics.

8-17 Chapter 3 of the Draft EIR, Project Description, cites in a number of instances the types of open space and park facilities that are part of the Master Plan. For instance, Section 3.2.1 of the Draft EIR states as part of the project overview that the project would include "Park areas, paths, trails, and shoreline improvements, including new waterfront and Bay Trail Open Space which would provide a new segment of the San Francisco Bay Trail, providing bicycle and pedestrian access throughout the site, with access to public open space on the site, a maritime boardwalk promenade, parks/maritime amenity areas, and open space areas on both sides of the existing graving dock." Table 3-1 of the Draft EIR shows the proposed land use program, and indicates that 4.25 acres of shoreline open space would be provided as part of the Master Plan. Section 3.2.2 of the Draft EIR lists the following objective related to open space and recreational uses: "Create public amenities and opportunities for gathering spaces for existing and future community members by developing new open space areas within and along the shoreline edge with a Bay Trail component." Section 3.4.4 of the Draft EIR is dedicated to describing the open space and recreational features that would be provided as part of the Master Plan. Figure 3-9 of the Draft EIR shows the conceptual open space plan, and illustrates the extensive areas of shoreline open space and the potential Bay Trail alignment through the project site. Regardless, the Master Plan would be required to comply with existing City requirements with respect to parkland and open space dedications, and as stated on page 4.11-14 of the Draft EIR, would be required to "contribute to public park improvements through the construction of park and recreational facilities included as part of the project, payment of fees, or the dedication of land or conservation easements, as permitted by the Quimby Act and required by the City's development impact fees."

In summary, the commenter's assertion that the project's "only planned areas for children to play are in the proposed parking lots" is not accurate. This comment does not present any additional information on environmental issues that have

not been adequately addressed in the Draft EIR. No additional analysis is required.

- 8-18 Please refer to Master Response 4 in Section 2.2 of this chapter for a discussion of impacts to historic resources.
- 8-19 Section 4.2.4 of the Draft EIR describes the methodology used to assess impacts related to air quality. The methodology used follows standard professional practice, as was conducted per the requirements and guidelines of the Bay Area Air Quality Management District (BAAQMD) and the California Air Resources Board (CARB). The models and criteria used to identify impacts consider a substantial number of variables, including emissions source generators, the distance of those generators to sensitive receptors, pollutant dispersal rates, and specific pollutants and toxic air contaminants (TACs) of concern, among others. As described in Draft EIR Section 4.2.4 under Impact AQ/CC-3, impacts of substantial pollutant concentrations upon sensitive receptors were evaluated using the required methodologies. An analysis was specifically conducted to determine the air quality effects of vehicle traffic on Clement Avenue using BAAQMD's Roadway Screening Analysis Calculator. Health impacts associated with stationary sources within 1,000 feet of the project site were also evaluated using BAAQMD's Stationary Source Screening Analysis Tool. In all instances, and as reported in the Draft EIR, the impacts were found to be well below regulatory significance thresholds. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-20 Please see Response 8-19, above. As discussed on page 4.2-48 of the Draft EIR under Impact C-AQ/CC-1, the EIR's air quality analysis considered the cumulative effects of the proposed project, combined with past present, and reasonably foreseeable development in the vicinity, and concluded that the project's effects would be less than significant. It should also be noted that regional models and project growth associated with traffic and air quality include a factor to include likely regional background growth to account for projects that might not be included in a project-specific inventory of cumulative projects. Thus, the regional models provide for a worst-case scenario when determining air quality impacts. Even under this worst-case scenario, the project's effects were found to be less than significant. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-21 This comment is unclear and difficult to follow, but it appears that the commenter's intent was to assert that the population projections utilized in the Draft EIR are incorrect. It also appears that the commenter was trying to extrapolate the average household population of Census Tract 4272 to the entire

City of Alameda, or perhaps vice versa. Regardless, the 0.65 percent annual growth rate factor adopted in the City's Local Action Plan for Climate Projection (LAPCP) is projected only through 2020, and the commenter is comparing that to possible growth factors through 2035 that could arise if all proposed residential units are constructed. The two numbers are not comparable. It is also unclear where the projected number of new households (5,046 new units) was obtained by the commenter, as no reference is provided. In short, the commenter's assertions are not supported, and the comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-22 Please see Response 8-21, above. Again, the population methodology calculations being put forth by the commenter are unclear, and it is difficult for the City to effectively respond. We do note that in this comment the commenter is using as a basis for population projections the unlikely possibility that 4,000 additional housing units will be constructed and occupied in the City by 2020, which is only two years in the future. Ultimately, the comment closes with an opinion by the commenter as to how the project should or should not be developed. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-23 As described on page 4.2-29 of the Draft EIR, the toxic air contaminant (TAC) analysis considered a number of conservative, worst-case scenarios, such as the assumption that truck idling sources would be located on the project site on the north side of Clement Avenue directly across the street from the residential uses to the south of Clement Avenue, which is a distance of less than 70 feet. Even at this close proximity, and as shown in Table 4.2-8 of the Draft EIR, the mitigated construction health risk impacts would be well below BAAQMD thresholds. These same conclusions could be extended to future residents of the project site that could be in residence during later phases of construction. For purposes of clarification, updated information has been added to Chapter 3 of this Final EIR. Specifically, Page 4.2-29, paragraph 3, is revised to read:

During temporary construction activities, the analysis incorporates the estimated construction TAC emissions of diesel particulate matter and dispersion modeling using the USEPA AMS/EPA Regulatory Model (AERMOD) dispersion model with meteorological data from the closest and most representative monitoring station to the project site located at Oakland International Airport, which is approximately 2.5 miles to the southeast of the project site. Within the AERMOD model, TAC emission sources were placed on the project site (for off-road equipment and truck idling emissions) and on the portion of roads (i.e., Clement Avenue and Grand Street) that haul trucks could travel on within 1,000 feet of the

project site (for truck traveling emissions). The TAC emission sources were located in areas corresponding to construction associated with Phases 0, 1, 2, and 3. Truck idling sources were assumed to be located on the project site on the north side of Clement Avenue directly across the street from the residential uses to the south of Clement Avenue, which provides for a conservative (i.e., health protective) assessment. Receptor points were placed on the nearby sensitive receptor locations, which captures the maximum TAC concentrations at the maximally exposed sensitive receptor. These same methodologies can also be extended to assess impacts to future residents of the project site that could be in residence during later phases of construction.

This additional information does not alter the conclusions of the Draft EIR, nor does this comment present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

- 8-24 Please see the response to comment 8-23, above. While a large number of sensitive receptors may be present in the residential areas south of Clement Avenue, this does not change the fact that those receptors would be exposed to toxic air contaminant emissions that are substantially below BAAQMD thresholds. TAC emissions disperse in the atmosphere and concentrations diminish with distance from the emitting source. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-25 Please see the response to comment 8-19, above. The air quality effects of traffic along Clement Avenue was evaluated at both a project-specific level and a cumulative level. In all instances, and as reported in the Draft EIR, the impacts were found to be well below regulatory significance thresholds. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-26 As stated in the comment, the project is estimated to add about 53 trips to the Webster Street/Atlantic Avenue intersection during the PM peak hour, which corresponds to about 10 percent of the PM peak hour trips generated by the project. As discussed on page 4.12-23 of the Draft EIR and reiterated in Master Response 6 in Section 2.2 of this chapter, the trip assignment is based on the results of the Alameda CTC Model (shown on Figure 4.12-4, Trip Distribution, of the Draft EIR), which accounts for estimated future congestion along all local and regional roadways resulting from traffic generated by current and future developments throughout the region. Also, and as discussed in Master Response 6, the Cumulative (2040) traffic impact analyses presented in the Draft EIR accounts

for traffic generated by planned and proposed developments in Alameda, including the developments in the Northern Waterfront Area. In summary, these comments do not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-27 Unbundling parking, which is included as one of the TDM strategies for the project, may result in increased use of on-street parking in the vicinity of the project. However, parking occupancy is not considered an environmental impact topic under CEQA [Public Resources Code § 21099(b)(3) and 21099(d)(1) and CEQA Guidelines Appendix G, Section XVI]. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-28 The greenhouse gas emissions calculations used in the Draft EIR considered a worst-case scenario for electricity production emissions. Even then, the impact was found to be less than significant. Including a greater use of renewable energy generation into the calculation would lessen emissions even further. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-29 As presented under the analysis for Impacts BIO-1, BIO-2, BIO-3, and BIO-4, the project would be subject to a number of regulations and permitting requirements. Mitigation Measure BIO-3a, for instance, requires that all dredging and in-water construction activities be consistent with the standards and procedures set forth in the Long Term Management Strategy for dredging in the San Francisco Bay waters, which is a program developed by the U.S. Army Corps of Engineers (USACE), the Bay Conservation and Development Commission (BCDC), the Regional Water Quality Control Board (RWQCB), the U.S. Environmental Protection Agency (EPA), and other agencies. The program guides the disposal of dredge materials in an environmentally sound manner. Similar requirements are prescribed for impacts to marine mammals and fish from construction noise, impacts from sediment discharges, as well as other impacts. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-30 Please see the response to comment 8-14, above.

8-31 Beginning on page 4.3-36, the Draft EIR discusses potential impacts to birds, and also prescribes avoidance and minimization mitigations that are consistent with current regulations, including surveys and cessation of construction activities during recognized bird nesting seasons. The project would be required to comply with all applicable regulations concerning migratory birds and other sensitive

biological resources. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-32 Comment noted. Please see the response to comment 8-31, above.

8-33 Comment noted. Please see the response to comment 8-29, above.

8-34 Please refer to Master Response 4 in Section 2.2 of this chapter for a discussion of impacts related to historic resources. A number of the statements provide in this comment are in error, such as the number of contributory buildings designated by the HAB, which is 17, not 25, as asserted by the commenter. In addition, concerning the requirements of the Alameda Municipal Code, the commenter has stated that “the City of Alameda’s Municipal Code Section 13-21.7 protects all the buildings from demolition at Alameda Marina because they were built prior to 1942.” However, AMC 13-21.7(a) states that any “building that was constructed prior to 1942 shall not be demolished or removed without the approval of a certificate of approval issued by the Historical Advisory Board.” The code establishes a process for review and approval prior to demolition, but does not preclude demolition entirely. To assist the commenter, the applicable sections from AMC 13-21.7 is presented below.

13-21.7 Interim Review.

- a. Any building that was constructed prior to 1942 shall not be demolished or removed without the approval of a certificate of approval issued by the Historical Advisory Board. The age of the building shall be determined by a review of the City records.*
- b. No protected structure shall be demolished or removed without the approval of a certificate of approval issued by the Historical Advisory Board. Protected structures shall mean non-building building resources listed on the Historical Building Study List.*

8-35 Please refer to Master Response 4 in Section 2.2 of this chapter for a discussion of impacts related to historic resources. The developer is not required to rehabilitate all of the remaining buildings to the Secretary of the Interior’s Standards, but may elect to do so if feasible. Since the feasibility or ultimate desirability of rehabilitating all of the remaining buildings to the Secretary’s Standards is not currently known, the Draft EIR’s analysis conservatively found that the potential impact would be significant and unavoidable.

8-36 Please refer to Master Response 4 in Section 2.2 of this chapter for a discussion of impacts related to historic resources. It should be noted that the mitigation requires more than just filing photographs and other information in a library or repository, as is asserted in the comment. The measure also requires that

interpretive displays be produced and posted at the site. All interpretive materials would be required to be approved by the City of Alameda Historic Advisory Board. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-37 Please refer to Master Response 4 in Section 2.2 of this chapter for a discussion of impacts related to historic resources. In this comment, the commenter is simply restating what has already been disclosed in the Draft EIR. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-38 The results of the Envirostar database search will vary, depending upon the center of the radius search. For purposes of clarification, updated information has been added to Chapter 3 of this Final EIR. Specifically, Page 4.6-3, Table 4.6-1 has been modified to include the remediation site referred to by the commenter. Specific language revisions can be found in Chapter 3 of this Final EIR under the referenced page number above. The site referred to by the commenter is located approximately 800 feet from the eastern boundary of the Alameda Marina property. Based on the site's distance to the project site, it is extremely unlikely that the area of contamination could impact the project site through migration of contaminants. Regardless, the site is planned for remediation by 2019, and the planned remediation would eliminate the likelihood of an effect on the project site. The Draft EIR's conclusion of a less-than-significant impact remains valid, and no additional analysis is required.

8-39 As stated on page 4.6-9 of the Draft EIR, the project site is located outside of a designated airport influence area. As stated on page 4.9-14 of the Draft EIR, the project site is more than two miles distant from the nearest public or private airport or airstrip (Oakland International Airport), and is not within the area of the Airport Land Use Compatibility Plan for the airport. Moreover, the project site is not within the noise contours for the airport, as defined in the plan.

As noted by the commenter, and as discussed on page 4.9-14 of the Draft EIR, there is an existing helipad located on Coast Guard Island located approximately 1,800 feet north of the project site. The operations and frequency of use of this helipad is highly variable. A recent California Supreme Court case found that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents." In *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal. 4th 369, the Supreme Court explained that an agency is only required to analyze the potential impact of such existing environmental conditions on future residents for certain specified projects or if the project would exacerbate

those existing environmental hazards or conditions. CEQA analysis is therefore concerned with a project's impact on the environment, rather than with the environment's impact on a project and its users or residents. Since there are no public airports or private airstrips within two miles of the project and the existing helipad located on Cost Guard Island is considered as a part of the existing environment, aircraft related noise would not be a significant impact under CEQA for land uses to be developed under the proposed project. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

- 8-40 Please see the response to comment 8-15, above.
- 8-41 Please refer to Master Response 5 in Section 2.2 of this chapter for a discussion of impacts related to aesthetics. Please also see the response to comment 8-17, above.
- 8-42 Please refer to Master Response 1 in Section 2.2 of this chapter for an overview of the project's consistency with the MX and MF Zoning Ordinances, and how the City calculated the allowable residential density for the project site.
- 8-43 As stated on page 4.8-13 of the Draft EIR, the nearest Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) to the project site that has been approved by the U.S. Fish and Wildlife Service (USFWS) is the East Contra Costa County HCP/NCCP, which is approximately 18 miles from the project site. A review of USFWS records indicates that there are no adopted HCPs or NCCPs for Alameda Point. Regardless, and as stated in the Draft EIR, there is no adopted HCP/NCCP with jurisdiction over the project site. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-44 Please refer to Master Response 1 in Section 2.2 of this chapter for an overview of the project's consistency with the MX and MF Zoning Ordinances, and how the City calculated the allowable residential density for the project site.
- 8-45 Comment noted. It is worth noting that it would take more than 150 Tier 1 grants (at the maximum value of \$200,000 each) to fund the necessary improvements to the Alameda Marina shoreline. As for Tier II grants, they are limited to \$8 million distributed *nationally*, which would cover only about a quarter of the amount needed to repair the Alameda Marina shoreline. These types of grants are intended for small and minor improvement projects, and would provide little towards addressing the major shoreline infrastructure work required at the Alameda Marina. This comment does not address a specific environmental impact or effect. Rather, the comment asserts the opinion of the commenter as to how the project should be developed, and therefore does not present any

environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-46 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of the feasibility of alternatives. This comment does not address a specific environmental impact or effect. Rather, the comment asserts the opinion of the commenter as to how the project should be developed, and therefore does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-47 Please see response to comment 8-12, above.

8-48 Page 4.9-20 of the Draft EIR evaluates the effects of roadway traffic on the project, particularly along the southern boundary of the site near Clement Avenue. The discussion describes applicable standards, and prescribes mitigations to address potentially significant impacts. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

With respect to the commenter's concern regarding noise from aircraft, please see response to comment 8-39, above. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-49 Comment noted. The Draft EIRs discussion under Impact C-POP-1 evaluates the project's effects with respect to providing additional housing in a region where housing growth is outpaced by job and population growth, which has resulted in a regional housing shortage. The criteria for determining a significant impact is whether or not the project would induce unplanned growth. The analysis in the Draft EIR found that the proposed project, in accordance with the City's General Plan and regional plans, would accommodate planned growth, rather than induce unplanned growth. Generally, this comment presents the commenter's assertions concerning the future of employment and housing in the City of Alameda. This comment therefore asserts the opinion of the commenter, and does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-50 The project trip generation presented in Table 4.12-8 of the Draft EIR is based on data summarized in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual* and is based on data collected at mostly suburban developments where the majority of trips, including trips to and from schools, are by automobile. Thus, the project trip generation accounts for potential trips generated by high-school students.

As described in the response to comment 8-27, parking occupancy is not considered an environmental impact topic under CEQA. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-51 Please see response to comment 8-17, above.

8-52 Please see response to comment 8-17, above. Park and open space facilities planned as a part of the proposed project would increase the amount of recreational facilities in the Northern Waterfront section of Alameda, and the project would be required to comply with existing City requirements with respect to parkland and open space dedications and/or payment of impact fees. As stated on page 4.11-14 of the Draft EIR, the project would be required to “contribute to public park improvements through the construction of park and recreational facilities included as part of the project, payment of fees, or the dedication of land or conservation easements, as permitted by the Quimby Act and required by the City’s development impact fees.” This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-53 Comment noted. For purposes of clarification, updated information has been added to Chapter 3 of this Final EIR. Specifically, Page 4.11-11, paragraph 1, is revised to read:

Impact PSR-4: The proposed project would result in increased use of other governmental facilities, including libraries, but would not require new or physically altered government facilities to maintain acceptable performance objectives. (*Less than Significant*)

The Alameda Free Library offers library services to the residents of Alameda. The ~~West End library branch~~ Main Library, located ~~1.4 miles~~ 0.6 miles away from the project site at ~~788 Santa Clara Avenue~~ 1550 Oak Street, is the closest library. The Library offers a wide range of services, including answering reference questions, staging story times, providing summer reading programs, hosting class visits, and educational events.

While the proposed project would generate an incremental increase in demand for library services, the additional demand that would be generated by an estimated population of 1,932 persons, only a small portion of whom would be expected to utilize the library in any given month, would be expected to be a small fraction of the existing monthly visitors. This would not require an expansion of library facilities, and the project’s impact on library services would be considered less than significant.

Mitigation: None required.

This additional information does not alter the conclusions of the Draft EIR, nor does this comment present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-54 With respect to park facilities that would be included with the project, please see the response to comment 8-52, above. Traffic impacts resulting from shopping trips by future residents and employees were analyzed at pages 4.12-24 to 4.12-27 of the Draft EIR.

8-55 Please see response to comment 8-52, above.

8-56 Please see response to comment 8-52, above. Other cumulative projects planned for the Northern Waterfront area of the City, and all areas of the City for that matter, would be required to “contribute to public park improvements through the construction of park and recreational facilities included as part of the project, payment of fees, or the dedication of land or conservation easements, as permitted by the Quimby Act and required by the City’s development impact fees” (Draft EIR, page 4.11-14). These actions would provide mitigation for cumulative impacts to recreational resources. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-57 The comment incorrectly states that the Draft EIR does not report all the delay at the Park Street/ Blanding Avenue and Park Street/Clement Avenue intersections. Please see Master Response 6 in Section 2.2 of this chapter and the response to comment 15-8, below, regarding consistency with forecasts in previously published environmental documents.

Concerning the vehicular flow rates due to downstream constraints, please see the responses to comments 15-1 and 15-7, below.

As described in response to comment 15-34, below, planned improvements would not change the lane configurations at the Park Street/ Blanding Avenue and Park Street/Clement Avenue intersections.

Furthermore, the Draft EIR identifies the project impact at these two intersections as significant and unavoidable. Any potential changes to the analysis would not change the conclusion at these two intersections.

These comments do not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

- 8-58 Consistent with the OPR guidelines, the City of Alameda's significance criterion for VMT assessment is based on VMT per capita. Thus, total VMT or VMT in particular areas or on specific streets was not assessed in the Draft EIR because these metrics are not considered an environmental impact topic under CEQA. Please see response to comment 15-6, below, regarding assessment of VMT under cumulative conditions. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-59 The comment indicated that the VMT analysis presented in the Draft EIR is not consistent with SB 743, without raising any specific rationale as to why that might be the case. Page 4.12-19 of the Draft EIR describes the approach to VMT analysis and describes how the methodology, assumptions, and the significance threshold used in the analysis are consistent with SB 743 and related OPR guidelines. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-60 With respect to the consistency of the analysis with previously published environmental documents, please see Master Response 6 in Section 2.2 of this chapter. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-61 As shown on Figure 4.12-4, Trip Distribution, on page 4.12-25 of the Draft EIR, it is estimated that between two to ten percent of the peak hour trips generated by the project would use Bay Farm Island Bridge. As described in Master Response 6 in Section 2.2 of this chapter and the response to comment 8-26, above, the trip distribution is based on the results of the Alameda CTC Model and accounts for estimated future congestion along all local and regional roadways, resulting from traffic generated by current and future developments throughout the region, including Alameda and Oakland. Although the Bay Farm Island Bridge may be less congested than other corridors, it may require a more circuitous route to access the I-880 freeway and result in substantially longer travel times for many motorists depending on their final destination. The percent of project-generated traffic estimated to use the Bay Farm Island Bridge accounts for these factors.
- Considering the current congestion along the intersections along the Bay Farm Island Bridge corridor, including Otis Drive/Fernside Boulevard/Doolittle Drive and Island Drive/Doolittle Drive intersections, and the potential project trips assigned to this corridor, the project would not result in additional significant impacts along this corridor.

These comments do not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

- 8-62 The comment is correct. For purposes of clarification, updated information has been added to Chapter 3 of this Final EIR. The last sentence on page 4.12-10 is revised to the following:

The sidewalks across the Park Street and Miller-Sweeney (Fruitvale Avenue) Bridges on the east side of the island, about one mile from the project site, also provide pedestrian access between Oakland and Alameda; ~~but these are more than three miles from the project site.~~

This additional information does not alter the conclusions of the Draft EIR, nor does this comment present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

- 8-63 The comment is incorrect, and the text on page 4.12-13 of the Draft EIR is accurate. Although Livermore, Pleasanton, and Dublin are in Alameda County, they are not served by AC Transit. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

- 8-64 Although household income is one of the variables that affects VMT, other variables such as density of development, availability of transit service, and proximity to walking and biking destinations are more accurate indicators of VMT generation. Furthermore, the price of the market-rate residential units, and the corresponding income level for the project residents, has not been determined. Thus, it is not accurate to state that the project residents would have higher income than the residents in the surrounding areas. In addition, 103 of the residential units would be designated as affordable units, and would be occupied by residents with lower incomes than the market-rate units, and may therefore generate lower VMT. Overall, considering that the proposed project would have a higher development density than the existing developments in the project TAZ, and similar availability of transit service and proximity to walking and biking destinations, the VMT per capita for the project TAZ, as estimated by the MTC Model and presented in the Draft EIR, is an accurate estimate of VMT.

- 8-65 As stated on page 4.12-27 of the Draft EIR, unbundling the cost of parking from the cost of housing would reduce automobile ownership by project residents and accordingly reduce the VMT generated by the project. Although parking for about 80 percent of the project's households would be unbundled, the Draft EIR assumes that unbundling parking for residents would reduce VMT by about one to two percent, which accounts for availability of on-street parking in the area.

As stated in the comment, the on-street parking near the project may be at or near capacity, which would further discourage project residents from owning a car. In addition, as described in the response to comment 8-27, above, parking occupancy is not considered an environmental impact topic under CEQA. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

- 8-66 Although overall project construction may take seven to ten years and as long as 15 years, construction would not be continuous during this period. As described on page 4.12-43 of the Draft EIR, construction for each phase of the project would be temporary and intermittent. Furthermore, the project is required to submit a Traffic Control Plan, to be approved by City staff, for each phase of the project's construction in order to minimize project construction impacts. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-67 As described on page 4.13-4 of the Draft EIR, the issue of wet weather capacity exceedances is being addressed on a region-wide basis through a Stipulated Order that obligates collection agencies to improve management of their wastewater collection systems, to address sanitary sewer overflows, and to reduce inflow and infiltration (I&I) in their collection systems. As stated on page 4.13-13 of the Draft EIR, and consistent with the Stipulated Order and the City of Alameda's Private Lateral Ordinance, the proposed project would construct new wastewater infrastructure to connect to the City of Alameda Sewer System in Clement Avenue which conveys flow to the EBMUD Interceptor. An on-site sewer collection system would be installed throughout the proposed street network within the project site. The new sewer collection system would greatly reduce I&I flows entering the system in wet weather conditions and thereby reduce wet weather flows to the EBMUD system. Such improvements would actually present an improved condition over what is present currently. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-68 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of the feasibility of alternatives. This comment asserts the opinion of the commenter as to how the project should be developed, and therefore does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-69 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of the feasibility of alternatives. This comment asserts the opinion of the

commenter as to how the project should be developed, and therefore does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-70 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of the feasibility of alternatives.

8-71 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of the feasibility of alternatives. This comment asserts the opinion of the commenter as to how the project should be developed, and therefore does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-72 Comment noted. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-73 Comment noted. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-74 Comment noted. This comment does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-75 Please refer to Master Response 4 in Section 2.2 of this chapter for a discussion of impacts to historic resources.

8-76 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of the feasibility of alternatives. This comment asserts the opinion of the commenter as to how the project should be developed, and therefore does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-77 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of the feasibility of alternatives. This comment asserts the opinion of the commenter as to how the project should be developed, and therefore does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

8-78 This comment is largely presented in the form of a series of questions, many of which are highly speculative and/or fall outside of the scope of the environmental analysis. Regardless, the comment does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

- 8-79 Comment noted. The comment does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-80 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of the feasibility of alternatives. This comment asserts the opinion of the commenter as to how the project should be developed, and therefore does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-81 As discussed in Master Response 6 in Section 2.2 of this chapter, traffic generated by all the development projects listed in the comment are accounted for in the Cumulative (2040) traffic impact analyses completed for the project. The comment does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-82 As discussed in Master Response 6 in Section 2.2 of this chapter, the Alameda CTC Model used to forecast 2040 traffic volumes for the Draft EIR analysis includes the currently under-construction improvements at the I-880 interchanges at 23rd and 29th Avenues. Thus, the traffic impact analysis accounts for the currently under-construction improvements. The comment does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- The I-880/Broadway/Jackson Interchange Improvement Project (also known as the Oakland-Alameda Access Project) was not accounted for in the Draft EIR analysis because it is still in the design stages and does not have full approvals or funding. However, the project is expected to improve access between Alameda and Oakland, reducing the delay through the Webster and Posey Tubes and at the nearby study intersections. Thus, the analysis and results presented in the Draft EIR, which do not account for this planned improvement, are conservative in that they are based on current configurations, which result in worse conditions. Accounting for the Oakland-Alameda Access Project would not substantially change the results of the Draft EIR or identify new significant impacts. If anything, it would show improved conditions. The comment does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-83 The intent of this comment is not clear. The comment refers to erroneous traffic counts, but no specific errors are mentioned. The comment also states that traffic counts are not provided in the Draft EIR. This assertion is not accurate, and the commenter is referred to Draft EIR Appendices G.B and G.D for the traffic volume counts at the study intersections and corridor travel times, respectively. The comment does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

- 8-84 The intent of this comment is not clear, but the commenter appears to be asserting that the Draft EIR made a finding of a Significant and Unavoidable Impact for VMT, which is not the case. The Draft EIR's analysis under Impact TRA-1, beginning on page 4.12-24 finds that the impact to VMT would be less than significant, with implementation of Mitigation Measure TRA-1. The comment also states that traffic counts are not provided in the Draft EIR. This is also not accurate, and the commenter is again referred to Draft EIR Appendices G.B and G.D for the traffic volume counts at the study intersections and corridor travel times, respectively. The traffic analysis contained in the Draft EIR is accurate, and the commenter has presented no supportable evidence to demonstrate that it is not. The comment does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-85 Please refer to Master Response 1 in Section 2.2 of this chapter for an overview of the project's consistency with the General Plan.
- 8-86 The intent of this comment is unclear, but the City is aware that the proposed project meets the criteria of a project of statewide, regional, or areawide significance as defined in the CEQA Guidelines. Accordingly, the City has fulfilled the various noticing and consultation processes required under the Guidelines, including distribution of all CEQA documents to the State Clearinghouse (SCH No. 2016102064) as well as to area agencies and adjacent jurisdictions. See also the discussion of the proposed project's relation to the City's General Plan and other policies presented on pages 4.8-15 through 4.8-17 of the Draft EIR.
- 8-87 The Regional Fault Map depicted in Figure 4.5-1 of the Draft EIR was created by Rockridge Geotechnical, as cited on the figure. Rockridge Geotechnical used the 2008 USGS fault map as its base map. While there are various fault maps produced for the Bay Area by a number of agencies (i.e., USGS, the California Geological Survey, and the Association of Bay Area Governments), all of the maps identify these same faults in the same locations, especially at the large scale presented on the map. The locations of the faults shown have been known for many decades, and their locations have not changed. As such, the map does not "minimize the seismic dangers and risks in the project area," as asserted by the commenter. The faults in the area and the probable seismicity associated with those faults are fully disclosed in Section 4.5.2 of the Draft EIR, and the potential impacts are disclosed in Section 4.5.4. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

- 8-88 Please refer to Master Response 1 in Section 2.2 of this chapter for an overview of the project's consistency with the General Plan, and how the city calculated the allowable residential density for the proposed project.
- 8-89 Please refer to Master Response 1 in Section 2.2 of this chapter for an overview of the project's consistency with the General Plan. Please also see the response to comment 8-86, above.
- 8-90 Please refer to Master Response 1 in Section 2.2 of this chapter for an overview of the project's consistency with the MX and MF Zoning Ordinances.
- 8-91 Please refer to Master Response 1 in Section 2.2 of this chapter for an overview of the project's consistency with the MX and MF Zoning Ordinances, the General Plan, and the City Charter.
- 8-92 Please refer to Master Response 1 in Section 2.2 of this chapter for an overview of the project's consistency with the MX and MF Zoning Ordinances, the General Plan, and the City Charter.
- 8-93 Please refer to Master Response 1 in Section 2.2 of this chapter for an overview of the project's consistency with the MX and MF Zoning Ordinances and the General Plan.
- 8-94 As discussed through the various responses above, the analysis contained in the Draft EIR provides adequate disclosure as to the project's potential effects, as required by CEQA. The various comments claiming that the Draft EIR contains material omissions or substantive factual inaccuracies are not supported. A requirement for recirculation would result only if "significant new information" were to be presented that would deprive "the public of a meaningful opportunity to comment upon a substantial adverse effect of the project" (CEQA Guidelines Section 15088.5). Significant new information requiring recirculation would include the following:
- 1) *Identification of a new significant environmental impact.* The Draft EIR identified a number of potentially significant impacts relating to air quality and climate change; biological resources; cultural resources; hazards and hazardous materials; hydrology and water quality; noise; transportation and circulation, and; utilities. For most of the identified potential impacts, feasible mitigation measures were identified that would lessen the impacts of the project to less-than-significant levels. The analysis in the Draft EIR found that two resource areas (cultural resources and traffic and circulation) would sustain impacts that would be significant and unavoidable. As indicated throughout these responses, the commenter has not presented supported evidence to demonstrate that a new significant environmental impact that has not already been disclosed in the Draft EIR, would result from

implementation of the proposed project. Thus, there is no requirement to recirculate the EIR based upon identification of a new significant environmental impact.

- 2) *Increase in the severity of an environmental impact.* As demonstrated in the responses to the various comments that were received on the Draft EIR, the commenter has not presented supported evidence to demonstrate that the effects of the project would be more severe than that disclosed in the Draft EIR. While the commenter has offered its opinions on the project's potential effects, the commenter has offered no supported evidence to demonstrate that the project's effects would be any more severe than already disclosed in the Draft EIR. Thus, there is no requirement to recirculate the EIR based upon an increase in the severity of an environmental impact.
- 3) *Identification of a feasible project alternative or mitigation measure that is considerably different from others previously analyzed.* Several commenters have expressed their preference for one of the alternatives that was evaluated in the Draft EIR, and still other commenters have put forth speculative proposals for how the project could or should be developed differently. These include land swaps, restrictions on development to certain portions of the site, preservation or reuse of specific buildings on the site, reductions in densities and unit counts, a larger boatyard component, and changes to the types and quantities of affordable housing on the site. As presented in Master Response Number 3 in Section 2.2 of this chapter, none of these alternatives are feasible. Thus, there is no requirement to recirculate the EIR based upon the identification of a feasible alternative or mitigation measure that is considerably different from those already analyzed.
- 4) *An EIR that is fundamentally flawed, inadequate, or conclusory in nature.* The commenter has failed to present supportable evidence to demonstrate that the Draft EIR was fundamentally flawed, inadequate, or conclusory in nature. In several instances, minor clarifications and revisions have been made to the EIR (see Chapter 3 of this Final EIR) as provided for in CEQA Guidelines Section 15088.5(b), which states that "Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR" (emphasis added). As indicated previously, the Draft EIR is an adequate EIR that analyzes and discloses the potential effects of the project in accordance with the CEQA Guidelines and applicable law. The comments do not put forth sufficient evidence to indicate that the Draft EIR is fundamentally inadequate or conclusory in nature.

