PORT OF OAKLAND

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OAKLAND INTERNATIONAL AIRPORT

South Field Airport Traffic Control Tower Demolition

DRAFT ENVIRONMENTAL IMPACT REPORT

PREPARED FOR:

Port of Oakland

PREPARED BY:

RICONDO®
& ASSOCIATES

MARCH 2013

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1. Introduction and Executive Summary

Consistent with the California Environmental Quality Act (CEQA, Public Resources Code §21000 et seq.) and the CEQA Guidelines (California Code of Regulations [CCR] Title 14, §15000 et seq.), this Draft Environmental Impact Report (Draft EIR) evaluates the environmental effects of demolishing floors 3 through 10 of the South Field Airport Traffic Control Tower (ATCT) at Oakland International Airport (OAK or Airport) (the Proposed Project). This Draft EIR has been prepared by the Port of Oakland (the Port), the owner and operator of OAK, as the lead agency in conformance with the requirements of CEQA.

An Initial Study Checklist was prepared in December 2012 which identified the resource areas that could be subject to significant impacts from the Proposed Project and that would require incorporation of mitigation measures where feasible. Based on a preliminary review of the project site and in consideration of the demolition activities associated with the Proposed Project, the Port determined that potentially significant effects may occur to aesthetics and cultural resources, because the South Field ATCT is eligible for listing on the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR). As a result, these resources are evaluated further in the Draft EIR.

The Port determined that impacts related to hazards and hazardous wastes would be less than significant with mitigation incorporated. Proposed Project impacts related to air quality, greenhouse gas emissions, noise, transportation/traffic, utilities and service systems, and cumulative impacts would be less than significant. The Proposed Project would have no impact on agricultural and forestry resources, biological resources, geology and soils, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, or recreation.

Federal, State, regional, and local agencies, as well as the public were afforded an opportunity to comment on the findings of the Initial Study Checklist through the 30-day scoping period (December 19, 2012 to January 21, 2013) associated with circulation of the Notice of Preparation (NOP) for this Draft EIR. A public scoping workshop was held on

January 7, 2013. No areas of controversy were identified and no comments were received during the agency and public review period. Therefore, only aesthetics and cultural resources are evaluated further.

1.1 Purpose of the Draft EIR

Since the Initial Study Checklist determined that the Proposed Project may have a significant effect on the environment, CEQA Guidelines require the preparation of this Draft EIR. The Port has undertaken this Draft EIR for the following purposes:

- To evaluate the potentially significant environmental effects (aesthetics and cultural resources) associated with the implementation of the Proposed Project, as required by CEQA;
- To indicate the manner in which those significant environmental effects can be avoided or significantly lessened;
- To identify any significant and unavoidable adverse impacts that cannot be mitigated;
- To identify reasonable and feasible alternatives to the Proposed Project that would eliminate any significant adverse environmental effects or reduce the impacts to less-than-significant levels;
- To inform the general public, the local community, and responsible trustee, State, and federal agencies of the nature of the Proposed Project, its potentially significant environmental effects, feasible mitigation measures to mitigate those effects, and reasonable and feasible alternatives; and
- To enable the Board of Port Commissioners and other Port decision-makers to consider the environmental consequences of the Proposed Project and make findings regarding each significant effect that is identified.

According to CEQA Statute and Guidelines, public agencies must avoid or substantially lessen significant environmental impacts where feasible. Where impacts cannot be mitigated to less-than-significant levels, public agencies have an obligation to balance the project's significant impacts on the environment against other factors, including economic, social, technological, legal, and other benefits.

The Port must certify the Draft EIR before approving the Proposed Project. Upon certification, the Draft EIR will serve as a basis for decisions on implementation of the Proposed Project.

This Draft EIR was prepared in accordance with Section 15151 of the CEQA Guidelines, which defines the standards for EIR adequacy as follows:

> *An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and good faith effort at full disclosure.*

1.2 Summary of the Proposed Project

The U.S. Department of Transportation, Federal Aviation Administration (FAA), has constructed a new 236-foot ATCT (new ATCT) and 14,700 square-foot base building at OAK[1], which is scheduled to be operational in summer 2013. After opening, all Airport traffic control functions will be consolidated in the new tower, making the South Field ATCT obsolete. Engineering studies concluded that the South Field ATCT at OAK does not meet current seismic and building code standards and poses a life safety hazard in the event of a major seismic event. The Port estimates that the upgrades required for the renovation of the South Field ATCT, which is structurally integrated with Terminal 1, to meet current seismic and building code standards would significantly impact the integrity of the building and usable space, and would be cost prohibitive. Therefore, the Port has determined that floors 3 through 10 (which extend above Terminal 1) of the South Field ATCT should be demolished.

[1] U.S. Department of Transportation, Federal Aviation Administration, Replace Airport Traffic Control Tower (ATCT) and Establish Base Building, Oakland International Airport, Plan Set, April 14, 2010.

1.3 Relationship to Existing Plans and Documents

The renovation of Terminal 1 was examined and approved as part of CEQA[2] and National Environmental Policy Act (NEPA)[3] documents prepared for the Airport Development Program (ADP) at OAK. The ADP incorporates various Airport improvement projects intended to accommodate future growth in passenger and aviation-related activities.

In compliance with NEPA, the FAA prepared an Environmental Assessment (EA) to examine the construction of a new ATCT to consolidate North and South Field Airport traffic control operations in one ATCT, increase operational and regional air traffic management efficiencies, and reduce ATCT facility maintenance requirements. A Finding of No Significant Impact/Record of Decision was issued for the Final Environmental Assessment in April 2002.[4]

These documents did not evaluate impacts associated with the demolition of the South Field ATCT. Since there is no federal action, only compliance with CEQA is required.

1.4 Organization of this Draft EIR

Following the preparation and content guidance provided in CEQA Statutes and Guidelines, this Draft EIR contains the following sections:

- **Section 1**: *Introduction and Executive Summary* – Summarizes the components of the Proposed Project, the relationship of the project to existing OAK plans and

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[2] Port of Oakland. Final Environmental Impact Report, Proposed Airport Development Program, Metropolitan Oakland International Airport, Oakland, Alameda County, California, December 1997.

Port of Oakland. Draft Supplemental Environmental Impact Report, Proposed Airport Development Program, Metropolitan Oakland International Airport, Oakland, Alameda County, California, March 1999.

ESA. Draft Oakland International Airport – Airport Development Program (ADP), Supplemental Impact Environmental Report, SCH No. 1994113039, September 2003.

[3] U.S. Department of Transportation, Federal Aviation Administration. Revised Draft Environmental Impact Statement – Proposed Airport Development Program, Oakland International Airport, Oakland, Alameda County, California, Volume 1 to 3, September 2000.

[4] U.S. Department of Transportation, Federal Aviation Administration, Western-Pacific Region. Finding of No Significant Impact/Record of Decision for the Construction and Operation of a New Airport Traffic Control Tower (ATCT) at Oakland International Airport, April 2002.

documents, and the impacts and mitigation measures from the environmental analysis.

- **Section 2**: *Description of the Proposed Project* – Describes the Proposed Project, including a background of OAK, the objective of the Proposed Project, the project location, and a detailed description of the Proposed Project. A description of the anticipated demolition schedule and the intended uses of this Draft EIR are also provided.
- **Section 3**: *Project Setting* – Presents an overview of the existing land use and environmental setting relevant to the Proposed Project. This section also describes other projects proposed in the nearby area that may, in conjunction with the Proposed Project, result in cumulative impacts on that existing setting.
- **Section 4**: *Environmental Impacts* – Presents the framework for the environmental review of the Proposed Project on aesthetics and cultural resources, providing the regulatory context, thresholds of significance, and mitigation measures to reduce the impacts to non-significant levels.
- **Section 5**: *Alternatives to the Proposed Project* – Presents a description of the alternatives to the proposed demolition of the South Field ATCT that were considered. As required by CEQA, Section 5 evaluates the potential for these alternatives to avoid or substantially lessen any significant effects of the Proposed Project while meeting the objectives of the project.
- **Section 6**: *Public Involvement* – Includes public outreach opportunities and presents a list of the parties to whom copies of this Draft EIR or notice of availability of the Draft EIR were sent for review.
- **Section 7**: *List of Preparers* – Provides the names and titles of the individuals from the Port and contractors that participated in the preparation and development of this Draft EIR.
- **Section 8**: *References* – Provides a list containing bibliography of documents used in the preparation of the Draft EIR.
- **Section 9:** *List of Acronyms* – Provides a list of acronyms used in the Draft EIR.

1.5 Summary of Environmental Impacts

Based in part on the Initial Study Checklist (**Appendix A**), the Port determined that preparation of an EIR was required because the proposed demolition of floors 3 through 10 of the South Field ATCT could have potentially significant impacts on aesthetics and cultural resources due to the South Field ATCT's eligibility on the NRHP/CRHR. Specifically, the Proposed Project could substantially degrade the existing visual character or quality of the site and its surroundings (aesthetics) and could cause a substantial adverse change in the significance of a historical resource as defined in CEQA Section 15064.5 (cultural resources). Potentially significant impacts to these resources are evaluated further in Section 4. The Initial Study Checklist concluded that the following resources would not be significantly impacted and would not require further analysis in this Draft EIR:

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

1.5.1 PROJECT ALTERNATIVES

As required by CEQA, an EIR must include a discussion of reasonable project alternatives that would "feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives" (CEQA Guidelines Section 15126.6). As discussed in Section 4 of this Draft EIR, the demolition of floors 3 through 10 of the South Field ATCT is anticipated to result in significant impacts related to cultural resources. Section 5 of this Draft EIR addresses alternatives to the Proposed Project including renovating the existing South Field ATCT to meet seismic and building code standards and a "no project" alternative which discusses leaving the South Field ATCT in its existing condition.

1.5.2 MITIGATION MEASURES

The Port will conduct the following measures to minimize, to the extent possible, the significant impacts to the South Field ATCT:

HR-1. Historic Documentation of the South Field ATCT. A report documenting the historic features of the South Field ATCT shall be prepared by the Port. Documentation shall adequately explicate and illustrate the character defining features that are truly significant or valuable about the South Field ATCT including:

- Design drawings dated December 1959
- Digital photography of the exterior; interior photographs of the FAA cab[5]
- History and description (including existing photos of interest, brochures, newsletters, and other memorabilia from the early 1960's)

Photography shall be collected prior to commencement of demolition. Paper and/or electronic copies of the historic documentation shall be submitted to the Northwest Information Center (NWIC) of the California Historical Resources Information System, the City of Oakland Public Library-Oakland History Room (main branch), and the Port Archives.

HR-2. Online History of the South Field ATCT. Materials will include the historic documentation prepared under mitigation measure HR-1, which will be posted on the Port

[5] The FAA cab is located atop the ATCT structure above the tenth floor and is where FAA air traffic controllers observe and control aircraft operations on the airfield and in the air in the immediate vicinity of the Airport, using both visual reference and radar instrumentation.

website. The Port will also submit electronic documentation to the Docomomo US/Northern California[6] to update the information on the South Field ATCT on their website. Lastly, the Port will update Wikipedia's Oakland International Airport webpage.

The Mitigation Monitoring and Reporting Program for the Proposed Project is provided in **Appendix C**.

1.6 Areas of Known Controversy and Issues to be Resolved

No agency or member of the public identified any areas of controversy or provided any comments during the NOP 30-day scoping period (December 19, 2012 to January 21, 2013) for this Draft EIR. Therefore, no additional concerns (beyond potential significant impacts to aesthetics and cultural resources) are addressed in this Draft EIR.

[6] A non-profit organization dedicated to the documentation and conservation of buildings, sites, neighborhoods of the modern movement. The Northern California Chapter was established in San Francisco in 1996. See www.docomomo-us.org.

2. Description of the Proposed Project

2.1 Background

OAK is the second busiest of three airports serving the San Francisco Bay Area. In 2012, OAK served approximately 10.04 million passengers and 210,626 aircraft operations[7], making it the fortieth busiest airport in North America in terms of both passengers served and total aircraft movements.[8] OAK, owned and operated by the Port, is classified as a medium hub commercial service airport in the National Plan of Integrated Airport Systems. Hub classifications are based on the number of passengers enplaned at an airport, and a "medium hub" classification means that OAK accommodates between 0.25 percent and 1.0 percent of total U.S. enplaned passengers.[9] OAK primarily serves nonstop travel to short-haul and medium-haul markets, as well as service to the Hawaiian Islands, connecting service to other long-haul markets, and some international service. United Parcel Service and FedEx operate major air cargo facilities within the South Field and DHL operates an air cargo facility within the North Field of OAK.[10] OAK is a critical component of the transportation network serving the San Francisco Bay Area, the region, the California Aviation System Plan, and the National Airspace System.

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7 Port of Oakland, Oakland International Airport Monthly Activity Report, December 2012.

8 Airports Council International – North America (ACI-NA), "2011 North American Airport Traffic Summary (Top 50 Airports – Passengers)," Airport Traffic Reports, www.aci-na.org/content/airport-traffic-reports (accessed February 8, 2013).

9 U.S. Department of Transportation, Federal Aviation Administration, *Report to Congress, National Plan of Integrated Airport Systems (NPIAS), 2013-2017*, September 27, 2012.

10 The South Field is generally defined as the airport area south of Ron Cowan Parkway that includes Runway 11-29 and is dominated by passenger facilities, including Terminals 1 and 2, and air cargo facilities. The North Field is defined as the area north of Ron Cowan Parkway, including Runways 9R-27L, 9L-27R, and 15-33, that contains a variety of aviation land uses, primarily general aviation aircraft hangars, ramps, and fixed-base operators, as well as some air cargo facilities.

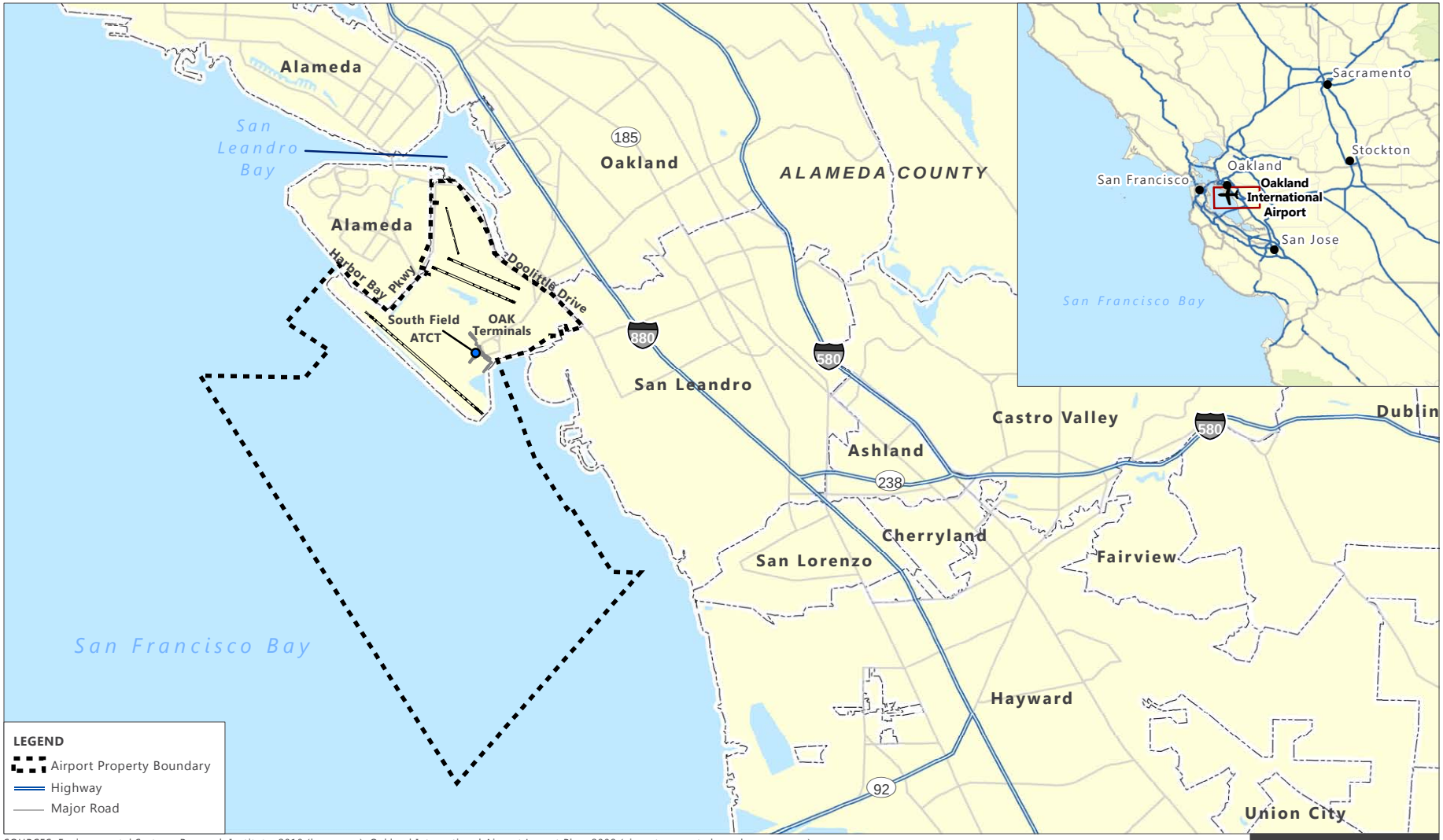
2.2 Project Objective

The objective of the Proposed Project is to eliminate a life safety hazard to Airport employees and passengers in and around the South Field ATCT by demolishing the South Field ATCT, which does not conform to seismic and building code standards.

2.3 Project Location

OAK is located 10 miles south of the central business district of the City of Oakland in Alameda County, California. The Airport property is located in the City of Oakland although a small portion of its total 2,600 acres is in the City of Alameda. As shown on **Exhibit 2-1**, OAK is located approximately 2 miles west of Interstate 880 (I-880) and is adjacent to San Francisco Bay. The Airport is bounded by Harbor Bay Parkway to the northwest, Doolittle Drive to the northeast and north, the San Leandro Bay to the northeast, and San Francisco Bay to the southwest. The South Field ATCT is located in the Terminal 1 complex.

The Airport is situated in what the City of Oakland General Plan, Land Use and Transportation Element defines as the "East Oakland Area." In addition to OAK, the East Oakland Area includes Central East Oakland and Elmhurst, and is characterized by commercial and industrial areas, detached and mixed housing units, and open space and recreational areas. The City of Oakland General Plan identifies OAK as part of the Seaport and Airport/Gateway Showcase District, which serves to attract airport-related and compatible commercial and industrial uses.



SOURCES: Environmental Systems Research Institute, 2010 (base map); Oakland International Airport Layout Plan, 2008 (airport property boundary, runways).
PREPARED BY: Ricondo & Associates, Inc., February 2013.

EXHIBIT 2-1

Location Map

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The Airport has four runways – three in the North Field (Runways 9R-27L, 9L-27R, and 15-33) and one in the South Field (Runway 11-29). Aircraft movements related to Runway 9R-27L, Runway 9L-27R, and Runway 15-33 (primarily general aviation operations) are controlled from the North Field ATCT.[11] The South Field ATCT supports aircraft operations on Runway 11-29, a 10,000-foot runway located on the south side of the Airport (primarily commercial and cargo aircraft operations). Once the new ATCT is operational (scheduled for summer 2013), all Airport traffic control functions will be consolidated in the new tower, making both the North and South Field ATCTs obsolete.

The Proposed Project site, as depicted on **Exhibit 2-2**, is located in the South Field passenger terminal area, which includes 2 commercial passenger terminals serving domestic and international passengers with a total of 29 gates. Of the 29 gates, 16 are located at Terminal 1 and the remaining 13 are located at Terminal 2. **Exhibit 2-3** depicts the Terminal 1 complex, which includes the following buildings:

- M101 – Domestic ticketing and baggage claim
- M102 – Security checkpoint, international airline ticketing, concessions, Airport offices and other support space
- M103 – Aircraft gates and hold rooms
- M114 – International arrivals
- M104 and T1 Mechanical Building (MB) – Central utility plant
- M152 – Connection to Terminal 2

The 10-story, 158-foot tall South Field ATCT is structurally integrated into Terminal 1 in Building M102.

[11] The North Field ATCT was built in 1968, when the former Worldwide Airways/United Maintenance Hangar (now called the Oakland Maintenance Center) was constructed.

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ESRI ESRI Online Database, Microsoft Corporation, Bing Maps Aerial Photography, 2011.
PREPARED BY: Ricondo & Associates, Inc., February 2013.

EXHIBIT 2-2

NORTH 0 1,600 ft.

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Project Vicinity Map

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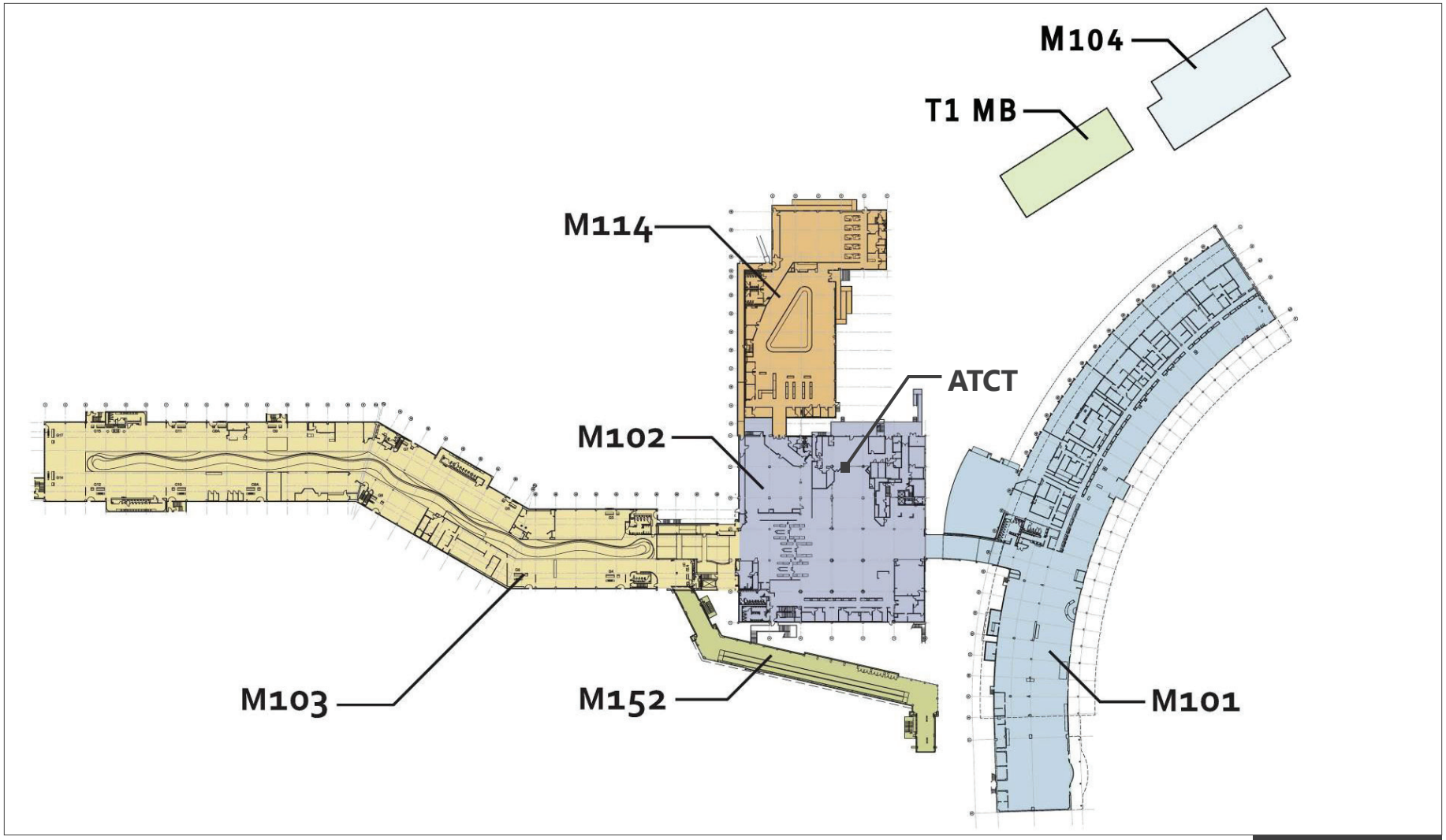

SOURCE: Port of Oakland, December 2012.
PREPARED BY: Ricondo & Associates, Inc., March 2013.

EXHIBIT 2-3

NORTH 0 Not to Scale

Terminal 1 Complex

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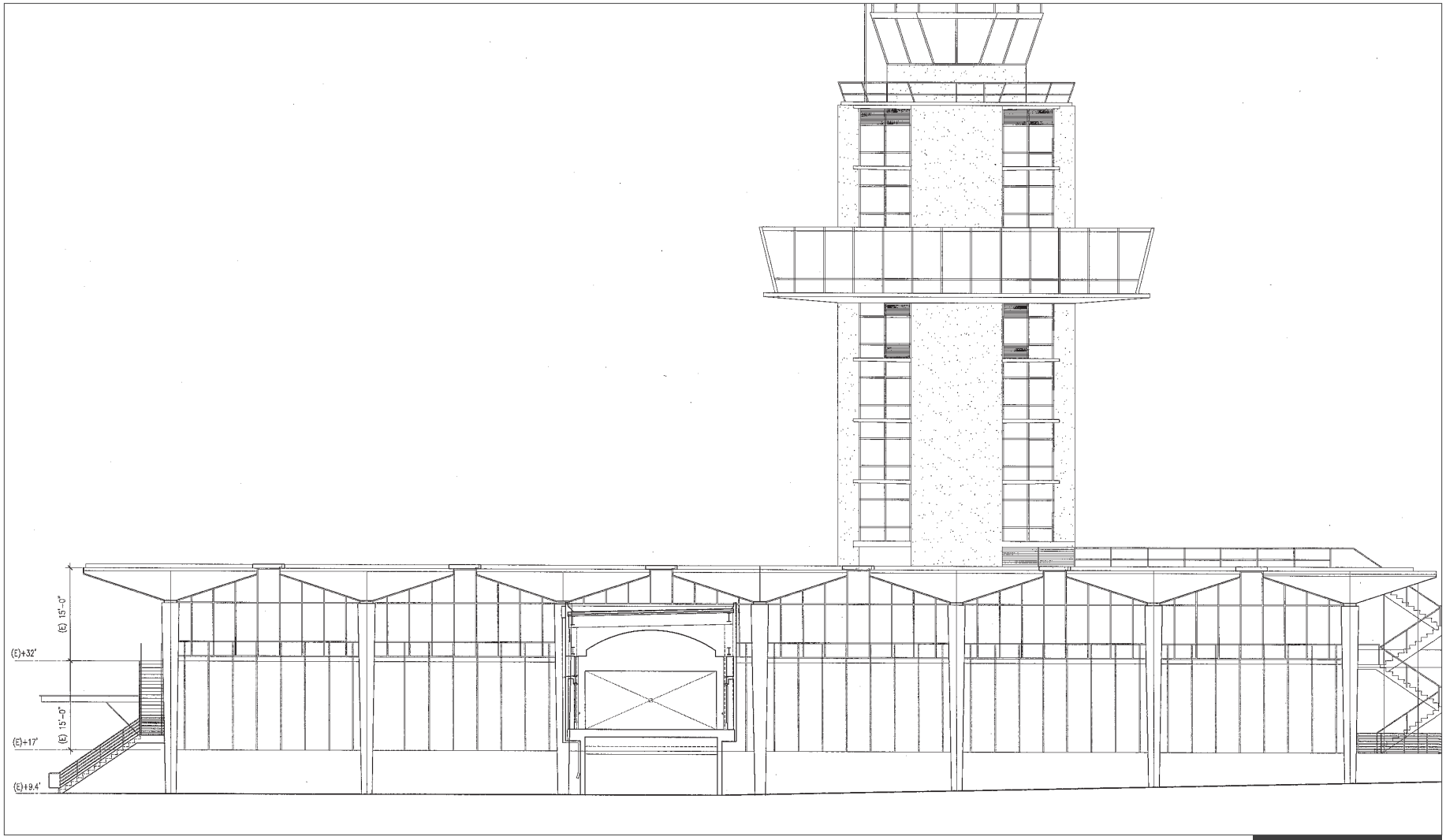
2.4 Project Characteristics

Terminal 1 opened in 1962 and has been expanded and renovated over time. In 2007, the Port determined that Terminal 1 would be retained for the foreseeable future to accommodate existing air passenger traffic and near-term growth and would be modernized to improve passenger service. Given the age of the facility, substantial improvements are required to maintain ongoing operations and extend the useful life of the buildings and systems. The planned renovations are intended to replace inefficient and outdated infrastructure, meet current building codes and seismic standards, prolong service life, and improve life cycle costs. Major improvements focus on the most critical life safety risks as determined through structural analysis.

Since the South Field ATCT is structurally integrated with Terminal 1, the Proposed Project would involve demolishing the portion of the South Field ATCT that extends above the Terminal 1 roof (floors three and above) (see **Exhibit 2-4** and **Exhibit 2-5**). The roofline of Terminal 1 would be continuous once the project is completed. The remaining first two floors of the South Field ATCT would continue to be utilized for passenger movement, Transportation Security Administration (TSA) security checkpoints, concessions, and Airport and tenant support space.

The estimated duration for demolishing floors 3 through 10 of the South Field ATCT (part of Building M102) is 9 months. The proposed demolition would take place entirely on Airport property and would occur during regular and non-regular business hours as necessary to accommodate Airport operations. The demolition would require capping utilities serving the South Field ATCT followed by removal of the architectural, mechanical, electrical, plumbing, and elevator elements on the third through tenth floors. Demolition of the structural elements including the roof, floors, beams, stairs, and interior and exterior walls of the South Field ATCT would proceed on a floor-by-floor basis from the tenth floor down to the third floor.

Demolition would require the use of equipment such as cranes, dump trucks, hoists, saws, torches, and jackhammers. A work area around the perimeter of Building M102 would be required for labor and equipment access and hauling materials off-site. Scaffolding would be erected below and around the perimeter of the South Field ATCT to facilitate dismantling.



SOURCE: Port of Oakland, Terminal 1 Renovation, North Elevation and Section – M102, May 12, 2009.
PREPARED BY: Ricondo & Associates, Inc., March 2013.

EXHIBIT 2-4

NORTH 0 Not to Scale

Design Drawing of Terminal 1
and the South Field ATCT (West Section)

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SOURCE: Port of Oakland, December 2012.
PREPARED BY: Ricondo & Associates, Inc., March 2013.

EXHIBIT 2-5

NORTH 0 Not to Scale

Photo of the South Field ATCT
(Floors 3 to 10) from the Terminal 1 Roofline

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2.5 Intended Uses of This Draft EIR

The content of this Draft EIR will be used by the Port to evaluate and consider the potential environmental impacts of the proposed demolition of the South Field ATCT. Certification of the EIR would complete the Lead Agency's CEQA compliance review for the proposed demolition of the South Field ATCT.

The primary uses of this Draft EIR are (1) to inform decision-makers and the public about the potentially significant environmental effects of the proposed demolition of the South Field ATCT and the ways to avoid or reduce the significant environmental effects; (2) to demonstrate to the public that the environment is being protected; and (3) to ensure that the planning and political processes reflect an understanding of the environmental impacts of the Proposed Project.

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3. Project Setting

This section provides an overview of the existing land use, environmental conditions, and development setting associated with the proposed demolition of floors 3 through 10 of the South Field ATCT. More detailed descriptions of the existing setting in the project vicinity related to specific environmental issues are provided in Section 4.

3.1 Land Use Setting

As depicted on Exhibit 2-2 and described in Section 2, the South Field ATCT is located at the southern end of OAK property. The South Field ATCT is structurally integrated into Building M102 of Terminal 1 (see Exhibit 2-3). The area in the immediate vicinity of the South Field ATCT is actively used for Airport operations. The Proposed Project would occur entirely within the OAK property boundary and within and adjacent to existing Airport uses.

OAK is within the Port of Oakland's jurisdiction and is zoned as Transportation. The San Francisco and San Leandro Bays surround the Airport to the south and southwest and north, respectively. The City of Alameda is northwest of the Airport, the City of Oakland is northeast of the Airport, and the City of San Leandro is southeast of the Airport. Land uses surrounding the Airport in the City of Alameda include recreational, residential, office, and light industrial land uses to the northwest; in the City of Oakland include public, recreational, office, commercial, and light industrial uses to the northeast; and in the City of San Leandro include public open space, commercial, and light and heavy industrial uses to the southeast.

The City of Oakland General Plan, Land Use and Transportation Element includes OAK in the Seaport and Airport/Gateway Showcase District and in the City of Oakland's General Industrial zoning district. OAK is included in the Alameda County Airport Land Use Policy Plan (ALUPP).

3.2 Environmental Setting

The environmental setting provides a baseline description of the physical environmental conditions in the vicinity of the South Field ATCT from both a local and regional perspective. The baseline consists of the environmental conditions as they existed at the time the NOP was published in December 2012. The following indicates the environmental setting most relevant to the site:

- Aesthetics – The South Field ATCT is integrated with Terminal 1 and is surrounded by airfield pavement, buildings, concourses, passenger processing facilities, parking lots, roadways, gates, apron areas, and other Airport uses. OAK is situated in a developed, urban environment with extensive light emissions from on- and off-Airport facilities and activities including parking lots, roadways, airfield lighting, buildings/structures, and security lighting. See Section 4 for additional information.
- Air Quality – The existing air quality setting near the South Field ATCT is subject to air quality pollutants from aircraft arrivals and departures, aircraft movements on taxiways, aircraft maintenance and run-up areas, from ground support equipment (GSE) operations and maintenance, and vehicle traffic on and off the airfield.
- Cultural Resources – The Proposed Project site was formerly open waters and is a highly disturbed area that has been used for Terminal 1 since the early 1960s. No known archeological sites are located within the boundaries of the project site or in the immediate vicinity. See Section 4 for additional information.
- Geology and Soils – Xeropsamments and Urban Land are the two dominant soil types at OAK, with Xeropsamments more prevalent in the South Field. Xeropsamments consist of dredged sands that have high permeability, slow runoff rates, and a low water erosion hazard, but are subject to wind-blown erosion. The San Francisco Bay Area is subject to high seismic activity (Zone 4). The Hayward Fault, located roughly four miles northeast of OAK, is the closest active fault.
- Hazards and Hazardous Waste – The types, characteristics, and occurrences of hazardous materials and other similarly regulated substances at OAK are typical of metropolitan airports that offer commercial, cargo, and general aviation services. These services include the fueling, servicing, and repair of aircraft, GSE, and motor vehicles; the operation and maintenance of the airfield, terminals and parking facilities; and a range of other special-purpose facilities and operations connected

with aviation (i.e., rental car and air cargo facilities, navigation, and Airport traffic control functions). The largest overall quantities of substances used at OAK that are classifiable as hazardous are aircraft and motor-vehicle fuels. Other, smaller amounts of petroleum products (e.g., lubricants and solvents), waste materials (e.g., used oils, used filters, cleaning residues, and spent batteries), and manufactured chemicals (e.g., herbicides, fertilizers, paints, fire-fighting foam) are stored in various locations throughout the Airport. Bulk aircraft fuels are stored in aboveground storage tanks, and below-grade pipelines are used to transfer jet fuel. These materials and substances are characteristically used on a routine basis in support of aircraft, ground support equipment, and motor vehicle maintenance activities, and for a range of other similar functions to operate the Airport and to meet aviation safety requirements.

- Hydrology and Water Quality – The project site is impervious and provides a negligible amount of recharge to the regional groundwater basin. Existing surface water pollutants typically include total suspended solids, oil and grease, soap residues, fertilizers, herbicides and pesticides, metals, and fuel hydrocarbons associated with airfield activities and aircraft maintenance.
- Noise – The South Field ATCT is located at the center of an active airfield in an area generally removed from the communities near the Airport. The existing noise setting is dominated by aircraft arrivals and departures, aircraft movements, aircraft maintenance and run-up areas, GSE operations and maintenance, vehicle traffic on and off the airfield, and periodic construction and demolition activities. The nearest noise-sensitive land uses are residential areas located over 7,000 feet to the east of the project site in San Leandro.
- Transportation/Traffic – The existing roadway network in the vicinity of the South Field ATCT includes I-880, I-580, Hegenberger Road, 98th Avenue, Doolittle Drive (State Route 61), Airport Drive, Ron Cowan Parkway, Davis Street, Harbor Bay Parkway, and High Street. Airport Drive provides direct access to the passenger terminals located in the South Field as well as cargo, maintenance, rental car, public parking, and employee parking areas. The South Field ATCT is located at the end of Airport Drive, in the rear of Terminal 1.

3.3 Development Setting

Table 3-1 provides an overview of the past, present, and reasonably foreseeable projects, including OAK development projects that could, in conjunction with the Proposed Project, result in cumulative impacts to aesthetics and cultural resources. The cumulative impacts would be less than significant.

Table 3-1 Past, Present, and Reasonably Foreseeable Projects

	PROJECT NAME	DESCRIPTION
	On-Airport Projects	
Past	**Terminal Improvements**	Renovated and expanded Terminal 2 to add six new boarding gates and a new baggage claim area; relocated existing second curbside in front of Terminals 1 and 2; created additional lanes for passenger drop-off/pick-up; and improved existing third curbside. Construction began in 2005 and ended in 2007
Present	**Replacement of Airport Traffic Control Tower**	Construct a new FAA airport traffic control tower to consolidate the two existing towers to improve visibility of the airfield. FAA commenced construction in 2010, and the project is expected to be complete by summer of 2013.
	FedEx	Construction of a new 200,000-square-foot International Sort Building for handling cargo, and a 4,000-square-foot building for security administrative purposes; minor interior renovations to the existing international and Metroplex buildings; expansion of the GSE maintenance facility; and relocation of the loading docks and container decks. Installation of a fuel cell power generation facility (converts natural gas to electricity). Construction commenced in 2008 and is expected to be completed by 2014.
	Terminal Improvements	Renovate and retrofit Terminal 1, including a utility plant; upgrade security systems; replace Terminal 2 roof (Building M130). Construction initiated and is estimated to complete by 2016.
Future	**North Field Leased Area Improvements**	Retrofit and rehabilitate leased hangars/spaces. Construction is estimated to occur by 2017.

Table 3-1 (continued) Past, Present, and Reasonably Foreseeable Projects

	PROJECT NAME	DESCRIPTION
	Off-Airport Projects Located within the Project Area	
Present	**BART – Oakland Airport Connector Project**	Bay Area Rapid Transit (BART) project would consist of a link to OAK via an automated guideway transit system from the Coliseum BART Station to a new BART station at the Airport. The 3.2-mile elevated connector would be located primarily within the median of Hegenberger Road from the Coliseum BART Station to Doolittle Drive, and on Airport property. The automated guideway transit system would be operated in its own exclusive right-of-way. The Federal Transit Administration approved the Record of Decision for this project on December 29, 2009. This project is currently under construction and is expected to be operational in the fall of 2014.
Present	**Kaiser Property Development**	This project consists of developing a 63-acre parcel, formerly the site of an Albertsons distribution center located at Marina Boulevard, west of I-880, in San Leandro. Kaiser intends to develop roughly half of the property into a state-of-the-art medical facility, with the remainder of the property to be used for a retail center. This project is currently under construction.
Present	**8350 Pardee Drive, Oakland**	This project consists of constructing a 374,725-square-foot distribution and storage facility, composed of an approximate 364,725-square-foot distribution and storage facility and two 5,000-square-foot offices located in the southeast and southwest corners of the building. The distribution facility would operate as a conventional warehouse, with racked products which would be received, repackaged, stored as inventory, and distributed. Some limited assembly could occur on site such as product testing and assembly of parts and equipment. This project is currently under construction.
Future	**Harbor Bay Village VI**	This proposed project involves construction of 104 residential housing units on about 12 acres. The current development location is under review by the City of Alameda and is likely to change. The residential units would be two-story, single-family detached units. The project also includes common areas such as streets, parking, landscaping, and open space. The Draft Environmental Impact Report prepared for the project identified significant impacts related to air quality, cultural resources, hazardous materials, hydrology and water quality, and noise. The construction period, planned for the near future without any fixed date, would take about 2 years.

NOTES:

BART = BAY AREA RAPID TRANSIT, FAA = FEDERAL AVIATION ADMINISTRATION, OAK = OAKLAND INTERNATIONAL AIRPORT

SOURCE: URS Corporation, *Initial Study/Mitigated Negative Declaration, Proposed Runway Safety Area Improvement Project, Oakland International Airport, Oakland, Alameda County, California*, August 2012.

PREPARED BY: Ricondo & Associates, Inc., March 2013.

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4. Environmental Impacts

This section presents an assessment of the environmental impacts of the Proposed Project to aesthetics and cultural resources based on information developed during the Initial Study, the response period for the NOP, and scoping meetings/public reviews. As required by CEQA, this Draft EIR identifies and discusses significant environmental impacts of the Proposed Project, significant environmental impacts that cannot be avoided if the Proposed Project is implemented, significant irreversible environmental changes which would be involved in the Proposed Project should it be implemented, growth-inducing impacts of the Proposed Project, and mitigation measures proposed to minimize significant impacts.

4.1 Aesthetics

Aesthetic resources are the visible natural and human-made features of a landscape that contribute to the public's appreciation of the environment. The Initial Study Checklist determined that the proposed demolition of floors 3 through 10 of the South Field ATCT has the potential to substantially degrade the existing visual character or quality of the site and its surroundings. The aesthetic analysis contained in this section examines the potential for the demolition of the South Field ATCT to significantly affect the visual character or quality of the project site and its surroundings.

4.1.1 METHODOLOGY

The term "aesthetics" typically refers to the perceived visual impression of an area, such as of a scenic view, open space, or architectural interest. The aesthetic value of an area is a measure of its visual character and visual quality combined with viewer response. This combination may be affected by the components of a project (e.g., buildings constructed at a height that obstructs views, hillsides cut and graded, open space changed to an urban setting), as well as changing elements, such as light, weather, and the length and frequency of viewer exposure to the setting. Aesthetic impacts are thus defined as changes in viewer response as a result of project construction and operation.

4.1.1.1 Visual Character

Visual character is the appearance of the physical form of the landscape, composed of natural and human-made elements, including topography, water, vegetation, structures, roads, infrastructure, and utilities, and the relationships of these elements in terms of form, line, color, and texture.

4.1.1.2 Visual Quality

Visual quality is typically evaluated based on the relative degree of vividness, intactness, and unity as modified by its visual sensitivity.

- Vividness is the visual power or memorability of landscape components as they combine in striking or distinctive visual patterns.
- Intactness is the visual integrity of the natural and human-made landscape and its freedom from encroaching elements; this factor can be present in well-maintained urban and rural landscapes, as well as natural settings.
- Unity is the visual coherence and compositional harmony of the landscape considered as a whole; it frequently attests to the careful design of individual components in the human-made landscape.

High-quality views are highly vivid, relatively intact, and exhibit a high degree of visual unity. Low quality views lack vividness, are not visually intact, and possess a low degree of visual unity.

4.1.1.3 Viewer Response

Viewer response is the psychological reaction of a person to visible changes in the viewshed. A viewshed is defined as all of the surface area visible from a particular location (e.g., an overlook) or sequence of locations (e.g., roadway or trail). Generally, the closer a resource is to the viewer, the more dominant it is and the greater its importance to the viewer. Although distance zones in a viewshed may vary between different geographic regions and types of terrain, the standard foreground zone is 0.25–0.5 mile from the viewer, the middle ground zone is considered to be from the foreground zone to 3–5 miles from the viewer, and the background zone is considered to be from the middle ground zone to infinity. The measure of the quality of a view must be tempered with the overall sensitivity of the viewer and viewer response. Viewer sensitivity is dependent on the number and type of viewers and the frequency (e.g., daily or seasonally) and duration (i.e., how long a scene

is viewed) of views. Visual sensitivity is also modified by viewer activity, awareness, and visual expectations in relation to the number of viewers and the viewing duration.

4.1.1.4 Aesthetic Assessment Process

The concepts presented above are combined in a visual impact assessment process that involves identification of the following:

- Visual character and quality of the project area;
- Relevant regulations and concerns for the protection of visual resources;
- General visibility of the project area and site using descriptions, photographs, and photo simulations; and
- Viewer response and potential impacts.