Based on each of the considerations listed above, there is no basis for recirculating the Draft EIR.

- 8-95 This comment asserts the opinion of the commenter as to how the project should be developed, and therefore does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-96 This comment asserts the opinion of the commenter as to how the project should be developed, and therefore does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-97 This comment asserts the opinion of the commenter as to how the project should be developed, and therefore does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 8-98 This comment asserts the opinion of the commenter as to how the project should be developed, and therefore does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

ANDREW THOMAS

From: Alan Teague
Sent: Monday, February 12, 2018 4:42 PM
To: ANDREW THOMAS
Cc: NANCY McPeak
Subject: Comments on Alameda Marina Draft Environmental Impact Report

Dear Mr Thomas,

Here are some of my comments on the DEIR.

4.3-5 Project Site and Vicinity - Marine Resources

First paragraph misses the point that from the 1870's (1873/1874) until 1902, the Alameda/Oakland marsh was being dredged which converted Alameda into an island.

9-1

4.3-18 Terrestrial Resource / Marine Resources

The end of the paragraph on Terrestrial resources states "None of these... are found"

The end of the paragraph on Marine resources states "However, neither fo these ... is expected to occur..."

This Marine resource paragraph should go on to state that a site inspection will be done as part of another section of the EIR which requires it. (I do not have the reference to that section at the moment)

9-2

4.6.3 Table 4.6-1

Cargill Salt and Penzoil-Quaker entries indicate that monitoring is on-going but does not provide any information on what that data is / has been as of the date of the DEIR. I would expect that for any site which has on-going monitoring the latest results would be included in the EIR.

9-3

4.12-3

Buena Vista Avenue paragraph should clarify the number of lanes of travel. It is mostly one-travel lane in each direction except for XXX where there are two-travel lanes.

9-4

Grand Street paragraph states that on-street parking is prohibited. This is not the case for the vast majority of Grand Street.

9-5

Regards,

Alan H. Teague
Planning Board Member

Letter 9 Alan Teague
Response February 15, 2018

- 9-1 As stated in the second sentence of the third paragraph on page 4.3-5 of the Draft EIR: “The Oakland-Alameda Estuary was originally a tidal slough, but was dredged in the mid-to late 1800s to create a viable port and shipping channel.” This statement generally conveys the same intent as that expressed in the commenter’s comment. Nevertheless, and to provide additional clarification, updated information has been added to Chapter 3 of this Final EIR. Specifically, Page 4.3-5, paragraph 3 is revised to read:

Open water is found in the Oakland-Alameda Estuary to the north of the project site, which is hydrologically connected to San Francisco Bay. The Oakland-Alameda Estuary was originally a tidal slough, but was dredged in the mid- to late 1800s to create a viable port and shipping channel. Continued dredging operations resulted in the complete separation of what is now Alameda Island from the mainland. The estuary is influenced by both freshwater and marine water, receiving regular freshwater inflow from a combination of natural creeks, human-made stormwater drainage facilities, and from direct surface runoff after precipitation events. The estuary is also influenced by the marine waters of the Bay and is subject to tidal currents. Sediment from Oakland’s shoreline and creeks is carried by the tidal current to shoals and sandbars, causing siltation of the nearby shipping channels. The open waters adjacent to the study area are typical of San Francisco Bay waters in general and have primarily silty mud and sand substrates that are naturally no more than 25 feet deep, although dredging operations to facilitate shipping operations in the Oakland-Alameda Estuary may increase water depth to more than 50 feet (DVA, 2013).

- 9-2 The existing conditions discussion in the last two paragraphs of page 4.3-18 of the Draft EIR present information on sensitive terrestrial and marine natural communities that may be present at the project site. For terrestrial communities, the determination of absence is more conclusive because terrestrial resources are easily observed and their presence or absence is easily determined. In the case of Alameda Marina, sensitive terrestrial natural communities simply aren’t present, so potential impacts to them can be dismissed and there is no need to discuss them further. Marine resources, on the other hand, are not easily observed, and therefore the discussion in the existing conditions section is not as conclusive as it is for terrestrial resources. Since their presence or absence cannot be determined conclusively without further investigation, the EIR has concluded that there is potential for an impact. Identified impacts to resources and resultant mitigations are typically not discussed in the existing setting section of an EIR.

Rather, impacts and mitigations are typically discussed in the impacts analysis section of an EIR, which for this particular topic (sensitive marine natural communities) is presented beginning on page 4.3-38 of the Draft EIR under Impact Bio-2. In that section, the analysis states that sensitive marine natural communities *could* occur in the project area, though the likelihood of occurrence is somewhat low. Nevertheless, to protect against the possibility of the project impacting these resources, mitigation in the form of surveys is prescribed, followed by additional mitigations with established performance measures to be followed if such resources are, in fact, found in the project area. This presentation of existing conditions, impact analysis, and mitigations follows standard professional practice for the preparation of EIRs. Regardless of presentation, the EIR's analysis of impacts to sensitive marine natural communities is sufficient and provides for effective protection of those resources if they are found to be present at the project site.

9-3 Comment noted. For purposes of clarification, updated information has been added to Chapter 3 of this Final EIR. Specifically, Page 4.6-3, Table 4.6-1 has been modified to include additional information concerning the Pennzoil-Shell Oil site referred to by the commenter. Specific language revisions can be found in Chapter 3 of this Final EIR under the referenced page number above. This additional information does not alter the conclusions of the Draft EIR, nor does this comment present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

9-4 Comment noted. For purposes of clarification, updated information has been added to Chapter 3 of this Final EIR. Specifically, Page 4.12-3, paragraph 3 is revised to read:

Buena Vista Avenue is an east/west Island Collector between Poggi Street in the west and Northwood Drive in the east. The roadway is classified as a Transitional Arterial between Sherman and Grand Streets and as a Local Road east of Broadway and west of Webster Street. Buena Vista Avenue continues in the west as Poggi Street. The roadway generally provides two *one* travel lanes in each direction, *with occasional left-turn lanes and/or right-lane turning pockets at selected intersections.* and left-turn lanes between Jay and Hibbard Streets and at the intersection with Broadway. Sidewalks are provided on both sides of the street, and on-street parking is allowed along the entire roadway except between Sherman and Benton Streets.

This additional information does not alter the conclusions of the Draft EIR, nor does this comment present any additional information on environmental issues

that have not been adequately addressed in the Draft EIR. No additional analysis is required.

9-5

Comment noted. For purposes of clarification, updated information has been added to Chapter 3 of this Final EIR. Specifically, Page 4.12-3, paragraph 4 is revised to read:

Grand Street is a north/south Island Arterial between the Alameda Marina in the north and Shore Line Drive in the south. The roadway is classified as a Local Street north of Clement Avenue. Grand Street provides one travel lane in each direction. Sidewalks and Class II bikeways (bike lanes) are provided on both sides of the street, and on-street parking is ~~prohibited~~ allowed along much of the roadway's alignment.

This additional information does not alter the conclusions of the Draft EIR, nor does this comment present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

ANDREW THOMAS

From: Amy Rose <amyjrose9@gmail.com>
Sent: Monday, February 12, 2018 3:57 PM
To: ANDREW THOMAS
Cc: Nancy Hird; Dorothy Freeman; LARA WEISIGER
Subject: Comments on Alameda Marina DEIR

I am submitting comments on the Draft EIR for the Alameda Marina Development. I'm a member of SAWW and ACT as well as a sailor and planning area resident (1917 Chestnut St). I am not an expert on EIRs but would like to pass along a few relevant comments but I am unable to tie each comment to a specific area in the DEIR. I heard that the Planning Dept is holding a meeting about this tonight that I can't attend, but that the comments are due.

A member of our group who is a retired attorney, Paul Foreman, recently told us about how he has found what may be a major miscalculation in the number of housing units allowable at this and other new mixed-used developments. He said that proposals are allowed 30 units per acre if they meet the density bonus, but that the city and developers were multiplying that density by the total acreage of the site, not the residential footprint alone, which he feels is the correct interpretation by law, and was waiting for a reply from the city attorney. I heard that the developer of Alameda Marina and the city are both assuming total units of nearly 800, using the entire project acreage. Mr. Foreman said that it should be 30 acres X 11.3 acres of residential acreage, or only about 338 housing units. He explained how nothing in the new state law on fast-tracking housing would contradict this calculation.

10-1

1) I feel that the Draft EIR and housing plan and map should be redone using this number, 338 housing units.

10-2

2) Keep as many of the old buildings for commercial business and jobs as possible, as many of them are in relatively good condition to be rehabbed. I've heard that Alameda Marina has been one of the biggest employers in Alameda, with 250 good local jobs there until the uncertainty caused by this proposal and lack of long-term leases, as well as the merger with Bay Ship, has already reduced the number of jobs remaining to about 125 jobs. Move the housing to the west and east corners of the project area; has this been considered?

10-3

3) Keep and improve infrastructure to attract a new boatyard operator to the center of the site with an adequate size and facilities to help keep and attract recreational boaters and houseboats to Alameda, which is good for our economy just as housing is. The developer and even the city do not know all the details on how to make a good boatyard, but a member of our group named John Platt, a longtime sailor, has talked to several boatyard operators about the types of lifts, environmentally responsible drainage and sanding systems, etc. We may be able to find a boatyard operator who could make it profitable for the developer and city.

10-4

The Bay Area and Estuary already have a shortage of boatyards that is leading to a decline in boating. How can we have about 3,600 boats in the Estuary alone, with perhaps space for less than 30 boats available to maintain them if the Alameda Marina will have only a token number of spaces? Boats needing repair are now waiting weeks for space or they have to be motored or towed to distant boatyards, if their vessel can be moved at all (low-income housing known as houseboats for instance; one is currently being repaired at the marina).

10-5

4) Repair the seawall and provide for future maintenance. With California's budget surplus, there may be funding available for this.

10-6

5) Build as many low-income units as possible within the rules. ACT has long supported low-income housing, as shown in our recent letters to the editor. Alameda is building too many market-rate houses and not enough below-market and low-income housing. Alameda Marina should not be overdeveloped just in order to pay for the seawall at the expense of the potential for a future Blue Economy hub here, which would fit with our city's ideal to be an environmental leader, balancing housing with jobs, our unique situation as largest island in San Francisco Bay.

10-7

If we ignore the needs of boaters and maritime businesses, as some have said, we might as well take the anchor off the city flag.

Sincerely,
Amelia Rose

Letter 10 **Amelia Rose**
Response February 12, 2018

- 10-1 Please refer to Master Response 1 in Section 2.2 of this chapter for an overview of the project's consistency with the MX and MF Zoning Ordinances and how the City calculated the allowable residential density for the project.

- 10-2 Please refer to Master Responses 1 and 3 in Section 2.2 of this chapter for a discussion of the project's consistency with the MX and MF zoning ordinances and the feasibility of alternatives, respectively.

- 10-3 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of feasibility of alternatives.

- 10-4 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of feasibility of alternatives.

- 10-5 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of feasibility of alternatives.

- 10-6 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of feasibility of alternatives.

- 10-7 Please refer to Master Responses 1, 2, and 3 in Section 2.2 of this chapter for discussion on the project's consistency with the MX and MF zoning ordinances, affordable housing, and the feasibility of alternatives, respectively.



THE TRANSAMERICA PYRAMID
600 MONTGOMERY STREET, 14TH FLOOR · SAN FRANCISCO, CALIFORNIA 94111
TEL 415 981 0550 · FAX 415 981 4343 · WEB lubinolson.com

February 15, 2018

CHARLES R. OLSON
Direct Dial: (415) 955-5020
E-mail: colson@lubinolson.com

VIA EMAIL

Andrew Thomas, AICP
Assistant Community Development Director
Planning and Building Department
2263 Santa Clara Avenue, Room 190
Alameda, CA 94501
athomas@alamedaca.gov

**Re: Alameda Marina Master Plan Draft Environmental Impact Report
("Draft EIR") (SCH #2016102064)**

Dear Mr. Thomas:

As you are aware, we represent Pacific Shops, Inc., the owner and lessee of the Alameda Marina property and the project sponsor for the referenced Master Plan, on whose behalf we provide the following comments on the Draft EIR. In general, Pacific Shops believes that the Draft EIR provides a very thorough and comprehensive analysis of the potential environmental impacts of the proposed Master Plan.

However, Pacific Shops is concerned about the legal basis for Mitigation Measure TRA-3. This mitigation measure appears to be an afterthought that was added to the Draft EIR following the December 2017 City Council hearing on the nearby Encinal Terminal project, and it is not supported by any evidence or analysis in the Draft EIR. This is evident from the discussion of Clement Avenue at page 4.12-3 of the Draft EIR. Discussing the extension of Clement Avenue, the Draft EIR states: "A further extension between Entrance Road and Atlantic Avenue is planned for construction as part of the Del Monte Warehouse adaptive reuse project. Once the 250-foot link through the Shell Oil facility to Grand Avenue and the westward extension through to Atlantic Avenue are completed, Clement Avenue will provide an alternative route for trucks and automobiles currently using Buena Vista Avenue, and will also be part of the Cross-Alameda Trail bicycle trail." In addition, the tables in the Transportation and Circulation chapter of the Draft EIR, such as Table 4.12-1 and 4.12-2 do not mention Clement Avenue. As evidenced on page 4.12-8 of the Draft EIR, none of the studied intersections involves analysis of the portion of Clement Avenue at issue in Mitigation Measure TRA-3. Studied traffic intersections in the vicinity that are relevant to the proposed mitigation measure include Atlantic Avenue/Buena Vista Avenue, Grant Street/Buena Vista Avenue, and Grant Street/Clement Avenue. As shown in Tables 4.12-10 a and b, all three intersections operate at an acceptable level of service, C or better, during both the a.m. and p.m. peak hours. Additionally Tables

11-1

February 15, 2018

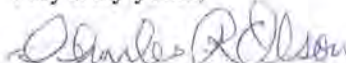
Page 2

4.12-11 a and b indicate that all three intersections will operate at acceptable levels of service, D or better, during the Cumulative (2040) a.m. and p.m. peak hours. As a result, the analysis in the Draft EIR does not support the imposition of a mitigation measure for the Master Plan project, and the analysis and mitigation measure should therefore be revised.

Impact Statement TRA-3 provides "in the event the planned Clement Avenue extension is not completed prior to [the Alameda Marina] project opening, the proposed project could increase traffic volumes at intersections on Buena Vista Avenue such that traffic operations could deteriorate to substandard conditions." The last paragraph of the text prior to the mitigation measure makes similar statements regarding impacts that may occur if the full extension of Clement Avenue does not occur prior to completion of the Alameda Marina project. Yet the mitigation measure itself provides: "if the Del Monte project fails to begin construction of the Clement Avenue extension from Atlantic Avenue to Entrance Road prior to commencement of construction of the Alameda Marina project..."(emphasis added) As the Alameda Marina project will be built in phases over multiple years, this change in language from "completion" of the Alameda Marina project to "commencement of construction" makes a significant difference and almost ensures that Pacific Shops will be required to construct this extension.

As the proposed Clement Avenue extension is currently the responsibility of the project sponsor for the Del Monte project and could also be the responsibility of the project sponsor for the Encinal Terminals project, we do not believe that the proposed Mitigation Measure TRA-3 passes constitutional muster. Under the cases of *Nollan v. California Coastal Comm.*, 483 U.S. 825 (1987); and *Dolan v. City of Tigard*, 512 U.S. 374 (1994), any mitigation measure must be based on an essential nexus and must be roughly proportional to the impacts of the proposed development. Here, no such nexus has been established as there is no analysis in the Draft EIR of the Master Plan's traffic impacts on the relevant sections of Clement Avenue and no basis for requiring Pacific Shops to pay for the proposed Clement Avenue extension now and hope for future fair share contributions from other developers in the future. Under the state Mitigation Fee Act, *Government Code §§66000 et seq.*, the City should calculate the fair share contribution of all developers on the Northern Waterfront to this particular Clement Avenue extension at this time and require payments from the various project sponsors into a fund that would then be used to extend Clement Avenue when sufficient funds have been raised. Mitigation Measure TRA-3 should be modified accordingly.

Very truly yours,



Charles R. Olson

cc: Sean Murphy, Pacific Shops, Inc.

CRO

5340136/632295v1

Letter 11 **Charles Olson**
Response February 15, 2018

11-1 The commenter is correct that the Transportation and Circulation chapter of the Alameda Marina Draft EIR does not analyze the impact of project trips on the segment of Clement Avenue between Atlantic Avenue and Entrance Road or between Grand Street and Entrance Road. As indicated in the discussion beginning on page 4.12-31 of the Draft EIR under Impact TRA-3, the planned Clement Avenue extension would eliminate significant traffic impacts to nearby Buena Vista Avenue, as previously identified in the EIRs for the Del Monte Warehouse and Encinal Terminals projects, and in the Northern Waterfront General Plan Amendment EIR.

For purposes of clarification, updated information has been added to Chapter 3 of this Final EIR. Specifically, Mitigation Measure TRA-3 is modified to read as follows:

~~If the Del Monte project fails to begin construction of the Clement Avenue extension from Atlantic Avenue to Entrance Road prior to commencement of construction of the Alameda Marina project, require the Alameda Marina project to construct the extension with a later fair share contribution to be provided by the Del Monte project and other developments in the area.~~ The project shall pay a fair share contribution to the cost of the Clement Avenue extension from Atlantic Avenue to Grand Street. The fair share contribution shall be calculated based upon a traffic study to calculate the fair share contribution of each Northern Waterfront development project including the Del Monte Warehouse Project, the Encinal Terminals Project, the Wind River fifth building project, and Alameda Marina, which will contribute traffic trips to the Clement Avenue Extension. The City shall require all developers to contribute their fair share as determined by the traffic study. The Alameda Marina fair share contribution shall be paid on a pro-rata basis for each residential phase of the Alameda Marina project (number of units in phase divided by total number of units in project multiplied by the fair share contribution). Each portion of the fair share contribution shall be paid prior to issuance of the first building permit for the current residential phase if work on the Clement Avenue extension has been initiated by another developer of a Northern Waterfront development project. If the work has not been initiated by another developer prior to issuance of the first building permit for Alameda Marina, the contribution shall be made prior to issuance of the first residential Certificate of Occupancy on the property.

This modification to Mitigation Measure TRA-3 does not alter the conclusions of the Draft EIR, nor does it raise any additional environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

February 15, 2018

Andrew Thomas, AICP
Assistant Community Development Director
City of Alameda
2263 Santa Clara Avenue, Room 190
Alameda, CA 94501

RE: Alameda Marina DEIR: Submission of Comment and Request for Response
By Electronic Submission

Dear Mr. Thomas,

Thank you for the opportunity to comment on the Draft Environmental Impact Report for the Alameda Marina mixed use project.

The DEIR states the developer intends to incorporate space for 150,000 – 250,000 sq. ft. of commercial space. In the developer's plan, this can only be accomplished by destroying the integrity of Building 19 by inserting 3-4 stories which has been verbally discussed but was not included in the DEIR. Since this action will destroy any chance of state or national recognition as a historic place, this is a significant omission in the DEIR.

12-1

The sub-committee of the Planning Board listed as one of its priorities the inclusion of a boatyard. The postage stamp little flex-space square between buildings 19 and 14 will not accommodate a viable full service boatyard and the attempts by the developer to utilize waterside space does not allow for boat bottom work to be done which is 90% of the business of a boatyard. The flex space allotted is not large enough to have work performed on more than a few boats at a time which is not an economically viable boatyard.

12-2

The 530 slip marina (from which the city earns 10% revenues) with over 300 dry storage spaces is at risk. The developer plans a paltry 60 dry storage slips – only for use by active mariners. Alameda residents started moving their boats out of dry storage spaces early in the planning process because they could not rely on services to launch their boats. Currently, residents who kept their vessels in Alameda's marinas or in dry storage have also have started moving their watercraft off island because maintenance services are no longer available.

12-3

Chapter 5 of the DEIR identifies some Alternatives to the Alameda Marina Project proposed by Bay West. These alternatives include:

1. The Preservation and "environmentally superior" Alternative which retains the 11 structures of the Alameda Historic District along with the Graving Dock
2. The Extensive Adaptive Reuse Alternative which retains only 6 of the 11 Historic District buildings

3. The Reduced Project Alternative which has not been studied for its economic feasibility
4. The “No Project” Alternative which does not provide the revenue required to repair the Tidelands Trust infrastructure

I would propose a Preservation/Adaptive Reuse Plan that:

- Converts Buildings 10, 28, 29 and 31 into live work space and workforce housing
- Buildings 36 and 1 into a retail marketplace
- Leaving buildings 12 and 19 part of an expanded commercial core that would include a full service boatyard capable of servicing 30 boats simultaneously. It is imperative that the elevator remain to service houseboats.
- The space between buildings 28 and 29 and the estuary could hold an expanded number of spaces for dry storage
- Building 14 should remain the yacht club
- Building 13 would be an ideal location for a storefront kayak/paddleboard shop
- The area east of building 31 including buildings 32, 33, and 34 could be used for high value housing units to raise money for the bulkhead and infrastructure expenses.
- An apartment building could be placed where buildings 5-9 currently exist.

12-4

The anchor on Alameda’s flag would lead someone to believe our city values it’s the ideal location for this to take place.

Thank you for your consideration,

Nancy Hird
Save Alameda’s Working Waterfront

Letter 12
Response **Nancy Hird**
February 15, 2018

- 12-1 Please refer to Master Response 4 in Section 2.2 of this chapter for a discussion of impacts to historic resources.
- 12-2 This comment asserts the opinion of the commenter as to how the project should be developed, and therefore does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 12-3 This comment asserts the opinion of the commenter as to how the project should be developed, and therefore does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 12-4 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of feasibility of proposed alternatives.

PROVENCHER & FLATT, LLP
823 Sonoma Ave. Santa Rosa, CA 95404
Phone: 707-284.2380 Fax: 707-284.2387

ATTORNEYS AT LAW
Douglas B. Provencher
Gail F. Flatt

OF COUNSEL
Rachel Mansfield-Howlett
Roz Bateman Smith

February 15, 2018

Andrew Thomas, AICP
Assistant Community Development Director
City of Alameda
2263 Santa Clara Avenue, Room 190
Alameda, CA 94501
athomas@alamedaca.gov

Via Email

Re: Comments on the Alameda Marina Draft EIR

Dear Mr. Thomas,

On behalf of Alameda Architectural Preservation Society (AAPS) and Save Alameda's Working Waterfront (SAWW), thank you for the opportunity to comment on the Draft EIR prepared for the Alameda Marina Project.

In light of the Project's acknowledged significant direct and cumulative impacts to Cultural and Historic resources due to the demolition of historic resources, the EIR is required to review alternatives to the Project that significantly reduce the Project's impacts. Interpretive displays and photo documentation are not considered adequate mitigation when historic resources are at stake, therefore substantive alternatives that avoid the demolition of historic resources must be considered. (*League for Protection v. City of Oakland* (1997) 52 Cal.App.4th 896; Guidelines, §15126.4(b)(2.); Draft EIR 5-4.)

AAPS and SAWW urge the adoption of the Preservation Alternative that reduces the Project's impacts and meets many of the Project objectives.

The EIR discounted alternatives chiefly due to not meeting the Project's objectives as well as the Project and for economic reasons.

The Project objectives are described as:

Improve and Enhance the Maritime Commercial Marina

- Maintain Alameda Marina as a working waterfront and retain and/or promote Alameda Marina's maritime uses by creating a Maritime Commercial Core that utilizes the maritime footprint more efficiently.
- Encourage the retention and development of waterfront and maritime-related job and business opportunities that relate to the area's waterfront location.
- Upgrade and rehabilitate facilities, unique buildings, as feasible, and provide land for existing maritime businesses, boat berthing and maintenance, boat storage, and waterfront commercial recreation businesses.
- Provide sea level rise protection and other infrastructure upgrades to bring Alameda Marina up to date to make it a safe and accessible place. Activate and Reconnect the Community to the Waterfront

Activate and Reconnect the Community to the Waterfront

- Reconnect the community to the waterfront by extending the existing city grid into the site to allow for additional view corridors and access points through the site to the shoreline edge.
- Create public amenities and opportunities for gathering spaces for existing and future community members by developing new open space areas within and along the shoreline edge with a Bay Trail component.

Create a Dynamic New Neighborhood for Everyone

- Provide housing of various types to fulfill the goals of the City's Housing Element and help meet the City's Regional Housing Need Allocation.
- Provide options for housing that meet the need of a wide demographic that includes universally designed units, affordable, rental, work force market-rate and market-rate units.
- Integrate Alameda Marina's core maritime uses, including those governed by the Tidelands Lease, with renovated and new compatible uses, including various types of housing.
- Develop a mixed-use project that allows for a mix of compatible uses at the site.
- Provide opportunities for the improvement of the existing boat Marina and shoreline infrastructure; maintain and generate new jobs; and create better and new open space and recreational areas.

Provide Financially Sound Development

- Develop an economically sustainable and financially sound new development that can fund the construction of the public facilities and services that are needed to serve the plan area and achieve General Plan objectives, while avoiding any financial impact on the City's ability to provide services to the rest of the City.
- Fulfill the project sponsor's obligations under the Tidelands and Marina Lease.

The EIR describes the Preservation Alternative as:

Constructing housing within these two available envelopes would allow for a total of approximately 475 housing units. The units would be a mix of multi-family townhomes and multi-family wrap buildings. The existing designated historic structures would not be affected, and the types of commercial and industrial uses currently taking place in those structures would remain unchanged, so it is assumed that the commercial/industrial square-footage on the site would remain roughly the same as is present currently. (DEIR 5-8.)

The Preservation Alternative would retain all of the contributing buildings within the designated Alameda Marina Historic District. Impacts to these structures would therefore be fully avoided. (DEIR 5-13.)

The Preservation Alternative would generate approximately 38 percent fewer trips than the proposed project. As shown in Table 5-2, traffic trips under the Preservation Alternative would be less than for the project (262/316 AM/PM peak hour trips for the alternative compared to 423/509 AM/PM peak hour trips for the project), and the significant and unavoidable impacts of the project would therefore become less severe under this alternative. (DEIR 5-16.)

Since the Preservation Alternative would generate fewer peak hour trips than the proposed project, the significant and unavoidable impacts to area intersections identified for the proposed 5. Alternatives Alameda Marina Master Plan 5-17 ESA / 160044.01 Draft Environmental Impact Report December 2017 project would be less severe under this alternative. (DEIR 5-16 to 5-17.)

... the Preservation Alternative would be the Environmentally Superior Alternative for the purpose of this analysis ... (DEIR 5-37.)

The Preservation Alternative would substantially reduce the Project's impacts and is identified in the EIR as the Environmentally Superior Alternative.

With regard to the Preservation Alternative, the EIR incorrectly assesses the feasibility of the alternative, stating:

By prohibiting development within the central core and the southern periphery of the site, this alternative would limit development opportunities at the heart of the project. Although this alternative would achieve more of the project objectives than the No Project Alternative, it would not achieve the project objectives as well as the proposed project because it would limit private reinvestment and redevelopment, thus it is less likely to attract sufficient private capital to fund the necessary public infrastructure improvements, build the planned open spaces, and rehabilitate the shoreline and marina infrastructure.

For the following reasons, the Preservation Alternative should be considered a feasible alternative.

Because demolition of an historic resource is a significant environmental impact, approval of the demolition violates CEQA unless alternatives to demolition are infeasible. Findings of infeasibility cannot be based on the preference of an agency or project applicant. (*Preservation Action Council v. City of San Jose* (2006) 141 Cal.App.4th 1336 [reduced-size project alternative that reduces impacts to historic resources must be considered]; *Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587.)

In order to be considered feasible, alternatives are required to meet most of the Project's stated objectives. It is not necessary for an alternative to meet all of the stated objectives. Furthermore, Project objectives cannot be so narrowly defined as to preclude the adoption of alternatives. (*In re Bay Delta* (2008) 43 Cal.4th 1143.)

Reasonable alternatives must be considered "even if they substantially impede the project or are more costly." (*San Bernardino Valley Audubon Society v. County of San Bernardino* (1984) 155 Cal.App.3d 738, 750; Guidelines, §15126(d)(1).)

13-1

Economic Analysis

Laurel Heights Improvement Association v. Regents of the University of California (Laurel Heights I) (1988) 47 Cal.3d 376, held that an agency's reasons for finding an alternative to be infeasible must be explained in the EIR. (*Id.* at 407.) Many EIRs analyze the relative economic feasibility of alternatives since economic factors are emphasized by CEQA as primary factors in determining feasibility and that is especially true here since economic reasons are listed in the Project's objectives. (*Foundation for San Francisco's Architectural Heritage v. City and County of San Francisco* (1980) 106 Cal.App.3d 893; *City of Fremont v. San Francisco Bay Area Rapid Transit Dist.* (1995) 34 Cal.App.4th 1780; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal. App.3d 692; *Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal.App.4th 1437 [EIR rejected for failure to adequately analyze the economic feasibility of alternatives.]; *Center for Biological Diversity v. County of San Bernardino* (2010) 185 Cal.App.4th 866, [EIR's economic analysis of feasible alternatives to a proposed composting facility was held inadequate.]

13-2

Infeasibility Findings

Citizens of Goleta Valley v. County of Santa Barbara (Goleta I) (1988) 197 Cal.App.3d 1167, held that a record including no analysis of the comparative costs, profits, or economic benefits of a scaled-down project alternative was insufficient to support findings of economic infeasibility. *Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, ruled that a project applicant's preference for its project does not render an alternative infeasible. "The willingness of the applicant to accept a feasible alternative ... is no more relevant than the financial ability of the applicant to complete the alternative. To define feasible [otherwise] would render CEQA meaningless. (*Id.* at 602; accord, *Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal.App.4th 1437; *Preservation Action Council v. City of San Jose* (2006) 141 Cal.App.4th 1336.) *Burger v. County of Mendocino* (1975) 45 Cal.App.3d 322, found that absent an estimate of income or expenditures supporting the conclusion that reduction of a motel project or relocation of some units would make the project unprofitable, an infeasibility finding based on economic factors could not be made.

Considering the Project Objective's inclusion of an economic feasibility element, the EIR should include a detailed feasibility analysis in its analysis of the Project and the Alternatives prior to asserting economic infeasibility. The EIR's feasibility analysis, or alternatively, the City's findings regarding economics, cannot be supported without such an analysis.

What is the economic analysis, including comparative costs and profits, for the Project and for each Alternative evaluated in the EIR?

Aesthetic Vistas

The Project's removal of the physical barriers (2-3 story buildings) that currently block the public's view will be replaced by large blocks of 4-5 story apartment buildings and will result in the worsening of views of the estuary from the street. The overall "wall" effect blocks views for the people living in the neighborhood on the south side of Clement Avenue and results in the isolation of the Project from the community. Even though the streets will be extended into the Marina, it will not make the area inviting to those who exist outside of the development. The development is a de facto gated community.

13-2
cont.

13-3

Since the Project walls off aesthetic vistas and insulates the community from the marina, how does the Project satisfy the objective to “reconnect the community to the waterfront by extending the existing city grid into the site to allow for additional view corridors and access points through the site to the shoreline edge”?

13-3
cont.

Additional Alternatives

Due to the Project’s direct and cumulative impacts, the following alternatives should be included in the analysis:

1. The City of Alameda could swap properties; “Site A” at Alameda Point, which is owned by the City, for the fee simple portion of the Alameda Marina that is owned by the developer. Allowing the developer to build at Alameda Point will pay for the replacement of the bulkhead / seawall at the Marina, which is the primary goal of the project. (Both entities say this is the given reason for the Project.)
2. Build high value market rate homes around the graving dock on the east end of the property to pay for the infrastructure on the Tidelands Trust property at the Marina.
3. Rehab some of the historic buildings 9, 10, 31 and 36 as examples for live / work spaces in affordable buildings located towards the eastern end, and potentially at the western end, in buildings 28 and 29. Try to meet Regional Housing Needs Assessment numbers assigned but not required since Alameda has already exceeded its number of approved market rate homes.
4. Build two apartment buildings on the eastern end that are tall enough to contain enough units to meet the financial goal to replace the bulkhead.
5. Considering Master Plan #3’s provision to expand the “Commercial Core” to include the area currently planned for a 6-story, 225-unit apartment building, move that building easterly to the location of the 3-story, 48-unit building, shifting it east to the land designated for the 148-unit duplex homes, and omit the duplex homes. This would allow retention of the boatyard.