4.1.2 EXISTING CONDITIONS

OAK is located 10 miles south of the City of Oakland downtown and is situated on 2,600 acres of land adjacent to San Francisco Bay. The South Field, the Airport area south of Ron Cowan Parkway where the South Field ATCT is located, accommodates aircraft operations associated with Runway 11-29, Terminals 1 and 2, and air cargo facilities that are supported by various buildings, airfield pavement, gates, roadways, parking lots, and other Airport infrastructure. The South Field ATCT is structurally integrated into Building M102 of Terminal 1 and is surrounded by airfield pavement, roadways, and Airport infrastructure.

The Oakland-Berkeley Hills ridgeline, San Francisco Bay, and the estuary shoreline frame the visual character of the City of Oakland.[12] The Oakland-Berkeley Hills overlook the San Francisco Bay on the east side of OAK, approximately five miles north-northeast of the Airport. The general view toward the South Field ATCT encompasses a panorama of the entire Airport with the San Francisco Bay in the background. Airport buildings and infrastructure form a visual city edge feature that is visible from residential neighborhoods in Alameda to the north, from commercial areas to the east, and from nearby recreational

[12] URS Corporation, Initial Study/Mitigated Negative Declaration, Proposed Runway Safety Area Improvement Project, Oakland International Airport, Oakland, California, August 2012.

areas including the Oyster Bay Regional Shoreline, San Leandro Bay Regional Shoreline, Alameda Municipal Golf Course, and the Metropolitan Links Golf Course.

4.1.3 CEQA THRESHOLDS OF SIGNIFICANCE

Pursuant to CEQA Guidelines, project-related impacts would be considered significant if the implementation of the Proposed Project would substantially degrade the existing visual character or quality of a site and its surroundings. Although the concept of visual character is not explicitly defined in the CEQA Guidelines, visual character generally refers to visually defining attributes that would characterize a particular area such as skylines, hillsides, water bodies, and vineyards. Visual character refers to the overall impression created by the relationship between perceived visual elements of the built, urban environment in the potentially impacted area. Elements contributing to this impression include:

- The scale, nature, and quality of buildings
- The compatibility between uses and activities within the built environment
- The quality of the streetscape, including roadways, sidewalks, plazas, parks, and street furniture
- The nature and quality of private property landscaping that is visible to the general public

Visual character functions as a point of reference in assessing whether a project's physical characteristics and visibility would change the perceived visual character and quality of the environment in which it would be located. Evaluation of visual character is determined by the degree of contrast that could potentially result between the proposed project and the existing built environment. Contrast is assessed by considering the consistency of the following features of a proposed project with those of the existing built environment:

- Scale – the intensity of development considering the height and setback of buildings
- Massing – the volume and arrangement of buildings
- Open space – the setback of buildings, surface parking, parks and other pedestrian areas

4.1.4 IMPACT ANALYSIS

The short-term effects (those occurring during construction) and long-term effects (those occurring from the built project) that could result from the Proposed Project are discussed

below. Short-term, temporary effects that would occur as a result of the Proposed Project include changes in views as a result of construction, potential glare, and light impacts. Long-term visual effects would result from the demolition of the existing South Field ATCT.

4.1.4.1 Short-term Effects

Construction of the Proposed Project would create temporary changes in views of the Airport. Demolition of the existing South Field ATCT would follow opening of the new ATCT and take approximately nine months. Demolition of the existing South Field ATCT would not commence until after the FAA installs and tests equipment in the new ATCT, a process expected to be completed in summer 2013. Visual elements related to construction would be visible from both waterfront and inland vantages.

Ground- and lower-level views of construction would primarily be visible from certain waterfront vantages and vantages within the terminal complex. High-intensity ground lighting, scaffolding, and safety and directional signage would also be visible elements. Scaffolding would be erected below and around the perimeter of the South Field ATCT to facilitate dismantling. Equipment such as cranes, dump trucks, hoists, saws, torches, and jackhammers would be present during demolition and may be visible to Airport passengers and visitors, motorists, and residents living near the Airport. Demolition activities and equipment would create a visual contrast around the Airport and, although demolition would be temporary (approximately nine months), it would cause the Terminal 1 vicinity to appear disrupted and of unattractive quality.

However, construction associated with the current renovation of Terminal 1, the BART-Oakland Airport Connector, and the FedEx facility make construction an existing visual feature at OAK. In addition, high-intensity ground lighting would not adversely affect viewers because it is an existing feature. During night hours, the number of viewers at the Airport and from the waterfront decreases because activity at the Airport decreases at night; the numbers of boats on the Bay are substantially reduced; parks and industrial and commercial areas close for the night; and people in hotels tend to close the curtains at night.

As described in Section 4.1.2, there are limited inland views of the Airport, and where views do exist, they can only be seen from the upper levels of the existing North Field and South Field ATCTs. Ground-level views of OAK are not available from public roadways, parks, and residential and commercial areas located inland. Therefore, only construction activities

taking place at higher elevations would be visible over existing structures and vegetation, and high-intensity ground lighting would not be visible. Elements such as scaffolding and cranes would be visible during demolition of the upper levels of the South Field ATCT. However, construction activities are currently taking place at the Airport and scaffolding, cranes, and other construction related equipment are an existing visual feature associated with the Airport. Furthermore, construction is temporary in nature and would not result in adverse long-term visual effects. All viewer groups in the vicinity would be accustomed to seeing construction activities and equipment, and their sensitivity to such views would be low.

4.1.4.2 Long-term Effects

Once floors 3 through 10 of the South Field ATCT have been demolished, the views of the Airport from waterfront and inland locations would change. At 158 feet tall, the South Field ATCT is one of the tallest structures at the Airport and within the surrounding vista. The South Field ATCT is one of 3 control towers visible at the Airport. Views of OAK from the residential, commercial, and recreational areas in the vicinity of OAK are restricted due to the relatively level topography. The lower half of the South Field ATCT cannot be seen from these areas because of existing Airport buildings, but views of the top of the tower are possible. Although viewers from residential and recreational land uses are considered sensitive, the visual impact of the tower is considered low. Elevated views of the South Field ATCT, possible from a considerable distance (Bay Bridge, East Bay Hills, Metropolitan Golf Links, etc.) may be of low quality due to the urban nature of the areas surrounding the Airport. Full views of the South Field ATCT from the Airport can be seen by Airport, cargo, and FAA employees, motorists, and Airport passengers. However, employees and Airport passengers are not considered to be sensitive viewers.

The demolition of floors 3 and above of the South Field ATCT would change the visual character of Terminal 1. **Exhibit 4-1** shows the existing South Field ATCT and depicts a visual simulation of the same view with floors 3 through 10 of the South Field ATCT demolished (the Proposed Project). As shown, the partial demolition of the South Field ATCT would reshape the existing visual city edge feature that the Airport creates.

Existing Conditions

Proposed Conditions

SOURCE: Ricondo & Associates, Inc., February 2013.
PREPARED BY: Ricondo & Associates, Inc., March 2013.

EXHIBIT 4-1

NORTH 0 Not to Scale

South Field ATCT
View 1,720 feet from South Field ATCT

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The demolition of floors 3 through 10 of the South Field ATCT may improve the visual character of the environment in the vicinity of the Airport. In some areas surrounding the Airport, views of the Oakland-Berkeley Hills ridgeline, San Francisco Bay, the estuary shoreline, and nearby recreational areas would no longer be obstructed by floors 3 through 10 of the South Field ATCT. Thus, views of these visually defining features, which embody the visual character of the City of Oakland, would be enhanced as a result of the Proposed Project. The demolition of the South Field ATCT would take place entirely on existing OAK property and within and adjacent to existing Airport uses. No other structures or landscape features would be removed as part of the Proposed Project.

Based on this analysis and the visual simulations conducted of the Proposed Project, the effects to aesthetics from the Proposed Project would be less than significant and no mitigation measures are required.

4.2 Cultural Resources

Cultural resources include archaeological, traditional, and built environment resources, including but not limited to prehistoric or historic buildings, sites, districts, structures, or objects that meet criteria of significance as established by the NRHP, CRHR, and local jurisdictions, as well as human remains. The Initial Study Checklist determined that the proposed demolition of floors 3 through 10 of the South Field ATCT has the potential to cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the CEQA Guidelines. The cultural resources analysis described in this section addresses the potential impacts the demolition of floors 3 through 10 of the South Field ATCT would have on historical resources. This section describes existing conditions related to historic resources, methods used to identify if historic resources would be affected by the Proposed Project, and the potential for demolition activities associated with the Proposed Project to have a significant impact on historic resources.

4.2.1 METHODOLOGY

A qualified architectural historian and archaeologist conducted a pedestrian survey of the South Field ATCT on December 15, 2011, as part of a Cultural Resources Assessment of the South Field ATCT (see Appendix B). The purpose of this assessment was to identify the presence or absence of potentially significant cultural resources. The Cultural Resources report followed the California Office of Historic Preservation (OHP) procedures for cultural

resource surveys and the OHP's Archaeological Resource Management Report (ARMR) format for archaeological reports.

On January 28, 2011, a letter was sent to the Native American Heritage Commission (NAHC) in an effort to determine whether any sacred sites are listed on its Sacred Lands File for the area of potential effect located within the Runway Safety Area (RSA) Improvement Project at OAK, which includes Terminal 1. The NAHC provided a response on February 3, 2011, and it noted that the search failed to indicate the presence of Native American cultural resources within the area of potential effect. A list of nine Native American tribal members who may have additional knowledge of the Proposed Project area was included with the results. Although there will be no earthwork as part of the South Field ATCT project, letters were sent to the nine tribal members on January 9, 2012 and January 29, 2013, asking for any additional information they might have concerning the Proposed Project area. As of this date, no responses requesting further consultation and/or information have been received from any of the tribal members.

4.2.2 EXISTING CONDITIONS

4.2.2.1 Regulatory Framework

Cultural resources (including historical and archaeological resources) fall within the jurisdiction of several levels of government. Federal laws provide the framework for the identification and, in certain instances, protection of cultural resources. Additionally, state and local jurisdictions play active roles in the identification, documentation, and protection of such resources within their communities. The National Historic Preservation Act of 1966, as amended (NHPA); CEQA; the CRHR; and Public Resources Code 5024 are the primary federal and state laws governing and affecting preservation of historical resources of national, state, regional, and local significance.

National Register of Historic Places

The NRHP is the official list of properties, structures, districts, and objects significant in American history, architecture, archeology, engineering, and culture. NRHP properties have significance to the prehistory and history of their community, state, or nation. The NRHP Criteria for Evaluation is "the basis for judging a property's significance for their association

with important events or persons, for their importance in design or construction, or for their information potential."[13] The NRHP Criteria for Evaluation recognizes the quality of significance in American history, architecture, archaeology, engineering, and culture as being present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that meet one of the following four criterion:[14]

- Criterion A: Event – significant for their association or linkage to events important in the past
- Criterion B: Person – significant for their association to persons important to the past
- Criterion C: Design/Construction – significant for their physical design or construction, meeting at least one of the following requirements: (1) embody distinctive characteristics of a type, period, or method of construction; (2) represent the work of a master; (3) possess high artistic value; or (4) represent a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D: Information Potential – significant for their ability to yield important information about prehistory or history[15]

California Register of Historical Resources

The OHP, as an office of the California Department of Parks and Recreation, implements the policies of the NHPA on a State-wide level. The OHP also carries out the duties as set forth in the Public Resources Code and maintains the California State Historic Resources

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13 U.S. Department of Interior, National Park Service, National Register of Historic Places. *National Register Bulletin 15*, *How to Apply the National Register Criteria for Evaluation*, "Criteria Consideration G," 1990 (revised for Internet 2002), www.nps.gov/nr/publications/bulletins/nrb15/ (accessed February 11, 2013).

14 U.S. Department of the Interior, National Park Service. *National Register Bulletin 15*, *How to Apply the National Register Criteria for Evaluation,* 1990 (revised for Internet 2002), www.nps.gov/nr/publications/bulletins/nrb15/ (accessed February 11, 2013).

15 Ibid.

Inventory and the CRHR.[16] The State Historic Preservation Officer is an appointed official who implements historic preservation programs within the State's jurisdiction.

The CRHR was created by Assembly Bill 2881, which was signed into law on September 27, 1992. The CRHR is "an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change."[17] The criteria for eligibility for the CRHR are based upon NRHP criteria.[18]

The CRHR consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The CRHR automatically includes the following:

- California properties listed on the NRHP and those formally determined eligible for the NRHP;[19]
- CRHR Historical Landmarks from No. 770 onward; and
- California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the CRHR.

California Environmental Quality Act (CEQA)

Under CEQA, a "project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment."[20] This statutory standard involves a two-part inquiry. The first part is a determination of whether the project involves a historical resource. If it does, the second part of the inquiry addresses whether the project may cause a "substantial adverse change in the significance" of the

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16 Criterions 1, 2, 3, and 4 on the CRHR are equivalent to Criterions A, B, C, and D, respectively, on the NRHP. Any further reference and evaluations of the criterions and eligibility under the CRHR shall also mean the same for criterions and eligibility under the NRHP for the remaining portion of this report.

17 State of California, California Public Resources Code, Section 5024.1(a).

18 State of California, California Public Resources Code, Section 5024.1(b).

19 State of California, California Public Resources Code, Section 5024.1(d).

20 State of California, California Public Resources Code, Section 21084.1.

resource. CEQA Guidelines Section 15064.5 provides that, for the purposes of CEQA compliance, the term "historical resources" shall include the following:[21]

- A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the CRHR.
- A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in a historical resource survey meeting the requirements in Section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat such resources as significant for purposes of CEQA unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be 'historically significant' if the resource meets one of the criteria for listing on the CRHR.
- The fact that a resource is not listed in or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code), or identified in a historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be a historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1.

[21] State of California, California Environmental Quality Act Guidelines, Section 15064.5(a), "Determining the Significance of Impacts to Archaeological and Historical Resources."

4.2.2.2 Historical Resources

Historical Setting

The historical setting described below is a summary of the information contained in the Cultural Resources Assessment performed for the Proposed Project (see Appendix B). In 1925, the Oakland Chamber of Commerce formed an aviation committee to promote the idea of obtaining the airmail contracts created by the U.S. Postal Department by building a municipal airport. In November 1926, the Oakland City Council voted to acquire a 680-acre tract of marshland at Bay Farm Island for $625,000. The next month, the residents of Oakland voted to approve a charter amendment to create a new City board department, the Port of Oakland (Port), governed by the Board of Port Commissioners (Board); the new Board was charged with overseeing the city's waterfront.

In January 1927 responsibility for development and operation of the Airport was transferred to the newly established Port of Oakland. Construction began in June 1927 at the Airport (what is now known as the North Field) by filling the San Francisco Bay margin. On June 28, 1927, U.S. Army lieutenants Lester J. Maitland and Albert F. Hegenberger successfully completed the first trans-Pacific flight from OAK to Hawaii. In July 1927, Pilot Ernie Smith and navigator Emory Bronte, the first civilians to attempt the same flight, set a new speed record by flying from OAK to Hawaii in 25 hours and 37 minutes. The next month, the Airport hosted the Dole Race to Hawaii, which was sponsored by pineapple magnate James Dole, who offered $25,000 to the pilots who reached Hawaii first.

By December 1927, OAK became the western terminus for all transcontinental airmail and, shortly after, the stopover point for airmail going from Los Angeles to Seattle. Boeing Air Transport (predecessor of United Airlines) held the government contract for carrying all air mail from Chicago to the San Francisco Bay District and established the Western Operating Terminal at OAK in December 1927. Trans World Airlines (TWA) began additional cargo service in 1932. Two passenger airlines, Maddox and Western Air Express, flew 12-passenger tri-motor planes between OAK and Los Angeles, carrying five thousand passengers in 1928. Because the long runways at the Airport enabled safe takeoff rolls for fuel-heavy aircraft, OAK became the departing point for several historic flights, including Charles Kingsford Smith's historic U.S.-Australia flight and Amelia Earhart's final flight in 1937.

When the United States entered World War II in 1941, a large number of the nation's airports were taken over by the Department of Defense for national security purposes. In

1943, the military took over the Airport (formerly known as the Oakland Municipal Airport) and transformed it into an airlift base for military flights to the Pacific Islands and Pacific war centers. All scheduled passenger and commercial services were ordered to move to the airport in San Francisco. For the duration of the war until 1945, the Airport was operated by the military. After 1945, the commercial airlines started to return to OAK and Western Airlines began flights in 1946, followed by American, TWA, United, and Pacific Southwest Airlines (PSA). In 1947, the Airport was returned to the control of the Port of Oakland, and plans began to expand the Airport to bring it up to the standards necessary for the post-war world.

An Airport Master Plan developed in 1944 proposed a $10 million reconstruction of the existing field by extending the runways into the Bay. New facilities were to include a five-story passenger terminal and a maritime-industrial complex on San Leandro Bay that would connect with Airport operations. In the late 1950s, the Port of Oakland hired the New York engineering and aviation specialist consulting firm of Knappen, Tippetts, Abbett, McCarthy to assess the feasibility of these new facilities at the Oakland Municipal Airport. After much consultation, the firm gave its opinion that the Oakland Municipal Airport was too far behind the times to be upgraded. Several factors shaped their decision—the aging and limited facilities, the expansion of commercial travel, predictions of rising numbers of passengers, and the use of heavier planes. Jets were soon to be put into service, transforming the entire aviation industry. The original field would come to be known as North Field.

By the 1950s, construction of a perimeter dike surrounding 1,400 acres of San Francisco Bay commenced. Dredged material from San Francisco Bay was used to fill the landside area within the perimeter dike and the area would come to be known as the South Field. In 1953, the Board hired noted architect, John Carl Warnecke, and his nationally prominent firm, Warnecke and Warnecke, to draw up the plans for a new terminal, airport traffic control tower, and runways. The plans called for a combination of 2 buildings and a single ramp with places for 10 planes. Plans included the following:

- Ticketing building 500 feet long with a curved glass front and a sidewalk and parking lane canopy;
- Main terminal building with a main concourse area including a coffee shop, newsstand, and waiting room;

- Mezzanine floor with waiting and observation areas, dining room, and Airport and airline offices; and
- An 11-story tower (note that a 10-story tower was actually constructed) situated in the center of the terminal building, with a cocktail lounge on the eighth floor, cantilevered outward 28 feet on all sides, providing a 360-degree view of the Bay area.

The Port broke ground on October 5, 1960. The terminal building was composed of four sections—the curving ticketing section, the main terminal, the South Field ATCT, and an angled "finger" concourse section that extended from the rear of the building and housed 10 boarding gates.

The South Field ATCT rose 10 stories from the center of the main terminal building, with the FAA cab above the tenth floor. The South Field ATCT controlled all flights in and out of OAK from the South Field and the Alameda and Hayward Naval Air Station. The FAA occupied the third through the tenth floors of the South Field ATCT, with the exception of the eighth floor, which housed the former cocktail lounge. Key floors of the South Field ATCT were the ninth (FAA offices), the tenth (break room, restrooms, and security lobby), and the FAA cab, which contained the instrument flight equipment and flight control activities with tinted windows cantilevered at a 15-degree angle to provide maximum visibility. The largest item in the South Field ATCT was radar equipment capable of covering a 60-mile radius from the Airport and able to extend up into the sky 27,500 feet. **Table 4-1** summarizes the description and current use of each floor of the South Field ATCT.

The Airport has undergone continual upgrades through modifications and expansions to update facilities that no longer serve their original purpose. **Table 4-2** below summarizes the history and modifications to the Terminal 1 complex:

Table 4-1 Description and Current Use of South Field ATCT Floors /1

FLOOR(S)	DESCRIPTION	CURRENT USE
3 through 7	Large blocks of floor-to-ceiling, aluminum-framed, glazed, fixed-pane, tinted windows that wrap around the corners of the building.	Office spaces and breakroom
8	Walls extend outward by 28 feet with large fixed-pane, aluminum framed, three-quarter-height cantilevered tinted windows on all four sides (former cocktail lounge).	Special meeting functions
9	Large blocks of floor-to-ceiling, aluminum-framed, glazed, fixed-pane, tinted windows that wrap around the corner of the building.	FAA offices
10	Large blocks of floor-to-ceiling, aluminum-framed, glazed, fixed-pane, tinted windows that wrap around the corner of the building.	Break room, restrooms, and security lobby
Cab	Hexagonal-shaped structure with tinted windows.	Air traffic control

NOTES:

/1 FLOORS 1 AND 2 ARE INCORPORATED WITHIN TERMINAL 1 AND WILL NOT BE DEMOLISHED AS PART OF THE PROPOSED PROJECT.

Sources: Port of Oakland, 2013.

Prepared By: Ricondo & Associates, Inc., March 2013.

Records Search Results

The results of the records search indicated that two previous investigations have been conducted within the Proposed Project area and five investigations were conducted within a 0.5-mile radius of the Proposed Project area. One historic resource has been recorded with the Department of Parks and Recreation: Terminal 1, OAK, Record No. P-01-011016. No prehistoric resources have been recorded within a 0.5-mile radius of the project area.

Table 4-2 Terminal 1 Complex History and Modifications

DATE	EVENT
1962	Opening of Terminal 1 complex, including ticketing and baggage claim (M101), main 2-story terminal and ATCT (M102), angled "finger" concourse housing 10 loading gates (M103), and equipment building (M104). ATCT served FAA air traffic control and support functions, and included a cocktail lounge on the 8th floor
1972	Opening of the original International Arrivals Building (M114).
1982	Conversion of passenger ground loading to the upper level concourse loading with jet bridge (M103).
1988	Addition of the second level to M103.
1990	Expansion of M101 baggage claim and upgrades to interior finishes and ceiling arches.
1992	Expansion of M114.
1994	Construction of the passenger connector bridge (M152).
1996	Retrofit of M101.
2000	Addition of Gates 8A and 9A.
2002	Expansion of restrooms in M103; cocktail lounge on 8th floor of tower operates at reduced public hours, but remains in use for special events.
2003	Renovation of Immigration and Naturalization Service facilities in M114.
2007	Removal of stairs in M103.

Sources: MBA, *Cultural Resources Assessment, Oakland International Airport, South Field Air Traffic Control Tower,* March 2013.
Prepared by: Ricondo & Associates, Inc., March 2013.

Cultural Resources Assessment Results

The South Field ATCT consists of 10 stories with a cantilevered eighth floor enclosed by tinted glass that rises from the core of, and is structurally integrated with, Terminal 1 (refer to Exhibit 2-5). Terminal 1 is a modernistic 2-story passenger terminal building constructed between 1959 and 1962 that contains 2 connected buildings and a concourse. The concourse now accommodates 16 aircraft gates and extends southwest from the terminal. Building M101, where passengers enter and exit Terminal 1, consists of a curved glass front with a curve-shaped concrete shell roof and canopy. Terminal 1 is clad in cast concrete and glass with a concrete shell umbrella roof.

All buildings comprising the Terminal 1 complex have undergone extensive modifications and expansions. Renovations, many of which took place during the 1980s, included the addition of a second level to the concourse, reconfiguration of the main lobby food service area, and security, baggage, and environmental control equipment upgrades. As a result of these renovations and subsequent modifications, the buildings comprising the Terminal 1 complex are in various states of conditional compliance with building codes – some portions of Terminal 1 have undergone recent modifications to meet existing codes while others are beyond their useful life and are difficult to maintain.[22] Building M102, the building which houses the original concessions building and the South Field ATCT, was constructed in 1961-1962 and subsequently renovated. At the time of this Draft EIR, Building M102 lacks a complete lateral load path for the concessions building and inadequate shear walls surrounding the South Field ATCT.[23] The *OAK Terminal 1 Renovation & Retrofit Study* concluded that a comprehensive retrofit would be required for both the concessions building and the ATCT to meet current seismic and building code standards and to minimize the potential for a life safety hazard in the event of a major seismic event.

The Terminal 1 modifications that took place in the 1980s attempted to retain the terminal's primary character-defining features. These features include the curved ticketing building, South Field ATCT with cantilever, and distinctive roof structures that reflect the popular Modernistic forms and aerospace themes prevalent in airport architecture of the early 1960s; the Terminal 1 complex retains integrity of location, setting, design, and association, as well as some of the workmanship, materials, and feeling associated with its character-defining features.[24]

The South Field ATCT was evaluated for its potential for nomination to the NRHP and/or the CRHR under the established criteria. The South Field ATCT is considered to meet the criteria for significance under Criterion 1: Event and Criterion 3: Design/Construction. The

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22 Port of Oakland, *OAK Terminal 1 Renovation & Retrofit Study*, Section 2-1, "Introduction," March 9, 2007.

23 Port of Oakland, *OAK Terminal 1 Renovation & Retrofit Study*, Section 4-2, "Existing Conditions & Issues," March 9, 2007.

24 State of California – The Resources Agency, Department of Parks and Recreation, "Terminal 1, Oakland International Airport," record # P-01-011016, recorded by Stephanie Cimino, Pacific Legacy, Inc., April 13, 2010.

following information delineates the criteria and the application of the criteria to the Terminal 1 complex:

- Criterion 1: Event – significant for their association or linkage to events important in the past. **The South Field ATCT reflects the emergence of the jet age in commercial aviation.**

OAK played a significant role in the development of the City of Oakland and the development of national aviation. The Airport was first constructed in 1927 and was considered one of the most modern airports in the country in its early years. Many aviation systems and technologies were initially developed in OAK, such as the "Model Airline," the nation's first airport hotel, and pioneering navigation and radio aids. Not only did commercial airlines serve OAK with early transcontinental and north-south routes, but the Airport operated as the western headquarters for the 1920s-era United States Postal Service. Historic flights across the Pacific left from the Airport prior to its official dedication on September 17, 1927, by famed aviator, Charles Lindbergh. In 1937, Amelia Earhart left from the Airport for her final flight. During World War II, OAK became a major marshaling facility for the dispatch of military aircraft to the Pacific war theater and included both U.S. Navy and Army Air Corps units. During the Vietnam War, thousands of military passengers traveled through OAK to their bases in Southeast Asia, and an international arrivals facility was built that allowed flights from the Airport outside the United States to be scheduled for the first time.

Following the end of WWII, the Oakland Mayor and Board recognized a need for expanded cargo and passenger facilities and began plans to construct a new facility south of the existing Airport. As part of the $20 million expansion, facilities included a 10-story South Field ATCT, a new terminal facility, and a 10,000-foot runway designed specifically for jet use. Opened in 1962, Oakland's first jet age airline terminal, Metropolitan Oakland International Airport (now Terminal 1), was marketed as an "airport for the Jet Age." Completion of the new Metropolitan Oakland International Airport marked a major transition point in aviation from propeller driven planes to jet propelled planes. TWA was the first jetliner service at the Airport. However, in 1965, when PSA and Western Airlines introduced low-fare commuter flights, a new type of air travel was popularized.

OAK's South Field ATCT appears eligible for listing on the CRHR under Criterion 1: Event, as its development reflects national trends in aviation developments, jet commercial travel, and the growth of the national airline industry in the last 50 years.

- Criterion 3: Design/Construction – significant for their physical design or construction, meeting at least one of the following requirements: (1) embody distinctive characteristics of a type, period, or method of construction; (2) represent the work of a master; (3) possess high artistic value; or (4) represent a significant and distinguishable entity whose components may lack individual distinction. **The South Field ATCT, designed by a Master Architect, embodies distinctive characteristics of the early "jet age" airports, and possesses high artistic value.**

The development of airport design concepts and the accompanying design requirements for airports, terminals, and airport traffic control towers were reflective of the era in which the structures were constructed. With each decade from the 1920s to the present, different technological needs and design considerations dictated the architectural concepts embodied in the actual structures. Airport traffic control towers serve a dual purpose: they control the safe arrival and departure of aircraft and also express symbolism and reflect the civic pride of the city housing the airport. Many cities during the 1960s hired prominent, nationally or internationally known architects to design an airport that would not only meet the technological needs of the aviation industry and the FAA, but that was also aesthetically reflective of the region's civic values. Architects exercised considerable freedom in their design expression and in the 1960s, created airports that expressed all the soaring possibilities of the jet age. They used Modern era design concepts to explore the themes of flight and all its associated contexts. The South Field ATCT is a classic example of 1960s-era Modern Expressionism design concepts that embraced the current trends in jet travel, the technological requirements of the new age of jet aviation, and the desire of the City of Oakland for an airport that expressed their concept of civic pride.

Airport traffic control towers have very specific design requirements in terms of height, spatial concepts, window and viewshed issues, lighting issues, and siting within the airport complex of runways, buildings, storage, and passenger areas. These requirements have also changed with each decade and the design of the towers reflects the technological developments of a particular era. The design of the towers usually reflects the technological changes in aircraft and traffic patterns as the view of airport operations is critical. The window design, lighting elements, and siting of the tower in a central location, along with the hexagonal shape and the six interior bays of the South Field ATCT are an example of the changing design trends of the 1960s and the arrival of jets. The design of the interior also incorporates the 1960s radar tracking technology available to the controllers for use in managing aircraft traffic flow and ground operations. The interior

design components were shaped by the spatial needs of the 1960s-era radar equipment and other aspects of the equipment necessary to handle the aircraft traffic on the runways and taxiways.

The South Field ATCT was constructed of materials that were popular in the post-war period of American architecture. Concrete, glass walls, and aluminum framing were used extensively in this period to express the aesthetic possibilities of these twentieth century materials. The use of these materials allowed architects to explore varied design concepts by incorporating these elements in new ways that provided a combination of strength and beauty, durability, and flexibility.

The South Field ATCT embodies the distinctive characteristics of a type, period, and method of airport traffic control tower construction in the early 1960s and is considered eligible for listing on the CRHR under Criterion 3: Design/Construction.

Master Architect

The South Field ATCT was designed by noted San Francisco Bay area architect, John Carl Warnecke, Fellow, American Institute of Architects, (1919-2010), who is considered to be a leading master architect of the twentieth century. Warnecke created one of the largest architectural firms in the history of the United States and was responsible for many civic complexes, including airports. As a Bauhaus Modernism trained and influenced architect, he was one of the pioneers of the architectural concepts of Contextualism and Regionalism, which seek to harmonize the building to be designed with the physical, historical, and cultural setting of the building site. One of his most important commissions was to design the gravesite and eternal flame for President John F. Kennedy's internment in Arlington National Cemetery. He was the first architect to use the concepts of Contextualism and Regionalism in his design philosophy in the nation's capital to create the landmark Lafayette Square historic preservation project. The success of this solution served as an example for city planning for many other areas of the country as cities faced the challenges of preservation and urban renewal in the 1960s and 1970s. Terminal 1 at OAK and the associated South Field ATCT were designed during the formative and successful years of Warnecke's distinguished career. The South Field ATCT appears to be eligible for listing under CRHR Criterion 3: Design/Construction as an example of the work of a master architect.

Possessing High Artistic Values

During the twentieth century, modern architectural design concepts were explored by a wide range of architects and these trends can be seen in the evolving designs of airports. The 1920s airports were placed in fields outside of cities to give the pilots ample room to maneuver and deal with the potential instability of early aircraft. The buildings constructed were functional, dealing with ease of operation and not aesthetics. Engineers designed the early buildings as they were considered to be technical challenges, not sites of beauty. As airports evolved and embraced more activities and passengers and requirements changed, architects became involved in the actual design of the buildings. In each decade, architects used the popular and prevalent design concepts to create airports that expressed regional and cultural trends, the desire to design a civic symbol of progress and pride, and the ever-evolving technological challenges required to operate the airport safely and efficiently.

The development of 1960s commercial jet travel coincided with changes in architecture as many American and European architects used the varied Modern design concepts of Contextualism, Internationalism, Expressionism, Brutalism, and other design styles to explore the new technology requirements and the soaring possibilities of the jet age. Their designs expressed the seemingly limitless potential that the jet age brought to the world and brought the highest concepts of art and design to solving the technological and engineering challenges of 1960s airport design.

The South Field ATCT is reflective of these design concepts and the combined social, technological, civic, and engineering issues of the jet age. The circa 1962 Modern Expressionism style ATCT appears to qualify under CRHR Criterion 3: Design/Construction as a structure which possesses high artistic values. The building articulates a particular concept of Modern Expressionism design to the extent that an aesthetic ideal is expressed. The original design concepts have allowed the South Field ATCT to serve as an example of the Modern Expressionism style of architecture. **Table 4-3** summarizes the Proposed Project's eligibility under CRHR.

Table 4-3 Criterion for Eligibility under CRHR

CRITERION	ELIGIBILITY
1 – Event	Yes – The South Field ATCT reflects national trends in aviation development, jet commercial travel, and the growth of the national airline industry in the last 50 years.
2 – Person	No
3 – Design/Construction	Yes – The South Field ATCT embodies the distinctive characteristics of a type, period, and method of tower construction in the early 1960s; represents the work of a master architect; and possesses high artistic values.
4 – Information Potential	No

Source: MBA, Cultural Resources Assessment, Oakland International Airport, South Field Air Traffic Control Tower, March 2013.
Prepared by: Ricondo & Associates, Inc., March 2013.

4.2.3 CEQA THRESHOLDS OF SIGNIFICANCE

The criteria for determining the significance of potential impacts to cultural resources are contained in Question V of Appendix G of the CEQA Guidelines Environmental Checklist. CEQA states that it is the policy of the State of California to "take all action necessary to provide the people of this state with . . . historic environmental qualities . . . and preserve for future generations examples of the major periods of California history." Under the provisions of CEQA, cultural resource impacts associated with the Proposed Project would be considered significant if they would "cause a substantial adverse change in the significance of a historical resource (as defined in CCR Subsection 15064.5)." A project would have a significant impact on historical resources if it involves:

- Demolition of a significant resource;
- Relocation that does not maintain the integrity and significance of a significant resource;
- Conversion, rehabilitation, or alteration of a significant resource which does not conform to the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings; or
- Construction that reduces the integrity or significance of important resources on the site or in the vicinity.

The significance of a historic resource is materially impaired when a project demolishes or materially alters in an adverse manner the physical characteristics that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the NRHP, CRHR, and/or local register.

4.2.4 IMPACT ANALYSIS

The Proposed Project would require the demolition of floors 3 through 10 of the South Field ATCT, which the Port has determined is eligible for listing on the CRHR. Thus, in accordance with CEQA, the Proposed Project would have a significant impact on historical resources. While floors 1 and 2 would be retained and continue to be used for passengers, TSA, and Airport purposes, the defining features of the South Field ATCT would be lost.

4.2.5 MITIGATION MEASURES

The Port will conduct the following measures to minimize, to the extent possible, the significant impacts of demolishing the South Field ATCT on historical resources:

HR-1. Historic Documentation of the South Field ATCT. A report documenting the historic features of the South Field ATCT shall be prepared by the Port. Documentation shall adequately explicate and illustrate the character defining features that are truly significant or valuable about the South Field ATCT including:

- Design drawings dated December 1959
- Digital photography of the exterior; interior photographs of the FAA cab
- History and description (including existing photos of interest, brochures, newsletters, and other memorabilia from the early 1960's)

Photography shall be collected prior to commencement of demolition. Paper and/or electronic copies of the historic documentation shall be submitted to the Northwest Information Center (NWIC) of the California Historical Resources Information System, the City of Oakland Public Library-Oakland History Room (main branch), and the Port Archives.

HR-2. Online History of the South Field ATCT. Materials will include the historic documentation prepared under mitigation measure HR-1, which will be posted on the Port

website. The Port will also submit electronic documentation to the Docomomo US/Northern California[25] to update the information on the South Field ATCT on their website. Lastly, the Port will update Wikipedia's Oakland International Airport webpage.

4.2.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Based on the analysis above, the impact to cultural resources would be significant even with implementation of the mitigation measures. Thus, the project impacts to cultural resources are considered to be significant and unavoidable.

[25] A non-profit organization dedicated to the documentation and conservation of buildings, sites, neighborhoods of the modern movement. The Northern California Chapter was established in San Francisco in 1996. See www.docomomo-us.org.

5. Alternatives to the Proposed Project

CEQA Guidelines state that an EIR must describe and evaluate reasonable alternatives to the project, or to the location of the project, which would "feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project" (CEQA Guidelines Section 15126.6). An EIR need not consider every conceivable alternative to a project, but rather the determination of the range of alternatives should be governed by the 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The EIR must include sufficient information about each alternative, including a "no project" alternative, to allow meaningful evaluation, analysis, and comparison with the Proposed Project.

As discussed in Section 4 of this Draft EIR, the proposed demolition of floors 3 through 10 of the South Field ATCT is anticipated to result in significant impacts to cultural resources. This section addresses feasible alternatives that would avoid or substantially lessen any of the significant effects of the Proposed Project, meet the objective of the Proposed Project, and are not remote or speculative.

Alternatives to the Proposed Project include leaving the South Field ATCT in its existing condition (the "no project" alternative) and renovating the existing South Field ATCT to meet seismic and building code standards. The following factors were used to determine the practicality of alternatives:

- Feasibility – The suitability of the site/alignment, economic viability, consistency with the City of Oakland General Plan, other plans or regulatory limitations, the project's jurisdictional boundary and accessibility.
- Ability to meet the project objective – As described in Section 2.2, the objective of the project is for OAK to meet seismic code standards to prevent a life safety hazard to Airport employees and passengers in and around the South Field ATCT.

- Ability to avoid or substantially lessen any of the significant effects – Whether any potential alternatives would avoid or reduce impacts of the project on cultural resources.

5.1 "No Project" Alternative

As required by CEQA, the EIR must include a discussion of a "no project" alternative in order to assess the effects of approving the project versus not approving the project. The "no project" analysis must discuss the existing conditions at the time the NOP is published as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved.

If the Proposed Project is not approved, the South Field ATCT would remain in its existing condition – it would not be renovated or demolished. Once the new ATCT is commissioned in summer 2013, the South Field ATCT would be decommissioned from use as an ATCT and would be used as surplus space by Port staff.

The South Field ATCT does not meet current seismic and building code standards. If it remains in its existing condition it would pose a life safety hazard to Airport employees and passengers in and around Terminal 1 in the event of a major seismic event. Since the objective of the Proposed Project is to prevent a life safety hazard to Airport employees and passengers in and around the South Field ATCT, the "no project" alternative would not meet the project objective. Therefore, the "no project" alternative is not recommended and not evaluated further.

5.2 Renovating the South Field ATCT

Terminal 1, which includes the South Field ATCT, was constructed in the early 1960s. Terminal 1 has been expanded and renovated over time but requires additional improvements to meet seismic and building code standards so that ongoing operations can be maintained and the useful life of the buildings and systems can be extended. Based on planning studies, the Port developed a retrofit program for Terminal 1 to meet seismic and building code standards, replace inefficient and outdated infrastructure, prolong service life, and improve life cycle costs.

The future of the South Field ATCT was considered and analyzed during planning and design for the Building M102 renovations. During design development, an option was analyzed to retrofit and retain the tower. A retrofit of the South Field ATCT would require structural reinforcing of walls from the basement through the eighth floor of the South Field ATCT, rebuilding the elevator to meet building codes, replacing doors and restroom fixtures and accessories to meet Americans with Disabilities Act (ADA) requirements, and replacing infrastructure (mechanical, electrical, plumbing, and communication systems) that would be impacted by the retrofit. Other improvements associated with a South Field ATCT retrofit would include replacement of exterior windows to accommodate structural work and fire protection enhancements (fire alarm and fire suppression) to meet current codes.

It was determined that the seismic bracing of each floor required for the retrofit, would reduce the size of the usable footprint, decreasing the value and efficiency of the space after a retrofit was completed. Based on cost estimates provided by the design team, the Port estimates that these seismic and building code improvements would cost at least $8 million more than the cost of demolishing floors 3 and above of the South Field ATCT (the Proposed Project). Additionally, a seismic retrofit of the South Field ATCT would also impact the concession uses on the first floor of Building M102 and impact the critical Minimum Point of Entry in the basement of Building M102, where all of the utilities serving Terminal 1 are located. These costs, along with finishes or cosmetic improvements that would be required on each level of the South Field ATCT, were not included in the cost estimate. Based on these analyses and comparisons, the Port concluded that renovating the South Field ATCT to meet current seismic and building code standards would significantly impact the integrity of the South Field ATCT and would be cost prohibitive. Therefore, renovating the South Field ATCT was not considered a practical alternative to the Proposed Project.

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6. Public Involvement

A Notice of Preparation (NOP) for the Proposed Project was published on December 19, 2012. A public scoping meeting was held on January 7, 2013, and the public comment period concluded on January 21, 2013. No comment letters on the NOP or Initial Study Checklist were received by the Port. A copy of the December 14, 2012, NOP and Initial Study Checklist are included in **Appendix A**.

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Alamada County Clerk
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ABAG Website
http://www.abag.ca.gov/

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9. List of Acronyms

A

ADA – Americans with Disabilities Act

ADP – Airport Development Program

ALUPP – Alameda County Airport Land Use Policy Plan

ARMR – Archaeological Resource Management Report

ATCT – Airport Traffic Control Tower

B

BART – Bay Area Rapid Transit

C

CCR – California Code of Regulations

CEQA – California Environmental Quality Act

CRHR – California Register of Historical Resources

D

E

EA – Environmental Assessment

EIR – Environmental Impact Report

F

FAA – Federal Aviation Administration

G

GSE – Ground Support Equipment

H

HABS – Historic American Buildings Survey

I

J

K

L

M

MB – Mechanical Building

N

NAHC – Native American Heritage Commission

NEPA – National Environmental Policy Act

NHPA – National Historic Preservation Act

NOP – Notice of Preparation

NRHP – National Register of Historic Places

NWIC – Northwest Information Center

O

OAK – Oakland International Airport

OHP – California Office of Historic Preservation

P

Port – Port of Oakland

PSA – Pacific Southwest Airlines

Q

R

RSA – Runway Safety Area

S

T

TSA – Transportation Security Administration

TWA – Trans World Airlines

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Appendix A

Notice of Preparation and Initial Study

PORT OF OAKLAND

NOTICE OF PREPARATION AND NOTICE OF A PUBLIC SCOPING WORKSHOP FOR AN ENVIRONMENTAL IMPACT REPORT

Monday, January 7th, 2013 at 6:00 PM PST

Oakland International Airport
In-Transit Lounge, Terminal 1, 2nd Floor
1 Airport Drive, Oakland, California 94621

Proposed Project: Oakland International Airport (OAK or Airport) South Field Air Traffic Control Tower (ATCT) Partial Demolition

Project Location and Description: OAK, owned and operated by the Port of Oakland (Port), is located in the City of Oakland, Alameda County, California. OAK is located approximately one mile west of Interstate 880 (I-880) and is adjacent to San Francisco Bay.

The Airport encompasses 2600 acres and has four runways: three in the North Field (Runways 9R-27L, 9L-27R, and 15-33), and one in the South Field (Runway 11-29). In the past, aircraft movements in the North Field (primarily general aviation operations) have been controlled from the North Field ATCT while the South Field ATCT has supported aircraft operations on Runway 11-29, a 10,000-foot runway located on the south side of the Airport (primarily commercial and cargo aircraft operations). The North Field and South Field ATCTs are now out-dated and are being replaced by a modern, state of the art unified control tower which the FAA will bring online in 2013. The Airport's two commercial passenger terminals are located at the South Field and serve domestic and international passengers with a total of 29 gates.

The non-operational and functionally out-dated South Field ATCT at OAK, built in 1960 and is structurally integrated with Terminal 1, does not meet current seismic code standards, is unfit for modern access requirements, and could pose a life safety hazard in the event of a major seismic event. The Port concluded that the upgrades required for the South Field ATCT, to meet current seismic and building code standards would significantly impact the integrity and utility of the building and usable space and would be cost prohibitive. Therefore, the Port proposes to demolish floors three through ten (which extend above Terminal 1) of the South Field ATCT. The proposed project would involve demolishing the portion of the ATCT that extends above the Terminal 1 roof (floors three and above). The roof line of Terminal 1 would be continuous once the project is completed.

Environmental Review: In compliance with the California Environmental Quality Act (CEQA), the Port conducted a preliminary review of the Proposed Project during completion of the Initial Study Checklist. The Port determined that potentially significant effects may occur in the Aesthetics, Cultural Resources, and Mandatory Findings of Significance CEQA categories. As a result, these issues will be evaluated further in an Environmental Impact Report (EIR), which may require the incorporation of mitigation measures. The Port has determined that no significant impacts would occur to Agriculture and Forestry Resources, Air Quality, Biological Resources, Geology

and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation/Traffic, and Utilities and Service Systems. These topics will not be evaluated further in the South Field ATCT EIR unless identified through comments during the 30-day scoping period associated with circulation of this notice.

Scoping: The Port is holding a public scoping workshop to solicit input on environmental issues related to the Proposed Project, alternatives to be considered, and comments on the scope of the EIR. The Port requests your participation in the public scoping workshop and requests your comments on the scope of the EIR. The Initial Study Checklist will also be circulated for public comment during this scoping period (will be available online at www.portofoakland.com). Please submit scoping comments *in writing* no later than 3:00 PM PST, January 21, 2013 to:

Colleen Liang
Port of Oakland
Environmental Programs and Planning Division
530 Water Street
Oakland, CA 94607
Phone: (510) 627-1198
Fax: (510) 465-3755
Email: cliang@portoakland.com

There will be additional time to comment on the Proposed Project when the Draft EIR is circulated to the public.

Workshop: The scoping workshop/meeting will be held on **Monday, January 7th, 2013, from 6:00 PM to 7:30 PM PST** at the following location:

Oakland International Airport
In-Transit Lounge
Terminal 1, 2nd Floor
1 Airport Drive
Oakland, California 94621

Additional information can also be found online at: www.portofoakland.com.

Public Access: Parking is available in the hourly parking lot in front of the Airport terminals. Drivers approaching the Airport should stay in the left hand lane on Airport Drive and follow the signs to the Hourly Parking Lot. Parking will be validated for workshop participants. Attendees can also travel to the workshop using the BART or AC Transit. BART riders should disembark at the Coliseum/Oakland Airport Station and take the AirBART shuttle bus to the terminal buildings. Bus riders should take AC Transit Line 73, which connects to the Airport by means of the Eastmont Transit Center and the BART Coliseum/Oakland Airport Station. Visit actransit.org for more information.

INITIAL STUDY CHECKLIST

LEAD AGENCY Port of Oakland	**DATE** December 19, 2012
RESPONSIBLE AGENCIES: City of Oakland; California State Parks, Office of Historic Preservation	
PROJECT TITLE/NO. Oakland International Airport (OAK or Airport) South Field Airport Traffic Control Tower (ATCT) Demolition	**CASE NO.** To be assigned

PROJECT DESCRIPTION:
The South Field ATCT at OAK does not meet current seismic code standards and could pose a life safety hazard in the event of a major seismic event. The Port of Oakland concluded that the upgrades required for the South Field ATCT, which is structurally integrated with Terminal 1, to meet current seismic and building code standards, would significantly impact the integrity of the building and usable space, and would be cost prohibitive. Because a replacement ATCT has been constructed and is scheduled to be operational in 2013, the South Field ATCT will not be needed to provide air traffic control at the Airport once the new ATCT is operational. Therefore, the Port of Oakland has determined that floors three through ten (which extend above Terminal 1) of the South Field ATCT should be demolished as part of the ongoing Terminal 1 renovations.

ENVIRONMENTAL SETTING:
The Port of Oakland owns and operates OAK, which is situated in what the General Plan defines as the "East Oakland Area." In addition to the Airport, the East Oakland Area includes Central East Oakland and Elmhurst, and is characterized by commercial and industrial areas, detached and mixed housing units, and open space and recreational areas. The Airport is located 10 miles south of the central business district of the City of Oakland in Alameda County, California. The City of Oakland General Plan identifies OAK as part of the Seaport and Airport/Gateway Showcase District, which serves to attract airport-related and compatible commercial and industrial uses.

PROJECT LOCATION:
The Airport property is located in the City of Oakland in Alameda County, California, although a small portion of the Airport's total 2,600 acres is located in the City of Alameda. The Airport is bounded by Harbor Bay Parkway to the northwest, Doolittle Drive to the northeast and north, the San Leandro Bay to the northeast, and San Francisco Bay to the southwest. OAK is approximately two miles west of Interstate 880 and adjacent to San Francisco Bay. The Airport's "South Field" and Terminal Complex is located on the Bay Farm Island peninsula in San Francisco Bay at the southern end of OAK. The South Field ATCT is structurally integrated with Terminal 1 and currently serves to support aircraft operations on Runway 11-29.

PLANNING DISTRICT Seaport and Airport/Gateway Showcase District (as defined by the City of Oakland General Plan)		**STATUS:** ☐ **PRELIMINARY** ☐ **PROPOSED** ☒ **ADOPTED** March 1998
EXISTING ZONING Port Jurisdiction - Transportation	**MAX. DENSITY ZONING** N/A (No residential proposed)	☒ **DOES CONFORM TO PLAN** ☐ **DOES NOT CONFORM TO PLAN** ☐ **NO DISTRICT PLAN**
PLANNED LAND USE & ZONE Airport uses	**MAX. DENSITY PLAN** N/A	
SURROUNDING LAND USES Northwest – Alameda recreational, residential, office, and light industrial Northeast – Oakland public, recreational, office, commercial, and light industrial Southeast – San Leandro public open space, commercial, and industrial The San Leandro and San Francisco bays surround the Airport to the north, south, and southwest	**PROJECT DENSITY** N/A	

DETERMINATION (To be completed by Lead Agency)	
On the basis of this initial evaluation:	
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions on the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	
☒ I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	
☐ I find the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	
SIGNATURE	**TITLE**

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☒	Aesthetics	☐	Agriculture and Forestry Resources	☐	Air Quality
☐	Biological Resources	☒	Cultural Resources	☐	Geology/Soils
☐	Greenhouse Gas Emissions	☐	Hazards and Hazardous Materials	☐	Hydrology/Water Quality
☐	Land Use/Planning	☐	Mineral Resources	☐	Noise
☐	Population/Housing	☐	Public Services	☐	Recreation
☐	Transportation/Traffic	☐	Utilities/Service	☒	Mandatory Findings of Significance

INITIAL STUDY CHECKLIST	
☐ **BACKGROUND**	
PROPONENT NAME Port of Oakland Environmental Programs and Planning Division	**PHONE NUMBER** (510) 627-1198
PROPONENT ADDRESS 530 Water Street, Oakland, California 94607	
PROPONENT NAME Port of Oakland	**DATE SUBMITTED** December 19, 2012
PROPOSAL NAME Oakland International Airport (OAK) South Field Airport Traffic Control Tower Demolition	

ENVIRONMENTAL IMPACTS	(Explanations of all potentially and less than significant impacts are required to be attached on separate sheets)			
	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
I. AESTHETICS. Would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Damage scenic resources including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☒	☐	☐	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐
II. AGRICULTURE AND FORESTRY RESOURCES. Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program in the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with the existing zoning for agricultural use, or a Williamson Act Contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland-zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could individually or cumulatively result in loss of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
III. AIR QUALITY. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐

ENVIRONMENTAL IMPACTS	(Explanations of all potentially and less than significant impacts are required to be attached on separate sheets)			
	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air-quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e. Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐
IV. BIOLOGICAL RESOURCES. Would the project:				
a. Have a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c. Adversely impact federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) either individually or in combination with the known or probable impacts of other activities through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☐	☐	☒
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

ENVIRONMENTAL IMPACTS	(Explanations of all potentially and less than significant impacts are required to be attached on separate sheets)			
	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
V. CULTURAL RESOURCES. Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☒	☐	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☐	☒
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒
VI. GEOLOGY AND SOILS. Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b. Would the project result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

ENVIRONMENTAL IMPACTS	(Explanations of all potentially and less than significant impacts are required to be attached on separate sheets)			
	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
VII. GREENHOUSE GAS EMISSIONS. Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b. Create a significant hazard to the public or the environment through the reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	☐	☒	☐	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d. Is the project located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☒	☐	☐
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for the people residing or working in the area?	☐	☐	☐	☒
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h. Expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

ENVIRONMENTAL IMPACTS	(Explanations of all potentially and less than significant impacts are required to be attached on separate sheets)			
	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
IX. HYDROLOGY AND WATER QUALITY. Would the project:				
a. Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned land uses for which permits have been granted)?	☐	☐	☐	☒
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☐	☒
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f. Otherwise substantially degrade water quality?	☐	☐	☐	☒
g. Place housing within a 100-year floodplain as mapped on federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h. Place within a 100-year floodplain structure that would impede or redirect flood flows?	☐	☐	☐	☒
i. Expose people or structures to a significant risk of loss, inquiry or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j. Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒
X. LAND USE AND PLANNING. Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒

ENVIRONMENTAL IMPACTS	(Explanations of all potentially and less than significant impacts are required to be attached on separate sheets)			
	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
b. Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
XI. MINERAL RESOURCES. Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒
XII. NOISE. Would the project result in:				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b. Exposure of people to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

ENVIRONMENTAL IMPACTS	(Explanations of all potentially and less than significant impacts are required to be attached on separate sheets)			
	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
XIII. POPULATION AND HOUSING. Would the project:				
a. Induce substantial population growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing housing necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XIV. PUBLIC SERVICES.				
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
a. Fire protection?	☐	☐	☐	☒
b. Police protection?	☐	☐	☐	☒
c. Schools?	☐	☐	☐	☒
d. Parks?	☐	☐	☐	☒
e. Other public facilities?	☐	☐	☐	☒
XV. RECREATION.				
a. Would the project 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?	☐	☐	☐	☒
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

ENVIRONMENTAL IMPACTS	(Explanations of all potentially and less than significant impacts are required to be attached on separate sheets)			
	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
XVI. TRANSPORTATION/TRAFFIC. Would the project:				
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d. Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e. Result in inadequate emergency access?	☐	☐	☐	☒
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒
XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒

ENVIRONMENTAL IMPACTS	(Explanations of all potentially and less than significant impacts are required to be attached on separate sheets)			
	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
e. Result in a determination by the wastewater treatment provider which serves or could serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.				
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects).	☐	☐	☒	☐
c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

1. Project Description

1.1 Introduction

Oakland International Airport (OAK or Airport) is the second busiest of three airports serving the San Francisco Bay area. In 2011, OAK served approximately 9.25 million passengers and 220,300 aircraft operations, making it the fortieth busiest airport in North America in terms of both passengers served and total aircraft movements.[1] OAK, owned and operated by the Port of Oakland, is classified as a medium hub commercial service airport in the National Plan of Integrated Airport Systems (NPIAS). Hub classifications are based on the number of passengers enplaned at the airport, and a "medium hub" classification means that OAK accommodates between 0.25 percent and 1.0 percent of total U.S. enplaned passengers.[2] OAK primarily serves nonstop travel to short-haul and medium haul markets, as well as service to the Hawaiian Islands, connecting service to other long-haul markets, and some international service. United Parcel Service (UPS) and Federal Express operate major air cargo facilities within the South Field[3]. OAK is a critical component of the transportation network serving the San Francisco Bay Area, the region, the California Aviation System Plan, and the National Airspace System.

A new airport traffic control tower (ATCT) for the Airport is currently under construction and is scheduled to be operational in 2013. Once operational, the South Field ATCT will not be needed to provide air traffic control at the Airport. The South Field ATCT at OAK does not meet current seismic code standards and could pose a life safety hazard in the event of a major seismic event. The Port of Oakland concluded that upgrading the South Field ATCT, which is structurally integrated with Terminal 1, to meet the current seismic and other building code standards, would significantly impact the integrity of the tower and would be cost prohibitive. Therefore, the Port of Oakland has determined that floors three through ten (which extend above Terminal 1) of the South Field ATCT should be demolished as part of the ongoing Terminal 1 renovations.

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1 Airports Council International – North America (ACI-NA), "2011 North American Airport Traffic Summary (Top 50 Airports – Passengers)," Airport Traffic Reports, www.aci-na.org/content/airport-traffic-reports (accessed September 4, 2012).

2 U.S. Department of Transportation, Federal Aviation Administration, Report to Congress, National Plan of Integrated Airport Systems (NPIAS), 2013-2017, September 27, 2012.

3 The South Field is generally defined as the airport area south of Ron Cowan Parkway that includes Runway 11-29 and is dominated by passenger facilities, including Terminals 1 and 2, and air cargo facilities. The North Field is defined as the area north of Ron Cowan Parkway, including Runways 9R-27L, 9L-27R, and 15-33, that contains a variety of aviation land uses, primarily general aviation aircraft hangars, ramps, and fixed-base operators, as well as some air cargo facilities.

1.2 Environmental Setting

1.2.1 PROJECT LOCATION

OAK is located 10 miles south of the central business district of the City of Oakland in Alameda County, California. The Airport property is located in the City of Oakland although a small portion of its' total 2,600 acres is in the City of Alameda. As shown on **Exhibit 1**, OAK is located approximately one mile west of Interstate 880 (I-880) and is adjacent to San Francisco Bay. The Port of Oakland owns and operates OAK, which is situated in what the General Plan defines as the "East Oakland Area." In addition to the Airport, the East Oakland Area includes Central East Oakland and Elmhurst, and is characterized by commercial and industrial areas, detached and mixed housing units, and open space and recreational areas.

The Airport has four runways – three in the North Field (Runways 9R-27L, 9L-27R, and 15-33) and one in the South Field (Runway 11-29). Aircraft movements related to Runway 9L-27R, Runway 9R-27L, and Runway 15-33 (primarily general aviation operations) are controlled from the North Field ATCT. The South Field ATCT supports aircraft operations on Runway 11-29, a 10,000-foot runway located on the south side of the Airport (primarily commercial and cargo aircraft operations).

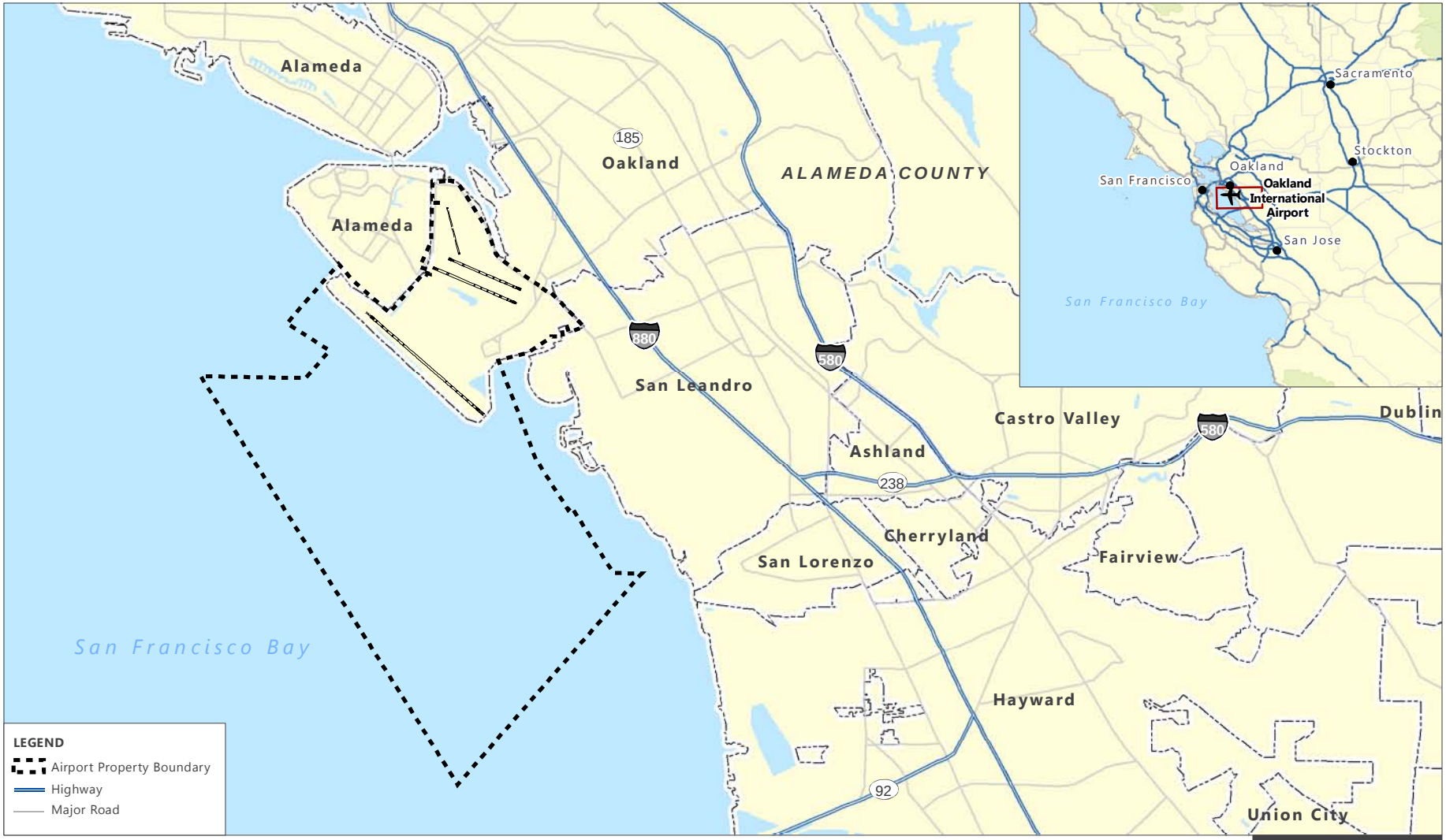
As depicted on **Exhibit 2**, the Airport's two commercial passenger terminals are located at the South Field and serve domestic and international passengers with a total of 29 gates. Of the 29 total gates, 16 are located at Terminal 1 and the remaining 13 are located at Terminal 2. **Exhibit 3** depicts the Terminal 1 building campus, which includes the following buildings:

- M101 – Domestic ticketing and baggage claim
- M102 – International airline ticketing, airport offices, and security checkpoint
- M103 – Aircraft gates and hold rooms
- M114 – International arrivals
- M104 – Central utility plant

The ten-story South Field ATCT is structurally integrated into Terminal 1 in Building M102.

1.2.2 SURROUNDING USES

The City of Oakland General Plan identifies OAK as part of the Seaport and Airport/Gateway Showcase District, which serves to attract airport-related and compatible commercial and industrial uses. The San Francisco and San Leandro bays surround the Airport to the south, southwest, and north. The City of Alameda is northwest of the Airport and the City of San Leandro is southeast of the Airport. Land uses immediately surrounding the Airport include recreational, residential, office, and light industrial land uses to the northwest; public, recreational, office, commercial, and light industrial uses to the northeast; and public open space, commercial, and light and heavy industrial uses to the southeast.



SOURCES: Environmental Systems Research Institute, 2010 (base map); Oakland International Airport Layout Plan, 2008 (airport property boundary, runways).
PREPARED BY: Ricondo & Associates, Inc., December 2012.

EXHIBIT 1

NORTH 0 2 miles

Location Map

ESRI ESRI Online Database, Microsoft Corporation, Bing Maps Aerial Photography, 2011.
PREPARED BY: Ricondo & Associates, Inc., December 2012.

EXHIBIT 2

NORTH 0 1,600 ft.

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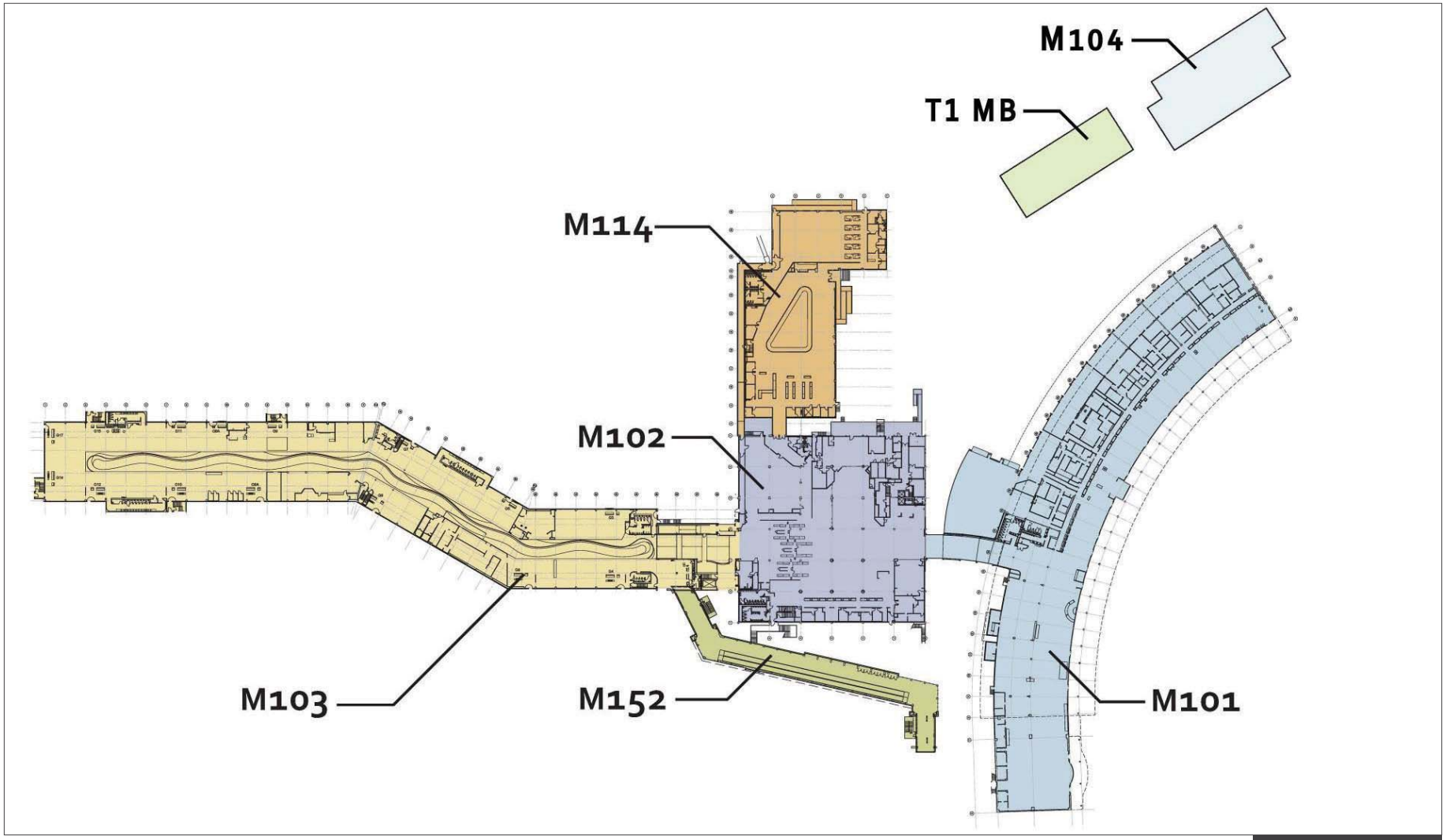
Project Vicinity Map



SOURCE: Port of Oakland, December 2012.
PREPARED BY: Ricondo & Associates, Inc., December 2012.

EXHIBIT 3

NORTH 0 Not to Scale

Terminal 1 Building Campus

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1.2.3 EXISTING PROJECT SITE CONDITIONS

The South Field ATCT is integrated into Terminal 1 in a developed part of the Airport. Passenger processing facilities, the terminal curbside, Airport access road, Terminal 2, and public parking surround the ATCT and terminal concourses to the north and east; aircraft gates and apron areas are located south and west of the ATCT.

1.3 Relationship to Existing Plans and Documents

The renovation of Terminal 1 was examined and approved as part of the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) documents prepared for the Airport Development Program (ADP) at OAK. The ADP incorporates various on-going airport improvement projects intended to accommodate future growth in passenger and aviation-related activities. A seismic evaluation prepared as part of the ADP determined that the North Field ATCT and the South Field ATCT do not meet current seismic code standards and would both pose a life safety hazard in the event of a major earthquake.

In compliance with NEPA, the Federal Aviation Administration (FAA) prepared an Environmental Assessment (EA) to examine the decommissioning of the existing ATCTs and construction of a new ATCT to consolidate air traffic control operations in one ATCT, increase operational and regional air traffic management efficiencies, and reduce ATCT facility maintenance requirements. A Finding of No Significant Impact/Record of Decision (FONSI/ROD) was issued for the Final EA in April 2002.[4] Construction of the new 236 foot-tall ATCT and 13,000 square-foot base building began in October 2010. The new ATCT is anticipated to be operational by the end of 2013. Neither the South Field ATCT nor the North Field ATCT will be needed to provide air traffic control at OAK once the new ATCT is operational.

1.4 Description of the Proposed Project

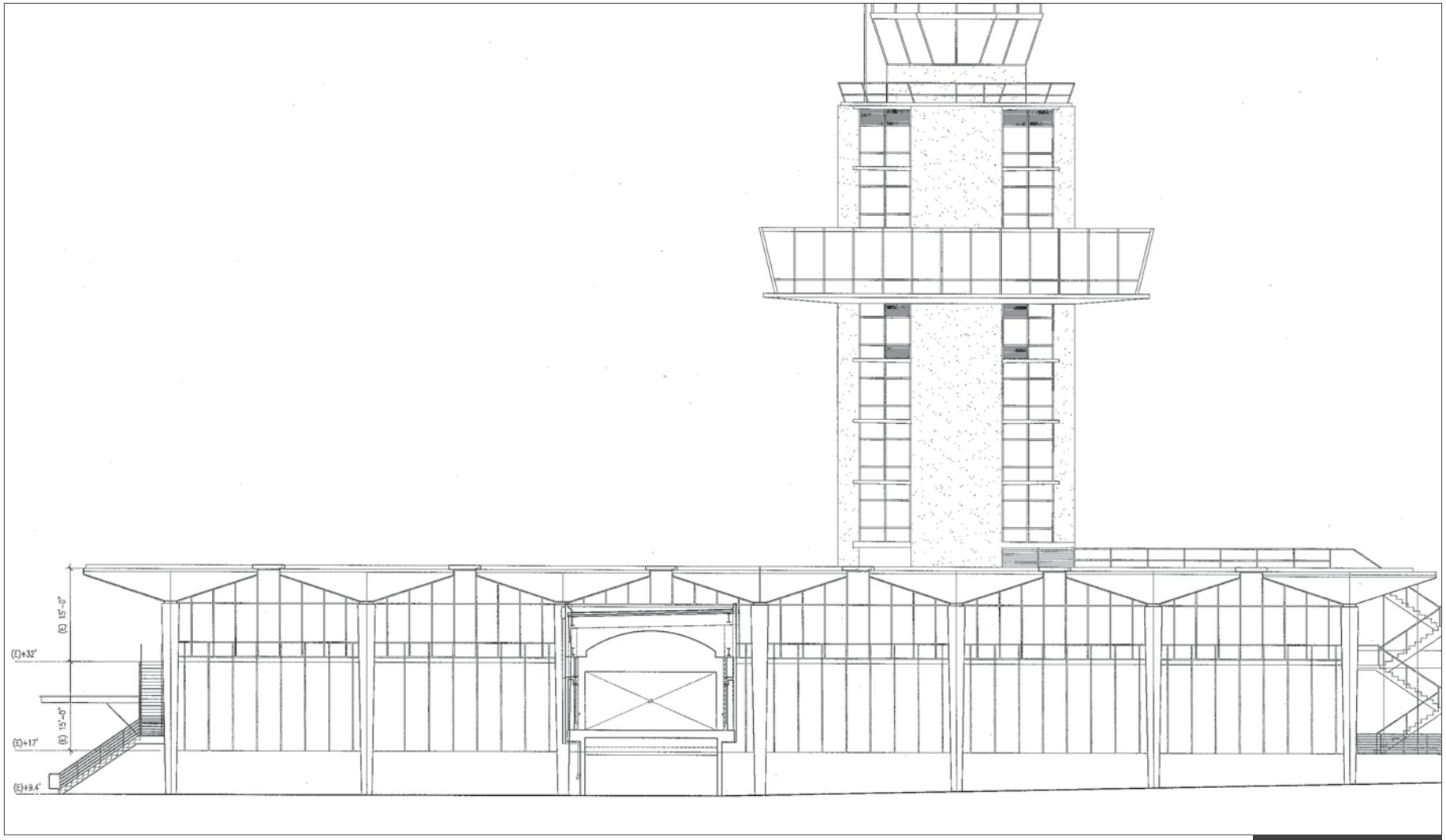
Terminal 1 opened in 1962 and has been expanded and renovated over time. In 2007, the Port of Oakland determined that Terminal 1 would be retained for the foreseeable future to accommodate existing air passenger traffic and near-term growth and would be modernized to improve passenger service. Given the age of the facility, substantial improvements are required to maintain on-going operations and extend the useful life of the buildings and systems. The planned renovations are intended to replace inefficient and outdated infrastructure, meet current building codes and seismic standards, prolong service life, and improve life cycle costs. The major improvements focus on the most critical life safety risks as determined through structural analysis. The first phase of major construction is to seismically retrofit Building M102 (the center

[4] U.S. Department of Transportation, Federal Aviation Administration, Western-Pacific Region. Finding of No Significa*nt Impact Record of Decision for the Construction and Operation of a New Airport Traffic Control Tower (ATCT) at Oakland International Airport*, April 2002.

building that houses the security checkpoint and connects ticketing/bag claim with the airside concourse). The 158-foot South Field ATCT is structurally integrated with M102.

The future of the ATCT was considered and analyzed as part of the Building M102 design process. During design development, two options for the tower were analyzed including one to retrofit and retain the tower and one to demolish a portion of the tower. A retrofit of the ATCT would require structural reinforcing of walls from the basement through the 8th floor of the ATCT, rebuilding the elevator to meet building codes, replacing doors and restroom fixtures and accessories to meet American with Disabilities Act (ADA) requirements, and replacing infrastructure (mechanical, electrical, plumbing, and communication systems) that would be impacted by the retrofit. Other improvements associated with an ATCT retrofit included replacement of exterior windows to accommodate structural work and fire protection enhancements (fire alarm and fire suppression) to meet current codes. In addition, it was determined that the seismic bracing of each floor would reduce the size of the usable footprint, decreasing the value and efficiency of the space after a retrofit was completed. It was estimated that the cost to provide these seismic and code improvements was approximately $8 million more than the cost of demolishing floors three and above of the ATCT. Additionally, a seismic retrofit of the ATCT would also impact the concession uses on the first floor of Building M102 and impact the critical Minimum Point of Entry (MPOE) that resides in the basement of Building M102. These costs, along with finishes or cosmetic improvements that would be required on each level of the tower, were not included in the cost estimate. Based on these analyses and comparisons, it was determined that the Port of Oakland would pursue the partial demolition of the tower.

The Port of Oakland plans to demolish floors three and above of the South Field ATCT as part of the ongoing renovations of Terminal 1. The dismantling of the ATCT would require capping utilities serving the ATCT followed by removal of the architectural, mechanical, electrical, plumbing, and elevator elements on the third through tenth floor. Demolition of structural elements including the roof, floors, beams, stairs, interior and exterior walls of the ATCT would proceed on a floor by floor basis from the tenth floor down to the third floor. The Port of Oakland prepared this Initial Study and has determined that an Environmental Impact Report (EIR) is needed to identify any potentially significant impacts associated with the partial demolition of the South Field ATCT. The South Field ATCT is structurally integrated with Terminal 1; thus, the proposed project would involve demolishing the portion of the ATCT that extends above the Terminal 1 roof (floors three and above) (see **Exhibit 4** and **Exhibit 5**). The roof line of Terminal 1 would be continuous once the project is completed. The remaining first two floors of the ATCT would be utilized for passenger movement, Transportation Security Administration (TSA) security checkpoints, concessions, and airport and tenant support space.



SOURCE: Port of Oakland, December 2012.
PREPARED BY: Ricondo & Associates, Inc., December 2012.

EXHIBIT 4

NORTH 0 Not to Scale

Design Drawing of the Terminal 1
and the South Field ATCT (West Section)

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SOURCE: Port of Oakland, December 2012.
PREPARED BY: Ricondo & Associates, Inc., December 2012.

EXHIBIT 5

NORTH

0 Not to Scale

Photo of the South Field ATCT
(Floors 3 to 10) from the Terminal 1 Roof Line

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1.5 South Field ATCT EIR

Consistent with the California Environmental Quality Act (CEQA, Public Resources Code §21000 et seq.) and the CEQA Guidelines (California Code of Regulations title 14, §15000 et seq.), the Port of Oakland is preparing an EIR to evaluate the environmental impacts of the proposed project. This Initial Study Checklist has been prepared to focus the issues that will be studied in further detail in the EIR by identifying the resource areas that could be subject to significant impacts from the proposed project and that would require incorporation of mitigation measures where feasible. Based on a preliminary review of the project site and in consideration of the proposed project activities, the Port of Oakland has determined that potentially significant effects may occur in Aesthetics, Cultural Resources, and Mandatory Findings of Significance. As a result, these issues will be evaluated further in the South Field ATCT EIR.

The Port of Oakland has determined that no significant impacts would occur to Agriculture and Forestry Resources, Air Quality, Biological Resources, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation/Traffic, and Utilities and Service Systems. Therefore, these topics will not be evaluated further in the South Field ATCT EIR unless identified through public comments during the 30-day scoping period associated with circulation of the Notice of Preparation (NOP) for this EIR.

1.6 Required Approvals/Consultations

1.6.1 FEDERAL

- U.S. Department of Transportation, Federal Aviation Administration (FAA) approval of an FAA Notice of Construction or Alteration, to ensure safe and efficient operations during the partial demolition of the tower. The Port of Oakland and its selected contractor would submit a FAA Form 7460-1 "Notice of Proposed Construction or Alteration."

1.6.2 STATE AND REGIONAL ACTIONS

- California State Parks, Office of Historic Preservation, Section 106 of the National Historic Preservation Act consultation.
- The Bay Area Air Quality Management District (BAAQMD) for asbestos notification requirements and such other review as required by law.

1.6.3 LOCAL

- Certification of the Final EIR for the South Field ATCT Demolition project by the Port of Oakland.
- Demolition permit from the City of Oakland

2. Explanation of Initial Study Checklist Determinations

The following analysis provides supporting documentation for the determinations presented in the Initial Study Checklist. Each response provided below evaluates how the partial demolition of the South Field ATCT (the proposed project) as defined in the Project Description may affect existing environmental conditions at the project site and in the surrounding area. The Environmental Impact Report (EIR) will further evaluate topics where the potential for a significant impact has been identified. The EIR will analyze the identified potentially significant impacts and, where appropriate, identify mitigation measures and explain how such measures would reduce significant impacts.

I. Aesthetics

Would the project:

a. Have a substantial adverse effect on a scenic vista?

b. Damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, within a state scenic highway?

a-b. No Impact. *The partial demolition of the South Field ATCT would take place entirely on existing OAK property. Views of OAK are available from residential neighborhoods in Alameda to the north, from commercial areas to the east, and from recreational areas such as the Oyster Bay Regional Shoreline, the San Leandro Bay Regional Shoreline, the Alameda Municipal Golf Course, and the Metropolitan Links Golf Course. Views of OAK from the immediate vicinity are restricted due to the relatively level topography. Demolition of floors three and above of the ATCT would change the visual character of Terminal 1. However, the proposed project would remove one of the taller structures from the vista, resulting in a less obstructed view. Additionally, the area surrounding the project site is used for aviation purposes; buildings and structures are primarily utilitarian in nature with limited scenic value. There are no designated scenic vistas of the South Field ATCT; therefore, no further analysis of potential impacts to scenic vistas is required.*

The proposed project consists of the partial demolition of the South Field ATCT and would not result in excavation, ground disturbance, or disturbance of any scenic resources; floors one and two of the existing tower would not be disturbed from the proposed project. Additionally, the proposed project is not located at or near a state scenic highway. The closest state-designated scenic highway, Interstate 580, is located over 4.25 miles east of the South Field ATCT. The closest scenic resources to OAK are the San Leandro Bay, Arrowhead Marsh, and the Oakland-Berkeley Hills. San Leandro Bay and Arrowhead Marsh are located roughly two miles north of the South Field ATCT beyond Doolittle Drive (Route 61). The Oakland-Berkeley Hills overlook the San Francisco Bay on the east side of Oakland, approximately five miles north/northeast of the Airport. The proposed demolition

of floors three and above of the tower would not alter these resources or views of these resources. Therefore, the proposed project would have no impact on scenic resources and no further analysis is required.

c. Substantially degrade the existing visual character or quality of the site and its surroundings?

c. Potentially Significant Impact. *The existing South Field ATCT is integrated with Terminal 1 and located within a developed urban environment. The South Field ATCT is surrounded by airfield pavement, buildings, parking lots, roadways, and other airport uses. The visual character in the vicinity of OAK is characterized by commercial and industrial development and undeveloped areas including the Oyster Bay Regional Shoreline, the San Leandro Bay Regional Shoreline, the Alameda Municipal Golf Course, and the Metropolitan Links Golf Course. Although the demolition of floors three and above of the tower would take place entirely on OAK property, the demolition would change the visual character of Terminal 1. Demolition activities and construction staging may also be visible from offsite receptors for a temporary period. Temporary construction fencing may be installed to screen areas under construction. Scaffolding would be erected below and around the perimeter of the ATCT to facilitate dismantling. Work around the perimeter of Building M-102 would be required for labor and equipment access and material haul off-site. The EIR will evaluate the potential for the proposed project to significantly impact the visual character and quality of the site and its surroundings.*

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

d. Less Than Significant Impact. *The project site is located in a developed, urban area with existing sources of ambient lighting, including terminal and airfield lighting, roadway lighting, and lighting from other Airport facilities. Commercial and industrial development surrounding OAK also generates a consistent source of lighting. The lighting associated with floors three and above of the existing South Field ATCT (e.g., cab lighting) would be removed as part of the demolition, reducing existing light impacts. Demolition of the South Field ATCT may generate light emissions from site lighting and construction equipment; however, lighting associated with the partial demolition of the tower would be temporary (approximately nine months). Therefore, impacts related to lighting and glare are anticipated to be less than significant and no further analysis is required in the EIR.*

II. Agriculture and Forestry Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California agricultural land evaluation and site assessment model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range

Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program in the California Resources Agency, to non-agricultural use?

b. Conflict with the existing zoning for agricultural use, or a Williamson Act Contract?

c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

d. Result in the loss of forest land or conversion of forest land to non-forest use?

e. Involve other changes in the existing environment which, due to their location or nature, could individually or cumulatively result in loss of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

a-e. No Impact. *The South Field ATCT is located within a developed, urban area surrounded by airport uses. No Williamson Act contracts are in effect and no agriculture or forestry resources or operations exist at the project site. The demolition of the South Field ATCT involves removing floors three through ten and would not result in ground disturbance – floors one and two would remain intact and be reused for Airport-related purposes. The City of Oakland General Plan designates the South Field ATCT and the Terminal 1 area for airport uses. The project site does not contain agricultural land uses nor is it zoned for agricultural uses. Farmland would not be converted to non-agricultural use nor would the demolition result in any conflicts with existing zoning for agricultural use or a Williamson Act contract. The Airport does not fall under the State Public Resource Code definitions of forest land[5] or timberland.[6] The proposed project would not involve the conversion of forest land to non-forest use. Therefore, no impacts to agriculture or forestry resources would occur with the proposed demolition of the South Field ATCT and no further analysis is required.*

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[5] State Public Resources Code Section 12220 defines "forest land" as: land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

[6] State Public Resources Code 4526 provides the following definition for "timberland": "Timberland" means land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis after consultation with the district committees and others.

III. AIR QUALITY

The significance criteria established by the Bay Area Air Quality Management District (BAAQMD) may be relied upon to make the following determinations.

Would the project:

a. Conflict with or obstruct implementation of the applicable air quality plan?

b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

a-c. Less Than Significant. Table 1 *presents criteria pollutant emissions associated with demolition of the South Field ATCT and transportation of waste/recycling materials. The Urban Emissions (URBEMIS) 2007 model (version 9.2.4) was used to estimate the emissions associated with the proposed demolition of the ATCT. For purposes of evaluating potential significance, estimated emissions are compared to the adopted, but nonbinding June 2010 significance thresholds. As shown, estimated emissions, presented in pounds per day, are not anticipated to exceed the adopted standards.*

Table 1: Summary of Demolition Emissions

	DAILY EMISSIONS (POUNDS PER DAY)					
COMPONENT	**ROG**	**NO_X**	**CO**	**SO_2**	**PM_{10} 1/**	**$PM_{2.5}$ 1/**
Fugitive dust	0.00	0.00	0.00	0.00	0.36	0.08
On-road construction equipment	1.91	14.34	7.79	0.00	0.77	0.71
Off-road construction equipment	0.02	0.25	0.08	0.00	0.01	0.01
Construction worker trips	0.06	0.10	1.82	0.00	0.02	0.01
Total Emissions	**1.98**	**14.69**	**9.70**	**0.00**	**1.16**	**0.80**
2010 BAAQMD Significance Thresholds	**54**	**54**	**N/A**	**N/A**	**82 2/**	**54 2/**

NOTES:

1/ PM_{10} and $PM_{2.5}$ emissions include exhaust emissions and fugitive dust emissions.

2/ Applies to construction exhaust emissions only. Specific significance threholds for PM_{10} and $PM_{2.5}$ fugitive dust have not been developed. Such emissions are assumed to be controled through implementation of recommended best management practices (BMPs)/mitigation.

SOURCES: Ricondo & Associates, Inc., December 2012, based on the URBEMIS2007 emissions model (version 9.2.4) and information obtained from the Port of Oakland (estimated emissions); Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, Updated May 2011 (BAAQMD Significance Thresholds).

PREPARED BY: Ricondo & Associates, Inc., December 2012.

Adopted in September 2010, the BAAQMD 2010 Bay Area Clean Air Plan implements strategies to reduce ozone and provides a control strategy to reduce ozone, particulate matter, air toxins, and greenhouse gases (GHGs) through 2012 via a single, integrated plan. Air emissions may temporarily increase at the project site due to demolition-related activities and from the hauling of waste and recyclable materials. Demolition of floors three and above would require the use of construction equipment including cranes, dump trucks, hoists, saws, torches, and jackhammers. However, the partial demolition of the South Field ATCT would not change the number of aircraft operations or vehicular trips (other than during construction) at OAK, change the existing aircraft fleet mix, or result in a net increase in emissions from Airport activities. Alameda County is a nonattainment area for fine particulate matter ($PM_{2.5}$) and a marginal nonattainment area for 8-hour ozone.[7] *Demolition of the South Field ATCT, materials handling, and transportation of construction waste and recycling has the potential to generate fugitive dust emissions. The selected contractor would comply with the 2012 BAAQMD CEQA Air Quality Guidelines and the 2010 Bay Area Clean Air Plan. All self-propelled off-road diesel vehicles over 25 horsepower would comply with the California Air Resources Board's (CARB) In-Use Off-Road Diesel Vehicle Regulation (revised May 2012) to reduce emissions of oxides of nitrogen (NOx) and particulate matter (PM). The regulation requires the contractor to provide the following:*

- *Idling limited to five minutes*
- *Written Idling Policy (for 'Medium' and 'Large' fleets defined by summation of fleet horsepower)*
- *Disclosure of selling vehicles*
- *Reporting to CARB using DOORS (Diesel Off-Road Online Reporting System)*
- *Labeling with CARB identification number from DOORS*
- *Annual reporting*

d. Expose sensitive receptors to substantial pollutant concentrations?

d. No Impact. *Demolition-related activities would be temporary in nature and are not anticipated to expose sensitive receptors to substantial pollutant concentrations. The nearest sensitive receptors are residential areas located over 7,000 feet to the east of the project site in San Leandro. Since these residences are beyond 1,000 feet of the project site, they do not require analysis per the BAAQMD 2010 Bay Area Clean Air Plan. Therefore, no impacts to sensitive receptors are anticipated and no further analysis in the EIR is required.*

[7] U.S. Environmental Protection Agency, Green Book, "Nonattainment Status for Each County by Year for California," as of July 20, 2012, www.epa.gov/oaqps001/greenbk/anay_ca.html (accessed October 16, 2012).

e. Create objectionable odors affecting a substantial number of people?

e. Less Than Significant Impact. *Diesel-fueled construction equipment used during the proposed demolition of floors three and above of the South Field ATCT would generate some odors associated with diesel exhaust. However, demolition-related activities would be temporary, exhaust odors would be minor and dissipate quickly, and the nearest sensitive receptors are residential areas located over 1.25 miles to the north and east of the project site. Therefore, impacts from objectionable odors are anticipated to be less than significant and no further analysis in the EIR is required.*

IV. BIOLOGICAL RESOURCES

Would the project:

a. Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

c. Adversely impact federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) either individually or in combination with the known or probably impacts of either activities through direct removal, filling, hydrological interruption, or other means?

d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

e. Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

a-f. No Impact. *The partial demolition of the South Field ATCT would take place within a developed area devoid of biological resources. Terminal 1 is located primarily on reclaimed and infilled land developed in the early 1960s. There are no riparian/wetland areas, trees, or wildlife movement corridors at or immediately adjacent to the project site. There is no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan that includes any of the project site or areas immediately adjacent*

the project site. The demolition of the South Field ATCT involves removing floors three and above and would not result in ground disturbance. The partial demolition of the South Field ATCT would have no impact on biological resources and there are no potential conflicts with an adopted habitat conservation plan. Thus, no further analysis of potential effects to biological resources in the EIR is required.