13-4

An EIR should consider alternate sites for both public and private development projects. (*Citizens of Goleta Valley v. Board of Supervisors (Goleta I)* (1988) 197 Cal.App.3d 1167, 1179-1180; *Citizens of Goleta Valley v. Board of Supervisors (Goleta II)* (1990) 52 Cal.3d 553, 574-575. EIRs “must consider a reasonable range of alternatives to the project, or to the location of the project.” (Guidelines, §15126.6(f)(2).) An alternate site location outside the lead agency’s

13-5

jurisdiction is “simply a factor to be taken into account.” (*Citizens of Goleta Valley v. Board of Supervisors (Goleta II)* (1990) 52 Cal.3d 553, 575, n.7.)

↑ 13-5
cont.

Conversion of Alameda Marina Warehouse

At recent Community Advisory Development meetings, the developer has proposed converting the large Alameda Marina warehouse, which is eligible for the National and State Lists of Historic Resources, into a 4-floor commercial complex that will destroy the integrity of the interior of the structure.

13-6

This potentially significant impact should be considered in the EIR’s analysis as a direct or indirect impact of the Project.

Calculation of Housing Density

How was the maximum number of housing units determined? Shouldn’t the density be calculated by multiplying the acreage specified for residential use in the master plan, rather than the total acreage by the permitted density per acre?

13-7

If the density were calculated by the acreage specified for residential use, how would the EIR’s analyses change?

Wouldn’t this mean that fewer unit alternatives more closely meet the Project’s objectives?

Sincerely,


Rachel Mansfield-Howlett

Letter 13 Rachel Mansfield-Howlett
Response February 15, 2018

- 13-1 Please refer to Master Responses 3 and 4 in Section 2.2 of this chapter for a discussion of feasibility of proposed alternatives and historic resources, respectively.
- 13-2 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of feasibility of proposed alternatives.
- 13-3 Please refer to Master Response 5 in Section 2.2 of this chapter for a discussion of impacts related to aesthetics.
- 13-4 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of feasibility of proposed alternatives.
- 13-5 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of feasibility of proposed alternatives. As evaluated in Section 5.2.3 of the Draft EIR, an off-site alternative to the proposed project is not feasible.
- 13-6 Please refer to Master Response 4 in Section 2.2 of this chapter for a discussion of impacts to historic resources.
- 13-7 Please refer to Master Response 1 in Section 2.2 of this chapter for an overview of the project's consistency with the MX and MF Zoning Ordinances and how the City calculated the allowable residential density for the project. If the residential density was instead calculated by the acreage specified for the residential use in the Master Plan, it is likely that the environmental impacts of transportation and traffic, air quality, greenhouse gases, and noise, would be reduced to a similar extent as the Reduced Project Alternative. However, such a proposal for reduced residential density would not meet some of the project's basic objectives, including the ability of the project to provide housing of various types to fulfill the goals of the City's Housing Element and to meet the City's Regional Housing Needs Allocation. Please also refer to Master Response 3 in Section 2.2 of this chapter for a discussion of feasibility of proposed alternatives, including the feasibility of reduced residential density.

William J. Smith
2822 Bayview Drive
Alameda, CA 94501
WJASmith@AOL.com

Andrew Thomas
Assistant Community Development Director
Alameda City Hall
2263 Santa Clara Avenue
Alameda, CA 94501

Subject: Affordable Housing and Preservation Alternative to Include and
Comments to Address in the Environmental Impact Report on the
Alameda Marina Master Plan

Dear Mr. Thomas:

As an Alamedan who cherishes our maritime heritage, I concur with the Alameda Marina Master Plan's goals of preserving part of our maritime history while providing more housing. There are alternative plans, though, that would meet these goals with fewer adverse impacts on the environment than those associated with the Preferred Alternative in the Draft EIR (Environmental Impact Report).

This letter provides comments that the City of Alameda must address before certifying the Draft EIR, including the analysis of a revised or new Preservation Alternative. Throughout this comment letter, I identify the most significant of these comments with the label ***Rqrd.***

The City of Alameda must evaluate the potential of a new or revised alternative, the Affordable Housing and Preservation Alternative described in this letter, to lessen the adverse impacts of the Preferred Alternative identified in the Draft EIR on

- 1) tribal cultural resources,
- 2) the number and extent of existing maritime businesses, and
- 3) the availability of housing affordable to the teachers, retail workers and service workers who will support residents of the market rate housing.

While the potential for adverse impacts on tribal cultural resources and the number of and extent of existing maritime businesses was discussed in the Draft EIR, the potential for adverse impacts on housing for low and even middle wage workers was not. An analysis of the potential for hundreds of new market rate units to force workers to pay more for housing, double up, move into substandard housing, to live on streets in vans, campers and cars or live under freeway ramps and other homeless encampments must be included in the Final EIR. I provide a framework for such a discussion below.

As others, notably SAWW (Save Alameda's Working Waterfront), are commenting on the adverse impacts to existing maritime businesses, my comments focus on the adverse impacts on the availability of housing affordable to workers who would support the new residents and businesses they attract. This letter incorporates SAWW's comments by reference.

The City asserts in the Draft EIR that foundations for the townhomes in the Preferred Alternative can be safely constructed for less than foundations for taller structures such as those in the Affordable Housing and Preservation Alternative.

- ***Rqrd 1:*** To allow the public to review and comment on this assertion, the City must provide the preliminary geotechnical and related reports upon which the assertion is based, preferably as appendices to the EIR.

14-1

The public must be offered an opportunity to review and comment on all critical geotechnical and related reports referenced in the Draft EIR before the Final EIR

issues. On Jan. 24th, I submitted a request to the Clerk of the City of Alameda for two such reports. (Exhibit 1) As of February 15th, 2018, the Clerk had yet to acknowledge my request.

Rqrd. 2: The EIR Must Fully Analyze The Affordable Housing and Preservation Alternative

14-2

The Affordable Housing and Preservation Alternative reduces the adverse impacts on maritime businesses and tribal cultural resources by using land more efficiently than the Preferred Alternative. The Affordable Housing and Preservation Alternative also provides more affordable housing, both in numbers and in percentage, than the Preferred Alternative.

The Preferred Alternative proposes to build new housing throughout the 22 acre site, including where maritime businesses are currently located and over part of Site CA-ALA-11, a historical resource and a tribal cultural resource. The Affordable Housing and Preservation Alternative would instead

- 1) locate all of the housing on the Eastern section of the site, where almost no maritime businesses are located
- 2) exclude all portions of Site CA-ALA-11, the tribal cultural resource possibly including part of a known burial ground, and
- 3) reduce the number of market rate homes that generate low-paying service jobs from 660 to 528 while increasing the number of affordable housing units from approximately 103 to 528.

The Affordable Housing and Preservation Alternative would construct 1,056 units (528 deed restricted affordable and 528 market rate) in buildings ranging from 4-8 stories tall on the 10 easternmost acres of the 22 acre parcel for which the Preferred Alternative proposes housing. With at least 50% of the housing units affordable for fifty-five years to very-low and low income households, the project would qualify for a sixty (60%) percent increase in maximum density allowing vertical consolidation of the housing on the eastern end of the site.

The Affordable Housing and Preservation Alternative is a higher density alternative with substantially more affordable housing units that is both *feasible* and *desirable*. Accordingly, as it would address two significant adverse impacts identified in the Draft EIR and one unidentified, yet significant impact, that on low-wage workers described below, such an alternative should be fully analyzed in the Final EIR.

Rqrd. 3: The EIR Must Adequately Analyze Localized Impacts on The Cost of Housing for Low-Wage Workers

14-3

As the analysis of impacts on low-wage workers is omitted or implicitly relies on flawed assumptions, the Draft EIR fails to identify a significant adverse cumulative impact that the Preferred Alternative and related projects would have on the displacement of these workers. The Alameda Marina project together with proposed developments at the Del Monte Building and Encinal Terminals sites, would add about 1,500 market rate homes to the Buena Vista / Clement Avenue corridor.

These expensive market rate homes would induce hundreds of low wage jobs in Alameda, including for K-12 teachers, retail clerks, landscapers, home electricians, plumbers, handymen and many others. As the geographic context for Cumulative Impact C-POP-1 is “the City of Alameda,” to find the adverse impact on housing to be less than significant, the Draft EIR must demonstrate that the ~100 affordable units proposed in the plan would be able to accommodate at least the number of low-wage workers required to provide the residents of the market rate and affordable homes in the development with a variety of services.

There is a reasonable expectation that despite the provision of ~100 affordable units, this market rate housing will have a significant adverse impact on the cost of housing in Alameda for low-wage workers and will force them to seek housing in surrounding cities. The Draft EIR ignores these workers and provides no basis for asserting that the impact on them would be less than significant. The literature on urban displacement indicates that the impacts on the population of low wage workers could be significant in a “strong” housing market like Alameda.

Rqrd. 4: The City of Alameda Must Explicitly Demonstrate That “Filtering Down” Together with 15% (~100) Affordable Units Will Mitigate Potential Upward Pressure on Housing Prices for Low Income Workers Caused by Market Rate Units.

14-4

The City of Alameda in the Draft EIR implicitly assumes, without evidence, that when new market rate housing is built, the new market rate units will “filter” down to create vacancies in lower priced housing stock. Such filtering is unlikely to happen in Alameda. Ms. Miriam Zuk and Ms. Karen Chapple, Leaders of the Urban Displacement Project at the University of California at Berkeley (1), state that

The filtering process, the phenomenon in which older market-rate housing becomes more affordable as new units are added to the market, may fall short of producing affordable housing. (2)

They continue

We examined the relationship between market-rate housing construction, rents, and housing cost burden (Table 1[omitted]). Initial results indicate a filtering effect for units produced in the 1990s on median rents in 2013. Yet market-rate development in the 2000s is associated with higher rents, which could be expected as areas with higher rents are more lucrative places for developers to build housing. Furthermore, development in both the 1990s and 2000s is positively associated with housing cost burden for low-income households. Thus, while filtering may eventually help lower rents decades later, these units may still not be affordable to low-income households.(2)

To evaluate the impact of market rate housing on low-income housing, many agencies, including the City of Alameda in this Draft EIR, appear to implicitly rely on the California Legislative Analyst’s Office’s (LAO) assertion that market-rate development is the most effective investment to prevent low-income households from being displaced from their neighborhoods. Ms. Zuk and Ms. Chapple, who provided the data on which the LAO based this dubious conclusion write:

While numerous critiques of the LAO February 2016 report “Perspectives on Helping Low-Income Californians Afford Housing” have circulated, we believe that the omission of subsidized housing production data from the analysis has the greatest potential to skew results. We have reanalyzed the data on housing production, including

that of subsidized housing, and show that *the path to reducing displacement is more complex than to simply rely on market-rate development and filtering.* (2)

Rqrd. 5: *Wherever the City of Alameda explicitly or implicitly relied on the LAO conclusion that market rate housing prevents displacement, the City must reexamine the conclusions to account for methodological errors, such as the LAO's failure to include affordable housing in their analysis described above.*

14-5

After Ms. Zuk and Ms. Chapple added subsidized housing data and replicated the LAO's analysis, they wrote that:

In the February 2016 report "Perspectives on Helping Low-Income Californians Afford Housing" (hereafter "the LAO Report"), the California Legislative Analyst's Office (LAO) used data we posted on our Urban Displacement Project website (www.urbandisplacement.org) to argue that market-rate development would be the most effective investment to prevent low-income households from being displaced from their neighborhoods.

In this research brief we present a more nuanced view to contribute to this debate. We correct for the omission of subsidized housing production from the LAO Report and find that both market-rate and subsidized housing reduce displacement at the regional level, yet subsidized housing has over double the impact of market-rate units. (2)

Ms. Zuk and Ms. Chapple conclude that

In overheated markets like San Francisco, addressing the displacement crisis will require aggressive preservation strategies in addition to the development of subsidized and market-rate housing, as building alone won't protect specific vulnerable neighborhoods and households. This does not mean that we should not continue and even accelerate building. However, to help stabilize existing communities we need to look beyond housing development alone to strategies that protect tenants and help them stay in their homes.(2)

Rqrd. 6: *The EIR must estimate what proportion of inclusionary housing and what aggressive preservation strategies would be required to mitigate adverse impacts of market rate housing on Alameda's low income communities, and describe any adverse impacts on housing that would not be mitigated by the Preferred Alternative.*

14-6

As Alameda's housing market is closely connected to San Francisco's, it too, is overheated and vulnerable communities cannot be protected by production of subsidized (e.g. 15% inclusionary) and market rate housing. Housing officials and experts, such as Alameda's Assistant Development Director Andrew Thomas and East Bay Housing Organization's Jeff Levin, independently informed me that a 15% inclusionary requirement does not mitigate the adverse impacts of market rate housing on vulnerable communities in Alameda. Instead, State Housing Laws limit the inclusionary requirement to what the market will bear rather than what is needed to preserve the low-income communities who provide us with essential services.

The EIR should include mandatory Rent Control in its analysis of the aggressive preservation strategies that could partially mitigate displacement caused by the upward pressure on housing prices exerted by new market rate units. Alameda's Housing Impact Fee for business is another mitigation measure that should be analyzed, as this fee, set using 1989 methodology, may be outdated. Additional residents will induce growth in local, and attract new, businesses.

The City of Alameda's 2015-2023 Housing Element cites a 1989 nexus study as the basis for the housing impact fee charged businesses. I submitted a request for a copy of that nexus study to the Clerk of the City of Alameda on Feb. 9th, (Exhibit 2). As of Feb. 15th, Nancy McPeak of the City of Alameda's Development Department had found a report describing the implementation plan to assess and collect the fees. She was still trying to locate the methodology report used to set the fees (Exhibit 3).

References

1. University of California, Berkeley, 2018. Urban Displacement Project - About, <http://www.urbandisplacement.org/about>.
2. Zuk, Miriam and Chapple, Karen, May 2016. Housing Production, Filtering and Displacement: Untangling the Relationships, IGS (Institute of Government Studies) Research Brief, University of California, Berkeley.

Exhibit 1

Jan 24, 2018

To: clerk, Nancy clerk@alamedaca.gov
From: William Smith <smithwja@gmail.com>

Subject: Request for Four Technical Reports Referenced in the Alameda Marina Project Draft EIR

Ms. Irma Gladden,

The Alameda Marina Project Draft Environmental Impact Report cited four documents that describe the geological formations and soils underlying the Alameda Marina. I would appreciate copies of each, preferably an electronic copy. I could also drop by your office and examine the reports in your office should they only be available on paper.

The documents are

1. Geomatrix Consultants (2007), "Assessment of Liquefaction Hazard, Alameda Marina, Alameda, California", Consulting report project No. 13155.005, October 5, 2007.
2. Rockridge Geotechnical, 2012, Preliminary Geotechnical Investigation, Proposed Redevelopment, Alameda Marina, Alameda, California. November 28.
3. Telesis Engineers (2007), "Seismic Performance and Risk Analysis for Alameda Marina, Alameda, California," Job Number TE 1085, October 9, 2007.
4. TRC Lowney (2006), "Geotechnical Investigation, Grand Marina Village, Alameda, California," Consulting Report No. 247-23B, August 9, 2006. Telesis Engineers, 2007, Geotechnical..

I found the references to these document in section 9 of SOIL, SOIL-GAS, AND GROUNDWATER SITE INVESTIGATION REPORT PROPOSED MIXED USE DEVELOPMENT 1815 CLEMENT STREET ALAMEDA, CALIFORNIA, prepared for: ALAMEDA MARINA DEVELOPMENT, LLC September 2013.

This soil investigation report for Project No. 2013-32 was authored by STELLAR ENVIRONMENTAL SOLUTIONS, INC. 2198 SIXTH STREET BERKELEY, CALIFORNIA 94710 and dated is July 12, 2011. This report is part of Appendix E, Hazardous Materials in the Alameda Marina Project Draft Environmental Impact Report.

Thank you for your assistance.

William J. Smith
Alameda, CA 94501
(510)522-0390

Exhibit 2

Feb 9, 2018 (6 days ago)

To: clerk
From: William Smith <smithwja@gmail.com>

Subject: Request for Nexus Study for 1989 Affordable Housing Unit Fee

City Clerk,

Please provide me with a copy, electronic preferred, of the Nexus Study cited in Municipal Code Section 27-1.4 - Affordable Housing Requirements. The Nexus study was prepared by Economic and Planning Systmes Inc. in November of 1989.

William J. Smith
Alameda, CA 94501
(510)522-0390

27-1.4 - Affordable Housing Requirements.

a. Unit Requirement . An affordable housing unit requirement is hereby established for new, changed or remodeled and expanded nonresidential development in the City. The City Council shall, by resolution, based upon the Nexus Study prepared for the City by Economic and Planing Systems Inc., in November of 1989, set forth the formula for determining the number of units to be provided, the beneficiaries thereof, the relationship between this requirement and the various types of new and expanded developments, and time for the provision of the units. The requirements of this chapter shall be met by each developer prior to the issuance of the building permit or, where a building permit is not required, the use permit for the new, expanded, or changed use.

Exhibit 3

Feb. 15, 2018 8:26 AM (7 hours ago)

To me, LARA, ERIN

From: NANCY McPeak

Good Morning:

I have attached the final report prepared October 30, 1990. I am still trying to locate the methodology report from November 1989. I hope this helps and I will keep digging.

Thanks, Nancy

Nancy McPeak
City of Alameda
Community Development Department
2263 Santa Clara Avenue
Alameda, Ca 94501
510-747-6854

From: LARA WEISIGER

Sent: Monday, February 12, 2018 8:24 AM

To: NANCY McPeak <NMcPeak@alamedaca.gov>; ERIN GARCIA <EGARCIA@alamedaca.gov>

Subject: FW: Request for Nexus Study for 1989 Affordable Housing Unit Fee

Good morning,

Can your department please respond to this request?

Thanks,

Lara

From: William Smith [mailto:smithwja@gmail.com]
Sent: Friday, February 09, 2018 10:41 PM
To: City Clerk <CLERK@alamedaca.gov>
Subject: Request for Nexus Study for 1989 Affordable Housing Unit Fee

City Clerk,

Please provide me with a copy, electronic preferred, of the Nexus Study cited in Municipal Code Section 27-1.4 - Affordable Housing Requirements. The Nexus study was prepared by Economic and Planning Systmes Inc. in November of 1989.

William J. Smith
Alameda, CA 94501
(510)522-0390

27-1.4 - Affordable Housing Requirements.

a. Unit Requirement . An affordable housing unit requirement is hereby established for new, changed or remodeled and expanded nonresidential development in the City. The City Council shall, by resolution, based upon the Nexus Study prepared for the City by Economic and Planing Systems Inc., in November of 1989, set forth the formula for determining the number of units to be provided, the beneficiaries thereof, the relationship between this requirement and the various types of new and expanded developments, and time for the provision of the units. The requirements of this chapter shall be met by each developer prior to the issuance of the building permit or, where a building permit is not required, the use permit for the new, expanded, or changed use.

Letter 14 William J. Smith
Response February 15, 2018

14-1 Please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of the feasibility of alternatives. For purposes of providing additional clarification, the principal geotechnical report for the project was prepared by Rockridge Geotechnical in 2012. The report formed the basis for much of the site-specific soils analysis presented in Section 4.5 of the Draft EIR. As discussed on page 4.5-2 of the Draft EIR, portions of the site are underlain by artificial fill and weak Bay muds. These findings are based on knowledge obtained through an understanding of the original shoreline, as verified through core samples taken throughout the site, as well as historic maps and charts. As discussed on pages 4.5-11, 4.5-12, and 4.5-26 of the Draft EIR, the identified soil conditions on the site would place limitations on the types of structures that could be supported on various portions of the site using conventional foundation and construction techniques. Specifically, the investigation found the following constraints that could affect buildability on portions of the site: 1) foundation settlement under static loads due to compression of the underlying undocumented fill of varying thickness that blankets the site; 2) foundation settlement under static loads due to compression of the weak, compressible bay and estuary deposits that underlie the fill in portions of the site; 3) the potential for as much as several inches of liquefaction-induced ground settlement in some areas; 4) the potential for liquefaction-induced lateral spread displacements along the waterfront; 5) the presence of subsurface obstructions, such as pile foundations, bulkhead structures, large timbers, utilities, and other concrete remnants that may interfere with future construction activities and affect the performance of new foundations; 6) relatively shallow groundwater in portions of the site; and 7) potential environmental constraints at the site.

For the Alameda Marina site, and as discussed on page 4.5-26 of the Draft EIR, anticipated differential settlements due to both static load conditions and post-liquefaction reconsolidation would exceed the typical tolerance of conventional spread footing foundation systems. In portions of the site where the fill is thinnest and there are no weak, compressible bay and estuary deposits, such as the edge of the site along Clement Avenue, new buildings may potentially be supported on mat foundations on unimproved ground. In locations where static and seismically induced settlements (combined) exceed approximately 3 inches, ground improvement will likely be required beneath shallow foundations to stiffen the upper weak soils and transfer structural loads to denser soils beneath them. Ground improvement can serve to reduce settlements, improving structural performance, and also to increase the bearing capacity of subgrade soils. Alternatively, buildings may be supported on deep foundations that gain support within the denser soils below. These types of constraints are not uncommon in

the Bay Area, particularly in locations immediately adjacent to the shoreline and in areas that have been built on Bay fill. These conditions are typically addressed through the specialized foundation and construction techniques discussed above, which can be costly when implemented across large areas. These costs usually preclude the construction of taller and heavier buildings in these areas.

Each of these considerations have been fully disclosed in the Draft EIR, and adequately describe the site-specific soils constraints under which the site would be developed. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

- 14-2 Please refer to Master Responses 2 and 3 in Section 2.2 of this chapter for a discussion of affordable housing and the feasibility of alternatives, respectively.
- 14-3 Please refer to Master Response 2 in Section 2.2 of this chapter for a discussion of affordable housing and the project's requirements under the law.
- 14-4 Please refer to Master Response 2 in Section 2.2 of this chapter for a discussion of affordable housing and the project's requirements under the law.
- 14-5 Please refer to Master Response 2 in Section 2.2 of this chapter for a discussion of affordable housing and the project's requirements under the law.
- 14-6 Please refer to Master Response 2 in Section 2.2 of this chapter for a discussion of affordable housing and the project's requirements under the law.

Comments to the Draft Environmental Impact Report for the Alameda Marina Project

Dear Mr. Thomas:

Attached are my comments on the Draft Environmental Impact Report (DEIR) for the Alameda Marina Project. In summary, I suggest reassessing the transportation impacts portion of the report and then recirculating the DEIR for the following reasons.

- The travel time and speed surveys, conducted in March 2017 and provided in the appendix, indicate the Park Street corridor is at capacity, with delays throughout the AM peak hour. (see page 5) 15-1
- The DEIR intersection delay results are inconsistent with the travel time surveys and, most importantly, the DEIR omits the condition that the Park Street outbound in the morning is at capacity today. 15-2
- The impact section relies on the existing roadway configuration, ignoring the changes to be built via the funded projects and other projects likely to happen by 2040. 15-3
- The DEIR also omits the areas on the other side of the Park Street Bridge, grossly lowering the delay values in the impact section of the DEIR. 15-4
 - The 23rd, 29th and I-880 interchange modifications, now almost completed, will likely reduce the outbound capacity, as reported by Alameda County and Caltrans. (see page 9)
 - The additional development growth in Oakland will further reduce the Park Street outbound capacity.
 - The interchange operations report shows northbound queueing outbound as far back as Buena Vista. This kind of queue would be slow to dissipate.
- With proper analysis, the unavoidable impacts where Blanding and Clement Avenue intersect with Park Street during the AM peak hour would likely be significantly more severe than as reported in the DEIR. This is because eastbound approaches on both of these streets would be operating 60 percent and 90 percent above their capacity, as per the DEIR for the no-project cumulative conditions. (see pages 14 and 15) 15-5
 - These streets cannot accommodate the traffic due to the other projects within the AM peak hour, nor can they accommodate the additional traffic from the proposed Alameda Marina project during this same timeframe. The over-saturated conditions can only be resolved by shifting traffic to the shoulder and to other crossings at the peak hour (i.e., outside of the peak hour). This DEIR considers neither option.
 - Peak period and corridor-level analysis needs to be conducted to accurately assess the project's traffic impacts with the inclusion of the areas in Oakland.

Comments to the Draft Environmental Impact Report for the Alameda Marina Project

- The vehicle miles traveled (VMT) metric impact analysis does not consider the additional travel on Alameda streets due to increased population; it considers only the VMT per current resident. (see page 10)
 - The San Francisco Metropolitan Transportation Commission projects travel on Alameda streets will increase by 23 percent by year 2040.
 - These projected major increases in travel assume Transportation Demand Management Strategies, the funded projects, and changes such as those being considered in the City's recent Travel Choices Plan.
 - Under Alameda's Sustainable Community Strategy, travel is supposed to decrease, not increase. As it stands, this strategy is not working. As per SB 375, alternative strategies should be considered.

Year 2010 and Forecasted (Yr 2040) Vehicle Miles Traveled (VMT) on Alameda Streets including Estuary tunnels and bridges				
	VMT			
2010	434,470			
2040	534,089			
Increase	99,620	22.9%		
Source: San Francisco Metropolitan Transportation Commissions Traffic Model for the 2013 Regional Transportation Plan				
Received from MTC via California Public Record Request August 3rd, 2016				

- The overall traffic growth throughout the weekday for all the estuary crossings and Bay Farm Bridge has not been considered in this DEIR.

I obtained the traffic model results from the Metropolitan Transportation Commission (MTC), in order to understand their forecasts for Alameda. As shown in the table below, the overall growth for all of Alameda's gateways is 40,250 vehicles per day, an amount similar to the daily traffic volumes over the Park Street Bridge.

MTC One Bay Area Plan Model Results for the Alameda island crossings												
Source: Metropolitan Transportation Commission Travel Model Results for the City of Alameda												
	Early Am 3 to 6 am		AM peak 6 to 10 am		Midday 10am to 3 pm		PM peak 3 to 7 pm		Evening 7 pm to 3 am		Daily Total	
Year	2010	2040	2010	2040	2010	2040	2010	2040	2010	2040	2010	2040
Total for off island (all gateways)	2785	3508	26810	31668	32221	38085	30991	36486	16375	19328	109182	129075
Total onto island (all gateways)	2539	3095	24359	28647	31489	36903	32641	37911	17688	22517	108716	129073
	5324	6603	51169	60315	63710	74988	63632	74397	34063	41845	217898	258148
			24.0%	17.9%		17.7%		16.9%		22.8%		

- Traffic forecasts in the Alameda Marina DEIR are grossly inconsistent with the traffic forecasts in the Encinal Terminals EIR, which is based on the same cumulative conditions.

The starting cumulative for this DEIR should be the same as the 2040 with Encinal Terminal project its EIR, and which in the Alameda Marina DEIR would be referred to as the 2040 without Marina Project. But these forecasts are grossly different and these should not be because the land use is the same and the network has not changed since the Encinal Terminal EIR.

Comments to the Draft Environmental Impact Report for the Alameda Marina Project

For example for Park Street, this DEIR forecasts are nearly 1,223 vehicles per hour (VPH), or 24 percent lower. Further, at the west end of the project (at the intersection of Constitution and Atlantic), this DEIR forecasts are approximately 800 VPH higher, or 37 percent higher than projected in the Encinal Terminals EIR.

15-8
cont.

This gross inconsistency must be resolved before proceeding because these forecasts would dramatically change the impact results. Which is correct?

- The Alameda Marina Project presumes to reduce jobs, but what happens if Alameda cannot attract the very large job forecasts that have been assumed in this and the other recent EIR's?
 - It is also possible that the increased congestion occurring now due to Housing First policies could dramatically reduce the potential of commercial development with these high job assumptions.
 - There is no evidence that large prospective employers spend much time considering Alameda, once they note (1) the restricted access inherent in an island location, (2) the additional congestion with more residential, and (3) the fact that none of the island accesses are built to current Seismic Lifeline standards.
 - The current trends already suggest a far lower job base; however, the assumptions of land use in this DEIR suggest totally different trends, with a high job base assumption by 2040.
 - An economic assessment must be provided before proceeding with residential project approvals. The commercial land use assumption should be validated before it is used in this DEIR or as a basis for other planning decisions.
- Substantial evidence is missing from the DEIR:
 - The redevelopment and new commercial development at the site has not been considered in the project traffic projections, and no evidence is given as to why this is omitted.
 - There is no explanation of how the forecasts were developed. Traffic modeling report and other plots are not provided.
 - Evidence indicates assumptions in the county model may not represent current development patterns.
 - Traffic counts during construction were not checked for diversion.
 - Evidence for the traffic delay/operations reports is missing; for example, the Synchro output report omits the queueing results.
 -

15-9

15-10

15-11

15-12

15-13

15-14

15-15

Comments to the Draft Environmental Impact Report for the Alameda Marina Project

If the proper evaluations were performed, as suggested in the points above, I strongly suspect the traffic impacts would be found to be far worse than portrayed in the DEIR and would lead to more informed and defensible decisions by Alameda's policy makers.

The following pages provide detail comments to the DEIR.

I believe moving forward with this project would be foolhardy, considering the facts and the lack of substantial evidence to support the projections in this DEIR.

Respectively,

Eugenie P. Thomson P.E.

15-16

Comments to the Draft Environmental Impact Report for the Alameda Marina Project

Introduction:

The following is a brief summary of my review of the DEIR.

The delays reported for the existing conditions section in the DEIR are inconsistent with the data from the travel time studies provided on page 156 of the traffic appendix.

See the table to the below for the delays calculated for northbound Park Street using the speeds provided in the appendix. The bulk of the delays are occurring at the intersection of Park Street and Blanding Avenue and max out at over seven minutes. This indicates outbound Park street during the AM peak hour operates at capacity.

But the intersections delay results and the DEIR do not report that the existing Park Street Bridge corridor outbound is operating at capacity and experiencing significant delays at the key intersections.

Park Street, Northbound Travel Time, Speed and Delay Summary			
AM Peak Hour			
Source: Graph in the Appendix, page 156, and Tables 4.12-1 and 4.12-2, Alameda Marina DEIR Dec 2017			
	Delay (hr:min:sec)		
	Average	Maximum	
AM peak hour	0:02:59	0:07:40	

Instead, the DEIR concludes that all of the study intersections are operating today with minimal and acceptable delays, with Levels of Service (LOS) C or better during the AM peak hour – several levels of service better than the city's threshold of LOS D.

- The following four key intersections are reported as operating at LOS B, defined as having stable operations and minimal delay, calculated delays between 10 and 20 seconds:
 - Constitution Way and Atlantic Avenue
 - Challenger and Atlantic
 - Sherman/Atlantic/Buena Vista
 - Fernside/Tilden Way/Blanding
- The remaining key study intersections would operate at LOS C, which is defined as stable and acceptable delays, with calculated delays between 20 and 35 seconds per vehicle in the AM peak hour:
 - Webster and Atlantic
 - Blanding and Park
 - Clement and Park
 - High and Fernside
- The city's acceptable threshold has been LOS D. (See table to the right.)

The existing calculated delays in this DEIR are also lower than what has been reported in other EIRs. A comparison is provided below. Side street delays are omitted from the travel time surveys in the DEIR. The above surveyed delay results could also be higher because of the diversion to other crossings due the 23rd/29th/I-880 interchange construction. The city used speed survey data collected in March of 2017.

And the lower-than actual delays in the DEIR could be due to the use of constrained counts rather than the demand volumes to the intersections or due to not validating the discharge rates in the intersection operations software employed for the delay calculations. The discharge rate software default value should be reduced for consideration for downstream overflows. For instance, the queues northbound on Park Street approaching Blanding reduce the discharge rate from Clement Avenue to Park Street.