V. CULTURAL RESOURCES

Would the project:

a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

a. Potentially Significant Impact. *The South Field ATCT consists of ten stories with a cantilevered eighth floor enclosed by tinted glass that rises from the core of, and is structurally integrated with, Terminal 1. Terminal 1 is a modernistic two-story passenger terminal building constructed between 1959 and 1962 that contains two connected buildings and a concourse for aircraft gates that extends southwest from the terminal. The first building consists of a curved glass front with a curve-shaped concrete shell roof and canopy. The terminal building is clad in cast concrete and glass with a concrete shell umbrella roof.*

All buildings comprising Terminal 1 have undergone extensive modifications and expansions. Renovations, many of which took place during the 1980s, included the addition of a second level to the concourse, reconfiguration of the main lobby food service area, and security, baggage, and environmental control equipment upgrades. As a result of these renovations and subsequent modifications, the Terminal 1 buildings are in various states of conditional compliance with building codes – some portions of Terminal 1 have undergone recent modifications to meet existing codes while others are beyond their useful life and are difficult to maintain.[8] *Building M102, the building which houses the original concessions building and South Field ATCT, was constructed in 1959 and subsequently renovated. At the time of this study, Building M102 lacks a complete lateral load path for the concessions building and inadequate shear walls surrounding the ATCT.*[9] *The OAK Terminal 1 Renovation and Retrofit Study concluded that a comprehensive retrofit would be required for both the concessions building and the tower to achieve life safety performance.*

The Terminal 1 modifications that took place in the 1980s attempted to retain the terminal's primary character defining features. These features include the curved ticketing building, ATCT with cantilever, and distinctive roof structures that reflect the popular modernistic forms and aerospace themes prevalent in airport architecture of the early 1960s; the Terminal 1 core retains integrity of

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[8] Port of Oakland, *OAK Terminal 1 Renovation & Retrofit Study*, Section 2-1, "Introduction," March 9, 2007.

[9] Port of Oakland, *OAK Terminal 1 Renovation & Retrofit Study*, Section 4-2, "Existing Conditions & Issues," March 9, 2007.

location, setting, design, and association, as well as some of the workmanship, materials, and feeling associated with its character defining features.[10]

According to CEQA, a resource shall be considered to be "historically significant" if it meets the criteria for listing on the California Register of Historical Resources (CRHR) (Pub. Res. Code §5024.1, Title 14 CCR, Section 4852), which includes the following:

- *is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;*
- *is associated with lives of persons important in our past;*
- *embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or*
- *has yielded, or may be likely to yield, information important in prehistory or history.*

Resources that are listed or formally determined to be eligible for listing in the National Register of Historic Places (NRHP) are automatically listed in the CRHR, and are thus considered historical resources for the purposes of CEQA compliance. Although the South Field ATCT is not currently listed on the NRHP, a historic resource survey conducted by Pacific Legacy determined that the structure is eligible for listing on the NRHP under the following two criteria:[11]

- **Criterion A**, *Associative Value – Event* – Significant for its association or linkage to events.
  - Terminal 1 has an "association with the transition from early to modern air travel at the historic Oakland airfields."
- **Criterion C**, *Construction/Design* – Significant as representative of the manmade expression of culture or technology.
  - "Terminal 1 is also a fine example of the use of new structural technologies and modernistic architectural forms in airport terminal architecture of the mid-20th century."

Based on the results of the cultural resources assessment, appropriate CEQA review will be conducted and the Port of Oakland will need to make findings under CEQA prior to approval of entering into a contract for the partial demolition of the South Field ATCT. Thus, the proposed project has a potentially significant impact on historic resources, which will be fully addressed in the EIR.

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10 State of California – The Resources Agency, Department of Parks and Recreation, "Terminal 1, Oakland International Airport," record # P-01-011016, recorded by Stephanie Cimino, Pacific Legacy, Inc., April 13, 2010.

11 State of California – The Resources Agency, Department of Parks and Recreation, "Terminal 1, Oakland International Airport," record # P-01-011016, recorded by Stephanie Cimino, Pacific Legacy, Inc., page 3 of 4, April 13, 2010.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

d. Disturb any human remains, including those interred outside of formal cemeteries?

b-d. No Impact. *The partial demolition of the South Field ATCT would not result in excavation or ground disturbance; floors one and two of the existing structure would not be disturbed as a result of the proposed project. No known archeological sites are located within the boundaries of the project site or in the immediate vicinity. The project site is a highly disturbed area that has been used for Terminal 1 since the early 1960s. Any resources that may have existed on the project site at one time are likely to have been displaced and, as a result, the overall sensitivity of the project site with respect to buried resources is low. Because the proposed project would not involve ground disturbance, no impacts associated with archaeological resources, paleontological resources, or human remains would occur. As such, no further analysis to these resources is required in the EIR.*

VI. GEOLOGY AND SOILS

Would the project:

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

ii. Strong seismic ground shaking?

iii. Seismic-related ground failure, including liquefaction?

iv. Landslides?

a.i-a.iv. No Impact. *The partial demolition of the South Field ATCT would not result in excavation or ground disturbance; floors one and two of the existing tower would not be disturbed as a result of the proposed project. No slopes exist near the South Field ATCT so landslides are not anticipated during demolition activities. Because the proposed project would not involve ground disturbance, impacts to people or structures resulting from rupture of a known earthquake fault, seismic ground shaking, seismic-related ground failure or landslides would not occur, and no further analysis is required in the EIR.*

b. Would the project result in substantial soil erosion or the loss of topsoil?

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

b-e. No Impact. *The partial demolition of the South Field ATCT would not result in excavation or ground disturbance; floors one and two of the existing tower would not be disturbed from the proposed project. The potential for soil erosion, landslides, lateral spreading, subsidence, liquefaction, collapse, expansive soil impacts, and impacts to septic tanks or wastewater disposal systems is minimal due to the location of demolition activities, and because the project site is developed with a building and/or covered with impervious surfaces. Therefore, the partial demolition of the South Field ATCT would have no effect on geology and soils and no further analysis is required in the EIR.*

VII. GREENHOUSE GAS EMISSIONS

Would the project:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

a-b. Less Than Significant. *Table 1 presented in Section 2.III discloses criteria pollutant emissions associated with demolition of the South Field ATCT and transportation of waste/recycling materials. The 2011 BAAQMD CEQA Guidelines recommend significance thresholds for greenhouse gas (GHG) emissions. However, as a result of a court order, the current (2012) BAAQMD CEQA Guidelines no longer recommend that the GHG thresholds be used to assess significant air quality impacts. Additionally, no GHG thresholds were identified in the 1999 BAAQMD CEQA Guidelines. In lieu of specific quantitative GHG thresholds, for purposes of this analysis, an alternative methodology was used, as described in the Initial Study for 8350 Pardee Drive.*[12] *The 8350 Pardee Drive study stated that the project would be considered to have a significant impact (in terms of GHG emissions) if the project would:*

[12] ESA, *8350 Pardee Drive Initial Study/Mitigated Negative Declaration*, October 2012.

- *Be in conflict with the California Assembly Bill (AB) 32 goals for reducing GHG emissions;*[13]
- *Generate a considerable amount of GHG emissions relative to the existing GHG emissions inventory for the San Francisco Bay Area; or*
- *Exceed the federal reporting limit for GHG emissions of 25,000 metric tons per year.*

The BAAQMD encourages lead agencies to incorporate best management practices to reduce GHG emissions during construction, as applicable. Best management practices may include, but are not limited to using alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment of at least 15 percent of the fleet.[14] *In addition, the Port of Oakland must comply with the City of Oakland's Construction and Demolition Recycling Ordinance*[15] *which requires projects to recycle 100 percent of all Asphalt & Concrete (A/C) materials and 65 percent of all other materials. It is anticipated that the Port of Oakland would seek to implement as many of these specific or similar best management practices as applicable/possible throughout the proposed demolition of the South Field ATCT. The implementation of such practices would be consistent with the GHG emissions reduction goals specified in AB 32.*

Based on the URBEMIS2007 analysis, annual carbon dioxide (CO_2) emissions of approximately 189 metric tons would result from activities associated with demolition of the ATCT. These estimated emissions are less than the federal reporting limit of 25,000 metric tons per year and account for approximately 0.0002 percent of the Bay Area's 95.8 million tons of CO_2 equivalent,[16] *which would not be considered significant.*

VIII. Hazards and Hazardous Materials

Would the project:

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b. Create a significant hazard to the public or the environment through the reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?

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[13] In 2006, the California Legislature passed and Governor Schwarzenegger signed AB 32, the Global Warming Solutions Act of 2006, which set the 2020 greenhouse gas emissions reduction goal into law. It directed the California Air Resources Board to begin developing discrete early actions to reduce greenhouse gases while also preparing a scoping plan to identify how best to reach the 2020 limit. The reduction measures to meet the 2020 target were adopted in 2011.

[14] Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, Updated May 2012.

[15] Oakland, CA, Code of Ordinances, Title 15 – Building and Construction, Ch. 15.34, Construction and Demolition Debris Waste Reduction and Recycling: http://www2.oaklandnet.com/Government/o/PWA/o/FE/s/GAR/OAK024368#requirements.

[16] Bay Area Air Quality Management District, *Source Inventory of Bay Area Greenhouse Gas Emissions—Base Year 2007*, February 2010.

a-b. Less Than Significant with Mitigation Incorporated. *The types, characteristics, and occurrences of hazardous materials and other similarly regulated substances at OAK are typical of metropolitan airports that offer commercial, cargo, and general aviation services. These services include the fueling, servicing, and repair of aircraft, ground support equipment, and motor vehicles; the operation and maintenance of the airfield, main terminal complex and parking facilities; and a range of other special-purpose facilities and operations connected with aviation (i.e., rental car and air cargo facilities, navigation, and air traffic control functions). The largest overall quantities of substances used at OAK that are classifiable as hazardous are aircraft and motor-vehicle fuels. Other, smaller amounts of petroleum products (e.g., lubricants and solvents), waste materials (e.g., used oils, used filters, cleaning residues, and spent batteries), and manufactured chemicals (e.g., herbicides, fertilizers, paints, fire-fighting foam) are stored in various locations throughout the Airport. Bulk aircraft fuels are stored in aboveground storage tanks, and below-grade pipelines are used to transfer fuels. These materials and substances are characteristically used on a routine basis in support of aircraft, ground support equipment, and motor vehicle maintenance activities, and for a range of other similar functions to operate the Airport and to meet aviation safety requirements.*

The use of hazardous materials and other similarly regulated substances for routine operations at OAK would continue, and is not anticipated to increase as a result of implementation of the proposed project since no change in Airport operations would occur. Hazardous materials similar to those already in use at the Airport would be used during demolition (e.g., fuels, lubricants). Additionally, potentially hazardous materials may result as a waste product of the proposed project. The storage and use of these hazardous materials would be regulated under existing local, State, and federal environmental regulations. In addition, the Port of Oakland would implement ***Mitigation Measure HZ-1 – Hazardous Materials Handling Documentation*** *and* ***Mitigation Measure HZ-2 – Asbestos Materials*** *to reduce the potential impacts resulting from the routine transport, use, and handling of hazardous materials. Under* ***Mitigation Measure HZ-1****, the Port of Oakland would require the contractor to store and handle hazardous materials according to local, State, and federal regulations and report any discharge of hazardous materials. Under* ***Mitigation Measure HZ-2****, the contractor would be required to have the appropriate contractor licenses and certifications and would comply with all local, State, and federal regulations (a summary of these mitigation measures is provided under Section 2.VIII-h. below). With the implementation of* ***Mitigation Measures HZ-1*** *and* ***HZ-2****, impacts related to the routine transport, use, and handling of hazardous materials is expected to be less than significant. Thus, with implementation of the mitigation measures, the transport, use, and disposal of hazardous materials would be less than significant and will not be addressed in the EIR.*

Hazardous materials releases to the environment are regulated by federal and State regulations and agencies. The City of Oakland Fire Department serves as the Certified Unified Program Agency (CUPA) and the Local Enforcement Agency, and enforces federal and State regulations pertaining to hazardous materials and compliance with hazardous waste generator requirements. The Alameda County Department of Environmental Health coordinates with the CUPA on hazardous materials enforcement and other selected contaminated sites, and regulates solid waste countywide. The California Department of Toxic Substances Control and San Francisco Bay Regional Water Quality

Control Board compile and maintain lists of potentially contaminated sites throughout the State.

Construction activities associated with the proposed project would be limited to the demolition of floors three through ten of the South Field ATCT and the transport of waste/recycling material. With implementation of ***Mitigation Measure HZ-1 – Hazardous Materials Handling Documentation****, and* ***Mitigation Measure HZ-2 – Asbestos Materials*** *to reduce the potential impacts resulting from the routine transport, use, and handling of hazardous materials, the risk of accidental spills would be less than significant. As such, with implementation of the mitigation measures, the risk of accidental spills of hazardous materials into the environment would be less than significant and does not require any further analysis in the EIR.*

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

c. No Impact. *No existing or planned elementary, middle, intermediate or high schools are within 0.25-mile (1,320 feet) of the project site. The Lighthouse Charter School is approximately 10,200 feet northeast of the South Field ATCT, Brookfield Elementary School is approximately 11,000 feet northeast of the project site, and the James Madison Middle School is approximately 11,600 feet northeast of the project site. Private schools and daycare centers are located north, east, and west of the project site. From the South Field ATCT, Davis Street Child Care is approximately 9,000 feet east, Harbor Bay Kinder Care is approximately 10,700 feet west, and the Alameda Community Child Care Council is approximately 12,000 feet north of the project site. Therefore, the proposed project would have no impacts associated with hazardous emissions, or handling of hazardous material, on an existing or planned school. As such, this does not require further analysis in the South Field ATCT EIR.*

d. Is the project located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

d-e. Less Than Significant Impact with Mitigation Incorporated. *An assessment was conducted in 2011 for the Runway Safety Area Improvement Project at OAK*[17] *to identify sites and facilities that are known, suspected, or likely to contain or store hazardous materials and to identify areas of known subsurface soil and/or groundwater contamination at OAK and within the project vicinity.*

[17] URS Corporation, *Initial Study/Mitigated Negative Declaration, Proposed Runway Safety Area Improvement Project, Oakland International Airport, Oakland, California*, August 2012.

As part of the assessment, Environmental Data Resources, Inc. (EDR) searched through a radius map database report containing federal, State, and local regulatory agency file information to identify known hazardous materials release sites, generators of hazardous waste(s), underground storage tank (UST) sites, etc., that are reported to be present in the general vicinity of the Airport. Listed hazardous materials release sites on and within 0.25-mile of the Airport were evaluated in greater detail.

In addition to the EDR records search, a review of site-specific reports from the Port of Oakland's environmental files was also performed as part of the Runway Safety Area Improvement Project. The review provided additional information about the listings identified in the EDR report at the Airport and within a 0.25-mile radius. The releases at the sites identified were primarily of petroleum hydrocarbons from leaking USTs, jet fuel releases from surface spills, and below-grade pipeline leaks. Based on the record search and files review, site investigations concluded that contaminants from past releases at the Airport are either absent or present in low levels in the soil or groundwater and the regulatory agencies have recommended no further action.[18]

The Airport was partially developed on portions of San Francisco Bay that were filled using artificial fill materials from the 1920s to the 1960s. The South Field was generally filled with sand dredged from San Francisco Bay and the North Field was filled with a mixture of materials. These fill materials may have included hazardous materials. However, the Port of Oakland's Environmental Division has no evidence that the fill at the Airport contains any contaminants.

As described under Section 2.VIII-b above, impacts associated with hazardous waste sites would be reduced to less-than-significant levels with the implementation of ***Mitigation Measures HZ-1*** *and* ***HZ-2****. Therefore, the risk of hazard to the public from the partial demolition of the South Field ATCT would be less than significant and does not require any further analysis in the EIR.*

The proposed project would occur on Airport property, within the OAK Airport land use plan boundaries, and involves partial demolition of the South Field ATCT. Due to the height of the South Field ATCT, potential safety issues related to removal of floors three through ten while the terminal is open and operating could occur. However, the partial demolition of the South Field ATCT would enhance safety and reduce potential hazards related to the current ATCT, because it does not meet existing seismic and building codes. The contractors for the proposed demolition activities would be required to meet all applicable safety-related construction standards. In addition, the Port of Oakland will implement ***Mitigation Measure HZ-3*** *to reduce the potential of unsafe operations. Under* ***Mitigation Measure HZ-3****, the Port of Oakland would require the contractor to submit a Health and Safety Plan and require compliance with all local, State, and federal safety regulations (a summary of* ***Mitigation Measure HZ-3*** *is provided under Section 2.VIII-h. below). With*

[18] URS Corporation, *Initial Study/Mitigated Negative Declaration, Proposed Runway Safety Area Improvement Project, Oakland International Airport, Oakland, California*, August 2012.

*implementation of proposed **Mitigation Measure HZ-3**, the proposed project would create a less than significant safety hazard; therefore, this does not require any further analysis in the EIR.*

f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for the people residing or working in the area?

f. No Impact. *OAK is a public airport, and there is no private airstrip located in the vicinity of the proposed project. Therefore, the proposed project would have no impacts associated with the proximity to a private airstrip. As such, this issue does not require any further analysis in the EIR.*

g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

g. Less Than Significant Impact. *The number of workers or passengers/customers using OAK would not increase; therefore, the proposed project would not adversely affect an emergency evacuation. As discussed under the Transportation/Traffic section of this document, construction-related traffic would be limited to the construction period and would not pose an obstacle to emergency response vehicles. Any temporary increases in traffic volumes related to demolition activities are expected to be less than significant. In addition, demolition-related activities would be restricted to the Terminal 1 area on existing Airport property and would not occur in the right-of-way of any public roadways. Therefore, the proposed project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan, and would result in a less–than-significant impact. As such, this issue does not require any further analysis in the South Field ATCT EIR.*

h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

h. No Impact. *The proposed project involves the partial demolition of the South Field ATCT in a developed area of the Airport and would not increase wildland fire risk. In addition, the Port of Oakland would ensure that the proposed project would comply with applicable safety standards and regulations. Therefore, the proposed project would not result in the exposure of people or structures to hazards associated with wildland fires and does not require any further analysis in the South Field ATCT EIR.*

Hazards and Hazardous Materials Mitigation Measures

The following mitigation measures apply to potential impacts identified in Sections 2.VIII-a, b, d, and e.

Mitigation Measure HZ-1 – Hazardous Material Handling Documentation

During the construction phases, hazardous materials (i.e., fuel, waste oil, solvents, paint, and other hydrocarbon-based products) would be used in quantities that are typical of the construction industry. The construction contract documents would require that these materials be stored, labeled, and disposed of in accordance with applicable regulations. The contractors would be held responsible for reporting any discharges of hazardous materials or other similar substances (in amounts above their reportable quantities).

Mitigation Measure HZ-2 – Asbestos Materials

The contractor's demolition plans and specifications would include requirements for the testing, handling, removal, and disposal of asbestos-containing materials in accordance with federal, State, and local regulations. The contractor performing the abatement would be required to have a California Class A contractor's license and the appropriate asbestos certification. In addition, the contractor will be required to develop an asbestos abatement program, which must be approved by the Port of Oakland.

Mitigation Measure HZ-3 – Health and Safety Plan

To maintain safe operations during the partial demolition of the South Field ATCT, the contractor will prepare a Health and Safety Plan, which must be approved by the Port of Oakland, and adhere to all local, State, and federal safety regulations.

IX. Hydrology and Water Quality

Would the project:

a. Violate any water quality standards or waste discharge requirements?

b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned land uses for which permits have been granted)?

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

f. Otherwise substantially degrade water quality?

g. Place housing within a 100-year floodplain as mapped on federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

h. Place within a 100-year floodplain structure that would impede or redirect flood flows?

i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

j. Inundation by seiche, tsunami, or mudflow?

a-j. No Impact. *The project site is developed with aviation-related uses and located within an urbanized area. The partial demolition of the South Field ATCT would not result in excavation or ground disturbance; floors one and two of the existing tower would not be disturbed as a result of the proposed project. No disturbance to the ground surface would occur with the proposed project and therefore no impacts to water quality standards, surface water, or groundwater would occur. The proposed project would not materially alter existing drainage patterns or surface water runoff quantities on the project site. Therefore, no further analysis of potential effects to hydrology and water quality is required in the South Field ATCT EIR.*

The project site is located within the terminal area of OAK; according to Federal Emergency Management Agency maps, no 100-year floodplain areas are located within OAK boundaries.[19] *Further, the partial demolition of the ATCT does not involve the construction of housing. Because none of the demolition activities associated with the proposed project would occur in a designated floodplain, nor would aboveground structures be constructed in a 100-year floodplain, there would be no impacts to flood flows. Therefore, no impacts to 100-year floodplains would occur and this issue does not require any further analysis in the South Field ATCT EIR.*

The perimeter dike that borders OAK on the east, south, and west sides provides flood protection from the surrounding San Leandro Bay and San Francisco Bay. There would be no change in operational activities or the number of passengers as a result of the proposed project and no new structures would be constructed. As such, the proposed project would not change the level of OAK's exposure to a potential perimeter dike failure, nor increase the amount of potential loss in the event of a perimeter dike failure. Therefore, this issue does not require any further analysis in the South Field ATCT EIR.

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[19] U.S. Federal Emergency Management Agency, *Flood Insurance Rate Map FM06001C0254G*, August 2009.

As noted in the Oakland General Plan Community Safety Element, seiches are not historically common occurrences in the San Francisco Bay Area.[20] *Additionally, damaging tsunamis are not common along the California coast or within San Francisco Bay. Because the Airport is located on relatively flat terrain and the project involves the demolition of floors three and above of an existing tower structure (no ground disturbance), the proposed project would not increase mudslide hazard. Therefore, this issue does not require any further analysis in the South Field ATCT EIR.*

X. Land Use and Planning

Would the project:

a. Physically divide an established community?

b. Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

c. Conflict with any applicable habitat conservation plan or natural community conservation plan?

a-c. No Impact. *The proposed project would not physically divide an established community because it would be conducted entirely on existing Airport property. The nearest established communities are the City of Alameda, City of Oakland, and City of San Leandro, which are separated from the project area by Airport property and Harbor Bay Parkway, Doolittle Drive (State Route 61), and Davis Street (State Route 112). Therefore, the proposed project would not physically divide an established community and no impact is anticipated.*

The City of Oakland Charter granted land use jurisdiction to the Port of Oakland for land within the Airport, Seaport, and between the Airport and the Seaport (Jack London Square, Oakland Airport Business Park (ABP), etc.). The area between the Airport and the Seaport is referred to as the Port Area (this land, except the ABP, is now under the land use jurisdiction of the City of Oakland). OAK is within the Port of Oakland's jurisdiction and is zoned as Transportation. The Airport is also included in the General Industrial/Transportation designation of the City of Oakland General Plan.[21] *The intent of this land use designation is to recognize, preserve, and enhance areas of the City for a wide variety of uses that may have the potential to create offsite impacts such as noise, light/glare, truck traffic, and odor. The importance of the Airport is also recognized in the General Plan, which includes OAK in the Seaport and Airport/Gateway Showcase District. The Airport is also included in*

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20 City of Oakland, Oakland General Plan, Community Safety Element, 1998.

21 City of Oakland, 1998. *City of Oakland General Plan*. March 1998.

the City of Oakland's General Industrial zoning district.[22] *The purpose of this district is to create, preserve, and enhance areas of the City that are appropriate for a wide variety of uses, including transportation facilities, that may have the potential to generate offsite impacts such as noise, light/glare, odor, and traffic. OAK is included in the Alameda County Airport Land Use Policy Plan (ALUPP) that was adopted by the Alameda County Airport Land Use Commission to promote compatibility between the public use airports in Alameda County and the land uses that surround them.*[23] *Jurisdictions with planning authority in areas covered by the ALUPP are required to ensure that their planning documents and zoning ordinances are consistent with the ALUPP.*

The proposed project would not conflict with preferred land use designations or existing zoning at the Airport or in the vicinity. The proposed project would not require additional land acquisition, generate substantial off-Airport land use impacts, or otherwise influence land use patterns or development in the vicinity of OAK. The proposed project would not conflict with, or impact, applicable land use plans, policies, and regulations, including the City of Oakland General Plan and Zoning Ordinance and the Alameda County ALUPP.

No habitat conservation plans or natural community conservation plans have been adopted for the area in the vicinity of the proposed project. The South Field ATCT demolition would be located within an urbanized airport within and adjacent to existing Airport uses and entirely within the OAK boundary. The proposed project would not disrupt an established community; conflict with any applicable land use plan, policy, or regulation; or conflict with any habitat conservation plan or natural community conservation plan; as such, land use and planning do not require any further analysis in the South Field ATCT EIR.

XI. Mineral Resources

Would the project:

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

a-b. No Impact. *The partial demolition of the South Field ATCT would occur on Airport property in a developed urban area and would not involve ground disturbance. There are no known important mineral deposits or mining activities for oil, coal, natural gas, sand, gravel, or crushed stone within OAK property or surrounding areas. Therefore, this issue does not require any further analysis in the South Field ATCT EIR.*

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22 City of Oakland, 2011a. *Oakland Planning Code*. Effective November 3, 2011.

23 Alameda County ALUC (Airport Land Use Commission), 2010. *Alameda County Airport Land Use Policy Plan*. Adopted 1986. Updated 2010.

The project site is located in a developed urban area that has no known locally important mineral resources. Leona Quarry, at Edwards Avenue and I-580, approximately 4 miles northwest of the Airport, is the only mining site identified by the State Mining and Geology Board as a Regionally Significant Construction Aggregate Resource.[24] *Thus, the proposed project would not affect the availability of a locally-important mineral resource recovery site; this issue does not require any further analysis in the South Field ATCT EIR.*

XII. Noise

Would the project result in:

a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b. Exposure of people to or generation of excessive groundborne vibration or groundborne noise levels?

a-b. Less Than Significant Impact. *The proposed project would occur in an area generally removed from the communities near OAK. The proposed project would not increase or affect aircraft activity at the Airport. The nearest noise-sensitive land uses are residential areas located over 7,000 feet to the east of the project site in San Leandro. The City of Oakland has noise standards applicable to noise from construction activity. For building construction activities, the City allows construction noise to reach 70 decibels (dB) for a maximum of 5 minutes per hour between 7:00 a.m. and 9:00 p.m. The City prohibits persistent construction-related noise between the hours of 9:00 p.m. and 7:00 a.m.*[25] *Work hours for demolition would occur during regular and non-regular business hours to accommodate Airport operations. However, demolition-related noise occurring between 9:00 p.m. and 7:00 a.m. would not be persistent. Due to the distance between the project site and sensitive noise receptors, exceedance of the city's noise standards is not anticipated. Potential noise effects from construction activities are considered to be a less-than-significant impact and no mitigation measures are required.*

The proposed project would remove a portion of the existing South Field ATCT at OAK and would be unlikely to result in a significant increase in groundborne noise or vibration. Demolition activities associated with the proposed project would involve removal of floors three through ten and would not result in ground disturbance. Groundborne noise is generally the result of underground construction activity, such as tunneling. The proposed project does not include these types of activities. Similarly, the type of equipment that would be used during project demolition is unlikely

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24 City of Oakland, 1996. *Oakland General Plan*, Open Space, Conservation, and Recreation Element, Chapter 3.

25 City of Oakland, *Construction Hours and Site Requirements*, 2012. Available: http://www2.oaklandnet.com/Government/o/CEDA/s/DevelopmentServices/DOWD008979 (accessed October 22, 2012) and Oakland, California, Code of Ordinances, Section 8.18.020 – *Persistent noises a nuisance*.

to result in excessive groundborne vibration. Thus, the potential for significant noise impacts or groundborne vibration impacts is considered to be less-than-significant and does not require any further analysis in the South Field ATCT EIR.

c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

c. No Impact. *The proposed project would partially remove the South Field ATCT at OAK and would not result in a permanent increase in ambient noise levels in the project vicinity. Demolition activities and related transportation and roadway noise for the proposed project would be temporary in nature and no other increased noise levels would be anticipated. As such, the potential for permanent impacts to ambient noise levels does not require any further analysis in the South Field ATCT EIR.*

d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

d-e. Less Than Significant Impact. *The proposed project would remove floors three through ten of the South Field ATCT and would temporarily increase ambient noise levels in the immediate vicinity of the proposed project. Noise levels would be intermittent and temporary. The estimated duration for dismantling of the ATCT is nine months. Noise that would be generated by the proposed project would not be significant compared with existing noise from aircraft operations. Furthermore, any potential noise impacts associated with the transport of demolition materials are expected to be less than significant because contractors would use designated haul routes including I-880 and connecting arterials to minimize impacts to residential and other noise-sensitive receptors. Therefore, the proposed project would result in a less-than-significant temporary increase in ambient noise levels. The potential for temporary or periodic increase in ambient noise levels does not require any further analysis in the South Field ATCT EIR.*

The proposed project is located on a public airport and would not result in substantial or significant temporary or periodic increases in noise levels to people residing or working in an area within two miles of the Airport. The partial demolition of the South Field ATCT would not increase Airport operations, the number of passengers, or aircraft operations at the Airport, or other activity that would lead to significant temporary or periodic increases in noise levels. As discussed above, any temporary noise resulting from construction of the proposed project would be less than significant at the nearest noise-sensitive receptor. Therefore, any impact associated with temporary or periodic increases in noise as a result of the proposed project would be less than significant; this issue does not require any further analysis in the South Field ATCT EIR.

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

f. No Impact. *The proposed project is located on a public airport, not a private airstrip. As such, this issue does not require any further analysis in the South Field ATCT EIR.*

XIII. Population and Housing

Would the project:

a. Induce substantial population growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

b. Displace substantial numbers of existing housing necessitating the construction of replacement housing elsewhere?

c. Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?

a-c. No Impact*. Direct impacts to population growth would not occur because the proposed project would not increase the number of passengers or aircraft utilizing OAK. No additional businesses, industries, or facilities would be developed or acquired for the proposed project. During demolition, employment within the Airport and surrounding cities (Alameda and Oakland) would temporarily increase, but would not result in a need for additional housing. Construction of the proposed project would take place entirely on existing Airport property. Thus, the proposed project would not directly or indirectly induce population growth. No impacts would occur to population and housing; therefore, this issue does not require any further analysis in the South Field ATCT EIR.*

The proposed project would occur entirely on existing Airport property and would not result in the displacement of existing housing or require the construction of replacement housing elsewhere. No impacts on housing would occur; therefore, this issue does not require any further analysis in the South Field ATCT EIR.

XIV. Public Services

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

a. Fire protection?

b. Police protection?

c. Schools?

d. Parks?

e. Other public facilities?

a-e. No Impact. *The Oakland Fire Department and the Oakland Police Department serve OAK. Oakland Fire Station 22 is located on Airport property and provides airport rescue and firefighting to respond to aircraft incidents and accidents. The City of Oakland also has mutual-response agreements for fire protection with adjacent jurisdictions, including Alameda and Contra Costa counties, and the cities of Alameda and San Leandro.*[26] *The Airport is located in Oakland Police District 6 and is served by Police Beat 31X.*[27] *The Port of Oakland also provides security services to the Airport.*[28]

The proposed project would not increase the number of passengers or aircraft operations at the Airport. Therefore, the proposed project would not result in any substantial increase in demand for fire protection, airport police protection, or other emergency response services. No further analysis of potential impacts to fire or police protection resources is required for the South Field ATCT EIR.

The proposed project would not cause an increase in Airport operations or the number of passengers at the Airport, and thus would not affect patronage of the parks and recreational areas near the Airport. Therefore, the proposed project would not physically alter the existing parks, and would not require construction of new parks. As discussed above, the proposed project would not result in population growth. For these reasons, the proposed project would not generate new students or increase the need for new or expanded school facilities. Therefore, these issues do not require any further analysis in the South Field ATCT EIR.

The proposed project would have no impact on governmental services. As such, this issue does not require any further analysis in the South Field ATCT EIR.

XV. Recreation

a. Would the project 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?

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[26] City of Oakland, 2004. *City of Oakland General Plan*, Safety Element. City of Oakland Community and Economic Development Agency. November 2004.

[27] City of Oakland, 2011b. Police Department, Community Policing, City Map with Police Beat Information. Available online at: http://www.oaklandnet.com/government/osv/district6.html. Accessed on October 2011.

[28] Port (Port of Oakland), 2006. *Oakland International Airport Master Plan*. March 2006.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

a-b. No Impact. *As stated above, implementation of the proposed project would not result in an increase in population; therefore, the proposed project would not increase the use of existing recreational facilities in the project vicinity. The proposed project would not result in the physical deterioration of recreational facilities, require the construction or expansion of recreational facilities, or affect recreational resources. Therefore, this issue does not require any further analysis in the South Field ATCT EIR.*

XVI. Transportation/Traffic

Would the project:

a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

a-b. Less Than Significant Impact. *The partial demolition of the South Field ATCT would generate temporary vehicle traffic associated with workers traveling to and from employee parking areas, trips between the parking areas and the project site, and equipment and waste haul/delivery trips. These trips would result in temporary minor traffic impacts on the local roadway system during the demolition period. All demolition activities, demolition staging, and vehicle parking associated with the proposed project would be on existing Airport property and outside of the right-of-way of public roadways. Therefore, no travel-lane closures or roadway detours are anticipated.*

During the demolition period, a minor increase in roadway traffic could occur temporarily at various locations around the Airport as a result of construction-related vehicle traffic, such as workers traveling to and from the project site. These trips would occur on the existing roadway network in the project vicinity, including I-880, I-580, Hegenberger Road, 98th Avenue, Doolittle Drive (State Route 61), Airport Drive, Ron Cowan Parkway, Davis Street, Harbor Bay Parkway, and High Street. Roadway network changes would not be required for the proposed project; thus, the addition of worker and construction vehicle trips to the roadway network serving the project site would be neither substantial relative to the existing traffic volumes nor disruptive to traffic flows on these roadways.

The proposed project would be limited to demolition activities at the project site located at Terminal

1. Apart from minor temporary impacts to nearby roadway transportation, no other modes of transportation would be impacted by the proposed project. The proposed project would not conflict with any County or Metropolitan Transportation Commission congestion management projects, level-of-service standards, travel demand measure, or other standards. Therefore the proposed project would have a less than significant impact on transportation systems or congestion management systems. As such, this issue does not require any further analysis in the EIR.

c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

d. Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

e. Result in inadequate emergency access?

f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

c-f. No Impact. *The proposed project would remove floors three through ten of the existing South Field ATCT at OAK. Demolition activities and operations associated with the proposed project would not result in a change in air traffic patterns, air traffic activity, Airport operations, or in the number of passengers or aircraft operations at the Airport. The proposed project would not involve roadway design features that would substantially increase hazards. Demolition equipment and waste transport may be required to use local roadways; however, this is not anticipated to create a safety hazard. If necessary, travel lanes would be temporarily closed or restricted to allow for construction access and activities. As discussed in Response No. VIII.g. above, the proposed project would not significantly impair implementation or physically interfere with an adopted emergency response plan or emergency evacuation plan. The proposed project would not involve modification or substantial use of a roadway or emergency access point.*

Implementation of the proposed project would not permanently change the existing or planned transportation network or result in long-term increases in transit demand in the project vicinity. The proposed project would not conflict with adopted policies, objectives, plans (including the transportation elements of general plans for the cities of Oakland, Alameda and San Leandro), or programs related to public transit, pedestrian, or bicycle facilities. The proposed project would have no impact on air traffic patterns, roadway design features, emergency access, or conflict with any transportation policies, plans, or programs. Therefore, these issues do not require any further analysis in the OAK EIR.

XVII. Utilities and Service Systems

Would the project:

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

d. Have sufficient water supplies available to serve the project from existing entitlements and resource, or are new or expanded entitlements needed?

e. Result in a determination by the wastewater treatment provider, which serves or could serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

a-e. No Impact. *The proposed project would not include new activities or increase the number of operations or passengers at OAK that would introduce additional sources of pollutants, increase discharges to the wastewater treatment system, and/or result in additional generation of wastewater or water usage. As discussed above, the proposed project would not involve any ground disturbance or alteration in drainage patterns; thus, no new stormwater drainage facilities would be required. The proposed project would have no impact on wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board (RWQCB), wastewater facilities, stormwater drainage facilities, water usage, or wastewater demand. Therefore, these issues do not require any further analysis in the South Field ATCT EIR.*

f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

f. Less Than Significant Impact. *The City of Oakland has a Construction and Demolition Debris and Recycling Program, which includes detailed specification and defined responsibilities for meeting the City's waste reduction and recycling requirements. The program requires the contractor to develop a plan that describes how 75 percent of the construction and demolition debris would be diverted from landfills.*[29]

[29] City of Oakland, 2002. *Construction and Demolition Debris Recycling Program*. March, 2002.

In addition, Alameda County Department of Environmental Health's Solid/Medical Waste program oversees the solid waste collection, disposal, recycling, and hazardous waste programs at OAK. The solid wastes collected at OAK are taken to local transfer stations where they are prepared for transportation to Altamont Landfill and Resource Recovery Facility, Tri-Cities Landfill, or any other appropriate landfills.[30] *Altamont Landfill and Resource Recovery Facility, which is operated by Waste Management of Alameda County, has a total estimated permitted capacity of 62 million cubic yards. As of October 2012, approximately 16.3 million cubic yards (approximately 26.3 percent) have been used, and approximately 45.7 million cubic yards of capacity remain (approximately 73.7 percent). The facility has a projected closure date of 2025.*[31]

The Port of Oakland's Materials Management Program diverts from public landfills recyclable construction materials such as concrete and asphalt and converts it into reusable material for new airport construction and maintenance projects.[32] *The Materials Management Program has designated sites for material stockpiling and recycling, allowing for the reduction of disposal and material purchasing costs and reduction of truck emissions associated with landfill disposal of waste. No new solid waste facilities or expansion of existing facilities would be required as a result of the proposed project because it would cause no increase in the number of passengers or aircraft operations at the Airport. Debris associated with construction of the proposed project would be recycled wherever feasible in accordance with applicable laws, ordinances, and regulatory requirements. The volume of post-diversion demolition debris would not be significant relative to existing annual disposal volumes, and would not result in significant impacts on solid waste. The proposed project would result in a temporary increase in waste debris as a result of demolition activities. Additionally, special or hazardous wastes may be encountered during further investigation, prior to demolition activities. These wastes would be categorized and treated in accordance with all applicable regulations. Hazardous wastes are discussed in more detail in Section VIII, above. Solid waste generated from the partial demolition of the South Field ATCT would not substantially affect the projected life of the landfill, and impacts from solid waste generation or impacts on solid waste facilities would be less than significant. As such, this issue does not require any further analysis in the South Field ATCT EIR.*

g. Comply with federal, state, and local statutes and regulations related to solid waste?

g. No Impact. *The proposed project would temporarily result in an increase in solid waste debris as*

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30 Alameda County, 2011. Alameda County Environmental Health Solid/Medical Waste, Landfills. Online: http://www.acgov.org/aceh/solid/landfill.htm. Accessed November 5, 2011.

31 California Department of Resources Recycling and Recovery, 2011a. CalRecycle Active Landfills Profile for Altamont Landfill and Resource Recovery (01-AA-0009), www.calrecycle.ca.gov/profiles/facility/Landfill/ LFProfile1.asp?COID=1&FACID=01-AA-0009 (accessed October 2012).

32 Oakland International Airport, 2007. *Oakland International Airport-Materials Management Program (MMP)*, updated November 2007, www.flyoakland.com/pdf/OAKMMPFactSheet_12_05_2007.pdf.

*a result of demolition activities. Additionally, special or hazardous wastes may be encountered during demolition activities. All project wastes would be categorized and treated in accordance with all applicable regulations (hazardous wastes are discussed in more detail in Section VIII). In addition, the Port of Oakland would implement **Mitigation Measures HZ-1** to **HZ-3**. The proposed project would comply with all applicable regulations related to solid waste, and no impacts would be anticipated; therefore, this issue does not require any further analysis in the South Field ATCT EIR.*

XVIII. Mandatory Findings of Significance

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

a. Potentially Significant Impact. *The Port of Oakland Environmental Programs and Planning Division is preparing a cultural resources assessment of the South Field ATCT. Based on the results of the cultural resources assessment, appropriate CEQA review and coordination with the California State Parks, Office of Historic Preservation, will be conducted. The Port of Oakland will need to make findings under CEQA prior to approval of entering into a contract for the partial demolition of the South Field ATCT. This information will be presented in the EIR.*

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects).

c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

b-c. Less Than Significant Impact. *The proposed project involves the demolition of floors three through ten of the South Field ATCT at OAK. Although this project will be occurring concurrent with other projects at OAK, the anticipated effects of this project, in combination with the ongoing Terminal 1 renovations and the RSA improvements, are not anticipated to be cumulatively considerable since the effects of the partial demolition of the South Field ATCT are temporary and limited. Therefore, this issue does not require any further analysis in the South Field ATCT EIR.*

This document identifies potential significant impacts associated with aesthetics and cultural resources. The forthcoming EIR will identify mitigation measures, if possible, for all potentially significant impacts. Proposed project impacts related to air quality, greenhouse gas emissions, and hazards and hazardous wastes would be less than significant with mitigation incorporated. Proposed project impacts related to noise, transportation/traffic, utilities and service systems, and cumulative impacts would be less than significant. The proposed project would have no impact on

agriculture and forestry resources, biological resources, geology and soils, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, or recreation. Therefore, the potential for the proposed project to result in environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly, is considered to be less than significant and would not be further evaluated in the South Field ATCT EIR.

3. Preparers and Persons Contacted

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Appendix B

Cultural Resources Assessment

Cultural Resource Assessment
Oakland International Airport
South Field Air Traffic Control Tower
City of Oakland, Alameda County, California

San Leandro, California, USGS 7.5-minute Topographic Quadrangle Map
Township 3 South, Range 3 West, Section 30
3.5-acre Study Area

Prepared for:

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Fieldwork Conducted by Kathleen Crawford, MA, Architectural Historian
Report Date: March 2013

Authors: Angela McIntire, JD, Regulatory Analyst/Project Manager
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Keywords: Alameda County; Port of Oakland; San Leandro; Oakland International Airport; Oakland

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SECTION 1: MANAGEMENT SUMMARY

The South Field Air Traffic Control Tower (ATCT) at Oakland International Airport (OAK or Airport) is being considered for demolition after commissioning of a new replacement tower to reduce the risk of the existing structure in a seismic event. At the request of the Port of Oakland (Port), Michael Brandman Associates (MBA) conducted a Cultural Resources Assessment at the proposed project area located within Alameda County, California (Exhibit 1).

The purpose of this assessment is to identify the presence or absence of potentially significant cultural resources within the project area. This document was prepared in accordance with the California Environmental Quality Act (CEQA) Guidelines. The Port is preparing an Environmental Impact Report for the demolition of the ATCT. The Port has determined that the proposed project is not a federal undertaking. Therefore, compliance with the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA) of 1966, Section 4(f) of the Department of Transportation, and formal consultation with the State Historic Preservation Officer (SHPO) is not required. This report was prepared in accordance with the California Office of Historic Preservation (OHP) procedures for cultural resource surveys and OHP's Archaeological Resource Management Report (ARMR) format.

The proposed project site is located at 1 Airport Drive, Oakland, Alameda County, CA, on the Bay Farm Island peninsula in San Francisco Bay. The ATCT extends from Terminal 1 above the second floor and currently serves to support South Field aircraft operations on Runways 11–29.

Cultural resource investigations undertaken to support preparation of this assessment included archival research, outreach to Native American tribal representatives, and field surveys. MBA Architectural Historian Kathleen Crawford, MA, conducted project site surveys of the ground floors of both Terminal 1 and Terminal 2 on December 14 and 15, 2011. To provide a comprehensive understanding of the salient features of the ATCT, airport personnel provided a tour of each floor to Ms. Crawford. Photographs were taken of the interior and exterior elevations of both Terminal 1 and the ATCT. Selected photographs are included in Appendix A.

The current assessment noted that the consulting firm, Pacific Legacy, Inc., previously evaluated the Terminal 1 complex and concluded that it may be eligible for listing on the California Register of Historic Resources (CRHR) under Criteria 1 and 3 (Criteria A and C on the National Register of Historic Places [NRHP][1]). The current evaluation concludes that the Terminal 1 ATCT appears to be eligible for listing on the CRHR under Criteria 1 (association with a nationally, regionally, or locally important event) and 3 (is a good example of a product of a master craftsman and embodies the distinctive characteristics of a period), and will be impacted by the proposed project.

1.1 - Project Location

The ATCT is located within the Terminal 1 complex in the City of Oakland, Alameda County, California, on the eastern edge of the San Francisco Bay and adjacent to San Leandro Bay (Exhibit 1). The ATCT is on the 2,600-acre Oakland Airport property and is located on the San Leandro, California, United States Geological Survey 7.5-minute topographic quadrangle map, Township 3 South, Range 3 West, Section 30 (Exhibit 2). The ATCT project footprint is approximately 0.1 acre. The ATCT is located in the same building as the Terminal 1 Security, Checkpoint Lobby Structure (known as Building M102).

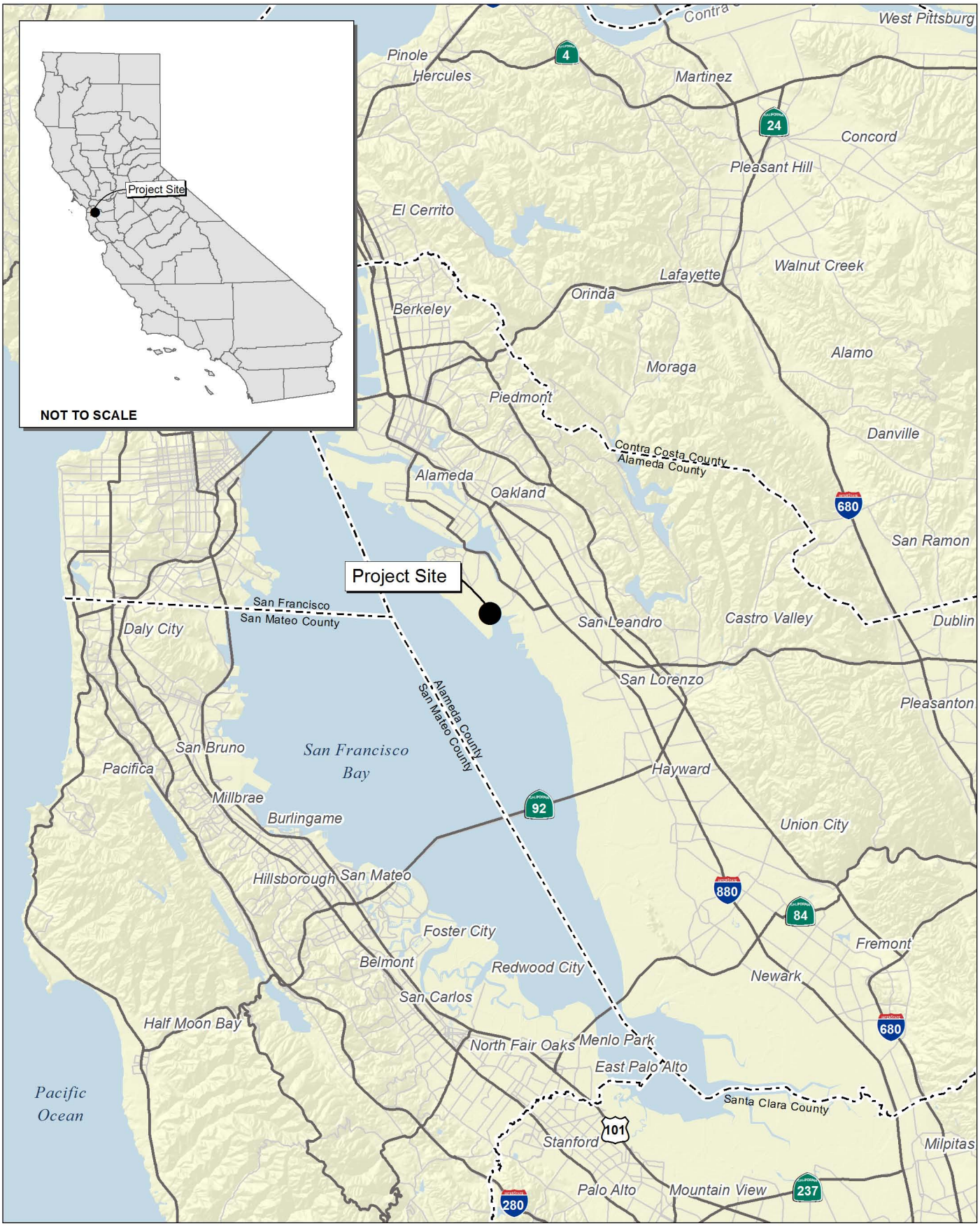
1.2 - Project Description

The ATCT does not meet current seismic code standards and could pose a life safety hazard during a major seismic event. The Port concluded that the upgrades required for the ATCT, which is structurally integrated with Terminal 1, to meet current seismic and building code standards, would significantly impact the integrity of the building and usable space, and would be cost prohibitive. Because a replacement ATCT has been constructed and is scheduled to be operational in 2013, the ATCT will not be needed to provide air traffic control. Therefore, the Port has determined that floors three through ten (which extend above Terminal 1) of the ATCT should be demolished.

1.3 - Assessment Team

MBA assessment team members include Regulatory Analyst Angela McIntire, JD; Architectural Historian Kathleen Crawford, MA; and Carrie D. Wills, MA, RPA, Senior Project Archaeologist—all of whom contributed to this report. Ms. Crawford conducted the field survey for this project. Professional qualifications for Ms. McIntire, Ms. Crawford, and Ms. Wills can be found in Appendix D.

[1] Criteria 1, 2, 3 and 4 on the CRHR are equivalent to Criteria A, B, C, and D, respectively, on the NRHP.



Source: Census 2000 Data, The CaSIL, MBA GIS 2012.

Michael Brandman Associates

NORTH

5 2.5 0 5 Miles

Exhibit 1
Regional Location Map

30490008 • 01/2012 | 1_regional.mxd

PORT OF OAKLAND • OAKLAND INTERNATIONAL AIRPORT
TERMINAL ONE AIR TRAFFIC CONTROL TOWER PROJECT
PHASE I CULTURAL RESOURCES ASSESSMENT

Source: TOPO! USGS San Leandro, CA (1993) 7.5' DRG.

NORTH

2,000 1,000 0 2,000 Feet

Michael Brandman Associates

Exhibit 2
Local Vicinity Map
Topographic Base

30490008 • 01/2012 | 2_local_topo.mxd

PORT OF OAKLAND • OAKLAND INTERNATIONAL AIRPORT
TERMINAL ONE AIR TRAFFIC CONTROL TOWER PROJECT
PHASE I CULTURAL RESOURCES ASSESSMENT

Source: Alameda County NAIP, 2009.

Michael Brandman Associates

NORTH

2,200 1,100 0 2,200 Feet

Exhibit 3
Local Vicinity Map
Aerial Base

30490008 • 01/2012 | 3_local_aerial.mxd

PORT OF OAKLAND • OAKLAND INTERNATIONAL AIRPORT
TERMINAL ONE AIR TRAFFIC CONTROL TOWER PROJECT
PHASE I CULTURAL RESOURCES ASSESSMENT

SECTION 2: CULTURAL SETTING

The following provides a brief overview of the natural setting, ethnohistory, and historic background, as context in which to understand the background and relevance of the general project area. .

Further details can be found in ethnographic studies, mission records, and major published sources, including Beardsley (1948), Bennyhoff (1950), Chartkoff and Chartkoff (1984), Fredrickson (1973 and 1974), Heizer (1978), Jones and Klar (2007), Kroeber (1925), and Moratto (1984).

2.1 - Natural Setting

The San Francisco Bay region consists of a varied landscape of estuaries, plains, rolling hills, and rugged ridge lands. Dominating the landscape is the Bay itself, a 50-mile-long inland chain of salt-water estuaries (Milliken 1995). The eastern shore of San Francisco Bay is bordered by a broad, sloping plain, broken by isolated hills and ridges (Wallace and Lathrap 1975). Widely separated valleys, containing small streams that flow at all seasons, cut across this plain in an east-west direction. The plain extends gently upward to the Oakland/Berkeley Hills, a prominent range 15 miles long and 10 miles wide (Wallace and Lathrap 1975).

The local climate is typified by clear summer days and mild, cool winters (Josselyn 1983). The climate, sometimes classified as Mediterranean, consists of two seasons. The rainy season extends from late October to mid-April, a period during which 94 percent of the annual precipitation falls (Josselyn1983). The dry season is influenced by cool marine air along the coast, and hot, dry weather inland.

2.1.1 - Paleoenvironment

Because the early Native Americans were dependent on natural resources, their lifestyles can be understood with reference to the land and climate (Moratto 1984). The Bay Area featured a mosaic of plant communities including salt marshes, redwood forests, grasslands, and mixed-evergreen woodlands (Moratto 1984). The plains in the East Bay were predominately grass-covered, with patches of brush and coast live oak groves (Wallace and Lathrap 1975; Chavez 1989). Vegetation was most dense along freshwater drainages, which supported yellow willow, California laurel, California buckeye, and coast live oaks (Wallace and Lathrap 1975; Chavez 1989).

San Francisco Bay was formed during a period of relatively rapid sea-level rise (average rate of 2 centimeters per year) between 9,000 and 6,000 B.C. (Stright 1990). After 4,000 B.C., when the sea-level rise slowed to a rate of 0.1 to 0.2 centimeter per year, marshes began to develop around the Bay. During this post-4,000 B.C. period, numerous shell middens were created as a result of human activity *within the Bay Area* (Stright 1990). The growth of the marshes is of archaeological interest, because most of the San Francisco Bay shell middens were close to marshes (Nelson 1909; Bickel 1978) which are particularly productive ecosystems. The area's prehistoric populations took

advantage of this productivity by harvesting fish, shellfish, birds, and land mammals that live or feed in or near the marsh, as well as the marsh plants themselves (Bickel 1978).

The most dramatic changes to the landscape occurred during and after the Gold Rush (ca. 1849–1884) when hydraulic mining for gold in the Sierra Nevada mountains resulted in huge quantities of sediments flowing into streams, and reaching Suisun and San Pablo bays, causing widespread sandbars (Josselyn 1983). The urbanization of the Bay Area post-World War II also encroached substantially on the remaining tidal wetlands including those near the Oakland Airport.

2.2 - Ethnohistory

The tribelet functioned as the basic unit of Ohlone political organization, comprising one or more principal villages that were occupied most of the year, with various seasonal or intermittent camps within their territory utilized for gathering and processing resources. Principal villages were established at ecotones, which are junctures of two or more biotic communities; e.g., oak woodland-bayshore marsh (Moratto 1984). Political leaders of tribelets inherited power patrilineally, and the office could be passed on from fathers to sons or daughters, who acted as the leader of a council of elders that served as advisors to the community (Moratto 1984).

The Ohlone lived in villages, of which the most common dwelling type was a domed structure that was made from a framework of poles bound together with willows and thatched with grass, tule, ferns, wild alfalfa, or carrizo. A fireplace was located in the middle of the house, with a rectangular entryway (Levy 1978). Large communal structures that could accommodate all members of the village were typically located in the center of the village (Moratto 1984). With the orientation toward the San Francisco Bay, Ohlone groups constructed tule balsas to navigate waterways for transportation, as well as for fishing and hunting waterfowl (Levy 1978). Stone mortars and pestles were used to grind nuts and seeds, and a highly developed basketry technology was used in the gathering, processing, cooking, and storage of food (Levy 1978).

2.3 - Prehistory

The first regional chronology for the Bay Area was established by R.K. Beardsley (1948, 1954(a), 1954(b)). This chronology was originally devised for organizing sites from Central California, the Sacramento Delta, and the northern San Joaquin Valley (Lillard, Heizer, and Fenenga 1939). Beardsley (1954a) refined the chronology, which became known as the Central California Taxonomic System (Moratto 1984). The system relies on identifying certain characteristics such as burial patterns (whether the body is flexed or extended), shell bead types, stone tools, and geographic site locations. These traits and characteristics are utilized to place a site in a specific time period. The system organizes the archaeology of the region as follows:

- Paleoindian: earlier than 8,000 year ago
- Early Horizon: 8,000 to 2,500 years ago

- Middle Horizon: 2,500 to 1,100 years ago
- Late Horizon: 1,100 to 200 years ago
- Historic: 200 years ago to modern times

Scholars have debated whether the Early Horizon inhabitants of the Central Valley were culturally related to inhabitants of the San Francisco Bay, or if they developed independently (Bickel 1981; Gerow and Force 1968). The exact dynamics of cultural change and interchange between these two groups is still unclear.

It has been suggested that the Early Middle Horizon (4,500 to 2,500 years ago), now referred to as the Windmiller Pattern, is associated with an influx of peoples from outside of California who brought with them an adaptation to river-wetland environments (Moratto 1984). Typical Windmiller sites are often situated in riverine, marshland, and valley floors, settings that offer a variety of plant and animal resources. These sites often contain burials that are oriented to the west. Burial artifacts include a variety of fishing paraphernalia (net weights, spear points, and bone hooks) and large projectile points, as well as large and small mammal remains.

The subsequent Middle Horizon or Berkeley Pattern covers a period from 2,500 to 1,500 years ago in Northern California. This pattern overlaps somewhat with the Windmiller attributes at the beginning and with the late Prehistoric artifacts at the end. Berkeley Pattern sites are much more common and well documented; therefore, they are better understood than the Windmiller sites. The sites are distributed in more diverse environmental settings, although a riverine focus is common. As described by Allan et al. (1997), sites from this period include deeply stratified midden deposits containing large assemblages of milling and grinding stones for the processing of vegetation, as well as smaller, lighter projectile points. Further distinguishing traits from earlier patterns include artifacts such as slate pendants, steatite beads, stone tubes, and ear ornaments. A shift in burial patterning is also evident with variable directional orientation, flexed body positioning, and a general reduction in mortuary goods (Fredrickson 1973; Moratto 1984).

Fredrickson has defined the later prehistoric period, which ranges from 1,500 to 150 years ago, as the Augustine Pattern. The pattern is characterized by intensive hunting, fishing, and gathering, a focus on acorn processing, large population increases, intensified trade and exchange networks, more complex ceremonial and social attributes, and the practice of cremation in addition to flexed burials. As pointed out by Allan et al. (1997), certain artifacts also typify the pattern: bone awls for use in basketry manufacture, small notched and serrated projectile points, the introduction of the bow and arrow, occasional pottery, clay effigies, bone whistles, and stone pipes.

2.4 - Historic Overview

The history of the greater San Francisco Bay is divided into three periods: Spanish, Mexican, and American. These periods are briefly summarized below.

2.4.1 - Spanish Period (1775–1822)

Spanish explorers first sighted San Francisco Bay in 1769, and a Spanish supply ship entered the Bay in 1775. The first settlers—Spanish soldiers and missionaries—arrived in the Bay Area in 1776. The native Ohlone culture was radically transformed when European settlers moved into northern California, instituting the mission system and exposing the native population to diseases to which they had no immunity. Mission San Francisco de Asis (Mission Dolores) was founded in 1776, and is located across the Bay, approximately 12 miles northwest of the ATCT. The mission drew native people from various parts of the Bay Area and mission records indicate that the native Huchiun people moved to the mission from 1787 until 1805 (Archaeological/Historical Consultants 1993; Minor 2000; LSA 2011; URS 2011a; URS 2011b.)

By the 1820s, the Bay Area had a Spanish fort, towns, and five missions in the region. During the Spanish and Mexican periods, large tracts of land were granted to individuals for cattle ranches. The hide and tallow trade was the main economic activity in California during this time. Following the dissolution of the mission system in 1834, native people in the Bay Area moved to ranchos, where they typically worked as manual laborers. In 1820, the King of Spain granted Don Luis Maria Peralta the Rancho San Antonio (also known as the Peralta Grant), which comprised approximately 44,800 acres, and all of the present-day cities of Oakland, Piedmont, Berkeley, Emeryville, Alameda, Albany, and part of San Leandro (Archaeological/Historical Consultants 1993; Minor 2000; LSA 2011; URS 2011a; URS 2011b).

2.4.2 - Mexican Period (1822–1848)

Following Mexico's independence from Spain in 1821, the hide and tallow trade continued to be a dominant industry in the Bay Area and throughout California. Peralta's land grant was confirmed after Mexico's independence from Spain in 1822, and the title was honored again when California entered the Union in 1848. The Peralta family and other, smaller ranchers raised cattle along the hills and grasslands, and shipped hides and tallow via the Bay. Before Don Luis Peralta died, he divided his vast estate among his four surviving sons, with the area (now known as the North Field) just adjacent to San Leandro Bay going to Antonio Maria Peralta (Archaeological/Historical Consultants 1993; Minor 2000; ESA 2006; URS 2011a; URS 2011b).

In the 1840s, other European settlers began arriving in the East Bay, and in 1850, Colonel Henry S. Fitch attempted to make the first purchase of land that would become Oakland. By the mid-1840s, the redwoods in the Oakland hills attracted a lumber industry that used the estuary for transportation (JRP 2000; Archaeological/Historical Consultants 1993; URS 2011a; URS 2011b).

The open waters on which the Airport would later be constructed were not included in the Peralta Grant, probably because they were of no practical use. A small peninsula, then called Bay Island, rose above the tidelands during this early period, but it was not developed (Archaeological/Historical Consultants 1993; URS 2011a; URS 2011b).

No roadways, mission outposts, or adobe structures from the Spanish or Mexican periods are known to have existed in the project area because of its unsuitable location in the Bay (URS 2011a; URS 2011b).

2.4.3 - American Period (1848-present)

After the signing of the Treaty of Guadalupe-Hidalgo in 1848, California became part of the United States, and under the 1851 Gwin Act, a commission was established to settle disputes arising over the validity of Mexican land grants. The Peralta Grant was confirmed to Ygnacio Peralta (Don Luis Maria Peralta's son) in 1857.

Development on Bay Farm Island began in 1854 with the construction of a road and a bridge across San Leandro Bay from the City of San Leandro. A county road, Jones Avenue, was constructed in 1881 to help facilitate transportation to farms along the bay margins. Jones Avenue in the project area later became an extension of today's 98th Avenue. Bay Farm Island was famed for its asparagus, hops, and other field crops grown there through the 1960s (Minor 2000).

The 1857 Plat of Rancho San Antonio shows the Airport as marshland and open water, as do early General Land Office Plat Maps dating from 1870, 1872, 1873, and 1883. These maps depict the Airport as "Salt Marsh," (and open water) containing no structures or features. An 1878 Official Historical Atlas Map of Alameda County also shows the project area as marshland—primarily owned by E.A. Lawrence—with a small portion of the southern end of the property owned by Mrs. R.S. Peralta. A review of available historic topographic maps of the Airport indicated no structures or features on the 1897 (reprinted 1910) Concord 15-minute map or the 1899 (reprinted 1908) Hayward 15-minute map. The area is shown as tidelands; however, the Southern Pacific Railroad Liverpool Line is adjacent to the west, along the San Leandro Bay, and Bay Farm Island is to the west, with its several roads and approximately 25 buildings. The 1915 (reprinted 1939) map shows the Southern Pacific Railroad line that once ran adjacent on the east of the project area was diverted once it reached the project area, turning northeast to cross San Leandro Creek toward Elmhurst. The railroad line no longer crosses the marshes into San Leandro Bay.

By the 1920s, Bay Farm Island was filled to build the Alameda Municipal Golf Course, a residential subdivision, a paved highway, and the runways and hangars of the North Field at the Airport, formerly known as the Oakland Municipal Airport (Minor 2000). No roadways, buildings, or features from the early development of the area during the American Period are known to have existed within the Airport because of its unsuitable location within tidelands. The structures and features associated with the Airport are described below.

2.5 - History of Alameda County

Alameda County was created in 1854 from portions of Contra Costa and Santa Clara Counties, with the county seat located at Alvarado (currently Union City). Since then, the county seat moved to San Leandro in 1856 and then to Oakland in 1873, where it remains today.

2.5.1 - City of Oakland

The City of Oakland, a major port city on the east side of San Francisco Bay, plays a major role in regional shipping and transportation networks. The 2010 census calculated the City's population as 390,724, making it the eighth-largest city in the State of California. The land area originally included coastal terrace prairie lands, oak woodlands, and north coastal scrub regions. After the Gold Rush in the mid-1800s, the northern California experienced a population boom, and the timber in the Oakland area furnished the oak and redwood to build San Francisco's and Oakland's businesses and homes. The rich flatland soils established an agricultural base for the region's development (City of Oakland History Timeline).

Before the end of Spanish governance in California, loyal soldiers and settlers were rewarded with large land grants, and in 1820, Luis Maria Peralta was granted a 44,800-acre land grant, the Rancho San Antonio, from the King of Spain that included most of today's Alameda County. Luis Peralta died in 1842; his rancho was divided among his four sons and most of the City of Oakland was given to Antonio and Vicente Peralta, who opened the land to American settlers, loggers, fur-traders, and whalers (City of Oakland History Timeline).

The fate of Oakland, California, and the United States was permanently altered with the discovery of gold in 1848. This created a rush of gold-seekers, over 100,000 in less than a year, and California officially became a state in 1850. During the Gold Rush, Oakland became the main staging point for passengers and cargo traveling between the East Bay and the Sierra foothills. The California State Legislature formally incorporated the town of Oakland on May 4, 1852. At this point, Oakland had 75 residents. A seaport was created by building shipping wharves along the estuary, and dredging a shipping channel (City of Oakland History Timeline).

California grew quickly from the 1850s to the 1880s as thousands of Euro-Americans poured into the newest state to capitalize on its rich agricultural lands and the vast amount of natural resources that the state offered. Facilitating this rapid expansion was the arrival of the transcontinental railroad, and Oakland became a major rail terminal in the late 1860s and 1870s (City of Oakland History Timeline).

Following the 1906 earthquake in San Francisco, the population of the Oakland expanded dramatically when people moved to Oakland to rebuild their lives. The diversity of the region was further enhanced by the arrival of thousands of immigrants from all over the world, creating an

ethnically diverse community that continues to thrive. Oakland continued to expand as farmlands and settlements to the east and the north were annexed (City of Oakland History Timeline).

By 1920, Oakland was home to numerous manufacturing industries as the United States experienced massive growth and development in the post-World War I years. The development of the automobile changed the American landscape and by 1929, Oakland was known as the "Detroit of the West." Other transportation events were altering American life and aviation was fast becoming a major global development. In late 1926-early 1927, the Board of Port Commissioners and the Port of Oakland was created and took over responsibility of the seaport and development of the Oakland Municipal Airport (City of Oakland History Timeline).

While the City of Oakland experienced all the hardships of the Great Depression of the 1930s, progress was still made on many important fronts as voters approved the East Bay Regional Park District, and the opening of the Oakland-San Francisco Bay Bridge in 1936 (City of Oakland History Timeline).

In 1941, after the attack on Pearl Harbor by the Japanese, the nation declared war on Germany and Japan and became a full participant in the war effort. The Port of Oakland voluntarily turned over all facilities necessary to assist in the war effort to the Department of Defense. The East Bay became the home to many war-related industries, including the Kaiser Shipyards in Richmond. Oakland led other West Coast cities in producing more than 35 per cent of the Pacific Coast cargo ship output. Owing to the large number of war related jobs, thousands of African-Americans moved from various southern states in the 1940s to work in the shipbuilding and defense industries. Oakland's canning industry was a major contributor to the war effort, as its food products were supplied to domestic, foreign, and military markets. Located at the site of a major rail terminus, an important sea port, and a growing airport expanding rapidly to incorporate the military's aviation needs, Oakland was poised to expand in the second half of the twentieth century (City of Oakland History Timeline).

The day after Victory in Europe (V-E) Day, in May 1945, Oakland residents voted more than $15 million in bonds for city improvements, including swimming pools, playgrounds, streets, sewers, a central library, and four branch libraries. The City continued to grow with construction of the Oakland Coliseum and arrival of major league sports teams, and expansion of port and transportation facilities. The Oakland International Airport began construction of its new jet runway and terminal facilities in 1960, opening for business in 1962. Construction of the Bay Area Rapid Transit (BART) began in 1964 (City of Oakland History Timeline).

2.6 - History of Aviation

2.6.1 - Early Aviation

Experiments with flight date back to over two thousand years ago when ancient Greeks utilized various forms of kites. Later European inventors attempted to make the kite into a form of aircraft.

Leonardo Da Vinci studied the flight of birds in the 16th century and developed the idea of the parachute and the airscrew, which led to the propeller. Nineteenth-century developments advanced aviation concepts significantly and gliders, hot-air balloons, box-kites, and other contraptions were launched into the skies. The first true heavier-than-air experiments to succeed were done by the Wright brothers, Wilbur and Orville, in 1903 at Kitty Hawk, North Carolina. From this point forward, aviation developed rapidly as inventors and "aeronauts" in the United States and Europe explored all forms of aircraft. The concept of travelling through the air captured the imagination of people all over the world and demonstrations were held, contests were organized, and intrepid pilots built planes of all shapes and sizes (Global Aircraft 2011).

One of the leading pioneers in the aviation field was Glenn Hammond Curtiss, a bicycle manufacturer and inventor, who won the first Scientific American Trophy in 1908 for a 1-minute, 42.5-second flight with his plane named the "June Bug." He went on to win the first international speed event in 1910 with a 47-mile-per-hour flight. In 1911, he leased North Island, a portion of Coronado Island in San Diego, California, to have the freedom to take advantage of the mild climate and to fully experiment with his aviation ideas. In San Diego, he developed the idea of the seaplane and convinced the U.S. Army and the Navy of the feasibility of planes for military service. He created the first school to train military pilots on North Island and expanded the idea of the seaplane into a viable machine. The U.S. Navy purchased its first planes from Curtiss in May 1911 (Global Aircraft 2011:1).

The U.S. Post Office Department saw that planes could be used for airmail service and the first flights were inaugurated in 1911. In 1911, the first transcontinental flight across the United States was completed by Calbraith Rodgers in approximately 3.5 days in a Wright brothers aircraft. By the time World War I began in 1914, Curtiss and other pioneers in aviation had built huge biplane bombers with two to four engines that were used over the war areas of Europe. By the end of the war in 1918, military leaders were convinced of the plane's application for military use and the defense department invested heavily in airplanes (Global Aircraft 2011).

The 1920s was a decade of rapid expansion of aviation experiments, and major cities across the United States built small airfields, known as such because the first landing areas were, in fact, fields and were deemed the appropriate venue to attempt to land these early planes. Because the plane had not yet been perfected, many accidents took place and pilots were killed (Global Aircraft 2011).

Lieutenants John Macready and Oakley Kelley made the first nonstop transcontinental flight in 1923 from Roosevelt Field on Long Island in New York to Rockwell Field on North Island in California. A team of aviators of the U.S. Army Air Service made the first round-the-world flight in 1924. In 1925, Congress passed the Kelly Air Mail Act, which authorized the post office department to contract with air-transport operators to carry the mail across the U.S. By 1926, 14 airmail companies competed for the government business (Global Aircraft 2011).

In 1927, pilot Charles Lindbergh completed the first non-stop trans-Atlantic flight from New York to Paris, which gained international attention. Lindbergh chose to fly alone without a navigator to save fuel, and became a global hero who inspired legions of fans around the world. By this time, aviation had become a firmly established industry and millions of investment dollars poured into fledgling companies; cities scrambled to build airfields; and aviation became a cornerstone of national development (Global Aircraft 2011).

As the nation dealt with the Great Depression of the 1930s, the war clouds gathering in Europe and Asia led President Franklin Roosevelt to convince Congress to allocate funds for the development of military bases across the United States and in other areas of the world. The military fully understood the need for aviation strength, and planes, air bases, and aircraft carriers became a high priority in the nation's defense system. During World War II, aircraft became the decisive factor in the success of the Allied powers. Prior to the war, approximately 193,000 people were employed in the aviation industry; in 1941, with the nation entering World War II, the number jumped to approximately one-half million people with thousands more in related industries. Over 3.4 million Americans travelled by plane during the early 1940s; the largest operator at this time, after the military, was Pan American Airways. The company served 46 countries and colonies, linking all continents and nearly all the oceans. In addition, airmail and express cargo increased by approximately 30 per cent and would continue to rise steadily over the next decades. By the end of World War II in 1945, a new frontier of flight was taking shape—jet and rocket propulsion aircraft (Global Aircraft 2011).

By 1947, the United States had reorganized the military and had created the Air Force and the National Air and Space Administration (NASA). By this time, the basic elements needed for aviation had been developed and put into service: jet propulsion, aerodynamics, radar, and associated technologies. One of the minor military contractors was the Boeing Company, which later became the largest aircraft manufacturer in the world. With all the new technologies developed by this time, airliners were larger, faster, and featured pressurized cabins. New aerodynamic designs, metals, and power plants would result in high-speed turbojet airplanes that eventually were able to fly supersonically and cross oceans with ease (Global Aircraft 2011).

2.6.2 - Commercial Jet Era

The aviation developments of World War II convinced military experts that aviation had extensive and important applications in the post-war world. In the Cold War era, access to international locations was imperative and planes were the obvious choice. In addition, the commercial possibilities of faster air travel in the prosperous years after the war led to a series of technological developments that revolutionized aviation. The creation of jet engines initiated an entirely new era in the history of military and commercial aviation. Unlike the early propeller-driven planes that were powered by piston engines, jet planes could fly at tremendous speeds and deliver passengers and goods to far-flung destinations in record times. This capacity appealed greatly to both the U.S. Air Force and to the pioneering civil aircraft companies (U.S. Centennial of Flight Commission 2011).

Technological issues shaped postwar concerns regarding jet engines and their potential for long-term and long-range use. Jet engines operated at high temperatures that required very expensive metal alloy components that affected the longevity and reliability of the engine. They required far greater amounts of fuel, which would stretch the capacity of the planes to carry this fuel. It was clear that airports would have to be designed differently to accommodate this new advance in aviation and the costs for these changes would be enormous. While the military pushed forward with the exploration of the new technology, the commercial airline industry waited to see how the situation played out before investing huge sums of money in jet engines (U.S. Centennial of Flight Commission 2011).

The first jet plane introduced into commercial passenger service was built by the DeHavilland Company for the British Overseas Aircraft Corporation (BOAC). The Comet 1 flew for the first time on July 17, 1949. It took 3 years for all the issues to be resolved and the plane was placed into commercial jet service on May 2, 1952, with an initial flight from London to Johannesburg with stops in Rome, Beirut, Khartoum, Entebbe, and Livingstone. The Comet 1 could reach air speeds of 480 miles per hour, up from the 180 miles per hour of the piston-powered DC-3. Clearly, the future was in jet travel. In addition, the plane offered a smoother and quieter ride for passengers (U.S. Centennial of Flight Commission 2011).

Despite its promise, the Comet suffered a series of tragic accidents and BOAC pulled the plane from service. Metal fatigue, especially around rivet holes, was caused by the continual need to re-pressurize on landings and takeoffs. The information caused the commercial jet industry to rethink the design concepts, and major companies put their plans on hold until the problem could be solved. Many American companies had begun their own programs to build jet airliners, and the whole concept of jet engine technology was re-examined. Of these changes, Pan American Airways (Pan American) emerged as the leading airline of the jet age. The U.S. government considered Pan American its “chosen instrument” to represent the American commercial air fleet abroad, and the company became the pioneering airline of jet aviation (U.S. Centennial of Flight Commission 2011).

Pan American contracted with both Boeing and Douglas, and the two companies created the Boeing 707 and the Douglas DC-8, respectively. Boeing finished its production first and delivered a Boeing 707-120 to Pan American in 1958. On October 26, 1958, Pan American began a new era in American commercial passenger aviation history with the launching of the Boeing 707-120 on its New York-London route. The new plane carried 111 passengers, the largest number to board a single, regularly scheduled flight. The coach fare was $272, competitive with a similar flight on a piston-engine plane. With the introduction of the Boeing 707-120 airplanes, global air travel changed permanently (U.S. Centennial of Flight Commission, 2011).

BOAC attempted to compete with Pan American and had rushed its new DeHavilland Comet 4 into transatlantic service on October 4, 1958. Although it did well, Pan American clearly had the edge. Pan American rapidly expanded its service with the reliable Boeing 707, and it “began a period of almost unchallenged success in the international airline industry.” Recognizing that passengers

wanted a speedy trip, it was the first to recognize that nonstop flights would attract customers. They convinced Boeing to build the 707-320, which could fly for a longer time without refueling, and by August 1959, Pan American introduced intercontinental service with transatlantic flights from New York to London beginning in October 1958. The 707-320 was eventually adopted by 11 other airlines within a year (U.S. Centennial of Flight Commission 2011).

The airline industry quickly regrouped to address the changes created by Pan American and BOAC; within the United States, National Airlines began cross-country domestic service with leased Boeing 707s in December 1958. By January 1959, American Airlines, using its own fleet of planes, began coast-to-coast service from New York to Los Angeles. American Airlines scored a major competitive coup and outmaneuvered both Trans World Airlines (TWA) and United Airlines. These companies had not foreseen the speed with which jet travel would take over the industry and lagged behind their competitors. The companies that had selected Douglas to build their planes were even further behind, since it took Douglas longer to produce the necessary planes, but by January 1960, all the major airlines had jets in service, crisscrossing the United States and the world's oceans (U.S. Centennial of Flight Commission 2011).

Jet travel revolutionized the entire aviation industry on a global scale. Jet engines required airlines to establish higher maintenance standards, which led to massive changes in airport design and construction. Passengers quickly became used to more comfortable and faster air travel and, combined with competitive fares, air travel expanded enormously over the next decades. The traveling population ballooned into unprecedented numbers in an era where people had more money for pleasure travel, as well as expanded business travel. This also required a change in the terminal facilities and amenities that passengers demanded and airlines scrambled to offer potential travelers all the services they now required. Terminals had to become larger to handle the increasing number of passengers, and during the 1960s to 1980s, most of the major cities in the world rebuilt or constructed all new airports. Airport design became a cultural and political expression as cities competed to make their airports more modern and more expressive of the technological necessities that could now be statements of cultural achievements. Cities took great pride in their new, gleaming, modern airports designed by famous architectural firms, and jet-based airports changed how the world viewed all aspects of air travel (U.S. Centennial of Flight Commission 2011).

2.7 - History of Oakland International Airport

As described in Pacific Gateway, An Illustrated History of the Port of Oakland (Minor 2000), the extensive history of aviation in Oakland began in the late 1800s and early 1900s; many important firsts in aviation took place in the skies over Oakland. For example, experiments with planes had captured the attention of the world, and aviation pioneers led the way in early aircraft experimentation and engine development. The Christofferson brothers became well-known pilots, instructors, and aircraft designers. In 1921, Bessie Coleman was the first licensed African-American pilot in the

United States and she worked at Oakland as an aerial demonstrator. Weldon Bagster Cooke made the first powered flight over Oakland in 1911 (Reuther 2008; Minor 2000).

In 1925, the Oakland Chamber of Commerce formed an Aviation Committee to promote the idea of obtaining the airmail contracts created by the U.S. Postal Service by building a municipal airport. The viability of planes and the potential to bring income to Oakland with postal service convinced the City that it was time to proceed with airport construction. In November 1926, the Oakland City Council voted to acquire a 680-acre marshland at Bay Farm Island for $625,000. The next month, the residents of Oakland voted to approve a charter amendment to create a new City department, the Port of Oakland (Port), governed by its Board of Port Commissioners (Board). The new Board, which first met in February 1927, was charged with overseeing the City's existing waterfront (Minor 2000), and construction of the Oakland Municipal Airport using $500,000 appropriated by the voters for the establishment of an airport. The Port later purchased an additional 225 acres on the southern shoreline of San Leandro Bay for the development of seaplane bases, including 20 acres for use as a deep-water channel.

Construction of the Airport began in June 1927. Mule teams cleared and graded the land and the first runway (now Runway 9L-27R) was built in less than a month, and in 1928, two additional runways were built (now Runways 9R-27L and 15-33). The new field was unofficially known as "Bay Farm Field" or "Bay Farm Airport" for its location on Bay Farm Island (Board of Port Commissioners 1927; Reuther and Larkins 2008; Archeological Historical Consultants 1993; OAK(a) n.d.; OAK(b) n.d.).

On June 28, 1927, U.S. Army lieutenants Lester Maitland and Albert Hegenberger successfully completed the first trans-Pacific flight from Oakland to Hawaii. In July 1927, pilot Ernie Smith and navigator Emory Bronte, the first civilians to attempt the same flight, set a new speed record by flying from Oakland to Hawaii in 25 hours and 37 minutes. The next month, the Airport rushed to host the Dole Race to Hawaii, sponsored by pineapple magnate James Dole, who offered $25,000 to the pilots who reached Hawaii first (Minor 2000; OAK 2009).

Charles Lindbergh officially dedicated the Oakland Municipal Airport on September 17, 1927. By December 1927, Oakland became the western terminus for all transcontinental airmail and, shortly after, the stopover point for airmail going from Los Angeles to Seattle. Boeing Air Transport (predecessor of United Airlines) held the government contract for carrying all airmail from Chicago to the San Francisco Bay District and established the Western Operating Terminal at Oakland in December 1927. TWA began additional cargo service in 1932. Two passenger airlines, Maddox and Western Air Express, flew 12-passenger tri-motor planes between Oakland and Los Angeles, carrying five thousand passengers in 1928 (OAK, 2009).

A booklet created by the Board of Port Commissioners in 1928, "Oakland Municipal Airport," detailed the highlights of the airport.

> Although less than a year old, Oakland Municipal Airport, has already served as the starting point for all four of the successful trans-Pacific flights that have been made and is operating today on a sound commercial basis as a complete aerial harbor, equipped for any kind of flying by day or night.
>
> Situated as it is on the eastern shore of San Francisco Bay, midway of the Pacific Coast, it is the focus of the air transportation routes which traverse the Coast States and for the air mail route to the East. The port is unique among the non-military air establishments of the West in that it has ample space for the landing and taking off of all types of planes under all load conditions, and that its aerial approaches are absolutely free from obstructions. All lighted air lanes (sic) established by the Government running to San Francisco Bay center at the Oakland Municipal Airport . . .
>
> The airport has an area of 825 acres. From east to west it measures 7,200 feet in greatest dimension, and from north to south 8,336. Of this there has been fully developed a rectangular area 1,800 by 2,500 feet. In addition, there is the completed runway over 7,000 feet in length heading directly into the prevailing wind. The natural drainage of the field is good. To prevent the field from ever becoming soggy during the rainy season, a complete drainage system covering the leveled portion of the field has been installed… Meteorologically, the field enjoys a number of advantages. The prevailing winds are westerly, varying not more than 20 degrees for 300 days of the year. The wind has an average velocity below ten miles an hour. There is a notable absence of fog over the field. Snow is unknown. Rain is rarely so severe as to prevent a plane taking off at any time. The air over and near the field is singularly free from turbulence. Visibility is remarkably good . . .

Because of the long runways enabling safe takeoff rolls for fuel-heavy aircraft, Oakland became the departing point for several historic flights, including Charles Kingsford Smith's historic U.S.-Australia flight and Amelia Earhart's historic transcontinental trips and her final flight in 1937. When she departed from Oakland in 1937 for her round-the-world trip, she planned to return to Oakland, but disappeared during the flight.

The U.S. military maintained a presence at the Oakland Municipal Airport. In 1928, the Oakland Naval Reserve Aviation Unit (Unit) was established on Airport property, sharing hangar space and use of the runways. During the 1930s, additional units were added, and in 1941, new facilities were constructed at Hangar 9 for the Unit. The flight training program was expanded in 1942 because of the war and the Secretary of the Navy's decision to increase navy pilot training to 2,500 cadets per

month. This decision placed flight training temporarily at OAK prior to its move to Livermore. The flight training program eventually returned to OAK and during the Korean War (1950–1953), Naval Air Station Oakland became the largest reserve air base in the country (Reuther 2008).

In 1943, the military took over the Oakland Municipal Airport and transformed it into an airlift base for military flights to the Pacific Islands and Pacific war centers. All scheduled passenger and commercial services were diverted to San Francisco Municipal Airport (now San Francisco International Airport) for the duration of World War II. After 1945, commercial airlines started to return to Oakland and Western Airlines began flights in 1946, followed by American, TWA, United, and Pacific Southwest Airlines (PSA). In 1947, the Airport was returned to the control of the Port (OAK, 2009). The military is no longer stationed at OAK[2].

Major expansion of OAK and the extension of the Port facilities (which required filling into the Bay) to the west were completed in 1961 in anticipation of the growth of commercial aviation and jet traffic. The Port hired the New York engineering and aviation specialist consulting firm of Knappen, Tibbets, Abbet, McCarthy (KTAM) to assess the situation. KTAM concluded that it was not feasible to expand the Oakland Municipal Airport. Several factors shaped their decision—the aging and limited facilities, the expansion of commercial travel, predictions of rising numbers of passengers, and the use of heavier planes. Jets were soon put into service, transforming the entire aviation industry. During World War II, with all commercial operations moved to San Francisco, the Port focused on land acquisition and planning for expansion. In 1947, federal legislation was adopted to fund airports across the country. In total, the Port of Oakland received $7.2 million in grants from the Federal Aviation Agency (predecessor to the Federal Aviation Administration [FAA]). City of Oakland voters approved a $10 million general obligation bond issue in 1953 to fund the expansion. The original field would come to be known as the North Field and the new area would be called the South Field (Minor 2000; Oakland Tribune 1962 (d) and Oakland Tribune1962 (e)).

The Board decided to hire noted architect, John Carl Warnecke and his firm, Warnecke and Warnecke, to design the plans for a new terminal, air traffic control tower, and runways. Work started immediately on the fill project necessary to provide the space for the expanded Airport. Over the next several years, 14.5 million cubic yards of sand were dredged from the San Francisco Bay. A 4.5-mile dike was constructed to enclose 1,400 acres of open water. Because of budgetary constraints, only 600 acres of open water was filled completely, leaving 800 acres to be filled on a project-by-project basis (Minor 2000; Oakland Tribune 1962 (d) and Oakland Tribune 1962 (e)).

As the Airport expansion moved forward, Warnecke redesigned the project, decreasing the size of the terminal building by 45 percent and reducing at least a million dollars off the cost, at the request of

[2] During the Vietnam War (1959-1975) thousands of military passengers traveled through Oakland to their bases in Southeast Asia; an International Arrivals facility was built that allowed the Airport to schedule flights outside the United States for the first time.

the Board. The plans included a combined ticketing area, terminal, and air traffic control tower building; an air freight building; a heating plant, and an emergency equipment building as part of a larger expansion project to "equip the airport for the jet age." Warnecke felt that his plans had been "cheapened" by the revisions but he accommodated the wishes of the Board (Oakland Tribune 1959(a); Oakland Tribune 1962(d), and Oakland Tribune 1962 (e)). The Board and the FAA (formerly known as the Federal Aviation Agency) approved plans for the scaled-down airport expansion in early 1960 and the work began (Oakland Tribune 1959 (a)).

The Port broke ground on October 5, 1960 and soon, the first of 1,200 concrete piles were driven 50 feet into the newly filled land to anchor the new terminal buildings. The 175,000-square-foot terminal building comprised four sections—the curving ticketing section, the main terminal including a two-story lobby with terrazzo floors and a first-class restaurant, an angled "finger" concourse section that extended from the rear of the building and housed ten boarding gates, and the ATCT, including a cocktail lounge, rising 10 stories from the center of the terminal building, which controlled all flights in and out of OAK and the Alameda Naval Air Station. Furthermore, the South Field included a 10,000-foot jet runway with a new lighting system. The project had taken over 15 years to plan and construct, resulting in a modern air facility (Minor 2000; Oakland Tribune 1959 (b)). The FAA switched from the old tower in the North Field terminal building to the new, 127-foot ATCT in July 1962. The difference in the capability of the radar is that the old tower had a range of 20 miles and 14,000 feet in height, and the new tower had a range of 60 miles and 27,500 feet in height.

The arrival of the jet age transformed the global aviation industry. In June 1963, TWA inaugurated scheduled airline service at OAK with Convair 880s flying to Chicago and New York. United Airlines also began its jet service from Los Angeles to Oakland. In 1963, OAK handled 426,000 flyers passing through its gates. The Airport reached its millionth passenger milestone in 1966 and by 1970, two million passengers a year was the average count. Commuter airlines shuttling back and forth between northern and southern California generated a large part of the Airport's business. PSA and Western Airlines introduced cut-rate fares, creating a larger passenger volume (Minor, 2000).

Known as the North Field since 1962, after the opening of the new South Field terminal (now known as Terminal 1), it continues to be used primarily for general aviation purposes: private aircraft, corporate jets, flight schools, aerial advertising, associated aviation businesses, and an FAA facility. A new tower for the North Field was constructed in 1972 because the Oakland Maintenance Center (formerly the World Airways hangar) blocked the views of the Runway 27 ends. Two additional executive terminals established operations at the North Field complex in the 1980s, in addition to a corporate hangar built for Chevron in 1995. Business Jet Center, KaiserAir, and Landmark Aviation are current fixed-based operators.