Existing Intersection Traffic Conditions for the AM Peak Hour			
(Source: Section 4.12 Transportation and Circulation, DEIR December 2017)			
Intersections reported to operate with this level of service	Level of Service	Levels of Service Description (table 4.12-3)	Average Control Delay Range for signalized intersections (seconds per vehicle)
	A	<i>Free flow or insignificant delays:</i> Operations with very low delay, when signal progression is extremely favorable and most vehicles arrive during the green light phase. Most vehicles do not need to stop at all.	less than or equal to 10 seconds of delay per vehicle
Atlantic/Constitution, Challenger/Atlantic, Atlantic/Sherman/BV, Grand/Buena Vista, Tilden Way/Fernside/Blanding	B	<i>Stable operation or minimal delays:</i> Generally occurs with good signal progression and/or short cycle lengths. More vehicle stops than with LOS A, causing higher levels of average delay. An occasional phase may be fully utilized.	between 10 and 20 seconds per vehicle
Webster/Atlantic, Park/Blanding, Park/Clement, High/Fernside	C	<i>Stable operation or acceptable delays:</i> Higher delays resulting from fair progression and/or longer cycle lengths. Drivers begin to wait through more than one red light. Most drivers feel somewhat restricted.	between 20 and 35 seconds per vehicle
	D	<i>Approaching unstable or tolerable delays:</i> Influence of congestion becomes more noticeable. Longer Delays result from unfavorable progression, longer cycle lengths, or high volume to capacity ratios. Many vehicles stop. Drivers may have to wait through more than one red light. Queues may develop, but dissipate rapidly, without excessive delays.	over 35 seconds to or equal to 55 seconds
	E	<i>Unstable Operations or significant Delays:</i> Considered to be the limit of acceptable delay. High delays indicate poor progression, long cycle lengths and high volume to capacity ratios. Individual cycle failures are frequent occurrences. Vehicles may wait through several cycles. Long queues form upstream.	Over 55 to below or equal to 80 seconds

15-17

Comments to the Draft Environmental Impact Report for the Alameda Marina Project

The standard of care in the traffic engineering industry is to validate assumptions, and technical reports are typically provided to the city for review and included in the technical appendices of these EIRs. However, no evidence of validation was provided in the DEIR, nor was there a technical report.

Public record requests have been filed with the City of Alameda for the missing facts, but these missing records will not arrive in time for a review of this evidence during the public comment period for this DEIR .

On February 6, I asked for the most recent counts, these I requested because the existing traffic counts for Blanding and Park, as well as for Clement and Park Street, in this DEIR were lower than the existing counts in recent EIRs. This appears to be due to traffic diverting to other crossing because of the construction of the 23rd/29th and I 880 interchange project. As mentioned above, this contributed to lowering the calculated delay values.

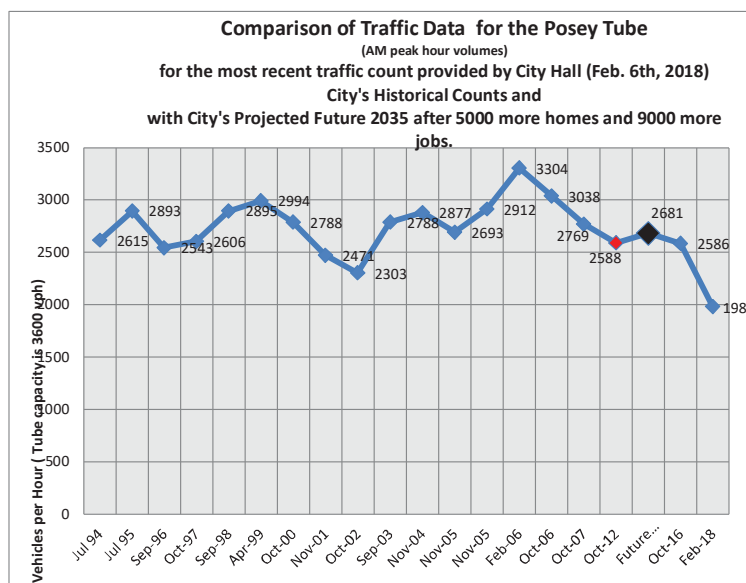
Counts during major construction are usually avoided, but when they are necessary – as for this large interchange – adjustments are made accordingly. No check for diversions is provided, nor were any adjustments made.

On February 6, 2018, via email, the city clerk provided a summary of all the Alameda crossings. However, this supposed count indicated another problem for the AM peak hour. The Posey Tube outbound traffic has dropped dramatically, to only 1,980 vehicles per AM peak hour, while historic peak hour counts are significantly higher, with an overall tube capacity of 3,600 VPH. The Park Street Bridge count was also taken during the interchange construction. The current count for the Posey Tube is particularly a major concern and can only be the result of very long queues formed because of problems from 7th and Harrison onto northbound I-880 at the I-980 merge. Those queues would not fully dissipate during the peak hours. The travel time studies for Webster Street in the DEIR do not show such low speeds.

Public works provided me with the tube counts last year, and this still indicated outbound Posey Tube at 2586 VPH during a two-week period in October 2016. (See graph.) This Posey Tube count of only 1980 VPH now used at City Hall is not the peak-hour demand; it could only be the volume that successfully gets through the congestion at the Jackson street on ramp to I 880 in Oakland. Further, I still do not have a handle on diversion from Park Street that may have occurred due to the construction.

Unfortunately, commenting on the DEIR has not worked in the past. See Exhibit A for my key comments to the Alameda Point DEIR, which were ignored without substantial evidence provided by the city in their responses. Today, we have the facts that indicate the Alameda Point EIR, eliminated many traffic impacts that should have been reported. Further, the public still does not know how much longer it will take to leave and enter the island – information the residents requested.

The major problem with the Alameda Point EIR was the forecasts were extremely low for the west end of the island (less than historical traffic outbound into the Posey Tube (see graph above), and only one net car off-island due to the Alameda Point project in the AM peak hour (now proven incorrect with other traffic models and other city reports). The Alameda Point EIR indicated no traffic impacts at the west end (likely shown as incorrect with the new modeling for the Alameda Marina Project) and only few minor impacts at the east end. In addition, no congestion was reported whatsoever for the existing and in the future at the west end in the Alameda Point EIR (also proven wrong in the Alameda Marina DEIR for the future conditions). All these comments were ignored, and the



Comments to the Draft Environmental Impact Report for the Alameda Marina Project

multiple requests for public records were not responded to until after the Alameda Planning Board's approval of the Alameda Point EIR. (See Exhibit C for the PRA requests.)

One of the major comments then was, *how is it that the existing conditions do not report any delay?* I used the example of the 6th and Jackson Street intersection with the delay results, as per the DEIR. (See insert to the right.)

The response to this comment was that the 2000 Highway Capacity Manual (HCM) was employed – omitting the fact that the introduction to the HCM states the following intersection methodology is only for conditions with downstream free flow. That is certainly not the case at the 6th and Jackson intersection, where the downstream northbound I-880 operates at capacity, resulting in overflows through the intersection of 6th and Jackson, back to the Harrison Street.

Yet, with the Encinal Terminals project (589 new homes), the city suddenly did an about-face:

"LOS has historically proven to be an inadequate measure in Alameda because residents experience delays (at) [sic] certain intersections, yet the LOS analysis indicates that the level of service at the intersection is adequate. The delay that is being experienced is the result of downstream congestion, not a result of the intersection design or the volume of cars moving through the intersection."

Source: Encinal Terminals DSEIR (pdf), page 250 or page 4.G-14.

With those words, the city admitted the traffic studies for the Encinal Terminals and all previous mega-projects are worthless. How strange is that? I've been raising this point for the past 20 years in a half-dozen or more letters to city hall. So, why did the city finally admit their error? And then, in the Alameda Marina DEIR, continue the delay intersection (LOS, levels of service) analysis like before, while corridor level delay analysis should have been conducted with the effects of downstream bottlenecks?

Comment by E. Thomson, 10/21/13 to the Ala Pt DEIR	
The existing delays at the intersections stated in the DEIR are significantly lower than what Alamedans have stated to occur.	
It is difficult to believe there is only a 30 second delay at Doolittle and Island Drive when leaving Bay Farm Island. The Bay Farm residents have stated many times their congestion is very bad and any more development will be too much.	
Similarly the delays at other intersection like at the 6 th and Jackson for the southbound right turn movement today in the morning are shown to be only 1.3 seconds (LOS A) in Appendix G (Synchro output for existing no project AM peak)	
Is it possible that the intersection operations analyses results were not validated via field surveys ?	
<u>The intersection impact analysis omits the operations effects due to roadway downstream constraints. As a result the operations do not</u>	
For example, the freeway weave and ramp merge at the 6th Street northbound on ramp to I 880 & I 980, today causes backup all the way to the 7th and Harrison intersection, but the intersection analysis states the southbound right turn movement has only 1.3 seconds of delay (Level of Service A) for the future plus project conditions. (Appendix	
Similarly other intersections like Blanding and Park Streets are affected by downstream roadway constraints which result in back up through the intersection.	
All intersections should be re-evaluated if downstream constraints affect the intersections' operations. (i.e. without consideration of downstream constraints, the existing intersection analysis is not an engineering analysis, it is only a data processing analysis).	

As a professional trying to understand the transportation issues and impacts, it is almost impossible to figure out what is happening when there are so many underlying missing or incorrect facts and questions.

I am not against development for Alameda; quite the contrary. I, too, want Alameda to be a vibrant city serving businesses and residents.

What is of concern to me is that too much congestion discourages businesses from coming to Alameda and severely reduces the time residents have with their families. The reduction in quality of life with too much traffic intrusion into existing neighborhoods is a concern of many residents – a concern not yet addressed in any of the city's major planning decisions. Researchers have found that, when traffic increases in neighborhoods, the social fabric of the neighborhood breaks down and residents/ children no longer play outside.

Understanding all these issues starts with understanding the traffic consequences and issues facing the island and Bay Farm.

The following is a critique of the Alameda Marina DEIR's key traffic findings. I hope this review is informative and leads to a new traffic analysis for the Alameda Marina DEIR.

Comments to the Draft Environmental Impact Report for the Alameda Marina Project

The Key findings for Transportation in the Alameda Marina DEIR

The Draft Environmental Impact Report for the Alameda Marina Project reports only two significant traffic impacts at Blanding and Park Street and at the Clement and Park Street intersections, with only little increase or no delay increases reported. (See DEIR summary below.)

The recommended solution in this DEIR is for the city council to adopt a Statement of Overriding Considerations to accept these two significant traffic impacts because the DEIR states there are no feasible mitigations in compliance with the Transportation Element of the General Plan. Transportation Demand strategies like bus passes would only reduce travel by 5-7 percent.

The Statements of Overriding Considerations were also adopted for the Transportation Element Update EIR/ The Housing Elements Approval on July 3, 2012, was based on this earlier EIR, and the Alameda Point Development EIR, plus possibly others..

Under the California Environmental Quality Act, the city is required to approve this statement, but only after balancing the environmental effects with the economic benefits.

My point is, environmental facts for traffic impacts and the air and noise upon which this traffic input data is based, is grossly understating the traffic conditions. These analyses need to be modified before an honest evaluation of the environmental effects can be done.

It would be foolhardy for the city council to adopt a Statement of Overriding Considerations, as recommended in this DEIR, to accept these very low traffic delay values without further study, and while ignoring the overall traffic issues omitted from this DEIR.

Average Control Delay for 2040 Cumulative Conditions (AM peak hour)				
Significantly impacted intersections only				
			Without Project	With Project
Blanding Ave. and Park St.			over 120 seconds	over 120 seconds
Clement Ave. and Park St,			108 seconds	over 120 seconds

15-22

The Alameda Marina DEIR fails to consider that little-to-no residual capacity exists on Alameda streets to accommodate the additional to-and-from traffic the Alameda Marina project would produce.

Peak-hour traffic has increased to encompass four hours, from 6:00 a.m. to 10:00 a.m., and little residual traffic capacity is available in the AM peak hour or on the shoulders for this project, along with the other approved development projects.

The DEIR ignores that the forecasts volumes are grossly above the capacity of the roadways and, therefore, it also ignores the fact that diversion to other streets or island crossings is likely, or the traffic shifting to a later or earlier hour.

The Alameda Marina traffic leaving in the morning would not go to the Park Street Bridge via Clement Avenue and Blanding Avenue, as assumed in the impact analysis. Both eastbound approaches on these two streets are operating over capacity in the no-build cumulative conditions, with queues extending from Park Street to beyond Oak Street from the eastbound approach of Blanding and Clement Avenues at Park Street.

Further, the existing conditions intersection delay and levels of service analysis does not report Park Street operating at capacity conditions.

As mentioned before, this is due to the use of existing traffic volumes during major construction, constrained volumes rather than demand traffic volumes, and the default software assumptions in the DEIR's intersection delay calculations. The software input and output in the appendices indicate default values are used for each intersection, although each has different discharge rates. Most likely, these uncalibrated assumptions and the lower existing traffic volumes report delays significantly lower than actual. Corridor analysis should have been

15-23

Comments to the Draft Environmental Impact Report for the Alameda Marina Project

performed and can still be performed with SIMTRAFFIC, as the input data for the intersections have already been set up with Synchro 9, the software employed in this DEIR. Why wasn't a corridor analysis performed?

The effects of downstream overflows from Oakland back over the Park Street Bridge have been ignored in the delay calculations and must be considered for accurate delay projections.

Caltrans predicted the almost-finished 23rd/29th and I-880 interchange project would reduce the outbound capacity for Alameda over the Park Street Bridge. This was not considered in the DEIR. This project removes the grade-separated approaches to the northbound on-ramp and replaces it with a left turn across the traffic coming from Oakland. The new northbound I-880 off-ramp to 29th added a new signalized intersection at Ford and 29th, reducing the outbound capacity, because of the added opposing flow movement. The 2008 environmental document for this project reported maximum queues would increase by an additional 1,000 feet along Park Street due to this interchange project and, by 2035, the queues were forecast to extend from the 23rd northbound I-880 on-ramp to Buena Vista in Alameda. It will likely take an hour or more for a maximum queue this long to dissipate. The queue will block side-street traffic from accessing Park Street and the Bridge.

This Alameda Marina DEIR, as well as previous EIRs, should have performed a corridor analysis similar to the environmental document for this interchange project. Not doing so produced significantly lower delay projections, and omitted current and future delays.

From the 23rd / 29th Avenues I880 interchange project Environmental Document:
Build (2035) Conditions Along 23rd Avenue Corridor
AM Peak Hour



Source: Caltrans and Presented at the Jan 6th, 2010 workshop.

Oakland's growth and the increased congestion along the I-880 corridor will further reduce the capacity of Alameda island gateways due to downstream bottlenecks.

Comments to the Draft Environmental Impact Report for the Alameda Marina Project

The overall traffic growth throughout the weekday for all the estuary crossings and Bay Farm Bridge has not been considered in this DEIR.

I obtained the traffic model results from the Metropolitan Transportation Commission (MTC), in order to understand their forecasts for Alameda. As shown in the table below, the MTC's results indicate the AM peak traffic growth will be spread over the early morning (24 percent increases) and the midday growth (18 percent). This indicates major growth outside the peak hours.

The overall growth for all of Alameda's gateways is 40,250 vehicles per day, an amount similar to the daily traffic volumes over the Park Street Bridge.

15-25

MTC One Bay Area Plan Model Results for the Alameda island crossings													
Source: Metropolitan Transportation Commission Travel Model Results for the City of Alameda													
	Early Am 3 to 6 am		AM peak 6 to 10 am		Midday 10am to 3 pm		PM peak 3 to 7 pm		Evening 7 pm to 3 am		Daily Total		Change from 2010
Year	2010	2040	2010	2040	2010	2040	2010	2040	2010	2040	2010	2040	
Total for off island (all gateways)	2785	3508	26810	31668	32221	38085	30991	36486	16375	19328	109182	129075	19893 18.2%
Total onto Island (all gateways)	2539	3095	24359	28647	31489	36903	32641	37911	17688	22517	108716	129073	20357 18.7%
	5324	6603	51169	60315	63710	74988	63632	74397	34063	41845	217898	258148	40250 18.5%
	24.0%		17.9%		17.7%		16.9%		22.8%				

The Alameda Marina DEIR ignores the regular queue backups outbound on Park Street because of the downstream congestion in Oakland. It also ignores the likely shift of traffic into other peak periods of the day.

The DEIR reports that, for the cumulative condition, the Marina project's traffic can travel to the Park Street Bridge via a left turn from Clement or Blanding during the AM peak hours. This is highly unlikely, when the queues on Blanding and Clement extend to Oak Street and beyond throughout the peak hour.

It is also unlikely the only traffic impacts would be at two intersections – Park at Clement Avenue and Park at Blanding – with only marginal increases in delay. Other intersections would be impacted by this project.

Vehicles Miles Traveled assessment in the DEIR should be based not only on a per capita analysis, but also on the additional travel on Alameda's streets associated with the project's increase in population.

The DEIR provides an alternative traffic impact assessment using what is stated as the new traffic metric, as developed by the California Office of Planning and Research in their proposed guidelines per SB 375.

The DEIR reports no significant traffic impact using the vehicle- per-mile-per capita metric. That is because the new residents at the Alameda Marina will drive slightly less than existing Alameda residents due to the project's inclusion of transportation demand strategies, such as less parking supply and bus passes. This could reduce the travel by 5-7 percent.

Only the travel (VMT) per capita is considered; what is missing is the additional travel that would occur due to increased population associated with this project, such as the increase of vehicles miles traveled on Clement Avenue and other Alameda streets.

The California Air Resources Board has stated that VMT needs to decrease, if the state is to improve greenhouse gases; cleaner vehicles are not enough. The region is supposed to reduce VMTs.

Page 4,12-4 of the Alameda Marina DEIR states:

"Increase vehicles miles traveled leads to a number of direct and indirect impacts to the environment and human health. Among other effects, increasing VMT on the roadway network leads to increased emissions and air pollutants, including greenhouse gases, as well as increased consumption of energy. Transportation is

15-25
cont.

15-26

Comments to the Draft Environmental Impact Report for the Alameda Marina Project

associated with more greenhouse gases than any other sector. Reducing VMT by Alameda residents is the single most effective means to reduce Alameda's greenhouse gases. "

I researched the VMT on Alameda streets data and found two reports – (1) the DEIR for the new Transportation Element and (2) the MTC model results for Alameda streets.

In 2008, the city updated its Transportation Element of the General Plan. This plan includes all the recent changes for other modes and Transportation Demand Management strategies. The draft environmental document reported the changes in vehicles miles traveled as a result of the implementation of this new Transportation Element. At that time, the DEIR results showed no significant change in VMT between the scenario without and with the Transportation Element. The estimate identified only a 0.32 percent decrease due to new Transportation Element. This city report indicated no significant reduction in travel with the new bicycle plan in the Transportation Element and all the other policies for transit.

None of the EIRs have considered the major increases in travel on Alameda streets. As indicated below, trips to and from Alameda were estimated to increase from 2.3 million miles in 2007 to 3.3 million miles by 2030. This increase will result in major travel changes within the city, as well as major costs increases for roadway maintenance and other infrastructure services. (See extract from this DEIR.)

Table 2: Daily Model VMT
(Includes trips within Alameda and trips from/to Alameda)

	Total Veh & Truck VMT	Vehicle VMT	Truck VMT		
Existing 2007	2,511,367	2,299,145	212,222		
2030 Base	3,617,513	3,291,751	325,762	1,106,146	44.05%
2030 with Project	3,609,617	3,284,023	325,594	1,098,250	43.73%

15-26
cont.

The Metropolitan Transportation Commission also evaluated the VMT on Alameda streets and concluded a large increase in vehicles miles traveled on Alameda streets. The MTC traffic model is based on the Priority Development Areas, as proposed by Alameda for funded new transportation projects. The proposed land-use assumptions in the MTC model are the same as the city land-use assumptions of the Alameda Marina DEIR. This increase in VMT is also significant.

Year 2010 and Forecasted (Yr 2040) Vehicle Miles Traveled (VMT) on Alameda Streets including Estuary tunnels and bridges			
	VMT		
2010	434,470		
2040	534,089		
Increase	99,620	22.9%	

Source: San Francisco Metropolitan Transportation Commissions Traffic Model
for the 2013 Regional Transportation Plan
Received from MTC via California Public Record Request August 3rd, 2016

The MTC forecasts for total travel will be considerably less than those forecasts by the city's traffic model. This is because the entire Alameda roadway network was not coded in the MTC traffic model, many internal trips were not taken into account, and the trips to and from Alameda were not considered. Further, in 2008, the city's traffic model included the overly aggressive job assumption of 20,000 more jobs, which increased the travel estimates. Nevertheless, the MTC forecasts are more reliable to show the sharp increases in travel.

Secondly, due to the constraints of the island gateway near the developing site, a large portion of the vehicle travel on Alameda streets could be redirected or induced to other crossings. That presents a significant problem associated with the Alameda Marina site. The Park Street Bridge is at capacity today, and travel to other gateways will increase due to this project.

Another indication of induced travel was found in the City traffic model developed for the Alameda Point EIR. This EIR indicated large increases in traffic over the Bay Farm Bridge by year 2035. (See graphic below.)

Comments to the Draft Environmental Impact Report for the Alameda Marina Project

Existing and Forecast traffic data for Bay Farm					
AM peak hour (vehicles per hour)					
		Existing	Year 2035	Increase	% increase
Bay Farm bridge	Outbound	1738	3168	1430	82.3%

Source: Alameda Point DEIR, Sept 2013, Traffic Technical Appendix

15-26
cont.

The increase in VMTs, as indicated by MTC and the city reports, is evidence Alameda's Sustainable Community Strategies (the two priority development areas of Alameda Point and Northern Waterfront) would increase vehicles miles traveled.

The VMT metric should not be evaluated only for per capita, as the Alameda Marina DEIR and the recent Encinal Terminals EIR have done. The vehicles miles traveled on the roadways must also be considered. There needs to be additional analysis of induced (i.e., diverted) traffic to other crossings.

Forecasting comment: The DEIR assumes 1,000 residential units at Crab Cove.

Land-use assumptions and their locations were not provided. What was provided were the changes made to the county traffic model that was used for this DEIR. The previous EIRs had used the city traffic model.

The update below, provided in the appendix, shows 1,000 more residential units assumed at Crab Cove in the traffic model. However, the only land available at Crab Cove is the remaining federal parcel the Point Collaborative will occupy. There is no land available for a 1,000-unit residential development at Crab Cove. (See the land-use assumption table from the Alameda Marina DEIR's traffic appendix below.)

2040 ACTC MODEL HOUSING UNIT ADJUSTMENTS BY TRAFFIC ANALYSIS ZONE

TAZ	Name	Change from	
		Number of Housing	Default 2040
		Units (2040)	
		Model	¹
461-475	Alameda Point	1,500	-946
478	Crab Cove	1,045	-100
482	BayPort	342	-743
494	Encinal Terminals	600	+433
495	Del Monte	400	+400
497	Shipways	300	+171
528	Alameda Marina	870	+590

¹ Adjustments were made to the default 2040 Alameda County Transportation Commission travel demand model to reflect more current information on land use plans for Alameda Island. This includes projects such as Encinal Terminals, Alameda Landing, Alameda Point, Marina Shores, Boatworks, and others.

SOURCE: City of Alameda, Fehr & Peers, 2017.

15-27

Forecasting comment: The job assumption in the traffic model has been grossly wrong in the other EIRs, and its assumption is not provided in this DEIR

The job and land-use assumptions employed in the development of the cumulative traffic forecasts were not provided.

These assumptions have been impossibly optimistic in the county model since 2000. The assumption of 20,000 more jobs in both the county and city traffic models has been used since the Transportation Element update in 2008. There is no evidence that large prospective employers spend more than a few seconds looking at Alameda, once they note the restricted access inherent with an island location and that none of that access is built to current Lifeline Design Standards.

This was not corrected for the Encinal Terminals EIR, the Del Monte environmental reports, or the Alameda Point project EIR.

15-28

Comments to the Draft Environmental Impact Report for the Alameda Marina Project

Comparison of forecasts and operations results of this DEIR to previous EIRs indicate major differences.

I obtained forecast data from four recent EIRs, including Alameda Marina, to compare traffic forecasts at the Posey Tube and five key intersections.

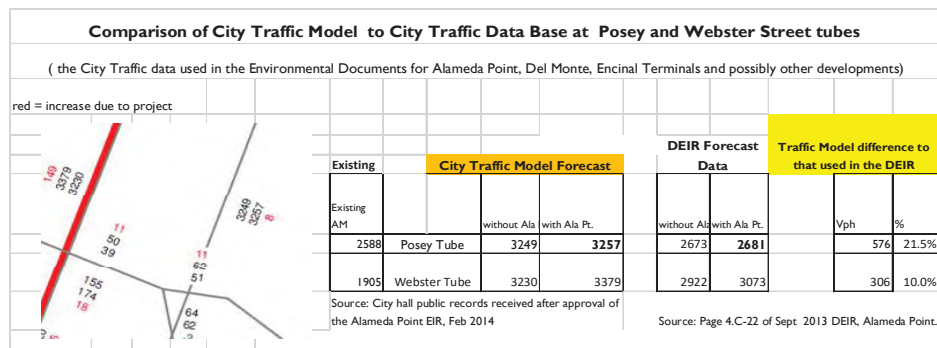
The questions raised below indicate there are inconsistencies, and the documented trends – such as very little traffic to the Posey Tube in the AM peak hour associated with the new development and, now, significant decreases along Park Street – needs to be fully explained.

This comparison indicates the following:

1. **Outbound Posey Tube:** The estimated project traffic from Alameda Point, Del Monte, and the Encinal Terminals, as per their environmental reports, would add 132 VPH outbound in the AM peak hour total, above the existing traffic of 2,588 VPH. (The Alameda Marina DEIR excluded Posey Tube assessment).

The final AM peak hour forecast for the Posey Tube was 2,681 VPH, as reported in the Alameda Point EIR, with only slight differences in the Del Monte environmental document and the Encinal Terminals EIR. These forecast estimates are unusually close to existing traffic counts and significantly lower than historical counts since the base closure. This is likely due to errors in forecasting data calculations in the DEIR, as well as the use of constrained volumes, rather than demand volumes, in recent EIRs. The traffic model estimated traffic over 3,257 VPH, a forecast value 21.5 percent higher.

2.



The Alameda Marina DEIR did not include the Posey Tube in its area of influence. The impacts to the tubes from the cumulative developments is still missing. It is suggested that the cumulative forecasts for the Posey Tube be included in this DEIR.

3. **Atlantic/Ralph Appezato Way and Webster:** Only 42 VPH are assumed to travel to this intersection to and from the Marina Project, thus, no impacts were reported.

With respect to the project trip generation, the commercial should be included in the total project trips. It was excluded, as stated on page 4.12-23. The 250,000 square feet of commercial development could add a significant number of new trips, due to the change uses on the site. No factual evidence was provided to justify omitting the traffic associated with the commercial component of the proposed project. Table 4.G-6 from the Encinal Terminals Project EIR (February 2017) estimated a total of 370 VPH for 200,000 gross square feet (GSF) of commercial (50,000gsf retail plus 150,000 GSF of office space).

Question #1: How are the dramatic increases from existing to cumulative in the recent Encinal Terminals EIR possible? The Encinal Terminals EIR reported an increase of almost 1,500 vehicles at this intersection due to the cumulative development for the final, with-project cumulative condition. The Alameda Marina DEIR reports the cumulative condition without the marina project to be less – a 1,200-vehicle increase from existing during the AM peak hour. These two conditions are the same and should report comparable

Comments to the Draft Environmental Impact Report for the Alameda Marina Project

results; that is, the cumulative conditions should be consistent amongst the EIRs. All the no-build conditions for cumulative should be checked with the latest Encinal Terminals EIR, and an explanation should be provided for any major changes like this.

Question #2: What generates the remaining additional traffic when the Alameda Point, Del Monte, and Encinal Terminals EIRs all reported only a total of 600 vehicle increase due to their projects. Where are the remaining 1,200 vehicles per hour coming from, as reported in the Alameda Marina DEIR?

This comment is also for all the other study intersections. The increases should be fully explained, accounted for, and consistent among the EIRs for the cumulative conditions.

4. **Constitution and Atlantic Avenue:** The 2040 forecast increases in the Alameda Marina DEIR are almost 50 percent above those documented in the Encinal Terminals EIR, Del Monte environmental document, and the Alameda Point EIR.

In the Encinal Terminals EIR, the total traffic volume into the intersection for the cumulative with-project is forecast at 2,176 VPH during the AM peak hour. The same scenario or cumulative no-build in the Alameda Marina DEIR increases dramatically to 2,970 VPH, although no land-use changes have occurred since the Encinal Terminals EIR was drafted. The forecasts should be similar.

Which forecast is correct?

5. The Alameda Marina Project contributes 74 vehicles to this intersection, but because the delay is less than LOS E, this project does not have a significant impact at this intersection for the cumulative condition.

I have three questions with respect to the operations analysis:

First, the analyst used the existing eastbound configuration of two through lanes (see appendix), rather than the new configuration approved by city council last year, which reduced the eastbound configuration to one lane eastbound for through traffic, introduced a bicycle lane on the south side, and included special bicycle signal phasing. This must be considered.

Second, on page 4.12-29, second paragraph, the DEIR states that existing lane configuration was assumed in the intersection delay calculations for all the study intersections, with the exception of Clement through the Pennzoil site. The analysis omits the currently funded projects, such as the bicycle lane for Clement, and its extension and connection at Tilden Way. These and other projects likely to occur will significantly change the existing configurations and operations for the cumulative 2040 conditions. They should be listed and included in the impact assessments.

Third, with a volume of only 2,176 VPH, how is the delay result in the Encinal Terminals EIR almost the same as that in the Alameda Marina DEIR, but with a much larger volume of 4400 VPH? I recommend recalculating the delay at this intersection and double-checking the correct funded roadway changes and the input values.

6. **Blanding Avenue and Park Street:** The existing delay is 32.8 seconds per vehicle, based on existing traffic volumes almost 10 percent lower than previous EIRs. The lower and constrained volumes and other assumptions produced lower than what has been reported in the travel times studies. In 2008, for the environmental document for the 23rd/29th and I-880 project, the Alameda Congestion Management Agency and Caltrans concluded a LOS F at this intersection, with more than 80 seconds of delay, even though the volumes were similar in the analysis and little changed at this intersection. The short turn pocket was striped a few years ago (beforehand, there was a wide lane), but this would not account for the dramatic difference in levels of service. (See exhibit D for the comparison.)

This intersection's forecasts for the AM peak hour for the cumulative without-project condition is 3,870 VPH in the Alameda Marina DEIR. However, in the Encinal Terminals EIR, for the same cumulative condition (year 2040 with ET project), the total forecast is 5,093 VPH. This dramatic reduction of 1,223 VPH or 24 percent lower is not explained. Which forecast is correct?

Comments to the Draft Environmental Impact Report for the Alameda Marina Project

Most of the project trips are assigned to this intersection. One hundred eighty (180) vehicles are added to the eastbound left-turn movement, 30 VPH to northbound, four vehicles westbound, and 16 vehicles to the southbound leg of the intersection in the AM peak hour for the cumulative with-project condition. As a result of the high volumes at these intersections, the levels of service is f, both without and with the project.

Average Control Delay for 2040 Cumulative Conditions (AM peak hour)				
Significantly impacted intersections only				
			Without Project	With Project
Blanding Ave. and Park St.			over 120 seconds	over 120 seconds
Clement Ave. and Park St,			108 seconds	over 120 seconds

However, the problem is the 180 vehicles from the marina will not be able to go to the eastbound leg, as assumed. That is because, as shown in the operations calculation, the eastbound leg of the intersection would be so overloaded that the queues, without the project, would extend to Oak and beyond. The volume to capacity ratio for the eastbound leg was estimated at 1.6, meaning, 60 percent above capacity for the no-build condition. The trips from the Marina simply cannot leave via Blanding during the AM peak hour during the cumulative condition, nor can the traffic from the projects assumed for the background cumulative traffic. This oversaturated condition would result in trips diverting to other crossings or switching to shoulders during the peak hour.

A peak period analysis is necessary to determine where the project impacts would occur. Some trips may be diverted to Fruitvale or to the Bay Farm.

In addition, this intersection analysis and all the others should be converted into a corridor-level delay analysis in order consider the capacity constraints in Oakland and the growth happening on the other side of the bridge. Not doing so omits the impacts due to this and grossly reduces the delay results.

15-36
cont.

7. Clement Avenue and Park Street intersection: Comments made above regarding Blanding and Park Street delay calculations also generally apply to Clement and Park. Downstream conditions must be considered. Further, it is likely the traffic from the Alameda Marina Project will not be able to access the eastbound approach during the AM peak hour for the 2040 cumulative no-project condition. The eastbound approach was calculated with a volume to capacity ratio of 1.92. The peak-hour volume is almost twice the capacity. With this type of oversaturated conditions, extensive queuing is likely, and diversion to other streets would also occur, shifting the travel to other times.

The DEIR concludes an unavoidable significant impact at this intersection, with 105 vehicles added to the cumulative 2040 condition for the AM peak hour. (See table above.)

No mitigations are considered because only turn lanes are allowable, as per the 2008 Transportation Element. Why was an additional turn lane not considered? Also, as mentioned earlier, the existing lane configuration was considered, ignoring the changes to occur with the funded bicycle lane project and other projects along Park Street.

15-37

8. Tilden Way, Blanding Avenue and Fernside Boulevard intersection: This count survey for the existing conditions shows much higher existing counts than in the recent Encinal Terminals EIR. The increases could be due to diversion as a result of the construction at the interchange during the count. This should be further evaluated and considered with changes to the existing volumes along Park Street.

There are no traffic impacts due to the Alameda Marina Project at this intersection, but the future operations indicate major increases in delay from levels of service C today to LOS F. This was calculated using existing geometry and ignoring downstream constraints in Oakland. For example, Oakland has received a large grant for bicycle lanes on both side of Fruitvale, from the bridge to the BART station, and Alameda is likely planning to close the gap. Also, a new intersection is planned at Tilden Way to connect Clement. This intersection is so close to the Fernside/Tilden, Broadway/Tilden, and Broadway/Clement intersections that all four of them will operate as one large (confusing?) intersection. This should be considered for the cumulative condition.

15-38

Eugenie Thomson P.E.

Attachment A

October 21, 2013

Mr. Andrew Thomas
 Alameda City Hall
 2263 Santa Clara Avenue
 Alameda, CA 94501

Subject: Comments to the Alameda Point Draft Environmental Impact Report

Dear Mr. Thomas:

I am dismayed that my request in my comments to the Notice to the Preparation (NOP), were largely ignored. My request was that the traffic impact analysis include an evaluation of much longer it will take residents to leave the island and secondly to provide the increase in daily traffic volumes in front of the residents' homes. These two main traffic concerns have been raised by many residents and could have been addressed in the DEIR.

In addition, I had pointed out that the earlier traffic analysis in the 2009 General Plan Amendment EIR and then the Traffic Election Report for the SunCal Measure B in September of 2009, both had incorrectly ignored the congestion at the west end of Alameda. And the Traffic Election Report had also stated that the SunCal plan with 5000 more homes would only result in minuscule increases in traffic volumes outbound in the AM peak hour at the Posey Tube. These same points were repeated in my letter to the City dated June 24th, 2013 regarding the Scoping for the Neptune Point Project for its cumulative analysis and in my scoping comments for this project NOP.

Rather than correcting the obvious errors illustrated before with the City traffic model and methodology, instead we receive another – an unintelligible very large techno-speak document - containing numerous critical flaws and omissions. The Draft Environmental Impact Report for the Alameda Point Project states the “unimaginable” traffic conclusion.

According to the DEIR the Alameda Point Project with 1425 new homes and approximately 9000 more jobs, will **increase** traffic into the Posey Tube by only **ONE car per hour** for the existing plus project condition and increase by **eight cars per hour** for the cumulative plus project condition, for the AM peak hour. That and NO traffic congestion in the west end of Alameda, are unrealistic conclusions in the DEIR.

(See the excel summary tables provided at the end of this letter and see Appendix G summary from this DEIR in <https://www.dropbox.com/sh/19tfzo5v68reev2/ESla1H-RA.1>)

October 21, 2013

The Alameda Point Project will dramatically affect traffic flow and quality of life on Alameda Island and Bay Farm and we deserve to judge this very large project based on clear, concise, accurate traffic information.

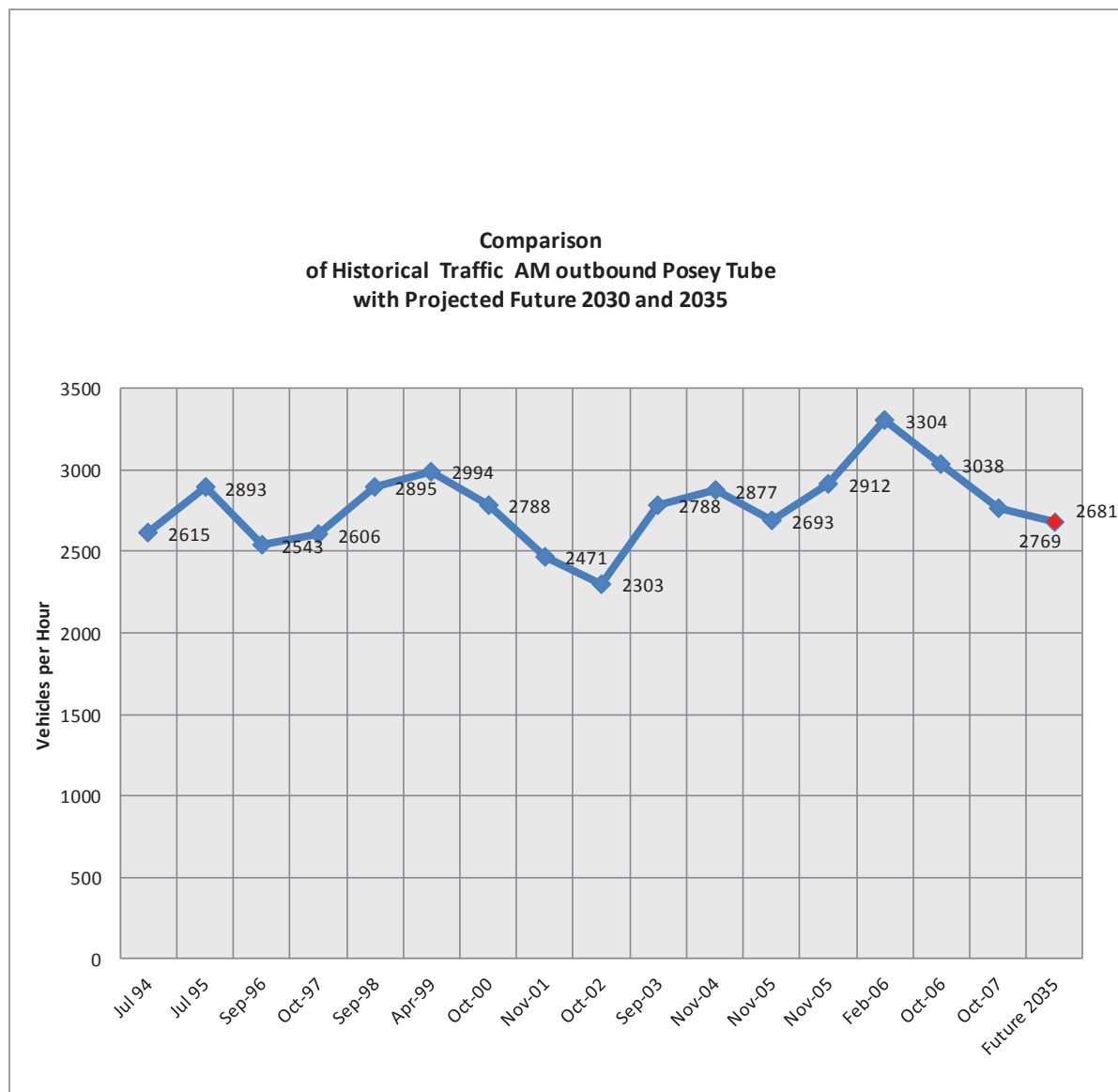
Because of my background and professional credentials, members of the Alameda community again have asked me to review and interpret the report. In doing so, I found it to be a long, complex, techno-speak document that took a significant amount of time to understand, despite my 35 years' training and experience in civil and transportation engineering including the Alameda tubes and immediate areas and having lived in Alameda since 1980. There simply is no way a layperson could fully comprehend the data and projections contained it, or judge their veracity. The lack of a summary and the techno speak document have mislead the public.

Specifically, the Traffic Impact Analysis in the DEIR concludes the project increase would only be 1 (one) additional vehicle per hour for outbound traffic into the Posey Tube during the AM peak hour if project were built today (see existing plus project as per Appendix G of the DEIR). And a mere 1 (one) vehicle per hour, due to the project at the all estuary crossings, for the cumulative plus project (year 2035) condition and traffic volumes dropping with the project at some of the island crossings. See below.

Traffic Volume Summary at Island Gateways for Existing and Cumulative Peak Hour Conditions without and with Project							
Vehicles Per Hour							
AM Peak Hour (vph)							
Island Gateway	Direction	Exist No Project	Exist with Project	Project Volume	2035 No Project	2035 with Project/Ala Point	Project Volume
Posey Tube	Outbound	2588	2589	1	2673	2681	8
Park St Bridge	Outbound	1937	2004	67	2150	2147	-3
Miller Sweeney Bridge	Outbound	814	878	64	1573	1561	-12
High St Bridge	Outbound	783	802	19	1212	1210	-2
Bay Farm bridge	Outbound	1738	1725	-13	3158	3168	10
Total of all Island Gateways	Outbound	7860	7998	138	10766	10767	1
Source: Alameda Point Draft Environmental Impact Report, Appendix G		Figures G-2B & G-2C	Figures G-4B & G-4C		Figures G-6B & G-6C	Figures G-8B & G-8C	

October 21, 2013

Another example of a flaw is the outbound traffic into the Posey tube will be 2681 vehicles per hour in the AM Peak hour after the Alameda Point Project in the year 2035 which would be lower than existing recorded traffic counts at the Posey tube since the Base closure. That too is illogical and not explained in the DEIR.



Source: Historical volumes as per Capacity Management Memo to City Council, by Matt Naclerio, past Public Works Director, October 1st, 2008. Caltrans counts show similar historical counts. The 2035 Forecast was provided in the Appendix G of the Alameda Point DEIR for Cumulative (2035) plus project condition. (see the northbound approach at the 7th and Harrison Intersection, intersection number 38 Figure G- 8C in Appendix G of the DEIR.)

October 21, 2013

It is possible the future forecasts are low because it is based upon existing count data base which could have been diminished due to an unusual number of vacancies the South Shore Shopping Center and other commercial properties as a result of the recession. But the DEIR does not include what existing count data was used, nor is the traffic model technical documentation included in the DEIR. Certainly, a drop in existing traffic in the future, with the Alameda Point Project, is highly unlikely, considering the already entitled and approved development plus project is included in this future 2035 forecast for the Posey Tube.

Approving or disapproving this Project is a decision that is critically important to the future of our city. If approved, this project will have a direct personal effect on every citizen, impacting the traffic they must navigate daily, that wind through our neighborhoods.

And I cannot stress it enough we Alamedans want to know how much more time it will take to leave or enter the island, and how many more cars will be passing by in front of our homes. Those questions have not been addressed; instead, we have been provided a techno-speak document that is overwhelming, complex and misleading, and our attempts to simplify and clarify the document are being quashed. It is difficult to understand why this is happening, in light of the fact that most of the work had already been performed and the data is so readily available.

It could have been presented very simply in the form of (a) a table showing increases in commute travel times, from today to after the Alameda Point plan, from different residential locations to the freeway; and (b) a figure showing the current daily traffic volumes and the increases generated by the Alameda Point plan. That is what the voters have asked for in every public workshop.

Traffic does not impact our roadways; it impacts our quality of life. It is well known that high traffic volumes on neighborhood streets break down the social fabric of a neighborhood, and our island is comprised primarily of neighborhood streets. The traffic impacts generated by the plan will increase the time it takes to leave and return to the island, leaving less time to spend with our families. These issues are vitally important to Alamedans. We deserve to know the answers to our questions. Why are the questions not being answered for the citizens of our community? Shouldn't traffic neighborhoods impacts be addressed? And corridor delay (like the travel time delay leaving the island) is an acceptable practise for traffic impact assessment and is appropriate because Alameda is an island.

I sincerely hope that, on reflection, you will consider a summary memorandum and correction of the key traffic facts. The attached comments present the key omissions and further explain why I believe this Traffic Impact Section of the DEIR is misleading and needs correction. At a minimum the DEIR should be recirculated as the changes will results in major modifications to the impact analyses.

October 21, 2013

Sincerely,

A handwritten signature in blue ink, appearing to read "Eugenie P. Thomson", followed by a long horizontal flourish.

Eugenie P. Thomson, P.E.
Professional Civil and Traffic Engineer

ept/ept

cc: Mayor Gilmore and Councilmembers

October 21, 2013

Detailed Comments

The DEIR does NOT address the concerns of the majority of Alameda voters.

The DEIR's scope of the impact assessment omitted the impacts of the plan on Bay Farm Island residents leaving the island. For example, how much extra time would it take to leave the island in the morning? The two basic traffic questions asked by the public repeatedly at public hearings have not been addressed.

The DEIR does not include the impacts to the island neighborhoods.

If the Project is built:

- a) How much more travel time will be involved when leaving or entering Alameda Island?
- b) How many more cars will travel through our neighborhoods? (a criteria used to evaluate neighborhood impacts)

Suggestion:

a) Develop a table showing the travel times during the commute periods, today and in the future, with the Sun Cal plan and other background already entitled by City Council or approved. These data should encompass travel times to and from several residential areas, such as the West End, middle of the island, East End and Bay Farm. (This should be fairly easy to accomplish by updating and expanding the effort done for the Traffic Election Report prepared for the Sun Cal measure.)

b) Put together a map showing daily volumes on major streets for today and for the future. ¹

c) Include the above results in a two- or three-page summary memorandum.

Sources of Major Assumptions and other technical procedures were not provided.

The tables and assumptions in the report provided could not be checked or tracked. For example, no documentation was provided to substantiate the vehicle trip rate and to be able to compare this to the Trip Generation Manual published by the Institute of Transportation Engineers (ITE). It appears lower trip rates than the Average ITE trip rates were employed in the analysis and which were further reduced for the project forecast volumes included in the cumulative analysis.

What is the source of this major assumption? The technical backup was not provided and should be explained. Clearly, these assumptions should be validated based on facts, yet the DEIR lacks accountability. One should be able to track how the final traffic forecasts were developed from the existing counts.

The documentation should be provided to make adequate and complete comments to the DEIR.

¹ This data exists, the model plots from Kittelson Associates (previously Dowling Associates who did the City Traffic Model and recent reports) should be available for the No Project alternative and would take less than a day to rerun, only a few input factors need to be updated for the Alameda Point project.

October 21, 2013

The traffic forecasts associated with the project are small considering its size.

The project traffic was summarized for all the island gateways because no summary was provided in the DEIR. Had this been provided the public would have an understanding of the overall island traffic impacts. The four tables at the end of this section, are the AM and PM peak hour traffic forecasts used for the basis of the traffic impacts and conclude the following:

- In the AM peak hour, the Project adds only one car per hour to the Posey Tube in existing plus project condition and only 8 vph in the cumulative plus project condition. This minuscule project volume increases were not reflected to be diverted to the other crossings.
- The Incoming project traffic drops dramatically to a small amount of 144 vph in the cumulative condition into the Webster Tube and that results in grossly under estimating the inbound traffic impacts with the project.
- In the PM peak hour for the cumulative plus project conditions, the project volumes are 102 vph for the Posey Tube and 104 vph for the Webster Tube. These small project volumes in the PM peak hour analysis grossly reduces the actual traffic impacts at the west end of Alameda and Oakland.

No explanation of the above results nor a summary was not provided in the DEIR and this should be fully explained.

Table 2-2 the traffic impact summary table indicates NO traffic congestion at the west end of Alameda

The lack of congestion at the approaches to the Posey Tube is inconsistent with the diversion to the other crossings. Diversion will only occur if there is a significant travel time advantage. It is difficult to believe the DEIR's finding of no congestion today and none whatsoever in the future upon the roadways approaching the Posey tube.

As pointed out in my letter to the City June 24, 2013, I explained that the City Traffic Model in the Traffic Election Report for the SunCAI plan had indicated major gridlock in the west end but it was hidden in the report. The Alameda Point project DEIR once again omits what the Traffic Model has concluded. See my discussion below from my June 24th, 2013 letter to the City.

*"In January of 2013, in rereading the September 14, 2009 Traffic Election report for the SunCal Measure, I focused on its discussion of travel time. I discovered this report quietly documented that major delays in the morning peak, would be expected using the Posey Tube in the future with the Land Use assumed in the 09GPA EIR. (Note: this report used the 09GPA EIR as the base condition upon which the SunCAI plan was evaluated). And this very significant characteristic of future traffic patterns that was **never** even touched on in the 2009 GPA EIR. (This EIR only discussed delays at individual intersections, all but one of which (8th and Central) are on the east end of the island would experience significant congestion after all the growth is built at the west.) Specifically, Table 20 (Travel Times – AM Peak Hour of the Traffic Election Report, see Exhibit G for copy) indicated the travel time from Alameda Point to I-880 would increase from 6.5 minutes (existing year) to 16.0 minutes in 2035 with the existing GPA (i.e., the housing and jobs assumptions in the 2009 GPA EIR).²*

² Existing General Plan 2035, Table 20, Travel Model Performance Travel Times AM Peak Hour, page 25. Copy of report included in Exhibit G in my June 24th letter to the City.

October 21, 2013

*This 9.5 minute-per-vehicle delay translates into increased queue lengths from 7th and Harrison back through the tube, and significantly lengthened queues on each of the roadways approaching the mouth of the tube (Webster, Constitution, Stargell and Mariner Square Drive). This situation can only be described as **gridlock, and it would affect many more trips than just the ones going into the Posey Tube.***

Furthermore, the 2009 GPA EIR concluded no impacts for the roads approaching the Alameda Tubes, even though primarily all future development would occur on the West End. I believe this surprisingly unrealistic conclusion was reached because:

- *In the 2030 model runs, the analyst and city staff used a capacity for the Posey Tube of 2,900 vph (vehicles per hour)³, which is significantly lower than the capacity for a two-lane expressway.*
- *The analyst and city staff only used the 2030 model runs to identify differences in volumes, compared to calibrating runs of the model for existing conditions.*
- *The analyst and city staff ignored the information in the 2030 model run that indicated significant future delays to traffic using the Posey Tube in the AM*
- *Because they had trouble calibrating the model for Alameda local streets, the analyst and city staff decided to simply add the difference in model volumes (2007 and 2030 model volume difference) to the existing counts. Because the 2030 model calculations assumed significant congestion at the tubes, significant amounts of incremental traffic were routed away from the tubes to the bridges. (As a result, only small incremental volumes were added to already relatively low existing volumes at the tubes, yielding unrealistically low 2030 volumes to be used for analysis.)*
- *The analyst and city staff performed only intersection impact analysis. There was no documentation in the 2009 GPA EIR of how the tubes themselves were expected to operate, even though a major underlying hidden assumption was that there would be significant delays at the tubes.*

This likely west-end traffic gridlock has never been clearly characterized as a problem in any city document of which I am aware.

To the contrary, the 2009 GPA EIR incorrectly comes to the opposite conclusion of no congestion on the roads outbound approaching the Posey Tube in the AM Peak.

And this happens once again with the Alameda Point DEIR.

At a minimum the City should review the traffic model used in the DEIR and fully explain why the delay at the west end concluded in the Traffic Model has been eliminated in this DEIR and other previous reports.

The following graphic included in my June 24th, 2013 letter, illustrate the no impacts from the 09 GPA DEIR

³ Technical Studies for the EIR, 2007 citywide Traffic Model by Dowling Associates; Figure 22 Year 2030 City Network (See Exhibit C-6) which shows the codes defined in Figure 6, which includes a table: Model Roadway Network Facility Type Capacities and Speeds.

October 21, 2013

repeated again this DEIR for Alameda Point, i.e. no impacts at the west end of Alameda.



The above highlighted intersections were identified with major congestion with levels of service E or F for the Year 2030 during either the AM or PM peak hours in the 09GPA EIR: 8th/Central, Otis/Broadway, Otis/Fernside, Otis/Island, Fernside/High, Fernside/Tilden Way, Tilden Way/Broadway, Clement/Park and Blanding/Park. Source: Table 4.2-3 09GPA DEIR.

The city adopted a Statement of Economic Overriding Considerations on Jan 20th, 2009 because there were no improvements to mitigate these major impacts at the east end of the island. What was not considered was how much additional time for example it would take to leave the island and Bay Farm.

The lack of congestion analysis ignored data that the traffic analysts had in their files regarding expected major increases in delay expected at the approaches to the tubes (as evidenced by the subsequent Traffic Election Report). This west end delay should be the predominant traffic impact in the future, as to be expected before more significant problems develop in the east end.

October 21, 2013

The existing delays at the intersections stated in the DEIR are significantly lower than what Alamedans have stated to occur.

It is difficult to believe there is only a 30 second delay at Doolittle and Island Drive when leaving Bay Farm Island. The Bay Farm residents have stated many times their congestion is very bad and any more development will be too much.

Similarly the delays at other intersection like at the 6th and Jackson for the southbound right turn movement today in the morning are shown to be only 1.3 seconds (LOS A) in Appendix G (Synchro output for existing no project AM peak)

Is it possible that the intersection operations analyses results were not validated via field surveys ?

The intersection impact analysis omits the operations effects due to roadway downstream constraints. As a result the operations do not accurately reflect the delay.

For example, the freeway weave and ramp merge at the 6th Street northbound on ramp to I 880 & I 980, today causes backup all the way to the 7th and Harrison intersection, but the intersection analysis states the southbound right turn movement has only 1.3 seconds of delay (Level of Service A) for the future plus project conditions. (Appendix G, Sychro Analysis, 2035 AM with Project,). This is illogical considering the problems at the I880 ramp and weave, today. This constraint currently overwhelms the current roadway system and will only become rapidly more significant with any growth in traffic.

Similarly other intersections like Blanding and Park Streets are affected by downstream roadway constraints which result in back up through the intersection.

All intersections should be re-evaluated if downstream constraints affect the intersections' operations. (i.e. without consideration of downstream constraints, the existing intersection analysis is not an engineering analysis, it is only a data processing analysis).

The Broadway Jackson Interchange or other major mitigation was not included in the DEIR.

The Broadway Jackson Interchange or other freeway type of mitigation was not included likely due to the lack of funding at this time. And this interchange project or other form of Chinatown mitigation introduces major changes in travel patterns in Chinatown and to/ from the Alameda Point Project in and around Chinatown. It is reasonably foreseeable that the new County Transportation Sales Tax Measure will pass in the next year because this Measure in the last election failed with such a small percentage. And reasonable foreseeable events should be considered in an EIR, therefore an assessment of the traffic impacts with and without Broadway Jackson Interchange or other mitigations acceptable to Chinatown should be done.

Seismic Analysis is suggested

Seismic Analysis for the Posey and Webster Tube was not included in the DEIR. According to Caltrans letters dated from Caltrans to the City of Alameda in 2002, the tubes have a seismic rating of minimum performance level. A professional engineering report " Retrofit Strategy Report" for the Alameda Tubes dated September 30, 1996

October 21, 2013

prepared by Parsons Brinckerhoff Quade and Douglas Inc. and approved and adopted by Caltrans states that minimum performance levels after an earthquake in Table 10-2 would result in:

"Delays to motorists due to tube closure requiring long term (more than a year) diversion of traffic to the bridge crossings between Oakland and Alameda"

As major seismic events are no different (even less controversial) than the Rising Sea Levels, the earthquake event is reasonably foreseeable and should be evaluated in this DEIR. With almost 70,000 vehicles per day using the tubes, traffic impacts and mitigations need to be assessed for the without and with project conditions.

-

Furthermore this Seismic Strategy Report mentioned the steel re -enforcement was corroded and the field test indicated this condition to be a problem. The report is unclear if this was planned to be fixed.

Per the report the primary damage to the tubes (retrofitted to minimum performance levels) is expected to be cracks and significant leakage; the tubes may be flooded within a day but that no loss of life would be expected. The report also indicates that repairs may not be possible, thus requiring replacement of the tube(s).

At a minimum wouldn't it be appropriate to construct protective traffic devices similar to railroad crossings so vehicles do not continue to enter the tubes immediately after an earthquake? This measure and other measures should be considered for safety of the public and be evaluated for both without and with project conditions.

Induced Growth Analysis was not included.

The seismic and inaccessibility uncertainties are likely to be major impediments for any major employers at Alameda Point but not for individual home buyers. Therefore the DEIR should also evaluate the scenario where only a small fraction of the projected employment growth occurs. The project would then become overwhelmingly residential and result in future changes for a project with more houses. This growth inducement concern should be addressed in the DEIR.

The report preparers are listed as licensed Professional Engineers while they do not have licenses.

Mr. Jack Hutchinson of ESA is not licensed as a Professional Engineer in California stated in Chapter 7. Neither is Robert Haun, Acting Public Works Director a licensed Professional Engineer. Please make these corrections.

October 21, 2013

Traffic Volume Summary at Island Gateways for Existing and Cumulative Peak Hour Conditions without and with Project							
			Vehicles Per Hour				
AM Peak Hour (vph)							
Island Gateway	Direction	Exist No Project	Exist with Project	Project Volume	2035 No Project	2035 with Project/Ala Point	Project Volume
Posey Tube	Outbound	2588	2589	1	2673	2681	8
Park St Bridge	Outbound	1937	2004	67	2150	2147	-3
Miller Sweeney Bridge	Outbound	814	878	64	1573	1561	-12
High St Bridge	Outbound	783	802	19	1212	1210	-2
Bay Farm bridge	Outbound	1738	1725	-13	3158	3168	10
Total of all Island Gateways	Outbound	7860	7998	138	10766	10767	1
Source: Alameda Point Draft Environmental Impact Report, Appendix G		Figures G-2B & G-2C	Figures G-4B& G-4C		Figures G-6B& G-6C	Figures G-8B& G-8C	
AM Peak Hour							
Island Gateway	Direction	Exist No Project	Exist with Project	Project Volume	2035 No Project	2035 with Project/Ala Point	Project Volume
Webster Tube	Inbound	1905	2561	656	2929	3073	144
Park St Bridge	Inbound	864	1058	194	1896	2177	281
Miller Sweeney Bridge	Inbound	777	1075	298	1395	1479	84
High St Bridge	Inbound	656	759	103	942	1074	132
Bay Farm bridge	Inbound	2292	2442	150	2436	2637	201
Total of all Island Gateways	Inbound	6494	7895	1401	9598	10440	842
Source: Alameda Point Draft Environmental Impact Report, Appendix G		Figures G-2B & G-2C	Figures G-4B& G-4C		Figures G-6B& G-6C	Figures G-8B& G-8C	

October 21, 2013

Traffic Volume Summary at Island Gateways for Existing and Cumulative Peak Hour Conditions without and with Project

PM Peak Hour							
Island Gateway	Direction	Exist No Project	Exist with Project	Project Volume	2035 No Project	2035 with Project/Ala Point	Project Volume
Posey Tube	Outbound	2125	2737	612	3331	3433	102
Park St Bridge	Outbound	1437	1487	50	2228	2307	79
Miller Sweeney Bridge	Outbound	641	930	289	1375	1487	112
High St Bridge	Outbound	550	686	136	919	1030	111
Bay Farm bridge	Outbound	1987	2128	141	1899	1976	77
Total of all Island Gateways	Outbound	6740	7968	1228	9752	10233	481
Environmental Impact Report, Appendix G		Figures G-3B & G-3C	Figures G-5B & G-5C		Figures G-7B & G-7C	Figures G-9B & G-9C	
PM Peak Hour							
Island Gateway	Direction	Exist No Project	Exist with Project	Project Volume	2035 No Project	2035 with Project/Ala Point	Project Volume
Webster Tube	Inbound	3392	3488	96	3882	3986	104
Park St Bridge	Inbound	1451	1566	115	2027	2167	140
Miller Sweeney Bridge	Inbound	1103	1228	125	1559	1639	80
High St Bridge	Inbound	715	847	132	883	1103	220
Bay Farm bridge	Inbound	1783	1887	104	2849	2819	-30
Total of all Island Gateways	Inbound	8444	9016	572	11200	11714	514
Source: Alameda Point Draft Environmental Impact Report, Appendix G		Figures G-3B & G-3C	Figures G-5B & G-5C		Figures G-7B & G-7C	Figures G-9B & G-9C	

I 880 and 23rd/29th Environmental Document 2010 by Alameda Congestion Management Agency

Alameda Marina			
%		exist	2827
%		no build inc from	1043
%		proj contribution	230
%			18.1%
%	Subtotal (incr from existing)		1273
%		total	4100

Letter 15 **Eugenie P. Thompson**
Response February 15, 2018

- 15-1 The comment is incorrect. Page 4.12-5 of the Draft EIR specifically acknowledges that motorists along the Park Street corridor during the morning commute are currently delayed due to the downstream congestion on I-880 and not at the study intersections along the corridor in Alameda. Furthermore, page 4.12-8 of the Draft EIR explains that the reported intersection delays are only based on the delay at the intersection due to the intersection configuration and control, not downstream delays, which is the reason that the Draft EIR also evaluated the impacts of the project on travel time along the major corridors.
- Overall, the travel time surveys and the intersection delay estimates measure different metrics. The travel times measure the travel time along the entire length of the corridor, including the delay experienced at intersections along the corridor, and accounts for potential downstream bottlenecks, such as congestion on I-880 during the morning peak hour. In contrast, the reported intersection delay is the average delay experienced by all motorists driving through all approaches of the intersection solely due to the conditions at the intersection.
- This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 15-2 Please see the response to comment 15-1, above. In addition, the Draft EIR identifies significant and unavoidable impacts at the two intersections along Park Street at Blanding and Clement Avenues. Modifying these assumptions would not change the conclusions of the Draft EIR and the impact would remain significant and unavoidable. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 15-3 See Master Response 6 in Section 2.2 of this chapter regarding the roadway modifications assumed for the 2040 traffic forecasts and analyses. See responses to comments 15-4, 15-33, 15-34, and 15-38, below, regarding potential roadway modifications that may be implemented by 2040. For purposes of clarification, updated information has been added to Chapter 3 of this Final EIR to describe the planned roadway modifications included in the cumulative (2040) conditions analysis. Specifically, Page 4.12-29, paragraph 2, is revised to read:
- Figures 5 and 6 in Appendix G.A** show the AM and PM peak hour intersection volumes under Cumulative (2040) No Project and Cumulative (2040) Plus Project Conditions, respectively. The 2040 analyses assume the completion of the following:

- The I-880 Operational and Safety Improvements at 29th Avenue and 23rd Avenue Overcrossings, which are currently under construction and would reconstruct the overcrossing structures at 23rd and 29th Avenues, reconfigure several on and off-ramps, extend the northbound auxiliary lane along I-880, and include various changes to the local roadway network around the ramps.
- The Clement Avenue extension between Entrance Road and Atlantic Avenue and through the Shell Oil property.
- The Cross Alameda Trail project, which includes a Class IV separated bikeway on the south side of Atlantic Avenue between Webster Street and Constitution Way. The project would modify the Constitution Way/Atlantic Avenue (#4) intersection by eliminating one through lane on the eastbound Atlantic Avenue approach and the exclusive right-turn lane on the northbound Constitution Way approach. The Cross Alameda Trail project would also modify the signal timings at the intersection.

The Cumulative (2040) No Project Conditions assumes the same intersection configuration as Existing Conditions at all other study intersections. ~~The analysis assumes the completion of the Clement Avenue extension between Entrance Road and Atlantic Avenue and through the Shell Oil property.~~ This analysis assumes that signal timing parameters that do not require upgrades to the signal equipment, such as amount of green time assigned to each intersection approach, would be optimized at the signalized study intersections under 2040 conditions, because signal timing changes are included in the ongoing maintenance of the traffic signal system.

This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

15-4

The comment is incorrect. As noted in Master Response 6 in Section 2.2 of this chapter and previous response, the Alameda CTC Model used to forecast cumulative 2040 traffic volumes for the Draft EIR analysis includes the currently under-construction improvements at the I-880 interchanges at 23rd and 29th Avenues.

As described on page 4.12-27 of the Draft EIR, the land use database in the Alameda CTC Model is based on ABAG's *Projections 2013* and accounts for future developments in the Bay Area region, including the City of Oakland.

The Draft EIR does not directly address queuing because the City of Alameda does not have any significance criteria for queuing. However, both the intersection LOS and the corridor travel time analyses account for the increased volumes and queues between Existing and Cumulative conditions.

This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

15-5

As described above and in Master Response 6 in Section 2.2 of this chapter, the Alameda CTC Model used to forecast 2040 traffic volumes accounts for both future development and planned roadway modifications in Alameda, Oakland and beyond. The Model assigns the peak hour project generated traffic to the roadway network based on the relative travel time on each corridor. Thus, the analysis accounts for peak hour traffic diverting to non-congested corridors as long as it does not result in overall increased travel time. In other words, the Model may assign traffic to already congested corridors because although other corridors may have less delay, they would result in circuitous routes and may have longer overall travel times.

The comment suggests that the Draft EIR analysis should account for traffic either diverting to other time periods or diverting to other corridors due to congestion on the major corridors during the peak hours. Since the City's significance criteria and the analysis completed for the Draft EIR are based on peak hour conditions, reducing the peak hour traffic volumes would reduce the magnitude of the estimated intersection delay and potential project impacts. Thus, the analysis completed for the Draft EIR is based on worst-case peak hour conditions, and no additional analysis is required. In addition, diverting the peak hour demand to other corridors would disperse the project trips throughout the transportation network. Considering that the intersections along the major corridors crossing the Estuary operate at LOS E or LOS F, and that the City's significance criterion for intersections operating at LOS E or LOS F is that the project must increase traffic volumes by three percent or more, dispersing the project trips to all other corridors would not result in the project increasing traffic volumes at intersections by three percent or more. Thus, assigning the peak hour demand volumes to the congested corridors, as assumed in the Draft EIR, would result in the most conservative analysis.