The Airport went through continual modifications and extensions to update facilities that no longer served their original purpose. Table 1 summarizes the history and modifications to the Terminal 1 complex (Zatopek 2013):

Table 1: Terminal 1 Complex History and Modifications

Date	Event
1962	Opening of Terminal 1 complex, including ticketing and bag claim (M101), main story terminal and ATCT (M102), ten loading gates (M103), and equipment building (M104).
1972	Opening of the original International Arrivals Building opened (M114).
1980	Conversion of passenger ground loading to the upper level concourse loading with jet bridge (M103).
1988	Addition of the second level to M103.
1990	Expansion of M101 bag claim and interior finishes and upgrades to ceiling arches.
1994	Construction of the passenger connector bridge (M152).
1992	Expansion of M114.
1996	Retrofit of M101.
2000	Addition of Gates 8A and 9A.
September 11, 2001	The cocktail lounge on the 8th floor of the ATCT is closed because of security concerns.
2002	Expansion of restrooms in M103.
2003	Renovation of Immigration and Naturalization Service facilities in M114.
2007	Removal of stairs in M103.

SECTION 3: ARCHITECTURAL SETTING

3.1 - Modern Architecture in the United States

By the 1940s, building trends in Europe and the United States were diverging from their historical precedents, and various modes originated during the initial phase of Modernism beginning in the 1920s. One of the most noticeable differences was the diminishing distinction between public and private buildings. In the past, the symbolism of public buildings was important, and formal, hierarchical sequences of ceremonial spaces were common. The Modern era ushered in an emphasis on functionalism, and the economy of interior space reflected this new design mode. Modern architecture sought to break from the past by embracing new technology. Using electrical and mechanical innovations and methods and economical materials—such as steel, glass, plastic, and reinforced concrete—that were previously unavailable, buildings took on appearances that were wholly different from their predecessors. Architecture was influenced by modern art with its use of abstract forms, space, light, colors and social goals such as equality and democratic values. Architecture became practical where functional and economic efficiency were most important, and buildings were no longer constructed to last indefinitely (GSA 2009).

3.1.1 - Defining Modern Characteristics

Scholars and professionals studying twentieth-century buildings vary widely on their definitions of what the term "Modern architecture" entails and exactly what time period it encompasses. Generally, architects of the era and present-day architectural historians have avoided defining Modernism by any strict set of architectural characteristics because of the extensive range of materials and characteristics found in buildings of the recent past. Evaluating buildings of the Modern era can be difficult because of their age. A skeptical general public often sees buildings of the Modern era as expendable, cold and offensive, or functionally obsolete. Others may overinflate the importance of individual buildings, as judged against the large number of buildings of the Modern era. It is important to avoid the tendency to allow personal taste in architecture to outweigh legitimate criteria for determining the historic significance of these buildings.

3.1.2 - Styles of the Modern Era

While stylistic terminology is still evolving for Modern-era buildings and some historians do not adhere strongly to the use of stylistic labels, the following four basic stylistic terms of the late Modern era are in widespread use (GSA 2009).

Expressionism

- Sweeping, curved rooflines and wall surfaces
- Nonexistent or minimal use of symmetrical or geometric forms
- Faceted, concave, or convex surfaces
- Arched or vaulted surfaces

International Style

- Absence of ornamentation
- Box-shaped buildings
- Expansive windows
- Smooth wall surfaces
- Cantilevered building extensions

Formalism

- Flat projecting rooflines
- Smooth wall surfaces
- High-quality materials
- Columnar supports
- Strict symmetry

Brutalism

- Weighty massiveness
- Rough-surfaced, exposed concrete walls
- Deeply recessed windows
- Broad, expansive wall surfaces

3.2 - Airport Design

The planning and development of airports went hand in hand with the changes in technology and advances in aviation. The technology of the planes, combined with the need to move large numbers of passengers, dictated the size, shape, and configuration of airports across the United States.

During the World War I era when planes were used by the military, there was no real need for any type of passenger accommodations as there were no passengers to be had. Hangars were structures that could house the small planes and there were few other structures needed to keep the planes in the air. After World War I, when commercial airlines began to share the military airfields, the hangars were modified to serve as customs or passenger areas. The idea of a "terminal" as an endpoint to a journey would evolve out of the use of "air stations." The early planes and hangars actually were made to look like the interior of a Pullman train car or a train station so that customers, used to such accommodations, would feel comfortable with this new form of transportation (U.S. Centennial of Flight Commission 2011).

European developments influenced American aviation trends. One of the earliest "air ports" was at Croyden, England which opened in 1920 and contained a two-story administration building that was considered the largest terminal of its time. The airport also had the first control tower, which the Air

Ministry compared to the "bridge" on a battleship and the "traffic office" of a railway. In 1923, Tempelhof Airport was built in Berlin, Germany and had a continuous paved surface, or "apron" in front of the terminal and lights that allowed night flying. The terminal was curved, and this became a model for other airports. The first American airport to have the first modern airline terminal was the Henry Ford Airport in Dearborn, Michigan. It was a simple, functional building with a modest second floor that could serve as an air traffic control tower. By the 1920s, as the U.S. Post Office saw the possibilities for airmail service, the push was on to develop airports in locations that could serve the mail and, eventually, passengers. By the mid-1920s, over 80 American cities had airports, of which over 50 were owned by the local municipality (Szurvoy 2003; U.S. Centennial of Flight Commission 2011).

Initially, the design of airports had been left to civil engineers, as it was necessary to deal with grading, runway surfaces, drainage, and related concepts. The decision to use architectural firms to design architecturally pleasing structures for passengers gradually merged with engineering technology, such as the separation of arriving and departing passengers into two levels, the jetway, parallel runways to increase traffic, and rows of boarding gates expandable at either end. Many of the designs were reminiscent of the era's railway stations (Szurvoy 2003).

Airports had the "land side," which dealt with passengers, baggage, tickets and customs, and the "air side," which handled all the requirements of the planes themselves. Two types of passenger terminals developed during the 1920s. The "depot hangar," also known as the "lean-to hangar," combined a waiting room, offices, and a hangar in a single building. Newark, Chicago, Wichita and Los Angeles built this type of terminal. Pan American Airways in Miami built "simple terminals" with only a building for passengers. The circa-1928 terminal in Miami was the first terminal designed by Delano and Aldrich of New York, which eventually became one of the country's most prominent airport design firms. The early terminals also combined the terminal activities with the air traffic control tower (Szurvoy 2003; U.S. Centennial of Flight Commission 2011).

World War I had convinced the Department of Defense of the necessity for planes in the military and during the 1920s, dedicated military airfields were built in large numbers. The Army Air Corps Act of 1926 specifically authorized the construction of a new airfield for training army pilots. Many American cities made generous offers of land to bring this new source of revenue and prestige to their communities. Randolph Field, outside of San Antonio, Texas, was designated a National Historic Landmark in 2001 for its design. The airport featured a circular system of roads set in a larger square pattern with hangar lines and landing fields on both sides of the square. The field incorporated the most current urban planning concepts of the time, and its design made it one of the most successful training fields and subsequently a model for later airports (U.S. Centennial of Flight Commission 2011).

By the late 1920s, most large American cities had built airports with paved takeoff and landing strips that could support the new, heavier planes. During this period of advances in aviation, airport

designers saw that the earliest airports had been designed without much room for growth, and the trend shifted to building wedge-shaped buildings sited so that as air traffic grew, the airport could be expanded. Cities vied with each other to build the most modern airports and new ideas were constantly being incorporated into the designs.

The Oakland Municipal Airport, built in 1927, "rose to prominence in the public eye when it provided two suitably long runways to enable the contestants of the San Francisco-to-Hawaii race sponsored by Dole Pineapple Company to take off in their gasoline-laden craft (Szurvoy 2003)." A color postcard of the airport explained that the operations area included 1000 acres with 700 additional acres waiting for "aviation industrial development" (Szurvoy 2003).

By the 1930s, the airline companies sought to create a glamorous image and one that led the way was Pan American Airways, headed by its visionary president, Juan Trippe. Airports now personified aspirations and Trippe hired the firm of Delano and Aldrich to design a graceful structure to wow the paying customers. It introduced the concept of the elegant airport restaurant in a curving section of the airport with a wonderful view of the plane activity. Another airport of the era that is now listed on the National Register of Historic Places (NRHP) is the Port Columbus, Ohio airport. The terminal was a large, rectangular, opulent Art Deco-style building that contained a hexagonal air traffic control tower that resembled a glass cage. The train brought passengers to the airport, they disembarked from the trains, crossed the concourse, and boarded the plane. The terminal repeated the dramatic elegance of the old train stations combined with the new technology of the air age (Szurvoy 2003).

Also in the 1930s, regional design concepts were introduced at the Albuquerque Airport. The terminal building was designed in an adobe revival style and was an attempt to give some flair beyond functionality. San Francisco Airport opened its Spanish Colonial Revival terminal in 1938 to critical acclaim, "giving the typical affluent passenger a terminal in line with expected aesthetic standards (Szurvoy 2003)." Some airports added golf courses, swimming pools, gas stations for automobiles, and other amenities to create the idea that the airport offered many activities besides boarding a plane.

Two of the nation's most modern airports, which opened in the late 1930s, were Washington National Airport in Washington, D.C. and La Guardia Airport in New York. These were large, complex facilities with an expectation of high passenger volumes and architects saw a chance to break out of the standard mold and create exciting new spaces. Washington National's terminal became a sweeping, curvilinear building evoking the Roman concepts that shaped Washington's federal buildings and offered views to the imposing structures in Washington D.C. The airside featured a three-story wall of glass to see the stunning skyline, framing the various monuments for public viewing, and foreshadowing the glass and steel terminals of the 1960s. The terminal also featured the most advanced air traffic control tower with the latest in technology in weather monitoring and instruments for air traffic control. La Guardia Airport, designed by Delano and Aldrich, became the prototype of the modern air terminal. The architects created a passenger-flow innovation that

continues to be a standard feature of airports today. For the first time, arrivals and departures were separated vertically, resulting in an unhindered flow of passengers and allowing for movement of high volumes of people. Elegant restaurants and bars continued the idea of the airport as a unique entertainment venue (Szurvoy 2003).

During the Great Depression years, through the Works Progress Administration (WPA) and other relief programs, the federal government extended control over America's airports. Federal funding joined local municipal funding, creating many new airports and reusing older ones. The Civil Aviation Administration, a newly funded agency, concluded that the nation needed a comprehensively planned and federally funded airport system. The National Airport Plan devised in 1939 called for almost 500 new airports. This plan was revised because of the nation's entry into World War II in 1941, and national defense needs drove airport development. Plans were made to improve over 4,000 airports, particularly the ones along the coastal areas. Hundreds of the nation's airports were converted to military use for the duration of the war. Runways received a significant amount of attention as the newer Boeing B-17 bomber and the Douglas DC-4 were bigger, heavier planes. The massive volume of men and support supplies required airports to ramp up their ability to process large amounts of men and cargo rapidly to move them to the war theaters. The nation shifted all its resources into the war effort until the end in 1945 (Szurvoy 2003).

At the end of the war, airports were returned to their cities. Complete with massive improvements, these improvements were considered a windfall for municipal governments. In many cities, the local Port Authority took control of the airports. In 1946, Congress passed the Federal Airport Act, which established for the first time a funded program (one-half billion dollars over the next 7 years) to aid airports and expand the network of national airports. A major shift occurred in the prosperous postwar years of the late 1940s and early 1950s. Air travel turned from an expensive indulgence of the wealthy to an affordable form of mass transit, accessible to all and people felt comfortable planning family trips with the plentitude of jobs and resources. Airports rushed to keep pace with the ever-increasing demands (Szurvoy 2003).

After World War II, new airports were designed in a "connection" or transport design with planes parked on the tarmac and passengers walking out to them. By the 1950s, the "pier finger" and star-shaped terminal allowed passengers to congregate in a central area and then move out to the extended areas to board their planes. Planes could load passengers directly from these "fingers," and moving sidewalks helped passengers traverse the long hallways necessary to reach these extended areas. The concept of two levels for arriving and one for departing passengers became popular. This design evolved into decentralized satellites, or "jetways"—covered corridors that telescoped out from the main terminal to meet the plane. Another popular concept was the "linear" or "gate arrival" terminal, which included a long, shallow corridor with appendages protruding from it where the planes arrived and passengers boarded or deplaned (U.S. Centennial of Flight Commission 2011).

Airports became prime examples of civic pride as prominent architects created visually interesting public spaces that became statements of modern progress and innovation. One of the trends that developed during the 1950s was the concept of making the tower a strong statement about the airport. Exotic designs were employed to give the tower a prominent place in the airside operations and intrigue viewers with its unusual configuration. Architects used Modern design concepts in creating towers at Phoenix Airport, La Guardia Airport, and Dulles Airport that were unusual and attention-getting. Stand-alone towers, now physically separated from the terminals, began to appear at some of the newer airports. By the mid-1960s, the FAA enlisted a prominent architect, I. M. Pei, to design a prototype tower to ensure consistency and federal standards, but each tower could be individualized in its final design to reflect the local airport. Towers are an integral part of the airport complex and provide a vertical balance to the horizontal terminal building that stretches across the vast airport space (Szurvoy 2003).

The arrival of the jet age in the late 1950s not only transformed airport design but also had a major impact on all aspects of modern life. Jets required longer runways and more support services. The rapid expansion of jet travel necessitated corresponding new concepts in airport design. In 1959, more than 51 million passengers flew out of American airports and by 1961, over 800,000 Americans traveled to Europe by jet. Transatlantic travel increased by 20 percent every year from that point on. By 1961, airports now had to accommodate huge numbers of passengers passing through their terminals while also providing a comfortable experience (Gordon 2008).

Newsweek magazine explored the concept of the "Jet-Winged World," demonstrating how DC-3s had inspired the streamline style of the 1930s aesthetic and influenced the look of everything from architecture to pens. Now, jets transformed all phases of design as architects, designers of all types of consumer goods, and automobile manufacturers began imitating their slender look. Advertising executives maneuvered the word "jet" into every possible type of product, new phrases such as "jet lag," and "jetway" entered our vocabulary, the Jetsons came into our homes via television, we cheered the New York Jets, and the glitterati became known as the "jet set," referring to the speed at which they traveled globally to live their fabulous lives. Fashion adopted a sleek runway look modeled on the uniforms of the stewardesses with their simple lines and muted colors (Gordon 2008).

Mobility and speed were the order of the day, and people marveled at the ease with which the Beatles hopped from continent to continent on their first world tour by jet. Trains and ocean liners saw business drop off rapidly as people now preferred to reach their destinations with all possible speed. President John F. Kennedy announced the "space age" as part of his "New Frontier" programs. The "New Frontier" was space—vast and endless but full of exciting possibilities. By 1961, astronaut John Glenn was circling the earth in the Friendship 7 space capsule, and Pan American Airways half-seriously accepted reservations for the first commercial trip to the moon (Gordon 2008).

One of the paradoxes of jet travel was the lack of sensation. Travelers had no real sense of speed, the world below was tiny and indistinct, passengers traveled from one sealed conveyance to another

(from enclosed car to enclosed plane through an enclosed airport), and once inside the plane, nothing much was happening to stimulate passengers. In-flight movies helped to fill the long hours in transit but soon attention turned to the airport itself. Architects began to think that the terminals themselves could become environments of sensation and supply the missing components. TWA President Ralph Damon summed up the new ideas: "What I want is a building that starts your flight with your first glimpse of it and increases your anticipation after you arrive. The spirit of flight, inside and out, and nothing less will do." A flurry of new adjectives was applied to the new jet age airports: "swooping," "bird-like," "soaring," and "winglike." The airports reflected the design of the jets with air-foil roofs, crescent shaped components, cantilevered "wings" and parabolic curving elements, streamlined and spacious (Gordon 2008).

The Modern style was predominant in the 1960s. The use of elements that mimicked clouds, flight, vast open spaces, undulating rooflines, swirling columns, and forms that hovered all created the illusion of constant movement. Glass walls and soft, filtered light combined with soothing colors eased tensions experienced by passengers as they dealt with the rigors of travel. The interiors of the terminals were decorated with kinetic artwork commissioned from prominent artists to further emphasize the concept of perpetual motion, excitement, change, and new experiences. Movement was constant within the airport—escalators, moving sidewalks, automated doors, revolving baggage carousels, and blinking signs (Gordon 2008; Szurvoy 2003).

The modern airport became a city with millions of passengers a year and thousands of employees using the spaces every hour of every day. The airports were designed to fulfill most of the needs of the workers and travelers. Jet-age airports had their own police and fire departments, power plants, doctors, hotels, conference centers, bars, restaurants, and shops.

As commercial air travel continued to expand exponentially, the airports in all the major cities underwent expansion, new terminals were built, and the constantly changing technology required continuous upgrading of the airside and landside[3]. The rise of terrorism in the 1970s increased airport safety and security requirements. Airports intentionally added bottlenecks to divide non-secure areas where passengers could move freely, obtaining tickets and checking baggage from secure areas after checkpoints.

3.3 - John Carl Warnecke

John Carl Warnecke, born on February 24, 1919 in Oakland, California, was the son of prominent Bay Area architect, Carl I. Warnecke, a Beaux Arts-trained architect with an office in Oakland. John Carl Warnecke was a tall, burly man considered to be "larger than life" by those who knew him well.

[3] Airports engage in both "landside" operations for the expeditious use by passengers and "airside" operations, which encompasses necessary airport functioning.

He was known for his charismatic personality, demeanor as a gentleman, and his ability to win important clients to his ideas (Stephens 2010).

Warnecke received his Bachelor's Degree from Stanford University in 1941. After his graduation from Stanford, he enrolled in the Harvard Graduate School of Design, then under the direction of internationally acclaimed Modernist architect, Walter Gropius. Gropius introduced Warnecke to the concepts of Bauhaus Modernism, which became one of the major influences on his career. However, Warnecke eventually deviated from the singular purist approach. Warnecke wrote in his memoir, Architecture of Place, that he "adhered to the Modernist values of emphasizing function and structure." However, his architectural work also incorporated historic building designs and the natural setting. He was able to express these ideas in his work over the next three decades, creating with other Bay area architects a regional modernist style (Stephens 2010).

The following provides examples of civic properties that Warnecke worked on:

- 1951: Mira Vista Elementary School (Richmond, CA)
- 1962: South Field OAK Terminal 1 and ATCT (Oakland, CA)
- 1960: Federal Office Tower, north of San Francisco Civic Center (San Francisco, CA)
- 1967: John F. Kennedy Eternal Flame grave site (Arlington, VA)
- 1967: National Courts Building (Washington, D.C.)
- 1969: Hawaiian State Capitol building (Honolulu, HI)
- 1975: Senator Phillip A. Harte Senate Office Building Complex (Washington, D.C.);
- 1977: Washington Dulles International Airport Terminal (Washington, D.C.);
- 1977: Boston International Airport – South Terminal (Boston, MA)

The circa-1960 Mabel McDowell Elementary School, located in Columbus, Indiana, was listed on the NRHP in 2001—an example of Modern architecture in southern Indiana and the work of John Carl Warnecke. The school complex exemplifies his use of regionalism concepts and was built during the early years of Warnecke's career as he was exploring and refining his design philosophy (NRHP 2009).

In 1960, Warnecke moved his office to San Francisco and then expanded his operations to the East Coast and other areas. The office in San Francisco was located across the street from the Palace Hotel on the ground floor. Large, ground-floor windows were used to display the models of buildings under design to the public walking by the windows. Warnecke's designs included many San Francisco landmarks, some of which were not well received. His federal office tower north of San Francisco's Civic Center Plaza was likened to a "monster designed by a camel" (King 2010).

The firm opened an office in 1962 in Washington, D.C. and another in New York in 1967. Once Warnecke started the New York office, he brought in noted architects, Eugene Kohn, William Pedersen, and Sheldon Fox to give the office additional expertise and direction. Warnecke's firm won over 100 awards for design excellence, including the National Institute of Arts and Letters (1957), the Urban Land Institute Award for Excellence in Architecture (1989), and the Hawaii Chapter of the American Institute of Architects, 25 Year Award for the Hawaii State Capitol (1995). Warnecke became a Fellow of the American Institute of Architects in 1962 (National Register of Historic Places Nomination Form 2009; Stephens 2010).

According to Building and Design Magazine, Warnecke created one of the largest architectural firms in the history of the United States with additional offices in Los Angeles, Boston, and Honolulu. The firm was responsible for the design of commercial skyscrapers, airports, libraries, schools, civic complexes, and shopping centers. As an architect trained in and influenced by Bauhaus Modernism, he was one of the pioneers of the architectural concept of Contextualism, which seeks to balance the building design with the physical, historical, and cultural setting of the location. He also embraced the related idea of Regionalism architecture, which encouraged the idea that the design of buildings should have reference to the physical, cultural and political contexts that envelop it. The essence of particular places, cultures, and climates within the environment of the site is believed to restore balance between people, artifacts, and nature.

In 1962, Warnecke assisted President John Kennedy and First Lady Jacqueline Kennedy with the Lafayette Square preservation and restoration project. The government planned to tear down this historical park near the White House, and Mrs. Kennedy, an avid preservationist, sought to preserve this important element of Washington's history and architecture. Mr. Warnecke created a Master Plan with a unique solution that preserved the historically/architecturally significant buildings, merging the new Modern style construction with the best of the old (Brown 2010).

This relationship with the President and First Lady led to other important commissions for Warnecke. He was appointed to the United States Commission of Fine Arts by President John F. Kennedy in 1963. This appointment made him responsible for overseeing and approving all federal building projects in the nation's capital. He was also chosen to assist in the selection of the site for President Kennedy's Presidential Library, and one of his most important commissions was to design the gravesite and eternal flame for President Kenney's internment in Arlington National Cemetery (1967) (Brown 2010).

Other important commissions were the Washington Dulles Airport and the South Terminal at Boston International Airport (1977), the Soviet Embassy (1975), the U.S. Naval Academy Library in Annapolis, Maryland, and buildings located on the campuses of Stanford University, the University of California Los Angeles (UCLA), and the University of Southern California (USC).

The recession of the late 1970s caused the architecture business to decline; Warnecke began to close offices and scale down his firm. The San Francisco office stayed open until his death in 2010. Following Warnecke's retirement in the late 1970s, he began plans to develop the Warnecke Institute of Design, Art and Architecture at his ranch home in Healdsburg in Northern California. After Warnecke's passing in April 2010, his family established the Chalk Hill Artists Residency at the ranch, in honor of Warnecke's vision to see his life's work continue to a new generation of architects (Stephens 2010).

3.4 - South Field Air Traffic Control Tower

The Terminal 1 complex consists of five main components:

- A one-story, curved ticketing and baggage claim building at the front of the complex (M101);
- A two-story main terminal structure with retail, offices and other supporting uses (M102);
- A 10-story ATCT that rises from the center of M102;
- A two-story "finger" concourse extension (M103), which houses the initial 10 loading gates (now 17 gates) for the arrival and departure of passengers; and
- A stand-alone equipment building (M104).

The Terminal 1 complex was sited at the edge of a circular road system, which allowed passengers to drive into the airport and drop off passengers, pull into the parking lot created within the interior of the circular access road, or continue around the loop and exit the airport. Since it was first built, the Terminal 1 complex has been expanded and modernized. No exterior architectural work is included in this project that would alter the aesthetics and airport experience, with the exception of the proposed demolition of the ATCT.

The ATCT was designed in the Modern Expressionism style using Formalism and Brutalism (Section 3.1.2). The ATCT is a square, concrete structure with three components: the main shaft comprising the third through seventh floors, the cantilevered former cocktail lounge on the eighth floor, and the ninth and tenth floors that contain FAA operations. The eleventh floor contains a PVC membrane roof. The total area of the ATCT is 10,000 square feet.

The ATCT exterior has outside concrete staircases at each level. Interior access to the floors is via the original elevator installed at the time of construction. Large blocks of floor to ceiling, aluminum-framed, glazed, fixed-pane, tinted windows are present and extend vertically up the sides of the building. Window sections wrap around the corners of the building.

Floors three through seven have been used for various functions over the years, such as office spaces for FAA, airport operators, operator supervisor, and a break room. The walls of the eighth-floor cocktail lounge extend outward from the tower by 28 feet with large, fixed-pane, aluminum-framed,

three-quarter-height, cantilevered tinted windows on all four sides. The large expanse of windows provided a view of activity at the airport, including the runways. The cocktail lounge was closed after September 11, 2001. The eighth floor is now used for special meeting functions.

Key floors of the ATCT were the ninth, which contained the instrument flight headquarters, and the tenth, which was the location of the visual control portion of the ATCT. The visual control tower is hexagonal-shaped, allowing unrestricted view of the runways and ground control systems. The windows were tinted to reduce any potential reflection that might obscure the air traffic controllers' view of the runways. Table 2 summarizes the description and current use of each floor of the ATCT.

Table 2: Description and Current Use of ATCT Floors4

Floor(s)	Description	Current Use
3 through 7	Large blocks of floor to ceiling, aluminum-framed, glazed, fixed-pane, tinted windows that wrap around the corners of the building.	Office spaces and break room
8	Walls extend outward by 28 feet with large fixed-pane, aluminum framed, three-quarter-height cantilevered tinted windows on all four sides (former cocktail lounge).	Special meeting functions
9	Large blocks of floor to ceiling, aluminum-framed, glazed, fixed-pane, tinted windows that wrap around the corner of the floor.	Instrument flight control for FAA
10	Hexagonal-shaped structure with tinted windows.	Visual flight control for FAA
11	PVC membrane roof	Roof

[4] Floors 1 and 2 are incorporated within Terminal 1.

SECTION 4: RESULTS

4.1 - Record Searches

4.1.1 - Information Center Search

On May 14, 2009, staff at the Northwest Information Center (NWIC) conducted a records search (NWIC File #08-1361 and #11-0254) for URS to identify previously recorded historic resources within the project area and a 0.5-mile radius. NWIC updated its records search for URS on September 14, 2011. In both searches, the NWIC reviewed the current inventories of the NRHP, CRHR, the California Historical Landmarks (CHL) list, the California Points of Historical Interest (CPHI) list, and the California State Historic Resources Inventory (HRI) for Alameda County to determine the existence of previously documented historical resources.

The results of the records search indicated that two previous investigations have been conducted within the project area and five investigations were conducted within a 0.5-mile radius of the project area (Table 3).

Table 3: NWIC Record Search Results

NWIC Report Number	Title and Author(s)	Date
Within Project Area		
S-032795	"Nextel Communications (On-Air) CA-0309H Oakland Airport, One Airport Drive, Oakland, California" (Earth Touch LLC)	No date
S-037302	"Architectural Survey, Evaluation and Finding of Effect for the Oakland International Airport Cell Site, Alameda County (Bureau Veritas Project No. 33110-010506.01; PL No. 1974-33) (letter report)" (Cimino; Pacific Legacy, Inc.)	2010
Within 0.5-Mile Radius of Project Area		
S-001786	"Cultural Resources Evaluation for the Oakland Airport Transit Connector EIS/EIR, Alameda County, California" (Chavez)	1979
S-015786	"Archaeological Survey of Portions of the Metropolitan Oakland International Airport 2002 Airport Development Program, Alameda County, California" (Baker; Archaeological/Historical Consultants)	1993
S-026292	"Archaeological Survey Report, BART OAC Project, Alameda County, California" (Self; William Self Associates, Inc.)	2000

Table 3 (cont.): NWIC Record Search Results

NWIC Report Number	Title and Author(s)	Date
S-028041	"Historic Cultural Resources Assessment Proposed Telecommunications Facility, Terminal 2, Site No. PL-382-01, One Airport Drive, Oakland, California (letter report)" (Pastron and Brown; Archeo-Tec)	1999
S-033293	"Alameda Watershed, Natural and Cultural Resources: San Francisco Watershed Management Plan" (Chavez and Hupman; David Chavez & Associates)	1994

One historic resource has been recorded within the project area on Department of Parks and Recreation (DPR) forms: Terminal 1, OAK, with the primary number P-01-011016 (same project as described in NWIC Report number S-037302). No prehistoric resources have been previously recorded within a 0.5-mile radius of the project area.

4.1.2 - Native American Heritage Commission Record Search

On January 28, 2011, FAA sent a letter to the Native American Heritage Commission (NAHC) to determine whether any sacred sites are listed on its Sacred Lands File for the area of potential effect located within the Runway Safety Area Improvement (RSA) Project at OAK (See Appendix B-1). The NAHC provided a response on February 3, 2011, and stated that the search failed to indicate the presence of Native American cultural resources within the area of potential effect. A list of nine Native American tribal members who may have additional knowledge of the ATCT project area was included with the results (See Appendix B-2). Although there will be no ground disturbance as part of the ATCT project, MBA and the Port sent letters to the nine tribal members on January 9, 2012 and January 29, 2013, asking for any additional information they might have concerning the project area (see Appendix B-3). As of this date, no responses requesting further consultation and/or information have been received from any of the tribal members.

4.2 - Site Survey

Architectural Historian Kathleen Crawford and Senior Project Archaeologist Carrie D. Wills conducted a survey of the project area on December 15, 2011. All floors of the ATCT were accessed (Appendix A, Photographs 1 through 10).

SECTION 5: FINDINGS

5.1 - Cultural Resource Summary

In accordance with CEQA regulations, MBA assessed the effects of development for the proposed project area. Results from the NWIC indicate that seven previous studies have been conducted within the project area and a 0.5-mile radius. Terminal 1 has been previously recorded within the project area. No prehistoric sites have been recorded within the proposed project area or a 0.5-mile radius. The results of the NAHC Sacred Lands File search failed to indicate the presence of Native American cultural resources, and no responses have been received from Native American representatives indicating that they had particular concerns about the project. No prehistoric resources were discovered during the course of the site survey.

5.2 - Architectural Significance

The ATCT was evaluated for its potential for nomination to the CRHR under the four criteria. The ATCT appears to meet the criteria for significance under Criterion 1: Events and Criterion 3: Architecture. The following information describes and evaluates the ATCT and is summarized in Table 4.

Table 4: Criteria 1 to 4 Eligibility under CRHR

Criteria	Eligibility
1. Events	**Yes:** The ATCT appears eligible for listing on the CRHR under Criterion 1, since it reflects national trends in aviation development, jet commercial travel, and the growth of the national airline industry in the last 50 years.
2 Associated with the Lives of Important Persons	**No:** The ATCT does not appear to be eligible for listing on the CRHR under Criterion 2. Historical research failed to identify any important owners, tenants, and/or occupants associated with the structure from which to derive historical significance.
3 Design/Construction	**Yes:** The ATCT embodies the distinctive characteristics of a type, period, and method of tower construction in the early 1960s, represents the work of a Master Architect, and possesses high artistic value; it is therefore considered eligible under Criterion 3.
4 Yields Information Important in Prehistory or History	**No:** The ATCT does not appear to be eligible for listing on the CRHR under Criterion 4, since there appears to be no potential that the ATCT would provide additional information important to prehistoric or historic events or resources.

5.2.1 - Evaluation of ATCT

To be considered eligible for the CRHR, a property must meet the eligibility criteria set forth in the CEQA Guidelines. This involves examining the property's age, integrity, and historic significance.

In particular, the evaluation includes a review of whether the property is old enough to be considered historic (generally at least 45 years old) and significant. In addition, it requires evaluating the property to determine if it is associated with events, activities, or developments that were important in the past; with lives of people who were important in the past; with significant architectural history, landscape, or engineering achievements; or whether it has the potential to yield information through archaeological investigations about our past. A detailed discussion of each criterion is presented below.

Criterion 1 – The ATCT is associated with events that have made a significant contribution to the broad patterns of our history.

The ATCT was evaluated for its potential significance as part of a historic trend that may have made a significant contribution to the broad patterns of the nation's history. In particular, OAK played a significant role in the development of the Port and national aviation. The airport was first constructed in 1927 and was considered one of the most modern airports in the country in its early years. Many aviation systems and technologies were initially developed in Oakland, such as the "Model Airline," the nation's first airport hotel, and pioneering navigation and radio aids. Not only did commercial airlines serve Oakland with early transcontinental and north-south routes, but the airport operated as the western headquarters for the 1920s-era United States Postal Service. Numerous historic flights across the Pacific left from OAK (See Section 2.4, History of Oakland International Airport). During World War II, OAK became a major marshaling facility for the dispatch of military aircraft to the Pacific war theater and included both U.S. Navy and Army Air Corps units. Following the end of World War II, the Board recognized a need for expanded cargo and passenger facilities and began plans to construct a new facility south of the former Oakland Municipal Airport. As part of the expansion, facilities included a 10-story ATCT, a new terminal facility, and a 10,000-foot runway designed specifically for jet use. Opened in 1962, Oakland's first jet-age airline terminal, Metropolitan Oakland International Airport (now Terminal 1), was marketed as an "airport for the Jet Age." Completion of the new Metropolitan Oakland International Airport marked a major transition point in aviation from propeller driven planes to jet propelled planes. TWA was the first jetliner service at the new airport. However, in 1965, when PSA and Western Airlines introduced low-fare commuter flights, a new type of air travel was popularized.

The ATCT appears eligible for listing on the CRHR under Criterion 1: Events, as the ATCT, an integral part of Terminal 1 development, reflects national trends in aviation developments, jet commercial travel, and the growth of the national airline industry over the last 50 years.

Criterion 2 – The ATCT is not associated with the lives of persons significant in our past.

The ATCT does not appear to be eligible for listing on the CRHR under Criterion 2. Historical research failed to identify any important owners, tenants, and/or occupants associated with the structure from which to derive historical significance.

Therefore, the ATCT does not appear to meet the eligibility criterion for listing on the CRHR under Criterion 2: Persons.

Criterion 3 – The ATCT embodies distinctive characteristics of the early "jet age" airports.

The ATCT was evaluated under Criterion 3: Design/Construction, for embodying the distinctive characteristics of a type, period, or method of construction; or representing the work of a master or possessing high artistic values.

Embodying the Distinctive Characteristics of a Type, Period, or Method of Construction

The development of airport design concepts and the accompanying design requirements for airports, terminals, and towers were reflective of the era in which the structures were constructed. With each decade from the 1920s to the present, different technological needs and design considerations dictated the architectural concepts embodied in the actual structures. Towers serve a dual purpose: they control the safe arrival and departure of the passengers and planes, and they express symbolism and reflect the civic pride of the city housing the airport. Many cities during the 1960s hired prominent, nationally or internationally known architects to design an airport that would not only meet the technological needs of the aviation industry and the FAA but that was also aesthetically reflective of the region's civic values. Architects exercised considerable freedom in their design expression and in the 1960s, created airports that expressed all the soaring possibilities of the jet age. They used Modern-era design concepts to explore the themes of flight and all its associated contexts. The ATCT is a classic example of 1960s-era Modern Expressionism design concepts that embraced the current trends in jet travel, the technological requirements of the new age of jet aviation, and the Port's desire for an airport that expressed its concept of civic pride.

Towers are usually one of the most visible elements of any airport, rising high above the other buildings and serving as a distinctive element of the City's landscape. The ATCT was constructed during a critical transition period when the nation's airports were shifting from the old-style airports—which applied train and marine travel concepts to airport operations and to the luxury traveler—to the jet age and huge, commercial passenger loads. The expansion of airports in the late 1950s and early 1960s to handle jet aircraft and their specific requirements resulted in the development of higher towers with more visibility across a wider expanse of runways and operations buildings. In 1966, the FAA established a prototype for air traffic control towers and chose internationally famed architect, I. M. Pei, to design stand-alone towers physically separated from other terminal buildings. Prior to the prototype, towers were typically incorporated into the terminal structure, as is the case with the ATCT. The ATCT incorporates older concepts while embracing the new technological and spatial requirements, resulting in a structure that bridges the earlier periods and the new jet age.

Towers have very specific design requirements in terms of height, spatial concepts, window and viewshed issues, lighting issues, and siting within the airport complex of runways, buildings, storage, and passenger areas. These requirements change with each decade and the design of the towers

reflects the technological developments of a particular era. The design of the towers usually reflects the technological changes in aircraft and traffic patterns as the view of the aircraft movement operations is critical. The window design, lighting elements, and siting of the ACTC in a central location, along with the hexagonal-shape are an example of the changing design trends of the 1960s and the arrival of jets on the runways of America. The design of the interior also incorporates the 1960s tracking technology available to the controllers for use in managing aircraft traffic flow and ground operations. The interior design components were shaped by the spatial needs of the 1960s-era radar equipment and other aspects of the equipment necessary to handle the aircraft traffic.

The ATCT was constructed with materials that were popular in the post-World War II period of American architecture. Concrete, glass walls, and aluminum framing were beginning to be used extensively to express the aesthetic possibilities of these twentieth-century materials. The use of these materials allowed architects to explore varied design concepts by incorporating these elements in new ways that provided a combination of strength and beauty, durability, and flexibility.

The ATCT embodies the distinctive characteristics of a type, period, and method of tower construction in the early 1960s and is considered eligible under Criterion 3: Design/Construction.

Master Architect

The ATCT was designed by noted San Francisco Bay area architect, John Carl Warnecke, FAIA, who is considered a leading master architect of the twentieth century. Warnecke created one of the largest architectural firms in the history of the United States and was responsible for the design of many civic complexes, including airports. An architect trained in and influenced by Bauhaus Modernism, he was one of the pioneers of the architectural concepts of Contextualism and Regionalism, which seek to balance the building designs with the physical, historical, and cultural setting of the location. ATCT was designed during the most formative and successful years of his distinguished career. He applied Modernism in the design of the ATCT to include aesthetic variations of concrete, glass walls, and aluminum framing. Therefore, the ATCT appears to be eligible for listing under CRHR Criterion 3: Design/Construction as a structure that represents the work of a Master Architect.

Possessing High Artistic Values

During the twentieth century, Modern architectural design concepts were explored by a wide range of architects, and these trends can be seen in the evolving designs of airports. The airports of the 1920s were literally placed in fields outside of cities to give the pilots ample room to maneuver and deal with the potential instability of early aircraft. The buildings constructed were functional but not aesthetic, designed for ease of operation. Engineers, not architects, designed the early buildings, as they were considered to be technical challenges rather than sites of beauty. As airports evolved and embraced more activities and passengers and requirements changed, architects became involved in the actual design of the buildings. In each decade, architects used the popular and prevalent design concepts to create airports that expressed regional and cultural trends, the desire to design a civic

symbol of progress and pride, and the ever-evolving technological challenges required to operate the airport safely and efficiently.

The development of 1960s commercial jet travel coincided with changes in architecture as many American and European architects used the varied Modern design concepts of Contextualism, Internationalism, Expressionism, Brutalism and other design styles to explore the new technology requirements and the soaring possibilities of the jet age. Their designs expressed the seemingly limitless potential that the jet age brought to the world and brought the highest concepts of art and design to solving the technological and engineering challenges of 1960s airport design.

The ATCT is reflective of these design concepts and the combined social, technological, civic, and engineering issues of the jet age era. The building articulates a particular concept of Modern Expressionism design to the extent that an aesthetic ideal is expressed. The original design concepts have allowed the ATCT to serve as an example of the Modern Expressionism style of architecture. Because of its circa-1962 Modern Expressionism style, the ATCT appears to qualify under CRHR Criterion 3: Design/Construction as a structure that possesses high artistic value.

Criterion 4 – The ATCT does not appear to yield information important in prehistory or history.

The ATCT does not appear to be eligible for listing on the CRHR under Criterion 4, because there appears to be no potential that the ATCT would provide additional information important to prehistoric events or resources.

5.2.2 - An Evaluation of the Integrity of ATCT

To determine the significance of a property under state and federal criteria, it is necessary to assess whether the property has integrity. Integrity is the ability of a property to convey and maintain its significance. A property must not only be shown to be significant under the established criteria, it must also have integrity. In order to retain historic integrity, a property must possess several, and usually most, of the seven key aspects of integrity: location, design, setting, materials, workmanship, feeling, and association.

Location

Location refers to the place where the historic property was constructed or the place where the historic event occurred. ATCT has remained in its original location since the 1962 construction date. Therefore, ATCT retains its location element.

Design

Design refers to the combination of elements that create the form, plan, space, structure, and style of a property. Therefore, the ATCT generally retains its exterior design elements.

Setting

Setting refers to the physical environment of a historic property. Although there have been changes to the setting with the inclusion of Terminal Two, crosswalk canopies, the entrance road, and landscape changes, the overall setting of ATCT has been retained. Therefore, ATCT has generally retained its setting element for integrity purposes.

Materials

Materials refers to the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property. ATCT does not contain any unusual materials used in its construction. The materials used have been identified as average types of concrete, glass, and steel construction elements. Therefore, ATCT retains its materials element for integrity purposes.

Workmanship

Workmanship refers to the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory. The workmanship demonstrated in the construction of ATCT is apparent from the materials analysis. The level of workmanship is of average quality. ATCT retains its integrity of workmanship.

Feeling

Feeling refers to a property's expression of the aesthetic or historic sense of a particular period of time. The ATCT has remained in its original location since it was constructed, and the structure conveys a sense of the period during which it was constructed. ATCT has retained its feeling element for integrity purposes.

Association

Association refers to the direct link between an important historic event or person and a historic property. ATCT has been determined to have been directly linked to a historically significant event (Criterion 1: Event) as an example of the development of jet commercial travel and 20th-century U.S. aviation history. ATCT has an associative element for integrity purposes.

5.2.3 - Architectural Significance Findings

Based on the current evaluation of the ATCT, the facility appears eligible for listing on the CRHR under Criterion 1: Events, and Criterion 3: Design/Construction. In addition, ATCT has generally retained all seven aspects of integrity, allowing the ATCT to convey and maintain its significance as a historic resource.

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Appendix A:
Project Area Photographs

A-1: Project Area Photographs (Current)

Photograph 1: Oakland International Airport Terminal 1 Ticketing Building Main Entrance December 15, 2011.

Photograph 2: Oakland International Airport Terminal 1 Ticketing Building December 15, 2011.

Source: Michael Brandman Associates, 2012.

Michael Brandman Associates

Appendix A1
Project Area Photographs 1 and 2

Photograph 3: Oakland International Airport Terminal 1 Ticketing Building Roof December 15, 2011.

Photograph 4: Oakland International Airport Terminal 1 Rear of Ticketing Building December 15, 2011.

Source: Michael Brandman Associates, 2012.

Michael Brandman Associates

Appendix A1
Project Area Photographs 3 and 4

Photograph 5: Oakland International Airport Terminal 1 East Wall December 15, 2011.

Photograph 6: Oakland International Airport Terminal 1 Roof Detail Showing Geometric Design Pattern December 15, 2011

Source: Michael Brandman Associates, 2012.

Michael Brandman Associates

Appendix A1
Project Area Photographs 5 and 6

Photograph 7: Oakland International Airport Terminal 1 Air Traffic Control Tower December 15, 2011.

Photograph 8: Oakland International Airport Terminal 1 Concourse Building December 15, 2011.

Source: Michael Brandman Associates, 2012.

Michael Brandman Associates

Appendix A1
Project Area Photographs 7 and 8

Photograph 9: Oakland International Airport Terminal 1 Ticketing Building Passageway to Main Terminal Decorative Arch and Window Detail December 15, 2011

Photograph 10: Oakland International Airport Terminal 1 Main Floor December 15, 2011

Source: Michael Brandman Associates, 2012.