This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

15-6

As stated by the commenter and discussed in Master Response 6 in Section 2.2 of this chapter, the Draft EIR assesses the project impact using VMT per capita, and not total VMT, because the significance criterion for VMT assessment is based

on VMT per capita, consistent with OPR guidelines and SB 743 requirements. Total VMT is not used in the Draft EIR because it is not considered an environmental impact topic under CEQA.

Although as stated in the comment, total VMT in Alameda would increase by 2040, it is expected that VMT per capita would be less than current conditions as shown in the table below. The 2040 VMT per capita data presented in the table are based on the MTC Model results which account for both residential and job growth throughout the Bay Area, including the City of Alameda. The MTC Model also includes the major approved and funded changes to the transportation network. Thus, the model accounts for the expected increase in congestion on the roadway network and potential diversion to less congested corridors. Overall, although the total VMT would increase, the total population would also increase, resulting in a decrease in VMT per capita for the project area, the City of Alameda, and the overall region, as shown in the table below.

AVERAGE DAILY VMT PER CAPITA – 2020 AND 2040

Analysis Zone	Metric	Year 2020 Average VMT	Year 2040 Average VMT
Project TAZ 948	Per Capita	13.1	12.3
City of Alameda	Per Capita	14.5	13.2
	(minus 15%)	12.0	11.2
Region	Per Capita	15.0	13.8
	(minus 15%)	12.8	11.7

SOURCE: MTC Travel One Model (<http://analytics.mtc.ca.gov/foswiki/Main/PlanBayAreaVmtPerCapita>), accessed in March 2018.

This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

15-7

As described in Master Response 6 in Section 2.2 of this chapter, the Draft EIR analysis is based on the results of the Alameda CTC Model, which accounts for future development and congestion along the street network serving Alameda. As described in response to comment 8-61, Bay Farm Bridge and intersections along this corridor were not evaluated in the Draft EIR because it is expected that minimal project-generated traffic would use this corridor.

This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

- 15-8 As discussed in Master Response 6 in Section 2.2 of this chapter, the 2040 traffic volume forecasts presented in the Alameda Marina Master Plan Draft EIR are different from the forecasts used in the Encinal Terminal Draft SFEIR and other environmental documents because they are based on different cumulative conditions. As described starting on page 4.12-27 of the Draft EIR, the 2040 forecasts developed for the Alameda Marina Master Plan Draft EIR are based on the latest version of the Alameda CTC Model, released in June 2015 with the land use database consistent with ABAG *Projections 2013* for the year 2040, which were modified to correctly account for future developments in the City of Alameda.
- In comparison, the forecasts used in the Encinal Terminals Draft SFEIR were based on a version of Alameda CTC Model modified in 2012, and using ABAG *Projections 2009* to forecast 2035 traffic volumes. Thus, the Encinal Terminals forecasts may not accurately account for future land use and transportation networks, especially outside the City of Alameda.
- Overall, the forecasted traffic volumes used in the Alameda Marina Master Plan represent the latest available forecasts and account for the most recent land use projections, future transportation network changes, and commute patterns in the Bay Area. Therefore, the volume forecasts used in the Draft EIR analysis are the most appropriate forecasts to use, and no additional analysis is needed.
- 15-9 As explained in Master Response 6 in Section 2.2 of this chapter, the Alameda CTC Model used to develop the cumulative (2040) traffic forecasts assumes a net increase of about 10,000 jobs within the City of Alameda between 2010 and 2040. Assuming a lower level of job growth would generally reduce the traffic volumes at the study intersections and reduce the magnitude of the estimated intersection delays and potential project impacts. Thus, the analysis completed for the Draft EIR is based on a worst-case condition, and no additional analysis is required.
- 15-10 See response to comment 15-9, above. Concerning the requested economic analysis, please see Appendix B of this Final EIR, and also Master Response 3 in Section 2.2 of this chapter for a discussion of feasibility of proposed alternatives. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 15-11 As described on page 4.12-23 of the Draft EIR, the project automobile trip generation is solely based on the residential components of the project. The Draft EIR assumes that the existing 250,000 square feet of non-residential buildings and uses would remain. Since the project would only include about 160,000 square feet of non-residential space in the first two phases of maritime and

commercial development, this is a conservative assumption. No additional analysis is required.

- 15-12 Page 4.12-27 of the Draft EIR describes the process used to develop the cumulative (2040) traffic volume forecasts. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 15-13 See the responses to comments 15-27 and 15-28, below, regarding the land use assumptions used to develop the cumulative (2040) volume forecasts. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 15-14 Page 4.12-10 of the Draft EIR acknowledges that the existing conditions data may be affected by the ongoing construction of the I-880 interchanges at 23rd and 29th Avenues. However, the cumulative (2040) traffic volume forecasts developed for the Draft EIR account for the completion of the project. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 15-15 Appendix G of the Draft EIR presents the detailed LOS calculations for intersection traffic operations, pedestrians, and bicyclists. As described in the response to comment 15-4, above, the Draft EIR does not include queues because the significance criteria used by City of Alameda are not based on queues. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 15-16 Comment noted. See responses above and below for specific responses. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 15-17 See the responses to comments 15-1 and 15-2, above, regarding the differences between the travel time surveys and intersection delays estimates at intersections along Park Street. Furthermore, reducing the discharge rates at the Park Street/Blanding Avenue and Park Street/Clement Avenue intersections, as suggested by the comment, would result in increased delays reported for these two intersections. Since the Draft EIR already identifies these two intersections as significant and unavoidable impacts, the proposed change would not modify the conclusions of the Draft EIR. Thus, no additional analysis is required.

- 15-18 Appendix G of the Draft EIR provides various transportation background data and is cited throughout Section 4.12, *Transportation and Circulation*, of the Draft EIR. Appendix G includes the collected traffic counts at the study intersections, summary of the collected travel times and speed data, LOS output sheets for automobiles, pedestrian, and bicyclists, changes to the model land use database, and the CMP analysis data. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 15-19 The Posey Tube peak hour volume observations provided in the comment show a fluctuating range of peak hour volumes through the Posey Tube. These are consistent with the travel time surveys presented in Table 4.12-1 of the Draft EIR, which show a peak hour travel time between 5:00 and 9:10 minutes through the corridor during the AM peak hour. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 15-20 See Master Response 6 in Section 2.2 of this chapter and the response to comment 15-8, above, regarding consistency with forecasts in previously published environmental documents. See the response to comment 15-1, above, regarding the effect of downstream constraints on intersection operations. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 15-21 The comment expresses the opinions of the commenter, and does not present any environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 15-22 Comment noted. See responses above and below for specific responses.
- 15-23 See response to comment 8-61, above, regarding the project trip distribution. See the response to comment 15-1, above, regarding how the intersection operations were evaluated and the effect of downstream constraints on intersection operations. See the response to comment 15-5, above, regarding assigning traffic to the congested corridors during the peak hours. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 15-24 As described Master Response 6 in Section 2.2 of this chapter, above, the cumulative (2040) analysis accounts for the currently under construction improvements at the I-880 interchanges at 23rd and 29th Avenues and traffic generated by expected developments in Oakland and beyond. The Draft EIR identifies significant and unavoidable impacts at the two intersections along Park

Street at Blanding and Clement Avenues. Assuming additional delays at these intersections would not change this conclusion.

As described in response to comments 8-24 and 8-61, above, the cumulative (2040) forecasts and the project trip assignment and distribution account for the congestion and delay at the corridors providing access to and from Alameda.

The Draft EIR already presents a corridor travel time analysis. Conducting additional corridor level analysis as suggested in the comment would not change the conclusions of the Draft EIR. Therefore, no additional analysis is required.

- 15-25 See the response to comment 15-5, above. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 15-26 See the response to comment 15-6, above, regarding the VMT assessment. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 15-27 The comment incorrectly interpreted the Model land use modifications presented in Appendix G.F of the Draft EIR. The 2040 land use database was not adjusted to add 1,000 additional units to Crab Cove. The land use database was adjusted so that the total residential units in TAZ 478 (Crab Cove) would be 1,045 housing units, similar to the current number of units in the TAZ. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 15-28 The Model assumes a net increase of about 10,000 jobs within the City of Alameda between 2010 and 2040, consistent with ABAG's *Projections 2013*. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 15-29 See Master Response 6 in Section 2.2 of this chapter and the response to comment 15-8 regarding consistency with previously published environmental documents. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 15-30 The comment incorrectly states that the Draft EIR did not evaluate the impacts of the project on the Webster and Posey Tubes. The Travel Time analysis, starting on page 4.12-33 of the Draft EIR, presents the impacts of the project on travel times. The CMP analysis, starting on page 4.12-40 and included in Appendix G.I

of the Draft EIR, also presents the segment-level analysis required for the CMP analysis. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

- 15-31 See the response to comment 15-11, above, regarding the trip generation for the commercial component of the project. See Master Response 6 in Section 2.2 of this chapter regarding consistency with previously published environmental documents. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 15-32 See Master Response 6 in Section 2.2 of this chapter and the responses to comments 15-8 and 15-20, above, regarding consistency with previously published environmental documents. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
- 15-33 The Draft EIR did not account for the Cross Alameda Trail project, which would implement a Class IV separated bikeway on the south side of Atlantic Avenue between Webster Street and Constitution Way. As stated in the comment, the project would modify the Constitution Way/Atlantic Avenue intersection by eliminating one through lane on the eastbound Atlantic Avenue approach and the exclusive right-turn lane on the northbound Constitution Way approach. The project would also modify the signal timings at the intersection.
- For purposes of clarification, updated information has been added to Chapter 3 of this Final EIR. Specifically, Tables 4.12-11A and 4.12-11B from page 4.12-30 of the Draft EIR have been modified to show this planned improvement and presents the updated traffic operations at the Constitution Way/Atlantic Avenue intersection under Cumulative (2040) conditions. The intersection would operate at LOS C during the AM peak hour and LOS E during the PM peak hour under Cumulative (2040) conditions, regardless of the proposed project. Although the intersection would operate at LOS E during the PM peak hour, the project would increase traffic volumes at the intersection by less than three percent. Thus, the project would not cause a significant impact at this intersection.
- 15-34 The Clement Avenue Complete Street Project, which is fully funded, would implement Class II bicycle lanes along Clement Avenue between Grand Street and Broadway. This segment of Clement Avenue would continue to provide one automobile travel lane in each direction, and the funded project would not modify the lane configurations at the study intersections along this segment of Clement Avenue. Therefore, the analysis and results presented in the Draft EIR remain valid. This comment does not present any additional information on

environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

See response to comment 15-28, above, regarding the Clement Avenue extension to Tilden Way.

- 15-35 See Master Response 6 in Section 2.2 of this chapter and the response to comment 15-8, above, regarding consistency with previously published environmental documents.
- 15-36 See Master Response 6 in Section 2.2 of this chapter and the response to comment 15-8, above, regarding consistency with previously published environmental documents. See the response to comment 15-5 regarding assigning peak hour demand volumes to the congested corridors.
- 15-37 See response to comment 15-36, above, as similar conditions at the Park Street/Blanding Avenue intersection would apply to the Park Street/Clement Avenue intersection. As described in response to comment 15-34, above, the Clement Avenue Complete Street Project would not modify the lane configuration at the Park Street/Clement Avenue intersection. As described on page 4.12-31 of the Draft EIR, providing turn lanes on Clement Avenue at Park Street would conflict with General Plan Transportation Element. Providing turn lanes on Clement Avenue would also conflict with the Clement Avenue Complete Street Project.
- 15-38 The planned bikeway project along Fruitvale Boulevard in the City of Oakland would not change the roadway and intersection configurations along Fruitvale Boulevard between the Miller-Sweeney Bridge and I-880, and would not affect traffic flow on Miller-Sweeney Bridge or the Tilden Way-Fruitvale Avenue/Blanding Avenue-Fernside Boulevard intersection.

The Draft EIR did not account for the planned Clement Avenue extension to Tilden Way because the project design, including the proposed Clement Avenue/Tilden Way intersection, and the existing Tilden Way-Fruitvale Avenue/Blanding Avenue-Fernside Boulevard intersection, which would be modified by the planned Clement Avenue extension, have not been finalized and therefore, cannot be evaluated. It is expected that the Clement Avenue extension would provide a more direct connection between the project and the Miller-Sweeney Bridge. As shown in Table 4.12-15, it is estimated that the Fruitvale Avenue corridor would have similar travel speeds to the Park Street corridor during the peak hours. Thus, it is expected that the Clement Avenue extension would not divert large number of trips from the Park Street corridor to the Fruitvale Avenue corridor and not cause significant impacts beyond the ones identified in the Draft EIR.

Letter 16 Planning Board Public Hearing – Summary of Comments Response February 12, 2018

The City's Planning Board took public comments on the project at a regularly scheduled Board meeting on February 12, 2018. A number of speakers provided comments on the project, and those comments are summarized below in bulleted form, followed by an appropriate response.

List of Speakers (compiled from submitted speaker slips and video transcript):

1. Alan Pryor
2. Elizabeth Tuckwell
3. Chris Nicholas (Island Yacht Club)
4. Joanne Martin
5. Eric Gantos
6. William Smith
7. Nancy Hird
8. Joseph Woodard
9. Dorothy Freeman
10. Sandy Sullivan (Planning Board Member)
11. Jeffery Cavanaugh (Planning Board Member)
12. David Mitchell (Planning Board Member)

Comments:

1. **Preferences for a different alternative, or for a project that supported uses that are different from the proposed project.** Most of the comments provided during the meeting concerned a desire by commenters for a project that contained different uses than that being proposed, such as an expanded boatyard, more commercial uses, more affordable housing units, or greater preservation of the existing structures on the site. These comments generally expressed the opinions of the commenters as to how the project should be developed, and did not present any new information on environmental issues that have not been adequately addressed in the Draft EIR. Commenters desiring information on the various project alternatives and the feasibility thereof should please refer to Master Response 3 in Section 2.2 of this chapter for a discussion of the feasibility of proposed alternatives. No additional analysis is required.
2. **Support for the project.** Several commenters expressed support for the project. These comments generally expressed the opinions of the commenters as to how the project should be developed, and did not present any new information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.

3. **Removal of trees.** One commenter expressed concern about the removal of trees on the site. As articulated previously in response to comment 8-14, page 4.3-48 of the Draft EIR assesses the project's impacts with respect to trees, as well as requirements associated with applicable City ordinances for tree preservation, which include specific requirements for street trees. As long as tree removal is consistent with all permitting conditions, such removal would not conflict with local ordinances or policies. As a general rule, however, healthy trees on the site or along the Clement Avenue frontage would be retained so long as they did not directly interfere with development activities. While the number of healthy and mature trees on the site is limited, those trees are viewed as assets and would not be removed unless necessary. This comment does not present any additional information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
4. **Homelessness.** One commenter asserted that the Draft EIR did not address the issue of homelessness in Alameda. Since the purpose of an EIR is to assess the environmental impacts of a project, there is no requirement that an EIR assess issues like homelessness, since homelessness is an economic and social issue, not an environmental issue subject to review under the California Environmental Quality Act. It is not clear what types of environmental impacts would be created by the project vis-à-vis homelessness, and the commenter did not present any information to suggest that it would. As such, this comment did not present any new information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
5. **Parks.** One commenter asserted that the parks and recreation areas identified for the proposed project were inadequate. This commenter is referred to response to comment 8-52 in this document. The comment does not present any new information on environmental issues that have not been adequately addressed in the Draft EIR. No additional analysis is required.
6. **Traffic impacts.** Several commenters expressed concerns with the adequacy of the Transportation Demand Management (TDM), construction traffic, and the scope of the traffic study. In response, commenters concerned with transportation and traffic issues in general are referred to the responses to Comments 8-57 through 8-66, and Comments 15-1 through 15-38. These response address all of the traffic-related comments that were conveyed during the Planning Board hearing, as well as additional concerns raised by other commenters.
7. **Emergency evacuation.** One commenter asserted that the Draft EIR had not evaluated evacuation of Alameda Island in the event of an emergency. The CEQA Guidelines require that EIR's evaluate whether or not the project would result in inadequate emergency access. This was evaluated in the Draft EIR on page 4.12-42, and the impact was found to be less than significant. Emergency evacuations and emergency services in general are a Citywide concern, and individual projects are not expected to provide for evacuations for the Island's residents. These responsibilities fall to the City's emergency

service providers and their cooperators. The City maintains an Emergency Management and Operations Plan to provide contingency plans for evacuations and response to emergencies. This comment did not present any new information on environmental issues that have not been adequately addressed in the Draft EIR.

- 8. Cumulative impacts.** Several commenters indicated concern about the effects of the project alongside the effects of other projects that are currently planned or under construction in the City, particularly with respect to traffic. The cumulative effects of the project were evaluated in each of the topical sections of the Draft EIR, with resultant impacts identified. The comments were general in nature, and did not present new information that would alter the analysis already completed in the Draft EIR. No additional analysis is required.

Others commenters expressed concern that the cumulative traffic analysis did not include all of the projects that are currently planned or under development in the City. In response, commenters concerned with transportation and traffic issues in general are referred to Master Response 6, the responses to Comments 8-57 through 8-66, and Comments 15-1 through 15-38. These response address all of the traffic-related comments that were conveyed during the Planning Board hearing, as well as additional concerns raised by other commenters.

This page intentionally left blank

CHAPTER 3

Revisions to the Draft EIR

3.1 Introduction

This section summarizes text changes made to the Draft EIR either in response to a comment letter or initiated by City staff or in response to a modification to the proposed project.

3.2 Text Changes to the Draft EIR

New text is indicated in underline and text to be deleted is reflected by a ~~strike through~~. Text changes are presented in the page order in which they appear in the Draft EIR. The text revisions provide clarification, amplification, and corrections that have been identified since publication of the Draft EIR. The text changes do not result in a change in the analysis or conclusions of the Draft EIR.

Chapter 2, Summary

Page 2-31, Table 2-1, Mitigation Measure TRA-3 is revised to read:

~~If the Del Monte project fails to begin construction of the Clement Avenue extension from Atlantic Avenue to Entrance Road prior to commencement of construction of the Alameda Marina project, require the Alameda Marina project to construct the extension with a later fair share contribution to be provided by the Del Monte project and other developments in the area.~~ The project shall pay a fair share contribution to the cost of the Clement Avenue extension from Atlantic Avenue to Grand Street. The fair share contribution shall be calculated based upon a traffic study to calculate the fair share contribution of each Northern Waterfront development project including the Del Monte Warehouse Project, the Encinal Terminals Project, the Wind River fifth building project, and Alameda Marina, which will contribute traffic trips to the Clement Avenue Extension. The City shall require all developers to contribute their fair share as determined by the traffic study. The Alameda Marina fair share contribution shall be paid on a pro-rata basis for each residential phase of the Alameda Marina project (number of units in phase divided by total number of units in project multiplied by the fair share contribution). Each portion of the fair share contribution shall be paid prior to issuance of the first building permit for the current residential phase if work on the Clement Avenue extension has been initiated by another developer of a Northern Waterfront development project. If the work has not been initiated by another developer prior to issuance of the

first building permit for Alameda Marina, the contribution shall be made prior to issuance of the first residential Certificate of Occupancy on the property.

Page 2-31, Table 2-1:

In Table 2-1 of the Draft EIR, a redundant numbering of Impact TRA-3 caused an error in the subsequent Transportation and Circulation impact numbers. Accordingly, the second Impact TRA-3 as it appears in Table 2-1 of the Draft EIR, is hereby renumbered Impact TRA-4. Subsequent Transportation and Circulation impact numbers are also renumbered in the table (i.e., TRA-4 becomes TRA-5; TRA-5 becomes TRA-6, and so on through to TRA-10, which becomes TRA-11). This renumbering brings the summary table numbering into alignment with the impact discussions as they appear in Section 4.12, *Transportation and Circulation*, of the Draft EIR.

Section 4.2, Air Quality and Climate Change

Page 4.2-29, paragraph 3, is revised to read:

During temporary construction activities, the analysis incorporates the estimated construction TAC emissions of diesel particulate matter and dispersion modeling using the USEPA AMS/EPA Regulatory Model (AERMOD) dispersion model with meteorological data from the closest and most representative monitoring station to the project site located at Oakland International Airport, which is approximately 2.5 miles to the southeast of the project site. Within the AERMOD model, TAC emission sources were placed on the project site (for off-road equipment and truck idling emissions) and on the portion of roads (i.e., Clement Avenue and Grand Street) that haul trucks could travel on within 1,000 feet of the project site (for truck traveling emissions). The TAC emission sources were located in areas corresponding to construction associated with Phases 0, 1, 2, and 3. Truck idling sources were assumed to be located on the project site on the north side of Clement Avenue directly across the street from the residential uses to the south of Clement Avenue, which provides for a conservative (i.e., health protective) assessment. Receptor points were placed on the nearby sensitive receptor locations, which captures the maximum TAC concentrations at the maximally exposed sensitive receptor. These same methodologies can also be extended to assess impacts to future residents of the project site that could be in residence during later phases of construction.

Page 4.2-46, Table 4.2-11 and following two paragraphs are revised to read (note that this revision only rennumbers Mitigation Measure AQ/CC-4 to AQ/CC-3):

TABLE 4.2-11
MASTER PLAN CONSISTENCY WITH APPLICABLE CONTROL MEASURES OF THE 2017 CLEAN AIR PLAN

Control Measure	Existing or Proposed Implementation Mechanism	Consistency of Proposed Project with Measure
TR1 – Clean Air Teleworking Initiative	Future residents within the project area could be expected to take advantage of teleworking opportunities, but the extent to which teleworking would occur cannot be accurately predicted at this time.	Yes
TR2 – Trip Reduction Programs	The project would address this Measure through implementation of its Transportation Demand Management (TDM) program.	Yes, with implementation of project TDM program
TR3 – Local and Regional Bus Service	Transit services within study the area include the Alameda–Contra Costa Transit District (AC Transit), the Bay Area Rapid Transit District (BART), Water Emergency Transit Agency (WETA), and Amtrak	Yes
TR4 – Local and Regional Rail Service	Amtrak and Bay Area Rapid Transit District (BART) stations are within 2.5 miles of project site.	Yes
TR5 – Transit Efficiency and Use	AC Transit Line 21 to BART Fruitvale Station is located 0.5 miles from the project site.	Yes
TR7 – Safe Routes to Schools and Safe Routes to Transit	Henry Haight Elementary School is a four block walk from the project site. Wood Middle School is located at 420 Grand Street, about 1.2 miles south of the site. Alameda High School is a seven block walk from the project site.	Yes
TR8 - Ridesharing	TDM Program includes subsidized dedicated on-site carpool parking and On-Site Car-Share parking.	Yes, with implementation of project TDM program
TR9 – Bicycle and Pedestrian Access and Facilities	The project would include bicycle lanes on Clement Avenue in accordance with the Alameda Bicycle Master Plan. The proposed internal street network and Bay Trail segment within the project site would allow for pedestrians and bicyclists to access the site's commercial core, residential neighborhoods, waterfront, and open spaces. Bike racks would be provided at strategic locations within public open space areas for convenience and to promote bicycling through and around the site	Yes
TR10 – Land Use Strategies	The project would include higher density construction and other land use strategies that would result in trip reductions.	Yes
TR13 - Parking Policies	The master plan specifies that the TDM program may also include unbundled parking programs as part of the overall TDM strategy.	Yes, with implementation of project TDM program
TR14 – Cars and Light Trucks	Not part of the project. New Mitigation Measure AQ/CC-43 added to address by identifying, as a TDM neighborhood electric vehicle programs to reduce the need to have a car or second car as one potential element of a TDM program.	Mitigation Measure Identified
EN2 – Decrease Electricity Demand	While the LAPCP identifies energy Initiative 4 to amend the Alameda Municipal Code to include sustainable design and green building standards for all new, substantially expanded and remodeled buildings, to date this has only been done for City building projects and Capital Improvement projects through Section 13-19 of the Municipal Code. New Mitigation Measure AQ/CC-43 added to address by identifying Leadership in Energy and Environmental Design (LEED) rating of silver or equivalent.	Mitigation Measure Identified
BL1 – Green Buildings	See above discussion for EN-2	Yes

TABLE 4.2-11 (CONTINUED)
MASTER PLAN CONSISTENCY WITH APPLICABLE CONTROL MEASURES OF THE 2017 CLEAN AIR PLAN

Control Measure	Existing or Proposed Implementation Mechanism	Consistency of Proposed Project with Measure
BL2 – Decarbonize Buildings	Implemented through The City's Alameda Green program to allow residents and businesses the ability to choose 100 percent renewable energy.	Yes
BL4 – Urban Heat Island	New Mitigation Measure AQ/CC-43 added to address by identifying Leadership in Energy and Environmental Design (LEED) rating of silver or equivalent. One option for LEED certification is green roofs which serve to reduce a building albedo and associated heat island affects.	Mitigation Measure Identified
NW2 – Urban Tree Planting	While a landscaping plan has not been developed, the project would be required to provide sufficient tree and landscaping elements per the City's development code.	Yes
WA3 – Green Waste Diversion; and WA4 – Recycling and Waste Reduction	The City of Alameda achieves a 75 percent waste diversion rate and businesses and multifamily properties of 5 units or more must have adequate recycling and composting service.	Yes
WR2 – Support Water Conservation	New Mitigation Measure AQ/CC-43 added to address by identifying Leadership in Energy and Environmental Design (LEED) rating of silver or equivalent. Indoor and outdoor water conservations are major elements of the LEED certification program.	Mitigation Measure Identified

SOURCE: BAAQMD, Clean Air Plan, Spare the Air, Cool the Climate, 2017d

With elements identified as part of the proposed project and implementation of mitigation measures identified in this EIR, the proposed project would be consistent with applicable control measures from the 2017 Clean Air Plan.

With elements identified as part of the proposed project, along with implementation of mitigation measures identified in this EIR including **Mitigation Measure AQ/CC-43**, the proposed project would not adversely affect implementation of any 2017 Clean Air Plan control measure.

Page 4.2-52, Impact C-AQ/CC-3 is revised to read (note that this revision only renumbers Mitigation Measure AQ/CC-4 to AQ/CC-3):

Impact C-AQ/CC-3: The proposed project would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. (*Less than Significant*)

The proposed project would be compliant with the GHG reduction initiatives included in the City's 2008 LAPCP. Additionally, as described in Impact 4.2-5, above, with implementation of Mitigation Measure AQ/CC-43, the proposed project would be consistent with BAAQMD's 2017 Clean Air Plan measures discussed in Table 4.2-11

above. In addition, as indicated in Table 4.2-8, GHG emissions generated by construction and operation of the project would be less than the BAAQMD's 2020 "efficiency threshold" of 4.6 metric tons of CO₂e per service population per year and, with mitigation, would not exceed the analogous 2030 "efficiency threshold" of 2.8 metric tons of CO₂e per service population per year. GHG efficiency metrics were developed for the emissions rates at the State level for the land use sector that would accommodate projected growth (as indicated by population and employment growth) under trend forecast conditions, and the emission rates needed to accommodate growth while allowing for consistency with the goals of AB 32 (i.e., 1990 GHG emissions levels by 2020) and SB 32 (BAAQMD, 2009). The project would not impair attainment of GHG reduction goals established pursuant to AB 32 in the *Climate Change Scoping Plan*, because these goals were used in the development of BAAQMD thresholds. The project would have a less-than-significant impact with regard to GHG reduction-planning efforts, because emissions per service population would be below the thresholds developed based on attainment of AB 32 goals.

Significance after Mitigation: Less than Significant.

Section 4.3, Biological Resources

Page 4.3-5, paragraph 3 is revised to read:

Open water is found in the Oakland-Alameda Estuary to the north of the project site, which is hydrologically connected to San Francisco Bay. The Oakland-Alameda Estuary was originally a tidal slough, but was dredged in the mid- to late 1800s to create a viable port and shipping channel. Continued dredging operations resulted in the complete separation of what is now Alameda Island from the mainland. The estuary is influenced by both freshwater and marine water, receiving regular freshwater inflow from a combination of natural creeks, human-made stormwater drainage facilities, and from direct surface runoff after precipitation events. The estuary is also influenced by the marine waters of the Bay and is subject to tidal currents. Sediment from Oakland's shoreline and creeks is carried by the tidal current to shoals and sandbars, causing siltation of the nearby shipping channels. The open waters adjacent to the study area are typical of San Francisco Bay waters in general and have primarily silty mud and sand substrates that are naturally no more than 25 feet deep, although dredging operations to facilitate shipping operations in the Oakland-Alameda Estuary may increase water depth to more than 50 feet (DVA, 2013).

Section 4.4, Cultural Resources

Page 4.4-16, Impact CUL-1, is revised to read:

Impact CUL-1: Project implementation would cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines, Section 15064.5. (Significant and Unavoidable, with Mitigation)

CEQA Guidelines Section 15064.5 requires the lead agency to consider the effects of a project on historical resources. A historical resource is defined as any building, structure, site, or object listed in or determined to be eligible for listing in the California Register, or determined by a lead agency to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, or cultural annals of California based upon substantial evidence.

Though the property as a whole appears ineligible for listing in the California Register due to loss of integrity, there are three buildings that appear individually eligible for the California Register under Criteria 1 and 3, including Buildings 16, 19, and 27. These three buildings are recommended as historical resources under Section 15064.5(a) of CEQA (Verplanck, 2017). Also, Buildings 1, 4, 6, 12, 15, 16, 17, 19, 21, 22, 27, 28, 29, 31, 32, 33, 34, and the graving dock are included as contributing buildings/structures to the locally designated Alameda Marina Historic District.

The project includes the demolition of 26 of the 37 buildings in the project area. Of the 17 buildings and one structure in the Alameda Marina Historic District, 11 would be demolished (Buildings 1, 4, 6, 12, 22, 28, 29, 31, 32, 33, and 34). Buildings 13, 14, 16, 17, 18, 19, 21, 25, 26, and 27 would remain. All three individually eligible buildings (16, 19, and 27) would be retained and rehabilitated, as needed, as part of the adaptive reuse of the structures. The demolition of many of the District's contributing buildings, which have been determined to be historical resources, and the construction of new residential and/or commercial buildings within the District boundaries is considered a significant impact under CEQA. This impact cannot be reduced to a less-than-significant level; however, implementation of the following mitigation measures would reduce impacts, to the extent feasible, to historical resources by documenting the resource and preserving the history of the site and buildings. Overall, the proposed project would cause a substantial adverse change in the significance of a historical resource, and this impact would be *significant and unavoidable with mitigation*.

Mitigation Measure CUL-1a: Treatment of Historic Properties (Buildings 16 19 and 27). Alterations, to the exteriors of Buildings 16, 19 and 27, shall conform to the Secretary of the Interior's Standards for the Treatment of Historic Properties and Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, if feasible (NPS, 1995) and PRC 5024.5.

Mitigation Measure CUL-1b: Documentation. The project proponent shall prepare a treatment plan including but not limited to photo documentation and public interpretation of the Alameda Marina Historic District (Buildings 1, 4, 6, 12, 15, 16, 17, 19, 21, 22, 27, 28, 29, 31, 32, 33, 34, and the graving dock). Photo documentation will be overseen by a Secretary of the Interior-qualified architectural historian, documenting the affected historical resource, in accordance with the National Park Service's Historic American Buildings Survey (HABS) and/or Historic American Engineering Record (HAER) standards. Such

standards typically include large-format photography using (4x5) negatives, written data, and copies of original plans if available. The HABS/HAER documentation packages will be archived at local libraries and historical repositories, as well as the Northwest Information Center of the California Historical Resources Information System.

Mitigation Measure CUL-1c: Interpretive Display. Public interpretation of historical resources shall be provided and could include a plaque, kiosk, or other method of describing the Alameda Marina Historic District's historic or architectural importance to the general public. The design and placement of the display(s) shall be reviewed and approved by the City of Alameda Historic Advisory Board.

Rehabilitation of the exteriors of Buildings 16, 19 and 27 consistent with the Secretary's of Interior's Standards would mitigate the impacts to these historic resources to a less-than-significant level. The recordation of a building or structure to HABS/HAER standards and public interpretation efforts would reduce impacts on significant historic buildings and ~~structures~~ the District, but such efforts typically do not reduce those impacts to a less-than-significant level (CEQA Section 15126.4(b)(2)). Impacts to significant historic buildings ~~or structures and the District~~ under these circumstances would remain significant and unavoidable.

Significance after Mitigation: Significant and Unavoidable.