Michael Brandman Associates

Appendix A1
Project Area Photographs 9 and 10

A-2: Project Area Photographs (Historic)

Photograph 1: Oakland International Airport Aerial View Date Unknown

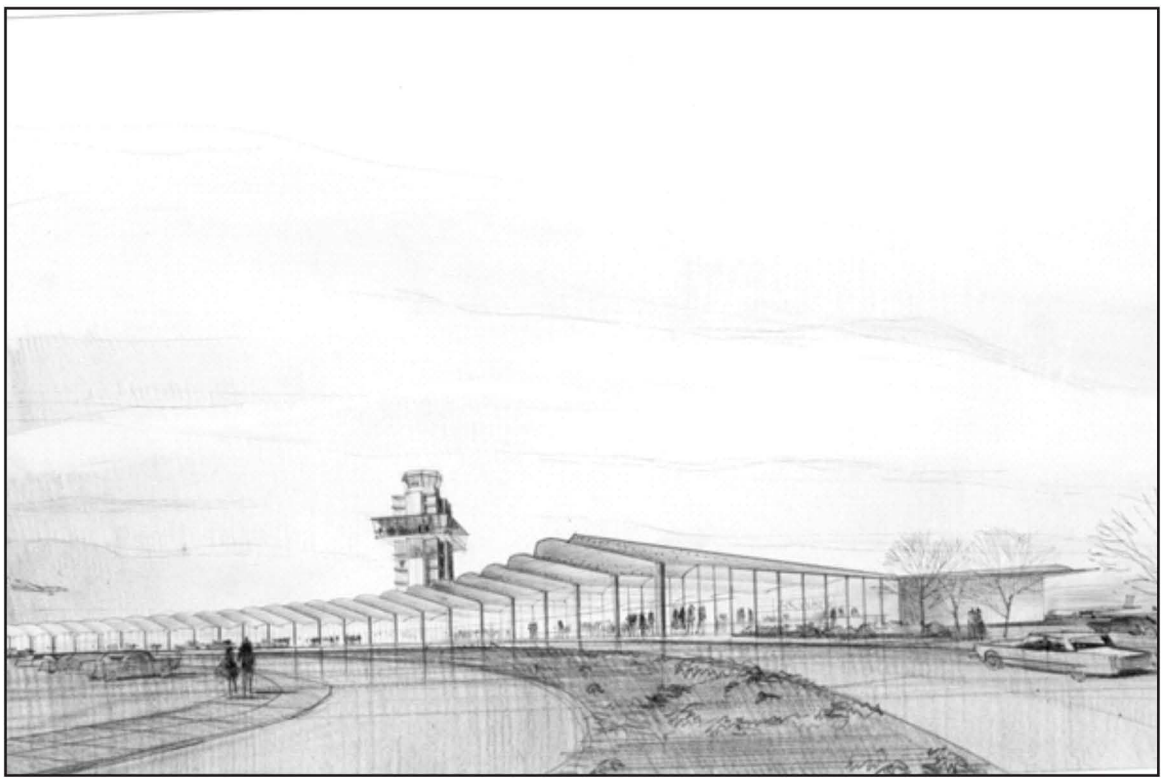
Photograph 2: Oakland International Airport Aerial Photograph, c. 1960

Source: Michael Brandman Associates, 2012.

Michael Brandman Associates

Appendix A2
Historical Project Area Photographs 1 and 2

Photograph 3: Oakland International Airport Terminal One and Terminal One Air Traffic Control Tower Conceptual Drawing, c. 1960



Photograph 4: Oakland International Airport Terminal One and Terminal One Air Traffic Control Tower Conceptual Drawing, c. 1960

Source: Michael Brandman Associates, 2012.

Michael Brandman Associates

Appendix A2
Historical Project Area Photographs 3 and 4

Photograph 5: Oakland International Airport Terminal One and Terminal One Air Traffic Control Tower Conceptual Drawing, c. 1960

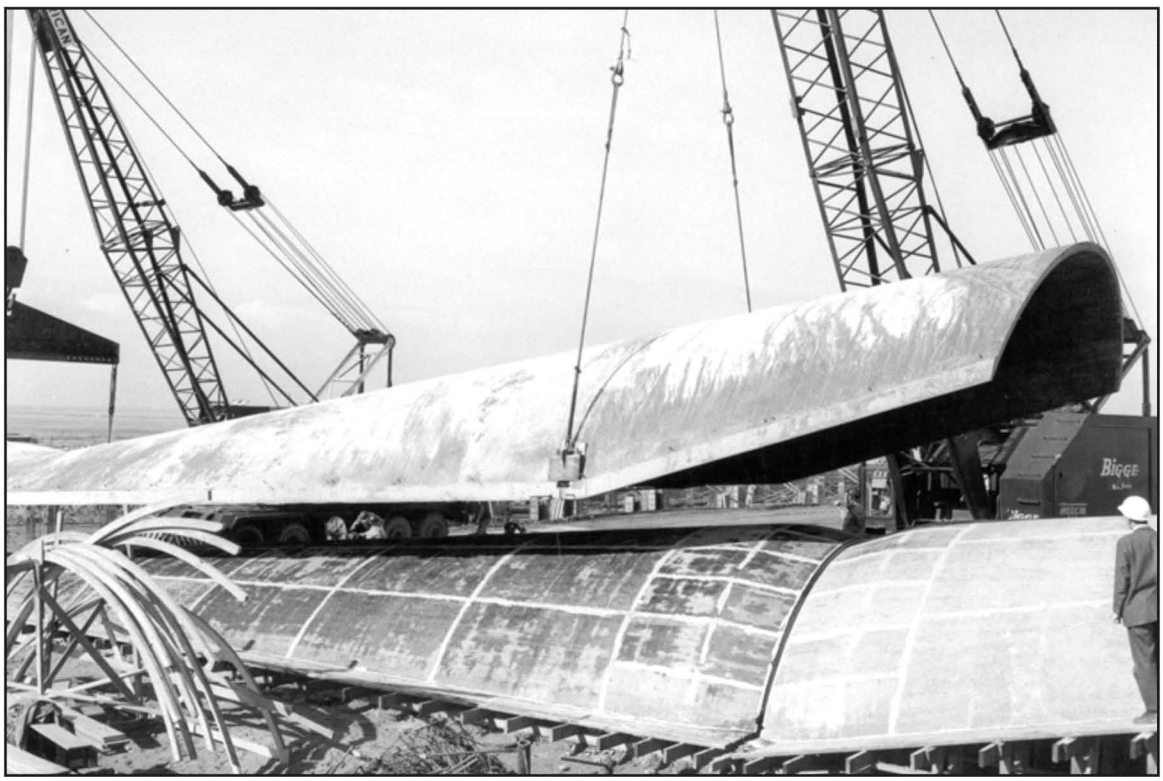
Photograph 6: Oakland International Airport Terminal One Restaurant Conceptual Drawing, c. 1960

Source: Michael Brandman Associates, 2012.

Michael Brandman Associates

Appendix A2
Historical Project Area Photographs 5 and 6

Photograph 7: Oakland International Airport Terminal One Conceptual Drawing, c. 1960



Photograph 8: Oakland International Airport Construction Photograph showing Half-Barrel Roof Sections Under Construction c. 1960

Source: Michael Brandman Associates, 2012.

Michael Brandman Associates

Appendix A2
Historical Project Area Photographs 7 and 8

Photograph 9: Oakland International Airport Terminal One Construction Photograph, c. 1960

Photograph 10: Oakland International Airport Terminal One and Terminal One Air Traffic Control Tower c. 1960

Source: Michael Brandman Associates, 2012.

Michael Brandman Associates

Appendix A2
Historical Project Area Photographs 9 and 10

Photograph 11: Oakland International Airport Terminal One and Terminal One Air Traffic Control Tower c. 1960

Photograph 12: Oakland International Airport Terminal One and Terminal One Air Traffic Control Tower Date Unknown

Source: Michael Brandman Associates, 2012.

Michael Brandman Associates

Appendix A2
Historical Project Area Photographs 11 and 12

Photograph 13: Oakland International Airport Terminal One and Terminal One Air Traffic Control Tower Date Unknown

Photograph 14: O Oakland International Airport Terminal One, Terminal One Air Traffic Control Tower, and Concourse Building Date Unknown

Source: Michael Brandman Associates, 2012.

Michael Brandman Associates

Appendix A2
Historical Project Area Photographs 13 and 14

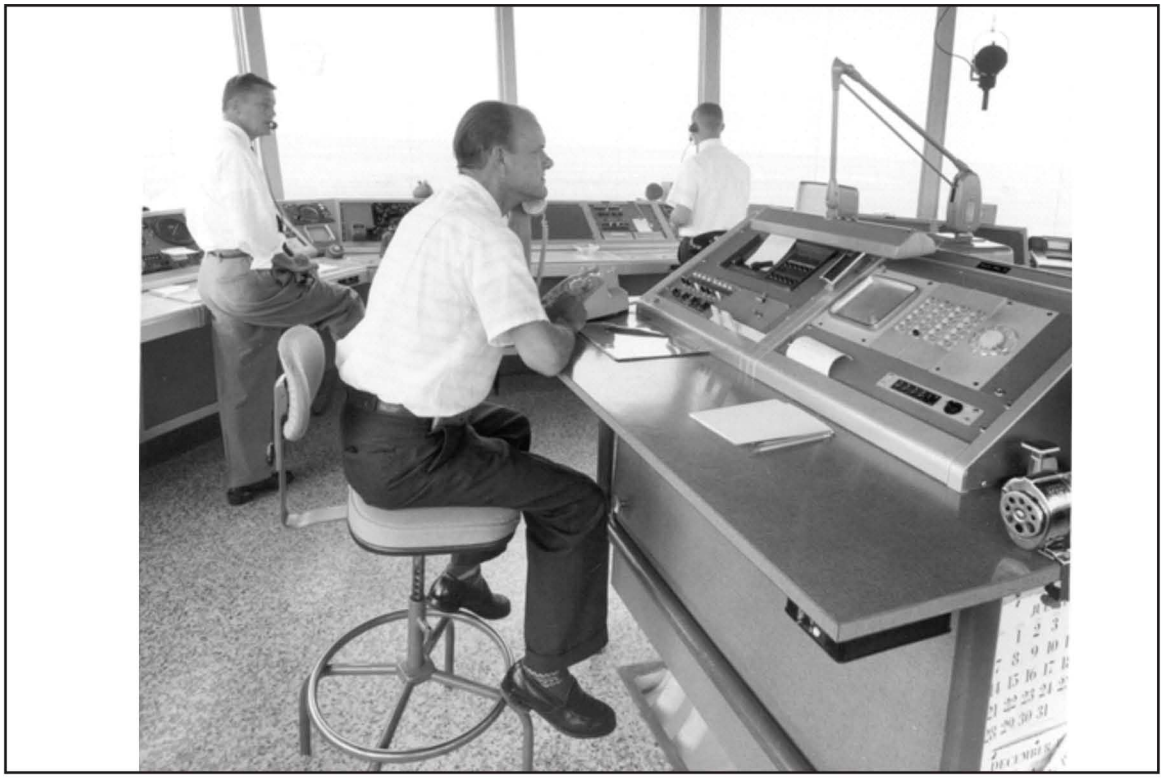
Photograph 15: Oakland International Airport Terminal One Interior View Date Unknown

Photograph 16: Oakland International Airport Terminal One Main Floor Date Unknown

Source: Michael Brandman Associates, 2012.

Michael Brandman Associates

Appendix A2
Historical Project Area Photographs 15 and 16



Photograph 17: Oakland International Airport Terminal One Air Traffic Control Tower, Interior View
Date Unknown

Photograph 18: Oakland International Airport Terminal One Concourse Building, Interior View
Date Unknown

Source: Michael Brandman Associates, 2012.

Michael Brandman Associates

Appendix A2
Historical Project Area Photographs 17 and 18

Appendix B:
Cultural Resources Correspondence

B-1: Northwest Information Center Response

CALIFORNIA
HISTORICAL
RESOURCES
INFORMATION
SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLARA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
1303 Maurice Avenue
Rohnert Park, California 94928-3609
Tel: 707.664.0880 • Fax: 707.664.0890
E-mail: leigh.jordan@sonoma.edu

Date: 14 May 2009 NWIC File No.: 08-1361

To: Mark Hale, URS Corporation, 221 Main Street, Suite 600, San Francisco, CA 94105-1917

From: Leigh Jordan, Coordinator

Re: Rapid Response Records Search Summary Letter for Oakland International Airport (OAK) Runway Safety Area (RSA) Project

---

San Leandro 7.5' Quad

Sites in: None

Sites within .5 mile: P-01-000255, P-01-010849 (See Disk: locations mapped, copies of records)

Studies in: S-33239, S-33600, S-7903, S-9583, S-15033 S-14621 (See Disk: project areas mapped; bib detail references)

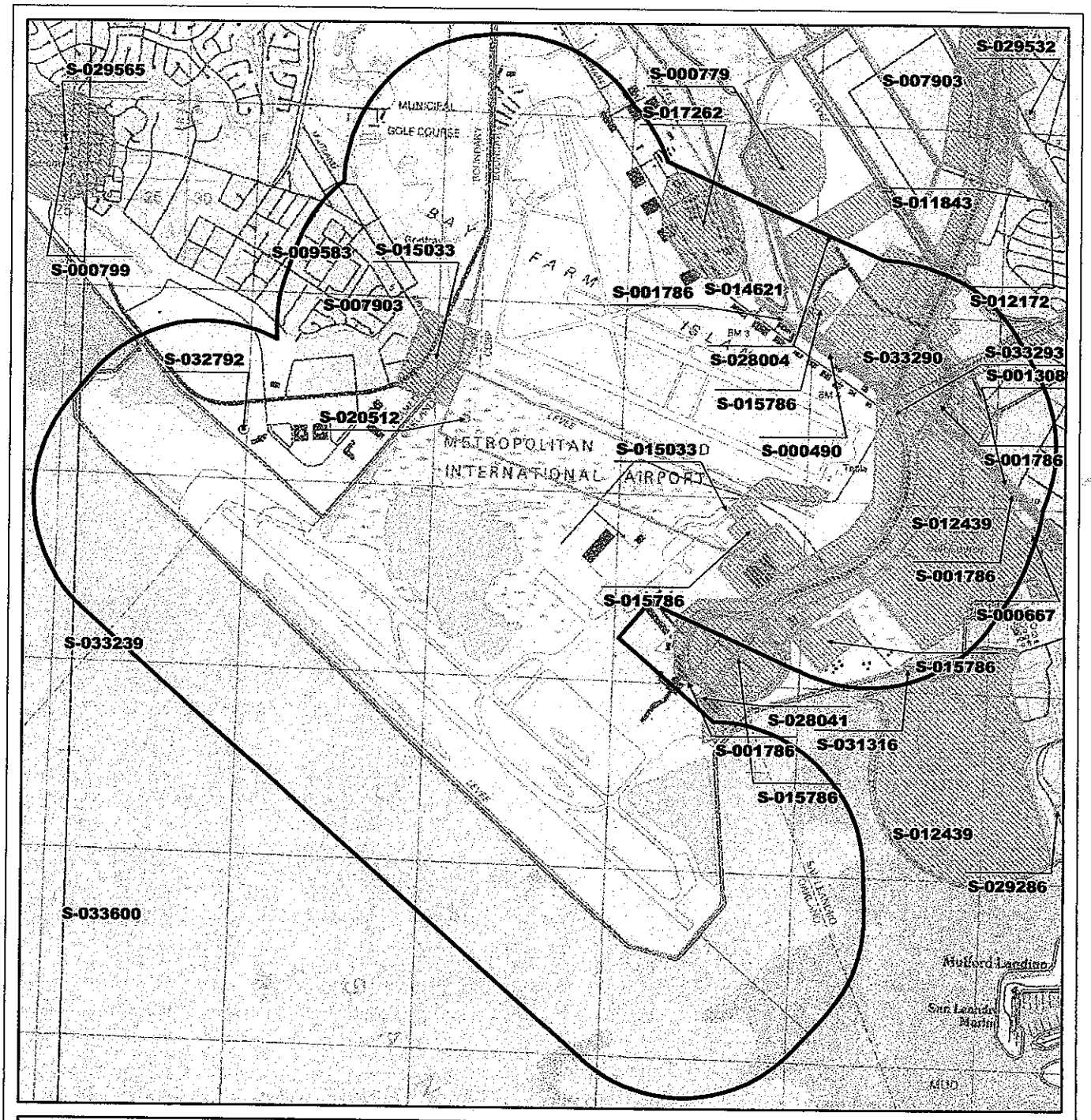
Studies within .5 mile: S-24599, S-32792, S-20512, S-15786, S-33290, S-1786, S-17262, S-779, S-28004, S-490, S-12439, S-667, S-33293, S-31316, S-1308 (See Disk: project areas mapped; bib detail references)

OHP HPD: Hard copy enclosed
Archaeological DOE: None
California Inventory: No listings with .5-mile radius

Historic Maps:
1878 Thompson & West – copy sent
1899 USGS Hayward quad – copy sent
1915 USGS Hayward quad – copy sent
1942 US Army Corps Hayward quad – copy sent
1959 USGS Former Shoreline Features Along the East Side of San Francisco Bay, CA – copy sent

GLO Plat Map:
1870 T2S/R3W MDB&M – copy sent
1872 T2S/R3W MDB&M – copy sent
1873 T2S/R3W MDB&M – copy sent
1883 T2S/R3W MDB&M – copy sent

Report Map No. 1 - Overview of Report Locations
Oakland International Airport (OAK)
Runway Safety Area (RSA) Project



Northwest Information Center

May depict confidential cultural resource locations.
Do not distribute.

Miles
0 0.3 0.6
0 0.5 1
Kilometers

Converted_Graphics
Report points
Report lines
Report polygons
Overviews

NWIC File #08-1361
13 May 2009
Researcher: L. Jordan

CALIFORNIA
HISTORICAL
RESOURCES
INFORMATION
SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLARA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
150 Professional Center Drive, Suite E
Rohnert Park, California 94928-3609
Tel: 707.588.8455
Email: leigh.jordan@sonoma.edu
http://www.sonoma.edu/nwic

Date: 14 September 2011 NWIC File No: 11-0254

To: Melanie Lytle, URS Corporation, 4225 Executive Square, Suite 1600, La Jolla, CA 92037

From: Lisa Hagel

re: Oakland International Airport RSA

San Leandro & Hunters Point 7.5'

Sites in or within 1/4 mile radius of the project area: P-01-11016 & 255 are within the project area.
P-10849 is within ¼ mile.
Enclosed are copies of the site record forms. The resource locations are plotted on the enclosed maps.

Studies in or within 1/4 mile radius of the project area: S-7903, 14621, 16660, 9462, 4840, 848, 33600, 2458, 20395, 33239, 18217, 33596, 26045, 9583, & 1784 are 'Other' reports (overviews or reports without specific geographic boundaries) that include the project area. These reports are not plotted on the electronic report map. You have not been charged the "digitized shape fee" for those areas.
S-15033, 20512, 17262, 1786, 490, 26292, 33290, 33293, 12439, 29589, 15033, 15786, 32795, 37302, 28041, & 1308 are within the project boundaries.
S-779, 28004, 35943, 667, 621, 1743, 24599, 32792, 36058, & 31316 are within ¼ mile.
Enclosed are bibliographic references for the reports. The study locations are plotted on the enclosed map. Let us know whether you would like copies of any of the reports.

OHP Historic Properties Directory: Copied the index pages that included properties in the vicinity of the Oakland Airport. The above referenced recorded sites did not appear in the Archaeological Determinations of Eligibility.

California Inventory of Historic Resources: There were no properties in the vicinity of the project.

Historic Maps (copied the pertinent sections of the maps):
1857 Rancho San Antonio (Y. Peralta) Plat Map
1859 Rancho San Leandro Plat Map
1870, 1872, 1873, & 1883 GLO Plat Maps, T2S, R3W
1870 & 1873 GLO Plat Maps, T2S, R4W

Oakland International Airport RSA

Report Map

11-0254, 9/13/11

Northwest Information Center

May depict confidential cultural resource locations.
Do not distribute.

Feet: 0, 1,300, 2,600, 3,900, 5,200, 6,500

Meters: 0, 330, 660, 990, 1,320, 1,650

N

S-024599	S-000490	S-001743	S-017262	S-029589
S-032792	S-000621	S-001786	S-020512	S-031316
S-032795	S-000667	S-012439	S-026292	S-033290
S-035943	S-000779	S-015033	S-028004	S-033293
S-036058	S-001308	S-015786	S-028041	S-037302

B-2: Native American Heritage Commission Sacred Lands File Search Response

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
Fax (916) 657-5390
Web Site www.nahc.ca.gov

June 3, 2009

Mark R. Hale
Senior Project Archaeologist
URS Corporation
221 Main Street, Suite 600
San Francisco, CA 94015-1917

Sent by Fax: (415) 882-9261
Number of Pages: 2

RE: Proposed Airport Layout Plan, Alameda County

Dear Mr. Hale:

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 653-4038.

Sincerely,

Debbie Pilas-Treadway
Environmental Specialist III

Native American Contacts
Alameda County
June 3, 2009

Jakki Kehl
720 North 2nd Street
Patterson , CA 95363
jakki@bigvalley.net
(209) 892-1060

Ohlone/Costanoan

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister , CA 95024
ams@garlic.com
831-637-4238

Ohlone/Costanoan

Katherine Erolinda Perez
PO Box 717
Linden , CA 95236
(209) 887-3415

Ohlone/Costanoan
Northern Valley Yokuts
Bay Miwok

Muwekma Ohlone Indian Tribe of the SF Bay Area
Rosemary Cambra, Chairperson
PO Box 360791
Milpitas , CA 95036
muwekma@muwekma.org
408-434-1668
408-434-1673

Ohlone / Costanoan

Amah/MutsunTribal Band
Irene Zwierlein, Chairperson
789 Canada Road
Woodside , CA 94062
amah_mutsun@yahoo.com
(650) 851-7747 - Home
(650) 851-7489 - Fax

Ohlone/Costanoan

The Ohlone Indian Tribe
Andrew Galvan
PO Box 3152
Fremont , CA 94539
chochenyo@AOL.com
(510) 882-0527 - Cell
(510) 687-9393 - Fax

Ohlone/Costanoan
Bay Miwok
Plains Miwok
Patwin

Amah/MutsunTribal Band
Jean-Marie Feyling
19350 Hunter Court
Redding , CA 96003
amah_mutsun@yahoo.com
530-243-1633

Ohlone/Costanoan

Trina Marine Ruano Family
Ramona Garibay, Representative
16010 Halmar Lane
Lathrop , CA 95330
soaproot@msn.com
209-629-8619

Ohlone/Costanoan
Bay Miwok
Plains Miwok
Patwin

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Airport Layout Plan, Alameda County.

B-3: Native American Information Request Representative Letter

Michael Brandman Associates

Fresno
559.497.0310

Irvine
714.508.4100

Palm Springs
760.322.8847

Sacramento
916.447.1100

San Bernardino
909.884.2255

San Ramon
925.830.2733

January 5, 2012

Andrew Galvin
The Ohlone Indian Tribe
PO Box 3152
Fremont, CA 94539

Subject: **Proposed Port of Oakland Air Traffic Control Tower Demolition Project (3049.0008), Alameda County**

Dear Mr. Galvin:

At the request of The Port of Oakland (The Port), Michael Brandman Associates (MBA) is conducting a Cultural Resources Assessment for the demolition of the existing Terminal One Air Traffic Control Tower located at the Oakland International Airport (Airport). The Airport is situated on former bay lands within the San Antonio (Y. Peralta) Land Grant along the eastern shore of the San Francisco Bay, Alameda County, Oakland, CA. The proposed project is depicted on the attached map and with the designated "Project Site" in black.

Consultation

The California Environmental Quality Act (CEQA) requires The Port to consider the effect this project may have on historic properties. The definition of "historic properties" includes, in some cases, properties of traditional religious and cultural significance to Native American tribes. To determine whether any historic properties may be affected by the project, MBA has reviewed archival maps and historic documents and consulted with the Native American Heritage Commission (NAHC). The NAHC response letter indicated that there may be additional information to be gained from individual tribal members and/or tribal organizations.

I am requesting any information that you may have regarding properties, features, or materials within the Airport boundaries and immediate vicinity that may be of concern to local Native Americans. Because public involvement is a key ingredient in successful CEQA consultation, MBA is soliciting your input as part of this process.

Please feel free to contact me at 510.967.6550 or via email at dcohen@brandman.com if you have any questions or would like to discuss the project in more detail.

Sincerely,

David R. Cohen, PhD, RPA
Staff Archaeologist
Michael Brandman Associates
Bishop Ranch 3
2633 Camino Ramon, Suite 460
San Ramon, CA 94583

Enclosures: Map of Project Area

Appendix C:
DPR Forms

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION **PRIMARY RECORD**	Primary # P - 01 - 011016 HRI # Trinomial NRHP Status Code 3S
Other Listings Review Code	Reviewer / Date

 *Resource Name or #: The South Field Air Traffic Control Tower (ATCT

P1. Other Identifier: Oakland International Airport Terminal One Air Traffic Control Tower

***P2. Location:** ☐ **Not for Publication** ☐ **Unrestricted** ☒ ***a. County:** Alameda

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** San Leandro **Date:** 1993 **T** 2S; **R** 3W; Unsectioned; **¼ of ¼ of Sec;** M.D.**B.M.**

c. Address: 1 Airport Road City: Oakland Zip: 94621

d. UTM: Zone: 10 ;569235 mE/ 417485mN mN (G.P.S.) (NAD 83)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation:

From Oakland, take I-880 South to Exit 35 (98 Avenue). Turn right onto 98th Avenue and continue onto Airport Drive.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

See Continuation Sheets for Property Description

***P3b. Resource Attributes:** (List attributes and codes) HP 39: Other – Airport Terminal

***P4. Resources Present:** ☒ Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo: (View, date, accession #) View SW/ 12/21/2011

***P6. Date Constructed/Age and Sources:** ☒ Historic ☐Prehistoric ☐Both

ca. 1960 - 1962/Oakland Port Authority Files

***P7. Owner and Address:**

Oakland Port Authority, 530 Water Street, Oakland, CA 94607

***P8. Recorded by:** (Name, affiliation, and address) K.A. Crawford/Michael Brandman Associates, Bishop Ranch 3, 2633 Camino Ramon, San Ramon, CA 94583

***P9. Date Recorded:** 12/15/201

***P10. Survey Type:** (Describe)

Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Cultural Resource Assessment Oakland International Airport South Field Air Traffic Control Tower City of Oakland, Alameda County, California. 2013.

***Attachments:** ☐NONE ☒Location Map ☐Sketch Map ☒Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

Source: TOPO! USGS San Leandro, CA (1993) 7.5' DRG.

NORTH

2,000 1,000 0 2,000 Feet

Michael Brandman Associates

Exhibit 2
Local Vicinity Map
Topographic Base

30490008 • 01/2012 | 2_local_topo.mxd

PORT OF OAKLAND • OAKLAND INTERNATIONAL AIRPORT
TERMINAL ONE AIR TRAFFIC CONTROL TOWER PROJECT
PHASE I CULTURAL RESOURCES ASSESSMENT

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 3S

*Resource Name or # (Assigned by recorder) P-01-011016

B1. Historic Name: Oakland International Airport Terminal One Air Traffic Control Tower

B2. Common Name: South Field Air Traffic Control Tower (ATCT)

B3. Original Use: Control Tower

B4. Present Use: Control Tower

*B5. Architectural Style: Modern Expressionism

*B6. Construction History: (Construction date, alterations, and date of alterations)

The Terminal One building complex was constructed in 1960-1962. The Terminal One Air Traffic Control Tower (ATCT) was designed in the Modern Expressionism style. The eleven-story ATCT rises from the center of the main terminal building. The original plan had been to construct a separate stand-alone tower but when the plans were revised, it was included within the main terminal as a cost-cutting measure. The tower is a square concrete structure with three components – the main shaft comprising the third through seventh floors, the eighth floor cantilevered cocktail lounge, and the ninth through eleven floors which contain Federal Aviation Administration operations and the octagonal shaped air traffic control tower at the top. The eleventh floor contains a PVC membrane roof. The total area of the tower portion is 10,000 square feet. The Terminal 1 complex consists of five main components:

- A one-story, curved ticketing and baggage claim building at the front of the complex (M101);
- A two-story main terminal structure with retail, offices and other supporting uses (M102);
- A 10-story ATCT that rises from the center of M102;
- A two-story "finger" concourse extension (M103), which houses the initial 10 loading gates (now 17 gates) for the arrival and departure of passengers; and
- A stand-alone equipment building (M104).

The Terminal 1 complex was sited at the edge of a circular road system, which allowed passengers to drive into the airport and drop off passengers, pull into the parking lot created within the interior of the circular access road, or continue around the loop and exit the airport. Since it was first built, the Terminal 1 complex has been expanded and modernized. No exterior architectural work is included in this project that would alter the aesthetics and airport experience, with the exception of the proposed demolition of the ATCT.

The ATCT was designed in the Modern Expressionism style using Formalism and Brutalism. The ATCT is a square, concrete structure with three components: the main shaft comprising the third through seventh floors, the cantilevered former cocktail lounge on the eighth floor, and the ninth and tenth floors that contain FAA operations. The eleventh floor contains a PVC membrane roof. The total area of the ATCT is 10,000 square feet.

The ATCT exterior has outside concrete staircases at each level. Interior access to the floors is via the original elevator installed at the time of construction. Large blocks of floor to ceiling, aluminum-framed, glazed, fixed-pane, tinted windows are present and extend vertically up the sides of the building. Window sections wrap around the corners of the building.

Floors three through seven have been used for various functions over the years, such as office spaces for FAA, airport operators, operator supervisor, and a break room. The walls of the eighth-floor cocktail lounge extend outward from the tower by 28 feet with large, fixed-pane, aluminum-framed, three-quarter-height, cantilevered tinted windows on all four sides. The large expanse of windows provided a view of activity at the airport, including the runways. The cocktail lounge was closed after September 11, 2001. The eighth floor is now used for special meeting functions.

Key floors of the ATCT were the ninth, which contained the instrument flight headquarters, and the tenth, which was the location of the visual control portion of the ATCT. The visual control tower is hexagonal-shaped, allowing unrestricted view of the runways and ground control systems. The windows were tinted to reduce any potential reflection that might obscure the air traffic controllers' view of the runways. Table 2 summarizes the description and current use of each floor of the ATCT.

(This space reserved for official comments.)

Table 1: Description and Current Use of ATCT Floors

Floor(s)	Description	Current Use
3 through 7	Large blocks of floor to ceiling, aluminum-framed, glazed, fixed-pane, tinted windows that wrap around the corners of the building.	Office spaces and break room
8	Walls extend outward by 28 feet with large fixed-pane, aluminum framed, three-quarter-height cantilevered tinted windows on all four sides (former cocktail lounge).	Special meeting functions
9	Large blocks of floor to ceiling, aluminum-framed, glazed, fixed-pane, tinted windows that wrap around the corner of the floor.	Instrument flight control for FAA
10	Hexagonal-shaped structure with tinted windows.	Visual flight control for FAA
11	PVC membrane roof	Roof

***B7. Moved?** ☒ **No** ☐ **Yes** ☐ **Unknown** **Date:** N/A **Original Location:** N/A

***B8. Related Features:**

The Terminal One complex consists of four main components – the one-story, curved ticketing building at the front of the complex; the two-story main terminal structure with restaurant, offices and other elements; the eleven-story air traffic control tower which rises from the center of the main building; and the two-story "finger" concourse extension which housed the ten loading gates for the arrival and departure of passengers. The Terminal One building complex was sited at the edge of a circular road system which allowed passengers to drive into the airport, drop off passengers, or pull into the parking lot created within the interior of the circling access road, or continue around the loop and exit the airport.

B9a. Architect: John Carl Warnecke b. Builder: Unknown

***B10. Significance: Theme:** Post WW-II commercial jet travel **Area:**

Period of Significance: 1960s **Property Type:** Airport

Applicable Criteria:

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

See Continuation Sheets

(Sketch Map with north arrow required.)

B11. Additional Resource Attributes: (List attributes and codes) HP11

***B12. References:**

Minor, Woodruff. 2000. Pacific Gateway: An Illustrated History of the Port of Oakland. Port of Oakland, Oakland, CA.

Oakland Chamber of Commerce. 1925. "Air Transportation Survey of Metropolitan Oakland Primary Trading Area." On file in History Room, Oakland Public Library, Oakland, CA.

Oakland International Airport (OAK(a)). n.d. "A History of Aviation Excellence and Importance to the Community." http://www.Flyoakland.com/media_backgrounder.shtml. Accessed September 17, 2011.

Oakland International Airport (OAK(b)). n.d. "OAK Historical Video" Website: http://www.oaklandairport.com/oak_hist_vid_chapters.shtml. Accessed September 17, 2011.

Oakland International Airport. 2009. "Oakland International Airport History of Aviation Excellence." Flyoakland.com/media_backgrounder.

Oakland Municipal Airport. January 21, 1953. Brochure on file in History of Oakland Airport files, History Room, Oakland Public Library, Oakland, CA.

Oakland Tribune. April 5, 1959 [a]. "Future of Airport Linked to New Jet Air Freight." History of Oakland Airport files, History Room, Oakland Public Library, Oakland, CA.

Oakland Tribune. December 22, 1959 [b]. "Airport Terminal Designs On Way for U.S. Approval." History of Oakland Airport files, History Room, Oakland Public Library, Oakland, CA.

B13. Remarks:

***B14. Evaluator:** Kathy Crawford /Michael Brandman Associates Bishop Ranch 3, 2633 Camino Ramon, San Ramon, CA 94583

***Date of Evaluation:** 12/15/2011

EVALUATION OF ATCT

To be considered eligible for the CRHR, a property must meet the eligibility criteria set forth in the CEQA Guidelines. This involves examining the property's age, integrity, and historic significance. In particular, the evaluation includes a review of whether the property is old enough to be considered historic (generally at least 45 years old) and significant. In addition, it requires evaluating the property to determine if it is associated with events, activities, or developments that were important in the past; with lives of people who were important in the past; with significant architectural history, landscape, or engineering achievements; or whether it has the potential to yield information through archaeological investigations about our past. A detailed discussion of each criterion is presented below.

Criterion 1 – The ATCT is associated with events that have made a significant contribution to the broad patterns of our history.

The ATCT was evaluated for its potential significance as part of a historic trend that may have made a significant contribution to the broad patterns of the nation's history. In particular, OAK played a significant role in the development of the Port and national aviation. The airport was first constructed in 1927 and was considered one of the most modern airports in the country in its early years. Many aviation systems and technologies were initially developed in Oakland, such as the "Model Airline," the nation's first airport hotel, and pioneering navigation and radio aids. Not only did commercial airlines serve Oakland with early transcontinental and north-south routes, but the airport operated as the western headquarters for the 1920s-era United States Postal Service. Numerous historic flights across the Pacific left from OAK (History of Oakland International Airport). During World War II, OAK became a major marshaling facility for the dispatch of military aircraft to the Pacific war theater and included both U.S. Navy and Army Air Corps units. Following the end of World War II, the Board recognized a need for expanded cargo and passenger facilities and began plans to construct a new facility south of the former Oakland Municipal Airport. As part of the expansion, facilities included a 10-story ATCT, a new terminal facility, and a 10,000-foot runway designed specifically for jet use. Opened in 1962, Oakland's first jet-age airline terminal, Metropolitan Oakland International Airport (now Terminal 1), was marketed as an "airport for the Jet Age." Completion of the new Metropolitan Oakland International Airport marked a major transition point in aviation from propeller driven planes to jet propelled planes. TWA was the first jetliner service at the new airport. However, in 1965, when PSA and Western Airlines introduced low-fare commuter flights, a new type of air travel was popularized.

The ATCT appears eligible for listing on the CRHR under Criterion 1: Events, as the ATCT, an integral part of Terminal 1 development, reflects national trends in aviation developments, jet commercial travel, and the growth of the national airline industry over the last 50 years.

Criterion 2 – The ATCT is not associated with the lives of persons significant in our past.

The ATCT does not appear to be eligible for listing on the CRHR under Criterion 2. Historical research failed to identify any important owners, tenants, and/or occupants associated with the structure from which to derive historical significance.

Therefore, the ATCT does not appear to meet the eligibility criterion for listing on the CRHR under Criterion 2: Persons.

Criterion 3 – The ATCT embodies distinctive characteristics of the early "jet age" airports.

The ATCT was evaluated under Criterion 3: Design/Construction, for embodying the distinctive characteristics of a type, period, or method of construction; or representing the work of a master or possessing high artistic values.

Embodying the Distinctive Characteristics of a Type, Period, or Method of Construction

The development of airport design concepts and the accompanying design requirements for airports, terminals, and towers were reflective of the era in which the structures were constructed. With each decade from the 1920s to the present, different technological needs and design considerations dictated the architectural concepts embodied in the actual structures. Towers serve a dual purpose: they control the safe arrival and departure of the passengers and planes, and they express symbolism and reflect the civic pride of the city housing the airport. Many cities during the 1960s hired prominent, nationally or internationally known architects to design an airport that would not only meet the technological needs of the aviation industry and the FAA but that was also aesthetically reflective of the region's civic values. Architects exercised considerable freedom in their design expression and in the 1960s, created airports that expressed all the soaring possibilities of the jet age. They used Modern-era design concepts to explore the themes of flight and all its associated contexts. The ATCT is a classic example of 1960s-era Modern Expressionism design concepts that embraced the current trends in jet travel, the technological requirements of the new age of jet aviation, and the Port's desire for an airport that expressed its concept of civic pride.

Towers are usually one of the most visible elements of any airport, rising high above the other buildings and serving as a distinctive element of the City's landscape. The ATCT was constructed during a critical transition period when the nation's airports were shifting from the old-style airports—which applied train and marine travel concepts to airport operations and to the luxury traveler—to the jet age and huge, commercial passenger loads. The expansion of airports in the late 1950s and early 1960s to handle jet aircraft and their specific requirements resulted in the development of higher towers with more visibility across a wider expanse of runways and operations buildings. In 1966, the FAA established a prototype for air traffic control towers and chose internationally famed architect, I. M. Pei, to design stand-alone towers physically separated from other terminal buildings. Prior to the prototype, towers were typically incorporated into the terminal structure, as is the case with the ATCT. The ATCT incorporates older concepts while embracing the new technological and spatial requirements, resulting in a structure that bridges the earlier periods and the new jet age.

Towers have very specific design requirements in terms of height, spatial concepts, window and viewshed issues, lighting issues, and siting within the airport complex of runways, buildings, storage, and passenger areas. These requirements change with each decade and the design of the towers reflects the technological developments of a particular era. The design of the towers usually reflects the technological changes in aircraft and traffic patterns as the view of the aircraft movement operations is critical. The window design, lighting elements, and siting of the ACTC in a central location, along with the hexagonal-shape are an example of the changing design trends of the 1960s and the arrival of jets on the runways of America. The design of the interior also incorporates the 1960s tracking technology available to the controllers for use in managing aircraft traffic flow and ground operations. The interior design components were shaped by the spatial needs of the 1960s-era radar equipment and other aspects of the equipment necessary to handle the aircraft traffic.

The ATCT was constructed with materials that were popular in the post-World War II period of American architecture. Concrete, glass walls, and aluminum framing were beginning to be used extensively to express the aesthetic possibilities of these twentieth-century materials. The use of these materials allowed architects to explore varied design concepts by incorporating these elements in new ways that provided a combination of strength and beauty, durability, and flexibility.

The ATCT embodies the distinctive characteristics of a type, period, and method of tower construction in the early 1960s and is considered eligible under Criterion 3: Design/Construction.

Master Architect

The ATCT was designed by noted San Francisco Bay area architect, John Carl Warnecke, FAIA, who is considered a leading master architect of the twentieth century. Warnecke created one of the largest architectural firms in the history of the United States and was responsible for the design of many civic complexes, including airports. An architect trained in and influenced by Bauhaus Modernism, he was one of the pioneers of the architectural concepts of Contextualism and Regionalism, which seek to balance the building designs with the physical, historical, and cultural setting of the location. ATCT was designed during the most formative and successful years of his distinguished career. He applied Modernism in the

design of the ATCT to include aesthetic variations of concrete, glass walls, and aluminum framing. Therefore, the ATCT appears to be eligible for listing under CRHR Criterion 3: Design/Construction as a structure that represents the work of a Master Architect.

Possessing High Artistic Values

During the twentieth century, Modern architectural design concepts were explored by a wide range of architects, and these trends can be seen in the evolving designs of airports. The airports of the 1920s were literally placed in fields outside of cities to give the pilots ample room to maneuver and deal with the potential instability of early aircraft. The buildings constructed were functional but not aesthetic, designed for ease of operation. Engineers, not architects, designed the early buildings, as they were considered to be technical challenges rather than sites of beauty. As

airports evolved and embraced more activities and passengers and requirements changed, architects became involved in the actual design of the buildings. In each decade, architects used the popular and prevalent design concepts to create airports that expressed regional and cultural trends, the desire to design a civic symbol of progress and pride, and the ever-evolving technological challenges required to operate the airport safely and efficiently.

The development of 1960s commercial jet travel coincided with changes in architecture as many American and European architects used the varied Modern design concepts of Contextualism, Internationalism, Expressionism, Brutalism and other design styles to explore the new technology requirements and the soaring possibilities of the jet age. Their designs expressed the seemingly limitless potential that the jet age brought to the world and brought the highest concepts of art and design to solving the technological and engineering challenges of 1960s airport design.

The ATCT is reflective of these design concepts and the combined social, technological, civic, and engineering issues of the jet age era. The building articulates a particular concept of Modern Expressionism design to the extent that an aesthetic ideal is expressed. The original design concepts have allowed the ATCT to serve as an example of the Modern Expressionism style of architecture. Because of its circa-1962 Modern Expressionism style, the ATCT appears to qualify under CRHR Criterion 3: Design/Construction as a structure that possesses high artistic value.

Criterion 4 – The ATCT does not appear to yield information important in prehistory or history.

The ATCT does not appear to be eligible for listing on the CRHR under Criterion 4, because there appears to be no potential that the ATCT would provide additional information important to prehistoric events or resources.

An Evaluation of the Integrity of ATCT

To determine the significance of a property under state and federal criteria, it is necessary to assess whether the property has integrity. Integrity is the ability of a property to convey and maintain its significance. A property must not only be shown to be significant under the established criteria, it must also have integrity. In order to retain historic integrity, a property must possess several, and usually most, of the seven key aspects of integrity: location, design, setting, materials, workmanship, feeling, and association.

Location

Location refers to the place where the historic property was constructed or the place where the historic event occurred. ATCT has remained in its original location since the 1962 construction date. Therefore, ATCT retains its location element.

Design

Design refers to the combination of elements that create the form, plan, space, structure, and style of a property. Therefore, the ATCT generally retains its exterior design elements.

Setting

Setting refers to the physical environment of a historic property. Although there have been changes to the setting with the inclusion of Terminal Two, crosswalk canopies, the entrance road, and landscape changes, the overall setting of ATCT has been retained. Therefore, ATCT has generally retained its setting element for integrity purposes.

Materials

Materials refers to the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property. ATCT does not contain any unusual materials used in its construction. The materials used have been identified as average types of concrete, glass, and steel construction elements. Therefore, ATCT retains its materials element for integrity purposes.

Workmanship

Workmanship refers to the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory. The workmanship demonstrated in the construction of ATCT is apparent from the materials analysis. The level of workmanship is of average quality. ATCT retains its integrity of workmanship.

Feeling

Feeling refers to a property's expression of the aesthetic or historic sense of a particular period of time. The ATCT has remained in its original location since it was constructed, and the structure conveys a sense of the period during which it was constructed. ATCT has retained its feeling element for integrity purposes.

Association

Association refers to the direct link between an important historic event or person and a historic property. ATCT has been determined to have been directly linked to a historically significant event (Criterion 1: Event) as an example of the development of jet commercial travel and 20th-century U.S. aviation history. ATCT has an associative element for integrity purposes.

Based on the current evaluation of the ATCT, the facility appears eligible for listing on the CRHR under Criterion 1: Events, and Criterion 3: Design/Construction. In addition, ATCT has generally retained all seven aspects of integrity, allowing the ATCT to convey and maintain its significance as a historic resource.

Appendix D:
Personnel Qualifications

CORPORATE RESUME

Carrie D. Wills, RPA, M.A.

Senior Project Archaeologist

Overview

- 20+ Years Experience
- Master's degree, Anthropology – California State University, Hayward
- Bachelor's degree, Anthropology – California State University, Hayward
- Registered Professional Archaeologist #11138

Carrie D. Wills, RPA, MA, has worked in the areas of prehistoric and historic archaeology on tasks that included pre-field assessments, archival research, pedestrian field surveys, site evaluation and testing, and data recovery and analysis since 1991. She has extensive experience conducting field research, evaluating sites and features for historic significance and preparing reports that comply with the California Environmental Quality Act, Section 106 of the National Historic Preservation Act, and the National Environmental Policy Act. Her experience includes evaluating and assessing historic structures and resources for inclusion on the National Register of Historic Places and California Register of Historical Resources. In addition, Ms. Wills has conducted numerous consultations with Native American tribal representatives and has good working relationships with numerous governmental agencies. She has provided feasible mitigation that protects significant resources while staying within budgetary constraints.

Ms. Wills has been fortunate enough to work in various parts of the world on fascinating projects. She worked in caves in Belize to determine the distances the ancient Mayans were able to travel into the caves and for what purpose(s). She worked in conjunction with Yale University at Machu Picchu in Peru photographing the ruins for a computer-generated, hands on visual presentation that traveled throughout the United States. She worked with David Hurst Thomas, curator of North American Archaeology at the American Museum of Natural History in New York City, conducting excavations at Mission San Marcos, outside Santa Fe, New Mexico. In addition, she has extended her growth in the field of archaeology by assisting a local underwater archaeologist with archival research that led to the discovery and salvage of the sunken 1852 ship the Rome within the streets of downtown San Francisco.