Section 4.6, Hazards and Hazardous Materials

Page 4.6-3, Table 4.6-1, is revised to read:

**TABLE 4.6-1
REGULATORY SITES LISTED IN THE PROJECT SITE AND VICINITY**

Site Name/ Address	Regulatory List	Site Summary
Regulatory Sites Listed within the Project Site		
Pacific Shops, Inc., 1815 Clement Street	LUST Cleanup Site	Cleanup completed as of March 5, 2010. Addressed leaks from two former Bunker oil USTs and a diesel UST that were removed in March 2007.
Pacific Shops, Inc., 1829 Clement Street	SLIC Program Site	Cleanup completed as of December 14, 2010. Involves the subfloor area beneath the building. Spills and discharges of liquids containing heavy metals as well as acids and bases to the subfloor and sewer were documented in 1990. The potential contaminants of concern included arsenic, chromium, copper, and cyanide, affecting the soil, soil vapor, structure, indoor air, and groundwater.
Pacific Shops, Inc., 1851 Clement Street	LUST Cleanup Site	Cleanup completed as of September 22, 1999. Addressed leaks from former gasoline and diesel fuel USTs that were removed in July 1999.

TABLE 4.6-1 (CONTINUED)
REGULATORY SITES LISTED IN THE PROJECT SITE AND VICINITY

Site Name/ Address	Regulatory List	Site Summary
Regulatory Sites Listed within the Vicinity of the Project Site		
2100 Clement Avenue	Voluntary Cleanup Site	<p>No further action as of November 7, 2016.</p> <p>Past uses that caused concern includes manufacturing including residential area, shipyard with ship building and repair, warehousing, and other uses. The potential contaminants of concern included PCEs and TCEs, affecting the soil and soil vapor.</p> <p>The site's commercial buildings have been demolished and the site has been graded in preparation for redevelopment into residential use. Remedial excavations have been completed in areas where the presence of volatile organic compounds in sub-slab and/or soil vapor could have posed a vapor intrusion risk to future residential receptors. Post-remediation soil and soil gas sampling confirm that the potential risk has been mitigated.</p>
Alameda Naval Operational Support Center – West Vault, 2144 Clement Avenue	Military UST Site	Cleanup completed as of April 15, 2013.
Alameda Naval Operational Support Center – Naval and Marine Corps Reserve Center, 2144 Clement Avenue	Military Cleanup Site	<p>Cleanup completed as of May 13, 2013.</p> <p>Past uses that caused concern include dry docks and fueling including vehicle storage and refueling and port use. The potential contaminants of concern include lead, TPH from diesel, and TPH from gasoline, affecting the soil and groundwater.</p>
Alameda Naval Operational Support Center – North UST, 2144 Clement Avenue	Military UST Site	Cleanup completed as of August 15, 2013.
Cargill Salt, 2016 Clement Avenue	SLIC Program Site	<p>Undergoing remediation as of June 15, 2005.</p> <p>PCE has been detected in soil vapor and groundwater at the site. A phytoremediation project was implemented to cleanup PCE in groundwater in June 2005. Groundwater monitoring has continued to assess the effectiveness of the phytoremediation project.</p>
Pennzoil-Quaker State Alameda Specialty Plant	SLIC Program Site	<p>Undergoing verification monitoring as of September 1, 2009.</p> <p>Lubricating oils were discovered in the tank farm area in 1985 and additional oil was spilled in the area in 1990. Contaminated soil was removed in 2002, however some contaminated soil was left under aboveground storage tanks to maintain their structural integrity. Permit violations were discovered in 2006 and 2008 resulting in the issuance of a Notice of Violation in 2009. Contamination at this facility is also attributed to former USTs adjacent to the shipping area and USTs located east of the aboveground tank containment area, under the warehouse.</p> <p>Groundwater monitoring was conducted quarterly starting in 1995 and semiannually beginning in 2009. <u>The latest monitoring report from December 30, 2016 continues to show elevated levels of petroleum products in the monitoring wells on the site.</u></p>
<u>Former J.H. Baxter Facility</u>	<u>State Response or NPL</u>	<p><u>In 2003, a dark, tarry substance was observed emanating from beneath the driveway in the north-eastern section of the site. Surface soil samples collected from the area revealed the presence of various hazardous substances at levels above regulatory screening levels. Remediation is expected to be completed in 2019.</u></p>

TABLE 4.6-1 (CONTINUED)
REGULATORY SITES LISTED IN THE PROJECT SITE AND VICINITY

Site Name/ Address	Regulatory List	Site Summary
Westline Industries, 1925 Lafayette	LUST Cleanup Site	Cleanup completed as of May 5, 1995.
Encinal Marina Ltd, 2099 Grand Street	LUST Cleanup Site	Cleanup completed as of June 10, 2010.
Grand Marina Village, 2051 Grand Street	SLIC Program Site	Cleanup completed as of July 16, 2010. Past site use as a lumber yard, ship repair yard, auto repair, carpentry shop, blacksmith, animal shelter, and bulk oil storage facility. The potential contaminants of concern included arsenic, diesel, and heating and fuel oil, affecting the soil, groundwater, and surface water. Planned redevelopment as residential.
Grand Street Tank Farm, 2047 Grand Street	SLIC Program Site	Open, but inactive as of June 4, 2009. The potential contaminants of concern include benzene, diesel, gasoline, and TPH, affecting the soil.
Penzoil Gas Station, 2015 Grand Street	LUST Cleanup Site	Cleanup completed as of November 3, 1995.
Whitmore's Auto Service	LUST Cleanup Site	Awaiting assessment as of August 29, 2002. In August 2002, four USTs were removed and significantly elevated levels of hydrocarbon contamination was detected in soil. SPH was detected during tank removal and no free product removal has been completed. The site is not characterized and the extent of contamination is unknown.

SOURCE: DTSC, 2017; SWRCB, ~~2017~~2018

Section 4.11, Public Services and Recreation

Page 4.11-11, paragraph 1, is revised to read:

Impact PSR-4: The proposed project would result in increased use of other governmental facilities, including libraries, but would not require new or physically altered government facilities to maintain acceptable performance objectives. (*Less than Significant*)

The Alameda Free Library offers library services to the residents of Alameda. The ~~West End library branch~~ Main Library, located ~~1.4 miles~~ 0.6 miles away from the project site at ~~788 Santa Clara Avenue~~ 1550 Oak Street, is the closest library. The Library offers a wide range of services, including answering reference questions, staging story times, providing summer reading programs, hosting class visits, and educational events.

While the proposed project would generate an incremental increase in demand for library services, the additional demand that would be generated by an estimated population of 1,932 persons, only a small portion of whom would be expected to utilize the library in any given month, would be expected to be a small fraction of the existing monthly visitors. This would not require an expansion of library facilities, and the project's impact on library services would be considered less than significant.

Mitigation: None required.

Section 4.12, Transportation and Circulation

Page 4.12-3, paragraphs 3 and 4, are revised to read:

Buena Vista Avenue is an east/west Island Collector between Poggi Street in the west and Northwood Drive in the east. The roadway is classified as a Transitional Arterial between Sherman and Grand Streets and as a Local Road east of Broadway and west of Webster Street. Buena Vista Avenue continues in the west as Poggi Street. The roadway generally provides two one travel lanes in each direction, with occasional left-turn lanes and/or right-lane turning pockets at selected intersections. ~~and left turn lanes between Jay and Hibbard Streets and at the intersection with Broadway.~~ Sidewalks are provided on both sides of the street, and on-street parking is allowed along the entire roadway except between Sherman and Benton Streets.

Grand Street is a north/south Island Arterial between the Alameda Marina in the north and Shore Line Drive in the south. The roadway is classified as a Local Street north of Clement Avenue. Grand Street provides one travel lane in each direction. Sidewalks and Class II bikeways (bike lanes) are provided on both sides of the street, and on-street parking is ~~prohibited~~ allowed along much of the roadway's alignment.

Page 4.12-10, last paragraph, last sentence, is revised to read:

Pedestrian access between Downtown Oakland and the west side of the island is provided by a narrow, raised walkway in the Posey Tube that is shared with bicycle traffic. Pedestrians can also take AC Transit buses across the estuary via the Webster or Posey Tubes. The sidewalks across the Park Street and Miller-Sweeney (Fruitvale Avenue) Bridges on the east side of the island, about one mile from the project site, also provide pedestrian access between Oakland and Alameda, ~~but these are more than three miles from the project site.~~

Page 4.12-29, paragraph 2, is revised to read:

Figures 5 and 6 in Appendix G.A show the AM and PM peak hour intersection volumes under Cumulative (2040) No Project and Cumulative (2040) Plus Project Conditions, respectively. The 2040 analyses assume the completion of the following:

- The I-880 Operational and Safety Improvements at 29th Avenue and 23rd Avenue Overcrossings, which are currently under construction and would reconstruct the overcrossing structures at 23rd and 29th Avenues, reconfigure several on and off-ramps, extend the northbound auxiliary lane along I-880, and include various changes to the local roadway network around the ramps.

- The Clement Avenue extension between Entrance Road and Atlantic Avenue and through the Shell Oil property.
- The Cross Alameda Trail project, which includes a Class IV separated bikeway on the south side of Atlantic Avenue between Webster Street and Constitution Way. The project would modify the Constitution Way/Atlantic Avenue (#4) intersection by eliminating one through lane on the eastbound Atlantic Avenue approach and the exclusive right-turn lane on the northbound Constitution Way approach. The Cross Alameda Trail project would also modify the signal timings at the intersection.

The Cumulative (2040) No Project Conditions assumes the same intersection configuration as Existing Conditions at all other study intersections. ~~The analysis assumes the completion of the Clement Avenue extension between Entrance Road and Atlantic Avenue and through the Shell Oil property.~~ This analysis assumes that signal timing parameters that do not require upgrades to the signal equipment, such as amount of green time assigned to each intersection approach, would be optimized at the signalized study intersections under 2040 conditions, because signal timing changes are included in the ongoing maintenance of the traffic signal system.

Page 4.12-30, Tables 4.12-11a and 4.12-11b are revised to read:

**TABLE 4.12-11A
CUMULATIVE (2040) AM PEAK HOUR INTERSECTION LEVEL OF SERVICE**

Study Intersection	Control	2040 No Project		2040 + Project	
		Delay ¹	LOS	Delay ¹	LOS
1 Webster Street/Atlantic Avenue	Signal	82	F	86	F
2 Constitution Way/Atlantic Avenue	Signal	272 28	C	293 31	C
3 Challenger Drive/Atlantic Avenue	Signal	103	F	114	F
4 Atlantic Avenue/Buena Vista Avenue	Signal	15	B	15	B
5 Grand Street/Buena Vista Avenue	Signal	23	C	31	C
6 Grand Street/Clement Avenue	Signal	28	C	39	D
7 Park Street/Blanding Avenue ²	Signal	>120	F	>120	F
8 Park Street/Clement Avenue	Signal	108	F	>120	F
9 Park Street/Tilden Way-Lincoln Avenue	Signal	18	B	21	C
10 Tilden Way-Fruitvale Avenue/Blanding Avenue-Fernside Boulevard	Signal	21	C	31	C
11 High Street-Gibbons Drive/Fernside Boulevard ²	Signal	63	E	63	E

NOTES:

¹ For signalized intersections, the Delay/LOS represents the overall intersection.

² Based on HCM 2000, since HCM 2010 does not calculate LOS for this intersection.

Bold indicates locations with unacceptable LOS; **Shaded Bold** indicates significant impacts.

SOURCE: Fehr & Peers, 2017.

**TABLE 4.12-11B
CUMULATIVE (2040) PM PEAK HOUR INTERSECTION LEVEL OF SERVICE**

Study Intersection		Control	2040 No Project		2040 + Project	
			Delay ¹	LOS	Delay ¹	LOS
1	Webster Street/Atlantic Avenue	Signal	96	F	107	F
2	Constitution Way/Atlantic Avenue	Signal	34 65	CE	33 71	CE
3	Challenger Drive/Atlantic Avenue	Signal	44	D	48	D
4	Atlantic Avenue/Buena Vista Avenue	Signal	27	C	28	C
5	Grand Street/Buena Vista Avenue	Signal	19	B	22	C
6	Grand Street/Clement Avenue	Signal	15	B	34	C
7	Park Street/Blanding Avenue ²	Signal	51	D	83	F
8	Park Street/Clement Avenue	Signal	>120	F	>120	F
9	Park Street/Tilden Way-Lincoln Avenue	Signal	86	F	85	F
10	Tilden Way-Fruitvale Avenue/Blanding Avenue-Fernside Boulevard	Signal	>120	F	>120	F
11	High Street-Gibbons Drive/Fernside Boulevard ²	Signal	58	E	58	E

NOTES:

1 For signalized intersections, the LOS/Delay represents the overall intersection.

2 Based on HCM 2000, since HCM 2010 does not calculate LOS for this intersection.

Bold indicates locations with unacceptable LOS; **Shaded Bold** indicates significant impacts.

SOURCE: Fehr & Peers, 2017.

Page 4.12-32, Mitigation Measure TRA-3, is revised to read:

~~If the Del Monte project fails to begin construction of the Clement Avenue extension from Atlantic Avenue to Entrance Road prior to commencement of construction of the Alameda Marina project, require the Alameda Marina project to construct the extension with a later fair share contribution to be provided by the Del Monte project and other developments in the area. The project shall pay a fair share contribution to the cost of the Clement Avenue extension from Atlantic Avenue to Grand Street. The fair share contribution shall be calculated based upon a traffic study to calculate the fair share contribution of each Northern Waterfront development project including the Del Monte Warehouse Project, the Encinal Terminals Project, the Wind River fifth building project, and Alameda Marina, which will contribute traffic trips to the Clement Avenue Extension. The City shall require all developers to contribute their fair share as determined by the traffic study. The Alameda Marina fair share contribution shall be paid on a pro-rata basis for each residential phase of the Alameda Marina project (number of units in phase divided by total number of units in project multiplied by the fair share contribution). Each portion of the fair share contribution shall be paid prior to issuance of the first building permit for the current residential phase if work on the Clement Avenue extension has been initiated by another developer of a Northern Waterfront development project. If the work has not been initiated by another developer prior to issuance of the first building permit for Alameda Marina, the contribution shall be made prior to issuance of the first residential Certificate of Occupancy on the property.~~

Page 4.12-41, paragraph 1, is revised to read:

The CMP and MTS segments were assessed using a V/C ratio methodology. For freeway segments, a per-lane capacity of 2,000 vehicles per hour (vph) was used. ~~F, and for~~ surface streets, a per-lane capacity of 800 vph was used, based on the general hourly capacities in the Alameda CTC Model. Roadway segments with a V/C ratio greater than 1.00 signify LOS F.

This page intentionally left blank

CHAPTER 4

Mitigation Monitoring and Reporting Program

4.1 Introduction

Section 15097 of the California Environmental Quality Act (CEQA) Guidelines requires public agencies to establish monitoring or reporting programs for projects approved by a public agency whenever approval involves the adoption of either a “mitigated negative declaration” or specified environmental findings related to environmental impact reports.

The following is the Mitigation Monitoring and Reporting Program (MMRP) for the Alameda Marina Master Plan project. The intent of the MMRP is to prescribe and enforce a means for properly and successfully implementing the mitigation measures identified within the Draft Environmental Impact Report (Draft EIR) for this project.

4.2 Mitigation Measures

The table below lists all mitigation measures for the project. The MMRP describes the actions that must take place to implement each mitigation measure, the timing of those actions, and the entities responsible for implementing and monitoring the actions.

4.3 MMRP Components

The components of the attached table, which contains applicable mitigation measures, are addressed briefly, below.

Impact: This column summarizes the impact stated in the Draft EIR.

Mitigation Measure: All mitigation measures that were identified in the Draft EIR are presented, and numbered accordingly.

Action: For every mitigation measure, one or more actions are described. The actions delineate the means by which the mitigation measures will be implemented, and, in some instances, the criteria for determining whether a measure has been successfully implemented. Where mitigation measures are particularly detailed, the action may refer back to the measure.

Implementing Party: This item identifies the entity that will undertake the required action, typically the project applicant or its designee.

Timing: Implementation of the action must occur prior to or during some part of project approval, project design or construction or on an ongoing basis. The timing for each measure is identified.

Monitoring Party: The City of Alameda is primarily responsible for ensuring that mitigation measures are successfully implemented. Within the City, a number of departments and divisions would have responsibility for monitoring some aspect of the overall project.

TABLE 4-1
ALAMEDA MARINA MASTER PLAN MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measure	Action(s)	Implementing Party	Timing	Monitoring Party
Air Quality and Climate Change					
Impact AQ/CC-1: The proposed project would not result in localized construction dust-related air quality impacts; generate construction emissions that would result in a substantial increase of criteria pollutants and precursors for which the air basin is in nonattainment under an applicable federal or state ambient air quality standard; or expose sensitive receptors to substantial concentrations of toxic air contaminants or respirable particulate matter (PM2.5).	Mitigation Measure AQ/CC-1: Implementation of Dust Abatement Programs. The project applicant shall be required to demonstrate compliance with all applicable City regulations and operating procedures prior to issuance of building or grading permits, including standard dust control measures. The effective implementation of dust abatement programs, incorporating all of the following dust control measures, would reduce the temporary air quality impact associated with construction dust. <ul style="list-style-type: none">All active construction areas shall be watered two times daily using equipment and staff provided by the project applicant or prime contractor, as needed, to avoid visible dust plumes. Appropriate non-toxic dust palliative or suppressant, added to water before application, may be used.All trucks hauling soil, sand and other loose materials shall be covered.All unpaved access roads, parking areas and construction staging areas shall be either paved, watered as necessary to avoid visible dust plumes, or subject to the application of (non-toxic) soil stabilizers.All paved access roads, parking areas and staging areas at the construction site shall be swept daily with water sweepers. The use of dry power sweeping is prohibited.If visible soil material is carried onto adjacent public streets, these streets shall be swept daily with water sweepers. The use of dry power sweeping is prohibited.All stockpiles of debris, soil, sand or other materials that can be blown by the wind shall either be covered or watered as necessary to avoid visible dust plumes.An off-pavement speed limit of 15 miles per hour for all construction vehicles shall be incorporated into the construction contract and enforced by the prime contractor.All inactive portions of the project site (those areas which have been previously graded, but inactive for a period of ten days or more) shall be watered with an appropriate dust suppressant, covered or seeded.All earth-moving or other dust-producing activities shall be suspended when the above dust control measures prove ineffective in avoiding visible dust plumes during periods of high winds. The wind speed at which this suspension of activity will be required may vary, depending on the moisture conditions at the project site, but suspension of such activities shall be required in any case when the wind speed exceeds 25 miles per hour.All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.Post a publicly visible sign with the telephone number and person to contact at the City of Alameda regarding dust complaints. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.	Provide Dust Abatement Plan that meets the requirements of the mitigation measure to the City Building Division for review and approval.	Project applicant or designee	Prior to issuance of demolition and/or building permits.	City of Alameda
	Mitigation Measure AQ/CC-2: The project applicant shall ensure that construction contract specifications include a requirement that all off-road diesel-powered construction equipment used for project improvements shall be equipped with a Level 3 Verified Diesel Emissions Control (VDEC), which would reduce diesel particulate emissions by at least 85 percent.	Provide construction specifications to City Building Division for review and approval.	Project applicant or designee	Prior to issuance of construction contracts and/or construction bid materials.	City of Alameda

TABLE 4-1 (CONTINUED)
ALAMEDA MARINA MASTER PLAN MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measure	Action(s)	Implementing Party	Timing	Monitoring Party
Impact AQ/CC-5: The proposed project would not conflict with or obstruct the implementation of the applicable air quality plan.	Mitigation Measure AQ/CC-3: The City shall require that the following measures be implemented, either by the City or the project applicant, or both in combination, to encourage the use of low- and zero-emission vehicles in travel to and from the project site and construction meeting LEED Silver or equivalent sustainable design standards: <ul style="list-style-type: none">Promote use of clean fuel-efficient vehicles through preferential parking and/or installation of charging stations.Require LEED Silver certification or equivalent for all new residential structures.Promote zero-emission vehicles by providing a neighborhood electric vehicle program to reduce the need to have a car or second car as an element of the TDM program.	Provide design and construction specifications to City Building Division for review and approval.	Project applicant or designee	Prior to issuance of construction contracts and/or construction bid materials.	City of Alameda
Biological Resources					
Impact BIO-1: The proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the United States Fish and Wildlife Service.	Mitigation Measure BIO-1a: Prior to the start of in-water construction and maintenance that would require pile driving, the project applicant shall prepare a NMFS-approved sound attenuation monitoring plan to protect fish and marine mammals, if impact pile driving is required for project implementation. This plan shall provide detail on the sound attenuation system, detail methods used to monitor and verify sound levels during pile driving activities, and describe management practices to be taken to reduce impact hammer pile-driving sound in the marine environment to an intensity level of less than 183 dB. The sound monitoring results shall be made available to the NMFS. The plan shall incorporate one or more of the following best management practices (BMPs) to meet the 183 dB performance standard): <ul style="list-style-type: none">To the extent feasible, all pilings shall be installed and removed with vibratory pile drivers only. If feasible, vibratory pile driving shall be conducted following the Corps' "Proposed Procedures for Permitting Projects that will Not Adversely Affect Selected Listed Species in California". USFWS and NOAA completed Section 7 consultation on this document, which establishes general procedures for minimizing impacts to natural resources associated with projects in or adjacent to jurisdictional waters.An impact pile driver may only be used where necessary to complete installation of larger steel pilings in accordance with seismic safety or other engineering criteriaIf necessary, the hammer shall be cushioned using a 12-inch thick wood cushion block during all impact hammer pile driving operations.All piling installation using impact hammers shall be conducted between June 1 and November 30, when the likelihood of sensitive fish species being present in the work area is minimal.If pile installation using impact hammers must occur at times other than the approved work window, the project applicant shall obtain incidental take authorization from NMFS and CDFW, as necessary, to address potential impacts on steelhead trout, chinook salmon, and Pacific herring and implement all requested actions to avoid impacts.The project applicant shall monitor and verify sound levels during pile driving activities. The sound monitoring results will be made available to NMFS and the City.In the event that exceedance of noise thresholds established and approved by NMFS occurs, a contingency plan involving the use of bubble curtains or air barrier shall be implemented to attenuate sound levels to below threshold levels.	Pre-construction: Provide NMFS-approved sound attenuation and monitoring plan to the City Planning Division. During construction: Provide monitoring reports as specified in agreement with NMFS.	Project applicant or designee	Pre-construction: Prior to issuance of demolition/building permits in affected areas. During construction: Ongoing per terms of agreement with NMFS.	City of Alameda
	Mitigation Measure BIO-1b: During the project permitting phase, any activities requiring in-water work will either proceed under one of the programmatic consultations for federally listed species described above or a project-level BO would be required. Alternatively, the project will obtain Incidental Harassment Authorization (IHA) for marine mammals for dredging or pile driving activities. The project applicant shall also consult with CDFW regarding project impacts on State listed special-status fish species and the potential need for an incidental take permit (ITP). The project applicant shall submit to the City copies of any IHA and/or ITP received or, alternatively, copies of correspondence confirming that an IHA and/or ITP is not required for the project in question.	Provide evidence of regulatory compliance to the City Building Division and/or the City Planning Division as specified in the measure.	Project applicant or designee	Prior to issuance of demolition/building permits in affected areas.	City of Alameda
	Mitigation Measure BIO-1c: As part of the NMFS-approved sound attenuation monitoring plan required for pile driving in	Pre-construction: Provide NMFS-approved sound attenuation and monitoring plan to the City Planning Division. During construction: Provide	Project applicant or designee	Prior to issuance of demolition/building permits in affected areas.	City of Alameda

TABLE 4-1 (CONTINUED)
ALAMEDA MARINA MASTER PLAN MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measure	Action(s)	Implementing Party	Timing	Monitoring Party
	<p>Mitigation Measure BIO-1a, the City shall ensure that the project applicant implements these additional actions to reduce the effect of underwater noise transmission on marine mammals. These actions shall include at a minimum:</p> <ul style="list-style-type: none">Establishment of a 1,600-foot (500-meter) safety zone that shall be maintained around the sound source, for the protection of marine mammals in the event that sound levels are unknown or cannot be adequately predicted.Work activities shall be halted when a marine mammal enters the 1,600-feet (500-meter) safety zone and resume only after the animal has been gone from the area for a minimum of 15 minutes.A “soft start” technique shall be employed in all pile driving to give marine mammals an opportunity to vacate the area.Maintain in-air sound levels at the noise source below 90 dBA when pinnipeds (seals and sea lions) are present.A NMFS-approved biological monitor will conduct daily surveys before and during impact hammer pile driving to inspect the work zone and adjacent Bay waters for marine mammals. The monitor will be present as specified by NMFS during the impact pile-driving phases of construction.	<p>monitoring reports as specified in agreement with NMFS.</p>			
	<p>Mitigation Measure BIO-1d:</p> <p>Through the Design Review application process, the City shall ensure that the project applicant installs dock lighting on all floating docks and adjacent areas that minimizes artificial lighting of Bay waters by using shielded, low-mounted, and low light-intensity fixtures and bulbs.</p>	<p>Pre-construction: Provide lighting plans to City Building Division for review and approval showing compliance with measure. Post-construction: Demonstrate compliance with measure to satisfaction of the City Building Division.</p>	<p>Project applicant or designee</p>	<p>Pre-construction: Prior to issuance of building permits for affected water-side areas. Post-construction: Prior to issuance of occupancy permits.</p>	<p>City of Alameda</p>
	<p>Mitigation Measure BIO-1e:</p> <p>To the extent practicable, construction activities including building renovation, demolition, vegetation and tree removal, and new site construction shall be performed between September 1 and January 31 in order to avoid breeding and nesting season for birds. If these activities cannot be performed during this period, a preconstruction survey for nesting birds shall be conducted by a qualified biologist.</p> <p>In coordination with the City, surveys shall be performed during breeding bird season (February 1 – August 31) no more than 14 days prior to construction activities listed above in order to locate any active passerine nests within 250 feet of the project site and any active raptor nests within 500 feet of the project site. Building renovation, demolition, tree and vegetation removal, and new construction activities performed between September 1 and January 31 avoid the general nesting period for birds and therefore would not require pre-construction surveys.</p> <p>If active nests are found on either the proposed construction site or within the 500-foot survey buffer surrounding the proposed construction site, no-work buffer zones shall be established around the nests in coordination with CDFW. No renovation, demolition, vegetation removal, or ground-disturbing activities shall occur within a buffer zone until young have fledged or the nest is otherwise abandoned as determined by the qualified biologist. If work during the nesting season stops for 14 days or more and then resumes, then nesting bird surveys shall be repeated, to ensure that no new birds have begun nesting in the area.</p>	<p>Conduct pre-construction surveys for nesting birds if construction is proposed during specified times; provide results of surveys to City Building Division and/or City Planning Division; conduct construction activities according to the protocol described in the mitigation measure.</p>	<p>Project applicant or designee</p>	<p>Prior to issuance of demolition/building permits.</p>	<p>City of Alameda</p>
<p>Impact BIO-2: Development facilitated by the proposed project would not have a substantial adverse effect on riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.</p>	<p>Mitigation Measure BIO-2a:</p> <p>Prior to in-water work, the City shall ensure that the project applicant conducts a pre-construction survey to determine if native oysters, mussels, and eelgrass are present in the Oakland-Alameda Estuary to be affected by the project.</p> <ul style="list-style-type: none">The eelgrass survey shall be conducted according to the methods contained in the California Eelgrass Mitigation Policy and Implementing Guidelines (NMFS, 2014), with the exception that the survey shall be conducted within 120 days (rather than 60 days, as recommended in the CDEMP) prior to the desired construction start date, to allow sufficient time for modification of project plans (if feasible) and agency consultation.If eelgrass beds or native oysters are found within or immediately adjacent to the construction footprint, the project applicant shall first determine whether avoidance of the beds is feasible. If feasible, impacts to the oyster or eelgrass bed shall be avoided. If complete avoidance is not feasible, the applicant shall request guidance from the National Marine Fisheries Service (or other applicable agency) as to the need and/or feasibility to move affected beds. Any translocation of eelgrass beds shall be conducted consistent with the methods described in the	<p>Conduct preconstruction surveys for native oysters, mussels, and eelgrass as specified in the mitigation measure; provide results of surveys to City Building Division and/or City Planning Division; follow avoidance and monitoring protocols as directed by NMFS and as specified in the mitigation measure; provide compensatory mitigation if required.</p>	<p>Project applicant or designee</p>	<p>Prior to issuance of building permits for the affected in-water areas.</p>	<p>City of Alameda</p>

TABLE 4-1 (CONTINUED)
ALAMEDA MARINA MASTER PLAN MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measure	Action(s)	Implementing Party	Timing	Monitoring Party
	<p>CDEMP and/or those described in Eelgrass Conservation in San Francisco Bay: Opportunities and Constraints (Boyer and Wyllie-Echeverria, 2010). Translocation of oyster beds shall be consistent with methods and recommendations presented in Shellfish Conservation and Restoration in San Francisco Bay: Opportunities and Constraints (Zabin et al., 2010).</p> <ul style="list-style-type: none">If it is not possible to translocate oyster or eelgrass beds, then the City shall ensure that the project applicant provides compensatory mitigation consistent with the CDEMP for eelgrass (a ratio of 3.01:1 [transplant area to impact area]) and a minimum 1:1 ratio for oyster beds.The relocation or compensatory mitigation site for eelgrass or oyster beds shall be within San Francisco Bay.				
	<p>Mitigation Measure BIO-2b:</p> <p>The Marina operators shall prepare educational information regarding sensitive biological resources in the project vicinity and within Bay waters. This information shall be disseminated to all boaters using the marina and shall include, but not be limited to, information educating boat owner/operators about sensitive habitats and species in the Bay and actions they are required to implement to avoid impacts to marine resources.</p> <p>The educational information will be disseminated to visiting boaters through multiple methods including, but not limited to, brochures or pamphlets; marina and/or City websites; boating, cruising, and newspaper periodicals; and social media. The information shall be prepared soliciting input from, and in cooperation with, the National Marine Fisheries Service (NMFS), U.S. Coast Guard (USCG), California State Lands Commission, National Park Service (NPS), California Department of Parks and Recreation (CDPR), Bay Conservation and Development Commission (BCDC), and local organizations active in protecting Bay marine resources, as appropriate.</p>	Prepare educational materials as specified in the mitigation measure; present materials to the City and cooperating agencies for review and approval.	Project applicant or designee	Prior to issuance of occupancy permits.	City of Alameda
	<p>Mitigation Measure BIO-2c:</p> <p>The City shall require that the project applicant develop and implement a Marine Invasive Species Control Plan prior to commencement of any in-water work including, but not limited to, construction of wharves and seawalls, dredging, pile driving, and construction of new stormwater outfalls. The plan shall be prepared in consultation with the United States Coast Guard (USCG), RWQCB, and other relevant state agencies. Provisions of the plan shall include but not be limited to the following:</p> <ul style="list-style-type: none">Environmental training of construction personnel involved in in-water work.Actions to be taken to prevent the release and spread of marine invasive species, especially algal species such as Undaria and Sargasso.Procedures for the safe removal and disposal of any invasive taxa observed on the removed structures prior to disposal or reuse of pilings, docks, wave attenuators, and other features.The onsite presence of a qualified marine biologist to assist the contractor in the identification and proper handling of any invasive species on removed equipment or materials.A post-construction report identifying which, if any, invasive species were discovered attached to equipment and materials following removal from the water, and describing the treatment/handling of identified invasive species. Reports shall be submitted to the City, as well as the USCG and the RWQCB if requested by the agencies.	Prepare Marine Invasive Species Control Plan with cooperation and oversight from relevant agencies as specified in the mitigation measure; implement the plan as specified in the mitigation measure; conduct technical assistance activities as specified in the mitigation measure; prepare and submit a post-construction report to the City of Alameda and applicable agencies.	Project applicant or designee	Pre-construction: Prior to issuance of demolition/building permits within the affected in-water areas. Post-construction: Prior to final inspection of completed in-water structures within the affected area(s).	City of Alameda
Impact BIO-3: Development facilitated by the proposed project would not have a substantial adverse effect on federally protected wetlands, 'other waters', and navigable waters as defined by Sections 404 and 10 of the Clean Water Act and waters of the State through direct removal, filling, hydrological interruption, or other means.	<p>Mitigation Measure BIO-3a:</p> <p>All dredging and in-water construction activities shall be consistent with the standards and procedures set forth in the Long Term Management Strategy for dredging in the San Francisco Bay waters, a program developed by the U.S. Army Corps of Engineers (USACE), the Bay Conservation and Development Commission (BCDC), the Regional Water Quality Control Board (RWQCB), the U.S. Environmental Protection Agency, (EPA), and other agencies, to guide the disposal of dredge materials in an environmentally sound manner.</p>	Submit to the City an approved plan and/or required regulatory permits showing compliance with applicable requirements as specified in the mitigation measure.	Project applicant or designee	Prior to issuance of dredging and construction permits within the affected in-water areas.	City of Alameda
	<p>Mitigation Measure BIO-3b:</p> <p>During project construction, best management practices (BMPs) would be applied to prevent potential pollutants from entering the storm drain system directly, reducing sediment or potentially hazardous runoff from entering receiving waters. Examples of these measures include covering trash receptacles and car wash areas, regular sweeping of paved surfaces, stenciling of storm drain inlets, and installation of full trash capture devices.</p>	Provide construction specifications to City Building Division for review and approval.	Project applicant or designee	Prior to issuance of construction contracts and/or construction bid materials.	City of Alameda

TABLE 4-1 (CONTINUED)
ALAMEDA MARINA MASTER PLAN MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measure	Action(s)	Implementing Party	Timing	Monitoring Party
Impact BIO-4: Development facilitated by the proposed project would not interfere with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	<p>Mitigation Measure BIO-4:</p> <p>The City shall require that the project applicant retain a qualified biologist experienced with bird strike issues to review and approve the design of the building to ensure that it sufficiently minimizes the potential for bird strikes. The City may also consult with resource agencies such as the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or others, as it determines to be appropriate during this review.</p> <p>The project applicant shall provide to the City a written description of the measures and features of the building design that are intended to address potential impacts on birds. The design shall include some of the following measures or measures that are equivalent to, but not necessarily identical to, those listed below, as new, more effective technology for addressing bird strikes may become available in the future:</p> <ul style="list-style-type: none">• Employ design techniques that create “visual noise” via cladding or other design features that make it easy for birds to identify buildings as such and not mistake buildings for open sky or trees;• Decrease continuity of reflective surfaces using “visual marker” design techniques, which techniques may include:<ul style="list-style-type: none">— Patterned or fritted glass, with patterns at most 28 centimeters apart,— One-way films installed on glass, with any picture or pattern or arrangement that can be seen from the outside by birds but appear transparent from the inside,— Geometric fenestration patterns that effectively divide a window into smaller panes of at most 28 centimeters, and/or— Decals with patterned or abstract designs, with the maximum clear spaces at most 28 centimeters square.• Up to 60 feet high on building facades facing the shoreline, decrease reflectivity of glass, using design techniques such as plastic or metal screens, light-colored blinds or curtains, frosting of glass, angling glass towards the ground, UV-A glass, or awnings and overhangs;• Eliminate the use of clear glass on opposing or immediately adjacent faces of the building without intervening interior obstacles such that a bird could perceive its flight path through the glass to be unobstructed;• Mute reflections in glass using strategies such as angled glass, shades, internal screens, and overhangs; and• Place new vegetation sufficiently away from glazed building facades so that no reflection occurs. Alternatively, if planting of landscapes near a glazed building façade is desirable, situate trees and shrubs immediately adjacent to the exterior glass walls, at a distance of less than three feet from the glass. Such close proximity will obscure habitat reflections and will minimize fatal collisions by reducing birds’ flight momentum. <p>Lighting. The project applicant shall ensure that the design and specifications for buildings implement design elements to reduce lighting usage, change light direction, and contain light. These include, but are not limited to, the following general considerations that should be applied wherever feasible throughout the proposed project to reduce night lighting impacts on avian species:</p> <ul style="list-style-type: none">• Avoid installation of lighting in areas where not required for public safety• Examine and adopt alternatives to bright, all-night, floor-wide lighting when interior lights would be visible from the exterior or exterior lights must be left on at night, including:<ul style="list-style-type: none">— Installing motion-sensitive lighting— Installing task lighting— Installing programmable timers— Installing fixtures that use lower-wattage, sodium, and yellow-red spectrum lighting.• Install strobe or flashing lights in place of continuously burning lights for any obstruction lighting.• Where exterior lights are to be left on at night, install fully shielded lights to contain and direct light away from the sky.	Submittal of building, lighting, and structural plans to the City Building Division that meet the requirements of the bird-strike avoidance specifications as specified in the mitigation measure; preparation of education materials for future building occupants; peer review and approval of all of the above by a qualified biologist with appropriate expertise, with oversight by City staff; documentation of all of the above as specified in the mitigation measure.	Project applicant or designee	Pre-construction: Prior to issuance of building permits for each project phase. Post-construction documentation: Prior to issuance of building permits for each project phase.	City of Alameda

TABLE 4-1 (CONTINUED)
ALAMEDA MARINA MASTER PLAN MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measure	Action(s)	Implementing Party	Timing	Monitoring Party
	<p>Antennae, Monopole Structures, and Rooftop Elements. The City shall ensure, as a condition of approval for every building permit, that buildings minimize the number of and co-locate rooftop-antennas and other rooftop equipment, and that monopole structures or antennas on buildings, in open areas, and at sports and playing fields and facilities do not include guy wires.</p> <p>Educating Residents and Occupants. The City shall ensure, as a condition of approval for every building permit, that the project applicant agrees to provide educational materials to building tenants, occupants, and residents encouraging them to minimize light transmission from windows, especially during peak spring and fall migratory periods, by turning off unnecessary lighting and/or closing window coverings at night. The City shall review and approve the educational materials prior to building occupancy.</p> <p>Documentation. The project applicant and/or City shall document undertaking the activities described in this mitigation measure and maintain records that include, among others, the written descriptions provided by the building developer of the measures and features of the design for each building that are intended to address potential impacts on birds, and the recommendations and memoranda prepared by the qualified biologist experienced with bird strikes who reviews and approves the design of any proposed projects to ensure that they sufficiently minimize the potential for bird strikes.</p>				
Cultural Resources					
Impact CUL-1: Project implementation would cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.	<p>Mitigation Measure CUL-1a:</p> <p>Treatment of Historic Properties (Buildings 16 19 and 27). Alterations, to the exteriors of Buildings 16, 19 and 27, shall conform to the Secretary of the Interior’s Standards for the Treatment of Historic Properties and Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, if feasible (NPS, 1995) and PRC 5024.5.</p>	Placement of specified mitigation requirements within the project plans for each phase of project development; provide construction specifications to City Building Division for review prior to construction bid solicitation and/or contract finalization.	Project applicant or designee	Prior to issuance of construction contracts and/or construction bid solicitation.	City of Alameda
	<p>Mitigation Measure CUL-1b:</p> <p>Documentation. The project proponent shall prepare a treatment plan including but not limited to photo documentation and public interpretation of the Alameda Marina Historic District (Buildings 1, 4, 6, 12, 15, 16, 17, 19, 21, 22, 27, 28, 29, 31, 32, 33, 34, and the graving dock). Photo documentation will be overseen by a Secretary of the Interior–qualified architectural historian, documenting the affected historical resource. in accordance with the National Park Service’s Historic American Buildings Survey (HABS) and/or Historic American Engineering Record (HAER) standards. Such standards typically include large-format photography using (4x5) negatives, written data, and copies of original plans if available. The HABS/HAER documentation packages will be archived at local libraries and historical repositories, as well as the Northwest Information Center of the California Historical Resources Information System.</p>	Submit to the City a treatment plan for approval that meets the requirements of the mitigation; carry out the requirements of the approved plan; provide evidence of completion.	Project applicant or designee	Prior to issuance of demolition permits for affected areas.	City of Alameda
	<p>Mitigation Measure CUL-1c:</p> <p>Interpretive Display. Public interpretation of historical resources shall be provided and could include a plaque, kiosk, or other method of describing the Alameda Marina Historic District’s historic or architectural importance to the general public. The design and placement of the display(s) shall be reviewed and approved by the City of Alameda Historic Advisory Board.</p>	Submit to the City for approval an interpretive plan that meets the requirements of the mitigation; submit designs for interpretive displays for approval; provide evidence of completion.	Project applicant or designee	Pre-construction: Prior to issuance of building permits for each project phase. Post-construction documentation: Prior to issuance of building permits for each project phase.	City of Alameda

TABLE 4-1 (CONTINUED)
ALAMEDA MARINA MASTER PLAN MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measure	Action(s)	Implementing Party	Timing	Monitoring Party
Impact CUL-2: Project construction could cause a substantial adverse change in the significance of an archaeological resource, including those determined to be a historical resource defined in Section 15064.5 or a unique archaeological resource defined in PRC 21083.2.	<p>Mitigation Measure CUL-2a:</p> <p>Archaeological Resources Management Plan. During the preliminary design for development within the project area, and prior to submittal of a building permit or grading application to the City of Alameda, the project applicant shall undertake the following:</p> <ul style="list-style-type: none">• Preservation in Place. A qualified archaeologist, in consultation with the City of Alameda, the project applicant, and the appropriate Native American representative(s) shall determine whether preservation in place of site CA-ALA-11 is feasible. Consistent with CEQA Guidelines Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. <p>If it is determined that preservation in place is not feasible for the resource and another type of mitigation would better serve the interests protected by CEQA, mitigation shall include testing and data recovery through archaeological investigations and the project applicant shall undertake the following:</p> <ul style="list-style-type: none">• Archaeological Resources Management Plan. Because a significant archaeological resource (CA-ALA-11) has been previously identified in the project area, the project proponent shall retain a Secretary of the Interior-qualified archaeologist, in consultation with a Native American representative(s), to prepare and implement an Archaeological Resources Management Plan (ARMP). The ARMP shall include a preliminary testing program to identify the types of expected archaeological materials, the testing methods to be used to define site boundaries and constituents, and the locations recommended for testing. The purpose of the testing program will be to determine to the extent possible the presence or absence of archaeological materials in the proposed areas of disturbance for the project and to determine whether those materials contribute to the significance of site CA-ALA-11. If a significant contributing element to the site is in the project area, the project proponent shall conduct a data recovery program as outlined in the ARMP. The ARMP will include how the data recovery program would preserve the significant information the archaeological resource is expected to contain. Treatment would consist of (but would not be not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim of targeting the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the project. The ARMP shall include provisions for analysis of data in a regional context; reporting of results within a timely manner and subject to review and comments by the appropriate Native American representative, before being finalized; curation of artifacts and data at a local facility acceptable to the City and appropriate Native American representative; and dissemination of final confidential reports to the appropriate Native American representative, the Northwest Information Center of the California Historical Resources Information System and the City.	Submit plan for approval that meets the requirements of the mitigation measure.	Project applicant or designee	Prior to issuance of construction contracts and/or construction bid solicitation.	City of Alameda
	<p>Mitigation Measure CUL-2b:</p> <p>Inadvertent Discovery of Archaeological Resources. During construction outside of known archaeological site boundaries, if prehistoric or historic-era cultural materials are encountered, all construction activities within 100 feet shall halt and the City shall be notified. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; artifact filled wells or privies; and deposits of metal, glass, and/or ceramic refuse.</p> <p>The project applicant shall ensure that a Secretary of the Interior-qualified archaeologist inspect the find within 24 hours of discovery. If the find is determined to be potentially significant, the archaeologist, shall follow the guidelines provided in Mitigation Measure CUL-2a above.</p>	Submit for approval a plan for inadvertent discovery; incorporate requirements into the design and construction specifications; demonstrate retainment of qualified archaeologist to be available in the event of an inadvertent discovery; comply with terms of Mitigation Measure CUL-2a if a discovery is found to be potentially significant.	Project applicant or designee	Prior to issuance of construction contracts and/or construction bid materials.	City of Alameda

TABLE 4-1 (CONTINUED)
ALAMEDA MARINA MASTER PLAN MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measure	Action(s)	Implementing Party	Timing	Monitoring Party
Impact CUL-3: Project construction could disturb human remains, including those interred outside of formal cemeteries.	Mitigation Measure CUL-3: <i>Inadvertent Discovery of Human Remains.</i> Pursuant to Section 7050.5 of the Health and Safety Code, and Section 5097.94 of the Public Resources Code of the State of California, the project applicant shall ensure the following: <ul style="list-style-type: none">Project construction personnel shall be informed of the potential of encountering human remains during construction, and the proper procedures to follow in the event of the discovery of human remains during construction.In the event of the discovery of human remains during construction, work shall stop in that area and within 100 feet of the find. The Alameda County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to their authority, they shall notify the Native American Heritage Commission who shall identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this State law, then the project applicant shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further ground disturbance.	Incorporate requirements into the design and construction specifications; comply with mitigation if remains are found.	Project applicant or designee	Prior to issuance of construction contracts and/or construction bid materials.	City of Alameda
Impact CUL-4: Project construction could cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Public Resources Code Section 21074.	Mitigation Measure CUL-4: <i>Tribal Cultural Resources Interpretive Program.</i> In consultation with the affiliated Native American tribal representatives, the proposed project shall be redesigned so as to avoid any adverse effect on the significant tribal cultural resource, if feasible. If preservation in place of the tribal cultural resource is not a sufficient or feasible option, the project applicant shall implement an interpretive program of the tribal cultural resource in consultation with affiliated tribal representatives. The plan shall identify, as appropriate, proposed locations for installations or displays, the proposed content and materials of those displays or installation, the producers or artists of the displays or installation, and a long term maintenance program. The interpretive program may include artist installations, preferably by local Native American artists, oral histories with local Native Americans, artifacts displays and interpretation, and educational panels or other informational displays.	Submit to the City for approval an interpretive plan that meets the requirements of the mitigation; submit designs for interpretive displays for approval; provide evidence of completion.	Project applicant or designee	Pre-construction: Prior to issuance of building permits for each project phase. Post-construction documentation: Prior to issuance of building permits for each project phase.	City of Alameda
Hazards and Hazardous Materials					
Impact HAZ-1: Demolition of the existing structures on the project site which likely contain hazardous building materials—such as lead-based paint, asbestos, and PCBs—could potentially expose workers, the public, or the environment to hazardous materials from the transport, use, or disposal of these hazardous materials and waste.	Mitigation Measure HAZ-1a: Prior to issuance of any demolition permit, the project applicant shall submit to the Alameda County Department of Environmental Health a hazardous building material assessment prepared by qualified licensed contractors for any structure intended for demolition indicating whether ACMs, LBP or lead-based coatings, and/or PCB-containing equipment, are present.	Submit appropriate assessment, disposal plans and/or permits to the City Building Division.	Project applicant or designee	Prior to issuance of demolition permits.	City of Alameda
	Mitigation Measure HAZ-1b: If the assessment required by Mitigation Measure HAZ-1a indicates the presence of ACMs, LBP, and/or PCBs, the project applicant shall create and implement a health and safety plan in accordance with local, state, and federal requirements to protect demolition and construction workers and the public from risks associated with such hazardous materials during demolition or renovation of affected structures.	Submit health and safety plan meeting the requirements of the mitigation measure for review and approval by the City Building Division.	Project applicant or designee	Prior to issuance of building permits.	City of Alameda
	Mitigation Measure HAZ-1c: If the assessment required by Mitigation Measure HAZ-1a finds asbestos, the project applicant shall prepare an asbestos abatement plan and shall ensure that asbestos abatement is conducted by a licensed contractor prior to building demolition. Abatement of known or suspected ACMs shall occur prior to demolition or construction activities that would disturb those materials. Pursuant to an asbestos abatement plan developed by a state-certified asbestos consultant and approved by the City, all ACMs shall be removed and appropriately disposed of by a state certified asbestos contractor.	Submit appropriate disposal plans and/or permits to the satisfaction of the City Building Division. Submit remediation verification to the satisfaction of the City Building Division, in compliance with applicable laws and regulations.	Project applicant or designee	Pre-demolition: Prior to issuance of demolition permits. Post-demolition: Prior to issuance of building permits.	City of Alameda

TABLE 4-1 (CONTINUED)
ALAMEDA MARINA MASTER PLAN MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measure	Action(s)	Implementing Party	Timing	Monitoring Party
Impact HAZ-2: Construction at the project site could potentially disturb soil and groundwater impacted by historical hazardous material use, which could expose construction workers, the public, or the environment to adverse conditions related to the transport, use, or disposal of hazardous materials and waste.	Mitigation Measure HAZ-1d: If the assessment required by Mitigation Measure HAZ-1a finds presence of LBP, the project applicant shall develop and implement a LBP removal plan. The plan shall specify, but not be limited to, the following elements for implementation: <div><div>1.</div><div>Develop a removal specification approved by a Certified Lead Project Designer.</div></div> <div><div>2.</div><div>Ensure that all removal workers are properly trained.</div></div> <div><div>3.</div><div>Contain all work areas to prohibit off-site migration of paint chip debris.</div></div> <div><div>4.</div><div>Remove all peeling and stratified LBP on building and non-building surfaces to the degree necessary to safely and properly complete demolition activities according to recommendations of the survey. The demolition contractor shall be responsible for the proper containment and/or disposal of intact LBP on all materials to be cut and/or removed during the demolition.</div></div> <div><div>5.</div><div>Provide on-site personnel and area air monitoring during all removal activities to ensure that workers and the environment are adequately protected by the control measures used.</div></div> <div><div>6.</div><div>Clean up and/or vacuum paint chips with a high efficiency particulate air (HEPA) filter.</div></div> <div><div>7.</div><div>Collect, segregate, and profile waste for disposal determination.</div></div> <div><div>8.</div><div>Properly dispose of all waste.</div></div>	Submit appropriate disposal plans and/or permits to the satisfaction of the City Building Division. Submit remediation verification to the satisfaction of the City Building Division, in compliance with applicable laws and regulations.	Project applicant or designee	Pre-demolition: Prior to issuance of demolition permits. Post-demolition: Prior to issuance of building permits.	City of Alameda
	Mitigation Measure HAZ-1e: If the assessment required by Mitigation Measure HAZ-1a finds presence of PCBs, the project applicant shall ensure that PCB abatement in compliance with applicable regulations is conducted prior to building demolition or renovation. PCBs shall be removed by a qualified contractor and transported in accordance with Caltrans requirements.	Submit appropriate disposal plans and/or permits to the satisfaction of the City Building Division. Submit remediation verification to the satisfaction of the City Building Division, in compliance with applicable laws and regulations.	Project applicant or designee	Pre-demolition: Prior to issuance of demolition permits. Post-demolition: Prior to issuance of building permits.	City of Alameda
	Mitigation Measure HAZ-2a: Prior to issuance of any demolition permit, the project applicant shall submit to the City a Site-Specific Environmental Health and Safety Plan (HASP). The HASP shall be consistent with State and federal OSHA standards for hazardous waste operations (California Code of Regulations, Title 8, Section 5192 and 29 Code of Federal Regulations 1910.120, respectively) and any other applicable health and safety standards. The HASP shall include descriptions of health and safety training requirements for onsite personnel and levels of personal protective equipment to be used, and any other applicable precautions to be undertaken to minimize direct contact with soil and to a lesser degree, groundwater if is encountered. The HASP shall be adhered to during construction and excavation activities. All workers onsite should read and understand the HASP and copies shall be maintained onsite during construction and excavation at all times.	Submit health and safety plan meeting the requirements of the mitigation measure for review and approval by the City Building Division.	Project applicant or designee	Prior to issuance of demolition permits.	City of Alameda

TABLE 4-1 (CONTINUED)
ALAMEDA MARINA MASTER PLAN MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measure	Action(s)	Implementing Party	Timing	Monitoring Party
	<p>Mitigation Measure HAZ-2b:</p> <p>Prior to issuance of a building or grading permit for any ground breaking activities within the project site, the project applicant shall prepare a Site Management Plan (SMP) consistent with US EPA, DTSC, and Water Board standards for incorporation into construction specifications. The SMP shall be present on site at all times and readily available to site workers. The SMP shall specify protocols and requirements for excavation, stockpiling, and transport of soil and for disturbance of groundwater. At a minimum the SMP shall include the following components:</p> <ol style="list-style-type: none">Dust control measures: Dust generation shall be minimized by any or all appropriate measures. These measures may include:<ol style="list-style-type: none">Misting or spraying water while performing excavation activities and loading transportation vehicles;Limiting vehicle speeds onsite to 5 miles per hour;Controlling excavation activities to minimize the generation of dust;Minimizing drop heights while loading transportation vehicles; andCovering any soil stockpiles generated as a result of excavating soil potentially impacted by contaminants of concern with plastic sheeting or tarps.Decontamination measures: Decontamination methods shall include scraping, brushing, and/or vacuuming to remove dirt on vehicle exteriors and wheels. In the event that these dry decontamination methods are not adequate, methods such as steam cleaning, high-pressure washing, and cleaning solutions shall be used, as necessary, to thoroughly remove accumulated dirt and other materials. Wash water resulting from decontamination activities shall be collected and managed in accordance with all applicable laws and regulations.Stormwater pollution control measures: Should rainfall occur during construction on exposed soils at the site stormwater pollution controls shall be implemented to minimize stormwater runoff from exposed soil containing contaminants of concern at the site and to prevent sediment from leaving the site, in accordance with all laws and regulations. Stormwater pollution controls shall be based on BMPs to comply with State and local regulations. Sediment and erosion protection controls may include but are not limited to:<ol style="list-style-type: none">Constructing berms or erecting silt fences at entrances to the project site;Placing straw bale barriers around catch basins and other entrances to the storm drains;During significant rainfall events, covering with plastic sheeting or tarps any soil stockpiles generated as a result of excavating soil potentially impacted by contaminants of concern.Field screening of potential contaminated soil and suspect contamination discovery: Potentially contaminated soil shall be either direct loaded using the profile data associated with Stellar Environmental Solutions' October 2015 report or stockpiled for additional sampling and analyses to define the contamination fate after the excavation stage. If more the one year elapses between the soil profiling and the excavation stage stockpiling, sampling may be required by a regulated landfill. Trained (with 40-hour hazwopper and associated updates) environmental personnel shall be onsite to do the stockpile sampling and be on-call to deal with any suspect contamination discovery. Personnel will monitor for potentially contaminated soils by visual screening, noting any contaminant odors, and utilizing a photoionization detector (PID) to field measure any VOCs during the excavation activity. Monitoring parameters shall be recorded at intervals of approximately 1 hour or less.	Submit appropriate plans to the satisfaction of the City Building Division. Submit remediation verification to the satisfaction of the City Building Division, in compliance with applicable laws and regulations.	Project applicant or designee	<p>Pre-demolition: Prior to issuance of demolition permits.</p> <p>Post-demolition: Prior to issuance of building permits.</p>	City of Alameda
<p>Impact HAZ-5: Development of the project would be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and could result in a safety hazard to the public or environment through exposure to previous contamination of soil or groundwater.</p>	<p>Mitigation Measure HAZ-3:</p> <p>Prior to issuance of a building or grading permit for any ground breaking activities within the project site, the project applicant shall prepare a Remedial Risk Management Plan (RRMP). The RRMP shall be developed and followed by current and future owners, tenants, and operators. The RRMP shall include the implementation of any needed corrective action remedies and engineering design.</p>	Submit appropriate plans to the satisfaction of the City Building Division. Submit remediation verification to the satisfaction of the City Building Division, in compliance with applicable laws and regulations.	Project applicant or designee	<p>Pre-demolition: Prior to issuance of demolition permits.</p> <p>Post-demolition: Prior to issuance of building permits.</p>	City of Alameda
Hydrology and Water Quality					
<p>Impact HYD-4: Development of the proposed project would not substantially contribute to runoff</p>	<p>Mitigation Measure HYD-1:</p>	Submit appropriate plan meeting the requirements of the mitigation measure for review and approval	Project applicant or designee	Prior to issuance of building	City of Alameda

TABLE 4-1 (CONTINUED)
ALAMEDA MARINA MASTER PLAN MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measure	Action(s)	Implementing Party	Timing	Monitoring Party
water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	<p>The City shall ensure that future project applicants implement Integrated Pest Management measures to reduce fertilizer and pesticide contamination of receiving waters, as follows:</p> <ul style="list-style-type: none">• Prepare and Implement an Integrated Pest Management Plan (IPM) for all common landscaped areas. The IPM shall be prepared by a qualified professional and shall recommend methods of pest prevention and turf grass management that use pesticides as a last resort in pest control. Types and rates of fertilizer and pesticide application shall be specified.• The IPM shall specify methods of avoiding runoff of pesticides and nitrates into receiving storm drains and surface waters or leaching into the shallow groundwater table. Pesticides shall be used only in response to a persistent pest problem that cannot be resolved by non-pesticide measures. Preventative chemical use shall not be employed.• The IPM shall fully integrate considerations for cultural and biological resources into the IPM with an emphasis toward reducing pesticide application.	by the City Building Division.		permits.	
Noise					
Impact NOI-1: Construction of proposed project elements could expose persons to or generate noise levels in excess of the City noise standards or result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	<p>Mitigation Measure NOISE-1a:</p> <p>The applicant shall create and implement development-specific noise and vibration reduction plans, which shall be enforced via contract specifications. Contractors may elect any combination of legal, non-polluting methods to maintain or reduce noise and vibration to threshold levels or lower, as long as those methods do not result in other significant environmental impacts or create a substantial public nuisance. In addition, the applicant shall require contractors to limit construction activities to daytime hours between 7:00 am and 7:00 pm Monday through Friday and 8:00 am to 5:00 pm on Saturdays. The plan for attenuating construction-related noises shall be implemented prior to the initiation of any work that triggers the need for such a plan.</p>	Submit construction noise and vibration management plan meeting the requirements of the mitigation measure to the City Building Division for review and approval; incorporate requirements thereof into the project plans, to the satisfaction of the City Building Division.	Project applicant or designee	Prior to issuance of construction contracts and/or construction bid solicitation materials.	City of Alameda
	<p>Mitigation Measure NOISE-1b:</p> <p>To reduce pile driving noise, “vibratory” pile driving or drilled and cast-in-place piles shall be used wherever feasible. The vibratory pile driving technique, despite its name, does not generate vibration levels higher than the standard pile driving technique. It does, however, generate lower, less-intrusive noise levels.</p>	Indicate specified requirements on project plans and requests for bids of preference for vibratory pile driving techniques, subject to review and approval by the City Building Division.	Project applicant or designee	Prior to issuance of construction contracts and/or construction bid solicitation materials.	City of Alameda
Impact NOI-3: Traffic and equipment operations associated with the proposed project could result in a substantial permanent increase in ambient noise levels in the vicinity or above levels existing without the project.	<p>Mitigation Measure NOISE-2a:</p> <p>Acoustical studies, describing how the exterior and interior noise standards will be met, shall be required for all new residential or noise sensitive developments exposed to environmental noise greater than CNEL 60 dBA, or one-family dwellings not constructed as part of a subdivision requiring a final map exposed to environmental noise greater than CNEL 65 dBA. The studies should also satisfy the requirements set forth in Title 24, Section 1207, of the California Building Code, Noise Insulation Standards, for multiple-family uses, regulated by Title 24.</p>	Submit indicated acoustical studies to City Building Division for review and approval, and demonstrated compliance with recommendations therein required to meet the specifications of the mitigation measure.	Project applicant or designee	Prior to issuance of building permits.	City of Alameda
	<p>Mitigation Measure NOISE-2b:</p> <p>The applicant shall demonstrate through its acoustical studies that the proposed project will comply with maximum noise levels outlined in the City’s Noise Ordinance and the average sound level goals outlined in the City’s General Plan.</p>	Submittal of acoustical studies to City Building Division for review and approval, wherein compliance with City’s General Plan can be verified.	Project applicant or designee	Prior to issuance of building permits.	City of Alameda
Transportation and Traffic					
Impact TRA-1: The proposed project would not exceed the regional VMT per capita minus 15 percent.	<p>Mitigation Measure TRA-1:</p> <p>To reduce the amount of VMT generated by the project, as well as the number of automobile trips generated by the project and to reduce automobile LOS impacts, the project shall prepare a Transportation Demand Management (TDM) Plan and funding program for Planning Board review and approval. The TDM plan shall include the following measures to reduce VMT and vehicle trips, particularly single-occupant vehicle trips, by project residents, workers, and visitors.:</p> <ul style="list-style-type: none">• All residents and employers at Alameda Marina will pay annual fees to support supplemental transit services and trip reduction services for the residents and employees.• All residents and employees will be provided with AC Transit Easy Passes, which will provide access to all of AC Transit’s services including the San Francisco express commuter buses. The cost of the passes will be included in the mandatory assessments on each unit, which dis-incentives future residents who prefer to drive alone and do not want to use transit.• Residents of the non-townhome units, who wish to have cars, will be required to lease	Submit Transportation Demand Management (TDM) Plan for review and approval by the City of Alameda; submit annual TDM monitoring plan for review and approval by the City of Alameda.	Project applicant or designee	<p>Initial submittal of TDM(s): Prior to issuance of building permits for each project phase.</p> <p>Submittal of TDM monitoring reports: On an annual basis.</p>	City of Alameda

TABLE 4-1 (CONTINUED)
ALAMEDA MARINA MASTER PLAN MITIGATION MONITORING AND REPORTING PROGRAM

Impact	Mitigation Measure	Action(s)	Implementing Party	Timing	Monitoring Party
	<p>parking spaces on a monthly basis in a shared parking lot or structure. The cost of the parking will be “unbundled” from the cost of the residential unit, which provides a financial incentive for residents to reduce car ownership and take advantage of the AC Transit passes, which are “bundled” into the cost of their residential units. (The 162 townhomes will have private parking.)</p> <ul style="list-style-type: none">The project residents will be members of the Alameda Transportation Management Agency, which will provide transportation information services to all of the residents through a TMA website and through annual surveys of resident transportation needs.The project will provide access to car share and guaranteed ride home services to make it easier for residents and employees to reduce their dependence on a private automobile and increase use of project-provided transit services.Resident annual assessments in the Northern Waterfront area currently fund supplemental commute hour service on the AC Transit Line 19, which provides direct service to Fruitvale and 12th Street BART stations. Future assessments received from project residents and employers will allow for additional transit services and future water shuttle services designed to serve the waterfront developments along the Estuary in Alameda and Oakland and connect the project sites to the regional ferry services provided from Jack London Square in Oakland and the Main Street Terminal in Alameda.				
Impact TRA-3: In the event that the planned Clement Avenue extension is not completed prior to project opening, the proposed project could increase traffic volumes at intersections on Buena Vista Avenue such that traffic operations could deteriorate to substandard conditions.	<p>Mitigation Measure TRA-3:</p> <p>The project shall pay a fair share contribution to the cost of the Clement Avenue extension from Atlantic Avenue to Grand Street. The fair share contribution shall be calculated based upon a traffic study to calculate the fair share contribution of each Northern Waterfront development project including the Del Monte Warehouse Project, the Encinal Terminals Project, the Wind River fifth building project, and Alameda Marina, which will contribute traffic trips to the Clement Avenue Extension. The City shall require all developers to contribute their fair share as determined by the traffic study. The Alameda Marina fair share contribution shall be paid on a pro-rata basis for each residential phase of the Alameda Marina project (number of units in phase divided by total number of units in project multiplied by the fair share contribution). Each portion of the fair share contribution shall be paid prior to issuance of the first building permit for the current residential phase if work on the Clement Avenue extension has been initiated by another developer of a Northern Waterfront development project. If the work has not been initiated by another developer prior to issuance of the first building permit for Alameda Marina, the contribution shall be made prior to issuance of the first residential Certificate of Occupancy on the property.</p>	Pay fees per the requirements of the mitigation.	Traffic study: City's traffic consultant. Payment of fees: Project applicant or designee	Per the terms of the mitigation.	City of Alameda
Impact TRA-10: Development facilitated by the proposed project could potentially be inconsistent with adopted policies, plans, and programs supporting alternative transportation.	<p>Mitigation Measure TRA-4:</p> <p>The project shall, consistent with the City of Alameda Bicycle Master Plan, provide a Class I bicycle path along the northern waterfront of the project site and ensure that the path would connect to adjacent future bicycle facilities.</p>	Submit design and construction specifications for pathway; incorporate pathway into the project plans, to the satisfaction of the City Building Division.	Project applicant or designee	Prior to issuance of construction contracts and/or construction bid solicitation materials.	City of Alameda
Utilities and Service Systems					
Impact UTL-2: The proposed project would not have wastewater service demands that would result in a determination by the service provider that it does not have adequate capacity to serve projected demand, necessitating the construction of new or expanded wastewater treatment facilities.	<p>Mitigation Measure UTL-2:</p> <p>Sewer Design. The project sponsors shall: 1) Replace or rehabilitate any existing sanitary sewer collection systems, including sewer lateral lines, to ensure that such systems and lines are free from defects or, alternatively, disconnected from the sanitary sewer system; and 2) Ensure any new wastewater collection systems, including new lateral lines, for the project are constructed to prevent infiltration and inflow (I&I) to the maximum extent feasible while meeting all requirements contained in the Regional Private Sewer Lateral Ordinance and applicable municipal codes or City ordinances.</p>	Comply with terms of the mitigation measure to the satisfaction of the City Department of Public Works and applicable utility providers.	Project applicant or designee	Prior to issuance of first occupancy permit.	City of Alameda