Related Experience

Historic American Buildings Survey Documentation – Larkspur 16.8-Acre Project, City of Larkspur, Marin County. Serving as project archaeologist, conducted a field survey, records and map review, and historic building evaluation for more than 20 buildings and structures associated with the circa 1920–1980 Niven Nursery in the City of Larkspur. The existing buildings and greenhouses that retained their historic integrity were evaluated for historic significance, recorded on appropriate Department of Parks and Recreation (DPR) forms, and documented to Historic American Building Survey (HABS) standards. Additionally, two prehistoric sites were previously recorded and archaeologically tested within the project area, and although neither of the sites was found during the pedestrian survey, to ensure site protection, construction monitoring was recommended during all ground-disturbing activities in these areas.

Section 106 Cultural Resources Assessment – DSRSD Central Dublin Recycled Water Distribution and Retrofit Project, City of Dublin, Alameda County, California. As project archaeologist/manager, conducted a cultural resource investigation that included record search reviews, historic map reviews, and a limited field survey of the proposed Central Dublin Recycled Water Distribution and Retrofit Project Area of Potential Effect (APE) that fulfilled the protocols associated with Section 106 of NHPA. The results of the

investigation were submitted to archaeological staff at the Bureau of Reclamation and received concurrence with MBA's findings of effect.

Lake Solano Regional Park Visitor's Center Project, County of Solano. As project archaeologist, Ms. Wills conducted a cultural resource investigation that included record search reviews and a pedestrian field survey. As the project had a federal nexus, the work included a comprehensive report that met the criteria in Section 106 of the National Historic Preservation Act. The lead agency was the Bureau of Reclamation which has specific procedures that must be followed when unanticipated human remains or cultural resources are discovered. In addition to complying with the Bureau of Reclamation procedures, the results of the research and field survey were submitted to the State Historic Preservation Officer (SHPO) for concurrence with the stated recommendations.

KB Home Monte Vista, Historic American Buildings Survey, City of San Jose. Served as project manager for the KB Home Monte Vista Project. Conducted Historic American Buildings Survey Level III documentation for a large multi-structure canning facility, Del Monte Plant #3, in San Jose. Tasks included producing over 200 large-format, black and white photographs of exterior and interior views of the existing structures. The MBA historic report augments the photographic documentation by placing the structures within the appropriate historic context and addressing both the architectural and historical aspects of the site's significance. Specifically, the historical report focused on the Plant's contribution to the growth of the canning industry in San José. The plant was also assessed for historic significance and found to meet the criteria for listing on the National Register of Historic Places as a District along with two other local Del Monte canneries. MBA coordinated with state, federal, and city agencies including, but not limited to, City of San Jose Department of Planning and the National Park Service HABS/Historic American Engineering Record coordinator.

Section 106 Cultural Resources Assessment/HABS Documentation – St. Regis Napa Valley Project, City of Napa, Napa County. Served as the lead technical consultant for a historical and architectural analysis of a historic structure in the County of Napa. Also served as the project archaeologist. Following the evaluation of the historic significance of the building and recording it to HABS standards, the results were sent to SHPO and received concurrence with MBA's findings of no effect to historic resources.

Section 106 Evaluation – Dixon Veterans Memorial Hall Project and the Benicia Veterans Memorial Hall Project, County of Solano. Served as the lead technical consultant for a historical and architectural analysis of two historic structures in the County of Solano. After evaluating and recording the buildings to Section 106 standards, the results were sent to SHPO and received concurrence with MBA's findings of no effect to historic resources.

Section 106 Evaluation – Solano County Free Library Center Project, County of Solano. Served as the lead technical consultant for a historical and architectural analysis of an historic structure in the County of Solano. Also served as the senior project archaeologist. After evaluating and recording the building to Section 106 standards, the results were sent to SHPO and received concurrence with MBA's findings of no effect to historic resources.

Section 106 Evaluation – Suisun Veterans Memorial Building Project, Suisun City. Served as the lead technical consultant for a historical and architectural analysis of an older structure in the City of Suisun City. After evaluating and recording the building to Section 106 standards, the results were sent to SHPO and received concurrence with MBA's findings of no effect to historic resources.

Cultural Resources Assessment – Zone 3A, Line D Capacity Improvements Project and Zone 5, Line A West Levee Improvements Projects, County of Alameda. Served as project manager and senior archaeologist, conducting a cultural resource assessment for the Zone 3A Line D Capacity Improvements Project, Hayward, and the Zone 5 Line A West Levee Improvements Project, Union City. The assessment consisted of record

searches,,review of historic literature, and more than 20 historic aerials to provide an understanding of development within the project areas and a historical context for the projects.

Off-road Vehicle Park, City of Bakersfield. As senior project archaeologist, conducted an intensive field survey of 2,500 acres outside the City of Bakersfield. The project area included rolling hills, large flat valleys, and steep ravines. The survey resulted in discovery of over 150 prehistoric resources including bedrock mortars, grinding slicks, and rock art. The resources were recorded and evaluated for eligibility for listing on the National Register of Historic Places and the California Register of Historical Resources. Following the evaluation, a comprehensive report detailing the findings was produced.

Bel Lago Project, City of Moreno Valley. As senior project archaeologist, conducted a site specific field assessment of the Kerr Ranch and recorded 23 extant buildings and structures on Department of Parks and Recreation forms; both Primary and Building, Structure and Object forms. Detailed descriptions and measurements were taken as part of the assessment process and each building and structure was evaluated individually for listing to the California Register of Historical Places or local registers or landmarks.

Westlake Shopping Center, City of Daly City. As senior project archaeologist for this major refurbishing effort for a shopping center located in Daly City, assessed the shopping center for historic significance under CEQA Section 150.64 by reviewing historic maps, photos, and record and archival search results obtained from the Northwest Information Center and the Daly City Planning Department. Scope included conducting a visual appraisal of the existing buildings, structures, and signage.

San Demas Project, City of Sacramento. As senior project archaeologist, conducted a record search and field investigation for a built environment covering one city block in downtown Sacramento. As this was a built environment, there was no native ground surface to be surveyed; the investigation consisted of comprehensive research to determine the possibility of historic structures.

Cabrillo Corners Commercial Project, City of Half Moon Bay. As cultural resources specialist, conducted a record search at the Northwest Information Center and a pedestrian field survey of the proposed project area that borders Pilarcitos Creek in Half Moon Bay to determine the presence or absence of cultural resources prior to project development.

Gustine Municipal Airport Project, County of Merced. As senior project archaeologist, conducted a record search and pedestrian field survey of a 45-acre parcel located in Merced County to determine the presence or absence of cultural resources prior to improvements to the Airport.

Scheiber/White Projects, County of El Dorado. As senior project archaeologist, conducted record searches and field investigations for a 226-acre parcel and a 286-acre parcel of undeveloped land and completed Phase I Reports detailing the record search and field survey results.

Protzel Project, County of El Dorado. As senior project archaeologist, conducted a record search and field investigation for a 35-acre parcel of land. The field survey resulted in discovery of a site that contained both prehistoric and historic components located adjacent to one another.

Miller Ranch Property, City of Lincoln. As senior project archaeologist for this 130-acre residential development, reviewed record search results from the North Central Information Center, Sacramento and conducted a pedestrian field survey. A negative survey report was prepared detailing the record search and survey results to meet CEQA requirements.

Fahren's Creek Development Project, County of Merced. As senior project archaeologist, conducted a record search and field investigation on a parcel of undeveloped land, a portion of which was immediately adjacent to Fahren's Creek. A negative survey report was prepared detailing the record search and survey results to meet CEQA requirements.

McBride R.V. and Self Storage Project, City of Chino. As senior project archaeologist, conducted a record search and pedestrian field survey of a 21.15-acre parcel of land to determine the presence or absence of cultural resources prior to project development. Prepared a negative survey report detailing the record search and survey results to meet CEQA requirements.

Brehm Communities, City of Chino. As senior project archaeologist for this 35-acre residential development, conducted a record search at the San Bernardino Archaeological Information Center and a modified field survey. Performed a visual assessment from various vantage points rather than a typical pedestrian survey and prepared a negative survey report detailing the record search and survey results to meet CEQA requirements.

Albers Barnes & Kohler LLP's Palm Ranch Dairy Project, County of Kern. As senior project archaeologist, was responsible for CEQA compliance issues related to cultural resources on a 120-acre parcel. Conducted a Phase I survey to determine the presence or absence of cultural resources within the project area, resulting in the discovery of artifactual material on the ground surface. Conducted a Phase II testing program to determine the presence or absence of subsurface cultural resources, resulting in inconclusive findings. Provided mitigation measures to protect any previously undiscovered resources during project excavation activities.

Albers Barnes & Kohler LLP's Bonanza Farm Dairy Project, County of Kern. As cultural resources specialist, conducted a record search and pedestrian field survey of two 200-acre parcels to determine the presence or absence of cultural resources prior to project development. Prepared a negative survey report detailing the record search and survey results to meet CEQA requirements.

Montezuma Wetlands Project, County of Solano. Served as project manager for Solano County's Montezuma Wetlands Project. Provided technical direction of a 4,700-acre archeological survey in Solano County, resulting in recording and subsurface testing of 12 sites. Co-authored the technical report that included extensive impacts and mitigation measures.

Arizona Pipeline Reconditioning Project, Phoenix and Tucson, Arizona. Project manager for a 45 mile pipeline replacement project located along an existing pipeline route in southern Arizona. Project tasks included archival and record searches, pedestrian field survey and a comprehensive report detailing the findings. Various types of historic resources were recorded during the course of the field survey and recommendations were provided as part of a larger environmental studies report produced for the project.

Costco's Warehouse Project, City of San Francisco. Served as project manager for Costco's Warehouse Project. Surveyed, excavated, and monitored the proposed site, located in downtown San Francisco, for a new Costco store. Supervised lab procedures and analysis of over 1,400 artifacts.

Mills Associates' Tassajara Valley Project, County of Solano. As project manager, provided technical direction of a 2,500-acre archeological survey that resulted in recording and subsurface testing of 14 historic and one prehistoric archeological site. Analyzed artifacts and prepared technical reports.

Future Urban Areas, Mundie and Associates, County of Contra Costa. As field director, conducted a 4,500-acre archeological survey that resulted in recording of 11 historic archeological sites, including the previously unrecorded historic town sites of West Hartley, Empire, and Star Mine associated with the Mount Diablo coalfield developments of 1850-1885. Recorded features including foundations, privies, cisterns, basements,

and dumps. Hundreds of surface artifacts were examined. Also directed artifact analysis and prepared technical reports.

Military Projects

Cultural Resources Overview Project, Concord Naval Weapons Station. Served as project manager for the Cultural Resource Overview Project at Concord Naval Weapons Station. Tasks included review of archival records and record search results for previously recorded sites within the Station. In addition, more than 500 World War II buildings and structures were evaluated for National Register of Historical Places eligibility and documented on appropriate Department of Parks and Recreation forms. An archaeological site prediction model was developed to determine the likelihood of the presence of cultural resources within specific areas of the Station. An extensive context document was prepared to facilitate a comprehensive understanding of the Naval Weapons Station in terms of its historic presence within Contra Costa County and the City of Concord. Following assessment of the Station and its historic components, a Cultural Resource Overview Report for the 13,000-acre facility was developed.

NAVFAC Centerville Beach and Point Sur Projects, Counties of Humboldt and Monterey. Served as project archaeologist with responsibilities including a review of archival and site records prior to pedestrian field surveys at each of the locations. Following the surveys, documentation on Department of Parks and Recreation forms was prepared for each of the World War II buildings/structures located within the Station boundaries. Subsequent efforts included development and submittal of a historic context report and structural assessments of the buildings to determine National Register of Historic Places eligibility status. Prepared a preliminary Historic and Archeological Resource Protection Plan evaluating known archeological site locations and preparing maps depicting areas of archaeological sensitivity.

Civil Engineering Laboratory Archaeological and Historic Resources Assessment Project, Port Hueneme. Served as project archaeologist for the CBC Port Hueneme Naval Civil Engineering Laboratory, Archaeological and Historic Resources Assessment Project. The cultural resource evaluation included review of archival records and historic Port Hueneme documents at the base, review of previously recorded sites records from the South Central Coastal Information Center, CSU, Fullerton, and research at Ventura Historical Society. Architectural documentation was prepared for nine World War II buildings on appropriate Department of Parks and Recreation forms and a single prehistoric site located within the base was assessed. A historic context report was developed and each of the buildings/structures was individually evaluated for National Register of Historic Places eligibility. Following assessment and documentation, an EIR/EIS technical report including a detailed historic setting, an overview of each of the types of buildings within the project area, an impacts assessment section, and appropriate mitigation for the impacts was prepared.

Navy Construction Battalion Center Historic and Archaeological Resources Protection Plan Project, Port Hueneme. Served as project manager/archaeologist for the Port Hueneme Navy Construction Battalion Center Overview; Historic and Archaeological Resources Protection Plan Project. The project tasks included archival research of Battalion Center documents a record search review at the South Central Coastal Information Center, CSU, Fullerton, and a pedestrian field survey. Subsequent to the archival research, architectural documentation of 130 World War II buildings/structures was completed on appropriate Department of Parks and Recreation (DPR) forms. The forms typically included DPR Primary forms for each building or structure although in some instances, e.g., for large non-descript warehouse structures, a representative building was documented and identical buildings were listed on the form as having identical attributes. In addition to the Primary forms, a Building, Structure, Object (BSO) form providing additional descriptive and evaluative information was completed when appropriate. Following the archival research for previously recorded cultural resource sites and the field survey, an archaeological site prediction model was developed for the Battalion Center. Following documentation, a historic context for the Battalion Center was prepared. In addition, each

building was assessed for National Register of Historic Places (NRHP) eligibility and a Historic and Archaeological Resources Protection (HARP) Plan was prepared.

H Street Extension Project, Lockheed Missiles and Space Company Property. The project consisted of an extension of H Street within the western portion of the Lockheed Missiles and Space Company facilities. Archaeological efforts were part of mitigation for construction within a National Register listed prehistoric shell mound. As project archaeologist, the work included pre-construction site testing using various means including shovel and backhoe investigations, surface collection for the entire project area, and a Phase III data recovery program in coordination with the Most Likely Descendant (MLD). Disposition of human remains found within the site was decided upon an agreement with the MLD. A construction-monitoring program was conducted during initial grading activities at the site to ensure protection of previously unknown cultural resources and/or additional human remains.

Naval Fuel Depot Point Molate Historic Resources Assessment Project, City of Rohnert Park. As project manager, conducted an archival records review at various repositories as well as a record search at the Northwest Information Center in Rohnert Park for previously recorded cultural resource sites. Conducted a field survey and general site reconnaissance of the project area. Subsequent to the archival research and survey, documentation of ten World War II buildings/structures was completed on appropriate Department of Parks and Recreation forms. The buildings and structures were evaluated for eligibility for listing on the National Register of Historic Places. In addition, one prehistoric archaeological site was assessed within the project area. A preliminary Historic and Archeological Resource Protection Plan was prepared evaluating known archeological site locations with maps depicting areas of archaeological sensitivity. A historic context was prepared for the project area and a technical report detailing all of the research, field survey, building and structure evaluations, and the assessment of the prehistoric site was provided to the client.

Energy, Utilities & Pipelines

Santa Cruz Water District's Pipeline Project, County of Santa Cruz. Served as resource team leader for this project that proposed modifications to the current operation and maintenance of an existing pipeline through implementation of the Santa Cruz North Coast Pipeline Rehabilitation Project. Reviewed compliance issues related to cultural resources found along four major waterways in Santa Cruz County and prepared a CEQA Initial Study to determine environmental impact associated with project implementation. Also provided necessary details to aid in the decision-making process for the project's next phase.

Federal Energy Regulatory Commission (FERC) Relicensing Project, County of Kern. As resource team leader, reviewed cultural resources to meet the requirements of Section 106 of the National Historic Preservation Act in preparation of a new FERC license application. Directed the Section 106 review and prepared the preliminary draft of the license application, evaluated project impacts, and authored the Historic Properties Management Plan and a Programmatic Agreement.

Federal Energy Regulatory Commission (FERC) Relicensing Project, Kilarc-Cow Creek. As resource team leader, provided NHPA Section 106 compliance review in preparation of a new FERC license application. Following the survey effort, prepared the preliminary draft of the license application, evaluated the project impacts, prepared a comprehensive report, and finalized the Historic Properties Management Plan and a Programmatic Agreement.

Calypso Project Environmental Impact Statement, Fort Lauderdale, Florida. Served as resource team leader for Tractebel North America, Inc.'s Calypso Project Environmental Impact Statement (EIS) for a new natural gas pipeline extending from the Exclusive Economic Zone in the Atlantic Ocean to Port Everglades. Conducted the

NHPA Section 106 review of both offshore and onshore cultural resources and prepared the preliminary drafts of the third-party EIS for the jurisdictional portion of the pipeline.

Rock Creek Hydroelectric Project, Oregon. Served as project archaeologist for Oregon Trail Electric Consumer Cooperative's Rock Creek Hydroelectric Project. Conducted a reconnaissance survey and evaluation of archaeological and historic resources to meet the requirements of NHPA Section 106.

Patriot Natural Gas Pipeline Project, Tennessee, Virginia, and North Carolina. Served as resource team leader for a project consisting of the Mainline Expansion and Patriot Extension three states. The Mainline Expansion involved improvement along East Tennessee Natural Gas Company's existing pipeline in Tennessee and Virginia, including approximately 187 miles of new pipeline, replacement of old pipeline, additional compression at existing facilities, and five new compressor stations. The Patriot Extension involves approximately 100 miles of new pipeline in Virginia and North Carolina, including three new meter stations. Provided third-party review of cultural resources reports and prepared third-party EIS.

Northwest Transmission Line Project, Oregon and Washington. Served as project archaeologist for Wallula Generation, LLC's Northwest Transmission Line Project. Conducted a 28-mile reconnaissance survey in Oregon and Washington along the Columbia River, evaluated and recorded archaeological sites, and completed appropriate forms for submittal to Washington

El Paso Energy's and Broadwing Communications' Fiber Optic Line, Texas and California. Served as resource team leader for a proposed fiber-optic transmission line reaching from El Paso, Texas, to Los Angeles, California. Prepared a Proponent's Environmental Assessment demonstrating CEQA compliance that was submitted with an application to the California Public Utilities Commission.

Fiber Optic Project, Cities of San Jose, San Francisco, and Los Angeles. Served as project manager for a Level Three Communications Fiber Optic Project. Conducted cultural resources studies and supervised construction monitoring to address CPUC mitigation measures during the "city build" portions of the project in San Jose, San Francisco, and the Los Angeles Basin. Prepared workbooks for each construction spread in each city to address potential cultural resources impacts and necessary mitigation required to preclude significant impacts.

Fiber Network Project, Northern and Southern California. Served as project manager for 360 Networks' Fiber Network Project. Responsible for all aspects of project management for this linear project spanning the length of California, including coordination, budget, consultation, and compliance issues.

Santa Fe Pacific Pipeline, State of California. As field supervisor for Santa Fe Pacific Pipeline's Concord-to-Colton Project, performed records search and intensive archaeological survey of a corridor stretching from Fresno, through Bakersfield and Mojave, to San Bernardino. Recorded and evaluated for eligibility for listing on National Register of Historic Places more than 150 historic properties.

CPUC Alturas Transmission Line Project, California and Nevada. As archaeological monitor, documented compliance with mandated mitigation measures during the construction of this high-voltage power line reaching from Alturas, California, to Reno, Nevada.

Mine Reclamation Plans and Environmental Analysis

Abandoned Mine Inventory Project, Washington Bureau of Land Management. As project manager, managed a five-person survey crew who conducted an intensive archaeological survey of 1,700 acres of difficult terrain and conditions in the City of Spokane. Recorded over 100 mining features and archaeological

properties on appropriate State of Washington forms and prepared Determination of Eligibility forms for submittal to Washington's State Historic Preservation Officer.

Black Diamond Mine Project, Merced County. As project archaeologist, conducted record search and pedestrian field survey for approximately 29 acres of a 136 acre parcel of land in Merced County. During the field survey, a cemetery with headstones dating back to the mid-1800s was discovered. Although the cemetery had a fence completely around it, it is often the case with cemeteries of this age that burials are located outside the defined cemetery area. Thus, archival research was conducted to determine the actual age and the size of the cemetery as it grew over the years. Recommendations for procedures to be followed if the proposed project moved forward were presented to the County of Merced in the form of an Initial Study report.

KRC Aggregates Quarry Expansion Project, San Joaquin County. As project archaeologist, conducted record searches and a pedestrian field survey for approximately 340 acres that would be utilized for aggregate resource extraction. Approved mine land reclamation in accordance with the California Surface Mining and Reclamation Act would begin immediately following the completion of aggregate extraction. The field survey resulted in recordation of 4 historic resources and the preparation of a comprehensive report meeting the requirements of Section 106 of the National Historic Preservation Act and the California Environmental Quality Act.

Valley Rock Quarry Project, San Joaquin County. As project archaeologist, conducted record searches and a pedestrian field survey of approximately 315 acres in San Joaquin County. Although no resources were recorded for this project, a small prehistoric site had been previously recorded near the project's southern border. As the boundaries for this prehistoric site were rather vague, the field survey transects were narrowed to 3 meters in the southern boundary area to determine the presence or absence of the site within the project area. No evidence of the prehistoric site was found. The findings of the record searches, the field survey, and the search for the prehistoric site were detailed in an Initial Study report and presented to San Joaquin County.

Environmental Impact Reports for General Plan Updates

General Plan Update, County of Monterey. As senior project archaeologist, assisted in updating the General Plan with new policies including archaeological, historical, and paleontological resources. Tasks included a review of existing policies and suggestions for alternatives and updates relevant to current trends. Worked closely with Monterey County staff, agency personnel, and sub-consultants to ensure a high quality, timely Plan Update.

Trails Specific Plan Project, City of Livermore. As senior project archaeologist, conducted archival and record searches, including review of the 2000 North Livermore Specific Plan Draft Environmental Impact Report and the 2003 City of Livermore General Plan Update Master Environmental Assessment that specifically focuses on cultural resources within the proposed project area. Conducted a 235-acre pedestrian survey to determine the significance of previously recorded cultural resources and the presence or absence of previously unknown cultural resources, resulting in the recording of five historic resources using California Department of Parks and Recreation forms with context analysis and detailed maps. Prepared a comprehensive report including a detailed setting section with impacts and mitigation measures to ensure protection of significant cultural resources.

Educational Facility Environmental Analysis

Delta View and Kit Carson Schools Project, Kings County Office of Education. As senior project archaeologist, conducted archaeological and historical resource assessment at two proposed telecommunication tower sites located at two school sites. Conducted a record search at the Southern San Joaquin Valley Information Center and pedestrian surveys at both schools to determine the presence or

absence of cultural resources. Determined negative survey results, and prepared a report detailing the record search and survey results that was presented to the Kings County Office of Education.

High Desert Power Plant Project, County of San Bernardino. As project manager, conducted an approximately 2,000-acre field inventory of block and linear project areas located near the City of Victorville. Recorded and evaluated more than 30 historic and prehistoric sites.

Maya Caves Project, Punta Gorda, Belize, Central America. As excavation team member, worked two field seasons examining prehistoric cave deposits. Conducted surveys and excavations, analyzed and cataloged artifacts, and prepared technical report sections.

Professional Affiliations

- Society for Historical Archaeology
- Society for California Archaeology
- Register of Professional Archaeologists #11138

CORPORATE RESUME

Angela C. McIntire, JD

Environmental Analyst

Overview

- 8 Years of Experience
- Juris Doctorate, Environmental and Land Use Law – Gonzaga University School of Law, Spokane, WA
- Bachelor's degree, Environmental Policy Analysis and Planning– University of California, Davis, CA
- Certified in Hazardous Materials Training (HAZWOPER)

Angela McIntire brings significant experience performing legal research pertaining to environmental law, water, and land use. She has drafted numerous legal memoranda, pleadings and briefs regarding the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA), the Federal Clean Water Act, California Marine Life Protection Act, and the Federal Highway Administration Section 4(f). Angela is also experienced in the preparation and review of environmental documents, the implementation of environmental mitigation and compliance programs, and has developed public involvement programs. In particular, her environmental document experience includes the preparation of Environmental Impact Reports, Mitigated Negative Declarations, and due diligence reports. She is also proficient in U.S. Army Corps of Engineers Wetland Delineation standards and protocols; Clean Water Act sections 404, 401, and 402; the Porter Cologne Water Quality Act; Fish and Game Lake and Streambed Alteration; and has significant background in environmental justice, especially tribal water policy as it relates to the California Bay Delta Authority.

Angela obtained a Juris Doctorate with an emphasis in Environmental and Land Use Law from Gonzaga University School of Law and also holds a Bachelor's degree in Environmental Policy Analysis and Planning from the University of California, Davis. She is an active member of the California State Bar Association and Sacramento County Bar Association's Environmental, Land Use, and Natural Resources Law Sections.

Related Experience

Cultural Experience

Historical American Buildings Survey, City of Larkspur, CA. Served as project manager for the Historic American Buildings Survey Documentation of the former Niven Nursery in Larkspur, CA. Ms. McIntire coordinated with the City of Larkspur Planning Department in assuring that Cultural CEQA Conditions of Approval for development of the site were satisfied. Work included a field survey, records and map review, and a historic building evaluation for more than 20 buildings and structures associated with the circa 1920–1980 Niven Nursery in the City of Larkspur. The existing buildings and greenhouses that retained their historic integrity were evaluated for historic significance, recorded on appropriate Department of Parks and Recreation (DPR) forms, and documented to Historic American Building Survey (HABS) standards. Additionally, two prehistoric sites were previously recorded and archaeologically tested within the project area, and although neither of the sites was found during the pedestrian survey, to ensure site protection, construction monitoring was recommended during all ground-disturbing activities in these areas.

Airports & Aviation

Cameron Park Airport Master Plan, Cameron Park, CA. Provided strategic planning services to the Cameron Park Airport District in updating the master plan to enhance the airport land use and environmental relationships. The update includes the development of additional hangar space, office space, commercial services, as well as runway and taxiway improvements.

Alpine County Airport Layout Plan, Alpine County, CA. Prepared the Airport Layout Plan for the Alpine County Airport located near Markleeville, California. The airport layout plan was prepared to support the maintenance

work required for airport safety purposes and to maintain the required permits from the CDOT, Division of Aeronautics.

Biological Assessments/Regulatory Experience

Environmental Due Diligence, City of Larkspur, CA. Served as project manager and regulatory analyst for the land use development project at the former site of the Niven Nursery, in Larkspur, CA. Work involved Biological and Cultural regulatory compliance as a part of satisfying the conditions of approval outlined by the City of Larkspur during CEQA documentation. Ms. McIntire assisted in the securing of regulatory permits (404, 401 Water Quality Certification, 1602 Streambed Alteration Agreement, and 106 compliance), in preparing Historic American Building Survey (HABS) documentation, with preconstruction biological surveys, and with ongoing coordination with the project development team.

Sawmill 1A Botanical Survey, City of Tahoe, NV. Served as part of the botanical monitoring team that surveyed the project during construction for its effects on identified wetlands, waters of the US, stream environment zones, wildlife, and vegetation. This project was part of the Tahoe Regional Planning Agency's Environmental Improvement Program (EIP).

Cosgrove Creek Nationwide 404 Permitting, County of Calaveras, CA. Acted as the project manager and environmental scientist for the project, which involved assessment of Cosgrove Creek to identify channel maintenance requirements between St. Andrews Road and Silver Rapids Road lying near the La Contenta Golf Course. Assisted the County of Calaveras with the 404 application process and section seven consultation. Of primary importance to this project was the identification of the suitability of the Cosgrove Creek habitat for the California Red-Legged Frog, a federal threatened species and state species of concern as well as the California Tiger Salamander, a federal candidate for listing and state species of concern.

Gilliam Road Nationwide 404 Permitting, County of Calaveras, CA. Served as Environmental Scientist/Project Manager responsible for coordinating with the U.S. Army Corps of Engineers and developing the final Delineation Report and accompanying Data sheets in accordance with the 1997 U.S. Army Corps of Engineers Wetland Delineation manual. The Calaveras County Department of Public Works was required to file a 404 permit with the Army Corp of Engineers (ACOE), for jurisdictional waters that were delineated across Gilliam Road. Worked with the ACOE and the U.S. Fish and Wildlife Service to develop an implementation plan and conservation measures for the project, to insure that the identified California Red-Legged Frog, which was identified adjacent to the Road in Young's Creek, would not be affected by road maintenance activities.

Calaveras County Public Works, Calaveras County, CA. Served as the on-call Environmental Scientist and Project Manager for the Calaveras County Public Works Department, providing environmental services on an as-needed basis. Consulted with the U.S. Army Corps of Engineers regarding Calaveras County public works projects potentially affecting California Red-Legged Frog habitat.

Bakersfield College Northwest Center Biological Assessment, Kern County, CA. Environmental Biologist for the preparation of a biological assessment report for a 225-acre site located at Bakersfield College Northwest Center in Kern County, California.

Twin Oaks Estates Biological Assessment, Sacramento, CA. Environmental Scientist responsible for providing environmental review and biological assessment services required for the approval of subdivision maps of this proposed subdivision in Sacramento, California.

CEQA Experience

Environmental Impact Report/ Environmental Impact Statement (EIR/EIS) for the Hawthorne Mill Project, Fairfield, CA. Regulatory Analyst whom assisted with the preparation of an EIR/EIS and supporting traffic study for the City of Fairfield and the U.S. Army Corps of Engineers (USACE) Hawthorne Mill Project. The project required significant on-going coordination with USACE, Bureau of Reclamation, and the City during the document's preparation. The site is comprised of 411.8 acres in the northwest portion of the City. Two

development sites separated by a habitat conservation area have been created within the project boundaries. The intervening acreage will be occupied by a habitat conservation area totaling 273.4 acres. The area is slated for annexation and development and is the City is preparing the Fairfield Station Area Specific Plan for properties within one-half mile radius around the future Capitol Corridor Train Station. The project is amixed residential and commercial development involving the construction of homes, both single-family and multi-family, and commercial development. Approximately 268 acres will be set aside as a permanent open space preserve.

IS/MND for Foster Farms Expansion, Merced, CA. Environmental Analyst whom assisted with the preparation of an IS/MND for the Foster Farms project which consisted of a conditional use permit to replace 12 existing chicken grow houses with eight new modern grow houses and four accessory buildings at an existing chicken ranch. Significant issues addressed in the MND prepared for the 33.3 acre project site included air quality, greenhouse gas emissions, hydrology and water quality, and hazardous materials. Other issues included analyzing potential impacts to the Swainson's Hawk and burrowing owl as well as preparing recommended conditions for the demolition of the existing structures at the project site.

Environmental Impact Report (EIR) for the Walmart Expansion Project, Los Banos, CA. Environmental Scientist who aided with the preparation with an EIR for the Los Banos Walmar Expansion Project, located in Los Banos, California. The project consisted of two phases. The first phase was to expand the existing Walmart store by 105,487 square feet to 214,995 square feet. As part of the expansion, the store will be upgraded to a Walmart Supercenter. The second phase consisted of the creation of three commercial retail outlets located on the west side of the Walmart site. MBA reviewed the project site and determined the issues and concerns that were identified and analyzed for the report.

Environmental Impact Report (EIR) for Turkey Creek Estates, Placer County, CA. Environmental Analyst, who aided in the preparation of an EIR for the project applicant, who was requesting approval of a General Plan Amendment, Rezone, Conditional Use Permit, and Tentative Subdivision Map from Placer County to develop a low-density residential subdivision consisting of 393 single-family residential lots in three villages on 248 acres of land. The project also proposed a General Plan Amendment and Rezone for a 79-acre portion of the existing Turkey Creek Golf Course.

Initial Study (IS) 25 Park Place, Fresno, CA. Served as an Environmental Analyst for an initial study for a proposed project consisting of approximately 234,723 square feet of commercial space. A master application for a Site Plan Review Amendment and Conditional Permit has been submitted. The proposed site plan review would modify the original design from a five-building configuration to a three-building configuration. The property is located within the planned midrise corridor area of the Fresno 2025 General Plan.

Fresno North Walmart Expansion, Fresno, CA. Regulatory Analyst responsible for completing the Biology section for an EIR that evaluates the proposed expansion of an existing Walmart store in the City of Fresno. The existing 199,000 square-foot Walmart would be expanded by approximately 32,000 square feet. The primary departments to be expanded include grocery sales and support and general merchandise. The expanded Walmart store will operate 24 hours a day, seven days per week. The primary issues of concern include aesthetics, air quality, nosie, traffic, and urban decay.

Four Gas Wells IS/MND, County of Merced. Ms. McIntire assisted in the preparation of an IS/MND for four gas wells located in Merced County. The objective of the project was to install exploratory wells, and if appropriate, install fully operational natural gas production wells. In addition, a transmission pipeline would be extended to each of the four wells. Specific constrains with the project included potential impacts to wetlands, special-status species (burrowing owl and San Joaquin kit fox), and the crossing of Duck Slough by a transmission pipeline.

Morgan Hill Southeast Quadrant General Plan Update EIR, City of Morgan Hill. Assisted in the preparation of a programmatic/project level EIR for a General Plan Amendment, including the establishment of a Sports-

Recreation-Leisure (SRL) zone, agricultural and open space lands zoning, five programmatic level projects, and a single project-level private high school proposal.

Jenny Lind Safe Routes to Schools Project- Valley Springs, CA. Ms. McIntire serves as the Assistant Project Manager. MBA is preparing a IS/MND and preparing regulatory permit applications for the Jenny Lind Safe Routes to Schools Project. The Calaveras County Public Works Department proposes to construct the Jenny Lind SR2S Project. The Jenny Lind SR2S Project primarily consists of a 5 ft. wide sidewalk and 3.5 ft. Class III bike route. Project improvements will begin on the eastern side of Highway 26 just north of Baldwin Street (at the driveway to the Rancho Calaveras Property Owners Clubhouse) and traverse south to Driver Road. The improvements will continue in a southerly direction on the eastern side of Driver Road until they ultimately connect with Jenny Lind Elementary School. The proposed project would provide a new pedestrian sidewalk, striping, and shoulder improvements which would also require the installation of various culverts, curb and gutter, striping, and retaining walls. The proposed Jenny Lind Safe Route to School Project will serve pedestrians, bicyclists, and residents in the surrounding area of Calaveras County. The Safe Routes to School program, under which the Jenny Lind SR2S Project is funded, is part of an international movement to increase the number of children who walk or bicycle to school by funding projects that remove barriers, such as lack of infrastructure or unsafe infrastructure, that currently prevent them from doing so.

CDCR **Energy Compliance Program**. CDCR has hired MBA to assist them with their overall energy compliance program. Under Governor Schwarzenegger, the State of California has shown a firm commitment to utilizing green technology to improve our environment, CDCR installed energy efficiency projects that saved more than 8,640,013 kilowatthours, or 2,607 tons of greenhouse gases - equivalent to removing 652 cars from the road annually. MBA currently holds an on-call contact with CDCR and provided technical guidance to CDCR Facility Planning, Construction and Management Division's Energy and Sustainability Section related to the development, feasibility and permitting, and environmental compliance process related to implementing solar projects at Salinas Valley State Prison and California Mens Colony.

SA Recycling Facility IS/MND- Tulare, CA. Regulatory Analyst for the preparation of the IS/MND that included the expansion of an existing automotive and recycling facility in Tulare County. In 1990, a permit was issued for a 10'X45'truck scale for Central Valley Recycling Facility. Violations for the project site were received in 1995 for operation smelting operations in the wrong zone. The project applicant acquired the site in 2006 and since then has used the site as an Auto and Solid Waste Recycling Operation facility. However, no permits were issued for the existing operations. In 2008, the project applicant applied for a Variance to construct a 10-foot block wall. During that process it was determined that a Special Use Permit is required to allow for existing operations. County of Tulare prepared an Initial Study/Mitigated Negative Declaration in March 2010 and it was approved by the Tulare County Planning Commission. The City of Tulare challenged the Commission's decision and it was determined the Initial Study was inadequate and a Revised Initial Study will be prepared for the proposed project and MBA was hired to prepare a revised IS/MND to adequately analyze the non-conforming land use.

Elk Grove Sphere of Influence Environmental Impact Report- Sacramento LAFCO- Sacramento, CA. Regulatory Analyst who aided with the preparation of the EIR. The project consists of an application to Sacramento Local Agency Formation Commission (LAFCo) to amend the City of Elk Grove's SOI. The current SOI is coterminous with the City boundary. The amended SOI would include an additional 7,869 acres generally described as the areas south of Bilby Road/Kammerer Road and Grant Line Road. Current land use projections indicate that future growth will require additional lands outside of the City boundary. The City's available residential, industrial, and commercial land inventory is in the process of building out and may be unable to accommodate all anticipated growth within the City. As a result, the City needs to establish a direction to accommodate its anticipated future growth by defining the area for long-term planning. No specific land use developments are proposed at this time in conjunction with this proposed SOIA. Nearby communities

of interest include the communities of Bruceville, Old Town Franklin, Point Pleasant, and Wilton. Bruceville and Point Pleasant are south of the proposed SOIA area. Old Town Franklin is immediately adjacent to the City and is included within the proposed SOIA area. Wilton is located across the Cosumnes River outside of the proposed SOIA area. The City of Elk Grove and the County of Sacramento are working collaboratively to establish a Memorandum of Understanding (MOU) that would incorporate the "joint vision" shared between the City and County regarding the future planning and preservation activities within the City's proposed SOI area.

Environmental **Impact Report (EIR) for the Diamond Dorado Retail Center Project, located in the County of El Dorado for GGV Missouri Flat LLC**. Ms. McIntire serves as the Regulatory Analyst on this project. Michael Brandman Associates (MBA) prepared an EIR for the Diamond Dorado Retail Center Project located in El Dorado County, CA. MBA's team of technical specialists prepared an oak tree canopy analysis, biological resources assessment, delineation of wetlands and other waters of the U.S., cultural resources assessment, acoustical analysis, air quality impact analysis, Phase I Environmental Site Assessment, and traffic impact analysis for the project, the results of which were incorporated into a Draft EIR. The project applicant was proposing a General Plan Amendment from Industrial to Commercial use, an associated rezoning to General Commercial (CG), and a Planned Development (PD) Overlay to allow for the development of the project. The project included the development of up to approximately 285,000 square feet of commercial/retail space consisting of up to ten commercial/retail buildings and 1,895 parking spaces. The project included up to three large retail stores (one-story) and seven small retail/office buildings (two-floors). The buildings would be connected by pedestrian walkways and accessible from Diamond Road (SR 49), the proposed Diamond Springs Parkway, and the proposed El Dorado Multi-Use Trail. MBA prepared the project application for submittal to the County and assisted GGV Missouri Flat LLC with preparing a revised application package for submittal to the County to account for revisions to the site design.

Southside **Senior Services Center (The Gathering Place) - Tuolumne, CA.** Assistant Project Manager for the preparation of the IS/MND, Arborist Report, Biological Resources Assessment, and building siting analysis for the Groveland Community Service District's Gathering Place Project. Southside Senior Services is proposing the construction and operation of a senior activity center known as The Gathering Place. The Gathering Place will include 17,000-square-foot senior activity center to provided for a children's day care (pre-school and after school), and special programs or services to the general public; as well as a municipal swimming pool, park recreation area, and a dog park. Unique characteristics of the project include special event traffic generation, hillside construction, surrounding residential neighborhoods, and tree preservation.

Panther Energy Gas Well Cluster Project, County of Merced, CA. Regulatory Analyst for the preparation of the IS/MND that included four proposed gas wells clustered within a 3 mile radius in Merced County. The objective of the project was to provide environmental clearance documents for exploratory and operational activities of all four proposed wells. Unique components to the project included the construction of all on site gas separation and production equipment and associated pipeline which would carry the extracted gas to an existing trunk line. Specific constraints with the project include working with the USACE to prepare a constraints analysis to avoid impacts to wetland on two of the four sites as well as sensitive biological resources. In addition the ISMND had to account for conformance with Merced County Hazardous storage requirements, and conformance with the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources requirements.

Diamond Springs Parkway Realignment Environmental Impact Report, County of El Dorado, CA. Regulatory Analyst for the project. MBA prepared an environmental impact report for the Missouri Flat Road Redevelopment Plan (Redevelopment Plan) for the El Dorado County Redevelopment Agency. The Redevelopment Plan eliminated conditions of blight in a predominantly urbanized, approximately 1,200-acre Project Area through the adoption and implementation of financing and conveyance mechanisms for traffic and other infrastructure improvements required to facilitate development in the Project Area. The Missouri Flat Road Redevelopment Plan EIR evaluated a full range of environmental impacts in the Project Area, based on available environmental data included in the El Dorado County General Plan, General Plan EIR, and other

existing public documents, and site reconnaissance surveys and collection of other new project data. The EIR also analyzed in a greater level of detail environmental impacts related to the development of 16 sites in the Project Area that are currently under review by the County or that development applications are expected to be submitted thereon. The EIR analyzed environmental impacts associated with transportation improvements anticipated to be funded through the Redevelopment Plan. Trevor was responsible for the following sections of the EIR: transportation, noise, hydrology/water quality, and hazards. Trevor also provided peer-review services of the Phase I Environmental Site Assessment for the project.

Mill Creek Wetlands Natural Water Treatment Facility, City of Ontario, CA. Served as head biologist for the project, worked with the New Model Colonies development team to design a man-made wetland that naturally treats the stormwater runoff from 4,000 acres of a housing development in Ontario, California. In addition, he was a co-author of the tiered Mitigated Negative Declaration that was prepared for the CEQA documentation of the project. Some of the issues surrounding the project included the design of wetlands around an existing creek, designing wetlands to be used as recreation area, the composition of a Mitigated Negative Declaration from a specific plan EIR, and the permitting required for such a wetland construction project.

Sutter Hill Transit Center ISMND, Sutter Creek, CA. Environmental Planner for the CEQA and NEPA documentation of the project. Responsible for the preparation of the initial study and mitigated negative declaration for a proposed development in the City of Sutter Creek. In addition, Mr. Macenski worked closely with Caltrans to prepare technical documentation to support the CE finding under NEPA. A NEPA finding was required because of earmarked federal funding of the Park and Ride. Technical Studies ford the project included an Air Quality Analysis, Noise Analysis, Wetland Evaluation, HPSR and NESMI. The Sutter Hill Transportation Center includes the future Amador County Transportation Commission (ACTC) office, Amador Regional Transportation System (ARTS) Transit Transfer Facility, Sutter Hill Park-n-Ride Lot, Public Park and Parking Lot Solar Electric Shade Structures.

Forest Products Road Realignment ISMND, Sutter Creek, CA. Served as an environmental planner for the CEQA documentation for the project, which involved the relocation of the Forest Products Road intersection. The relocation of Forest Products Road will geometrically align with the existing intersection of Bowers Drive minimizing the conflicting turning movements on State Route 104. The project included such elements as widening Bowers Drive to accommodate bike lanes, curb, gutter and sidewalks.

Argonaut Lane Road Realignment ISMND, County of Amador, CA. As an environmental planner, was responsible for preparing the environmental documentation under CEQA to evaluate the proposed intersection improvement project of Argonaut Lane with SR 88. The existing intersection has inadequate site distance, making it difficult to see oncoming traffic when entering onto the state route. Issues surrounding the project included topographic constraints, intersection geometry, and historic structures. Characteristics unique to this project included the use of Eminent Domain to allow for the re-alignment of the roadway segment and all the public out reach involved with such an effort.

Land Use Evaluation Projects

Harrison Ranch Land Use and Infrastructure Research Study, Solano County, CA. Served as a project Geographical Information System (GIS) Specialist. The study was established to aid Shriners Hospitals for Children and Wells Fargo Trust Real Estate in determining the feasibility of developing the property. The project analysis included: 1) Identifying current and proposed land uses for the project site and adjacent properties; 2) Identifying current development proposals submitted within a one-mile vicinity of the property; 3) Reviewing existing documentation pertinent to biological resources in the area; and 4) Discussions with planning and public works departments regarding the potential of entitling the property for non-agricultural land uses and determining the extent of existing or proposed utilities and infrastructure in the vicinity to serve the property.

Bakersfield College Northwest Center Land Use Survey, Kern County, CA. Served as an Environmental Scientist responsible for completing biological surveys associated with the Bakersfield College Northwest Center Land Use Study as part of the Bakersfield College Specific Plan. The study was initiated in order to identify parcels that would be affected by the Campus Centered Community proposed in the Specific Plan. The study included a land use mapping exercise, dependent largely upon GIS and Assessor's parcel data, augmented by field research.

Bakersfield College Northwest Center Farmland Conversion Study, Kern County, CA. Served as an Environmental Scientist/GIS Specialist responsible for completing the Bakersfield College Northwest Center Farmland Conversion Study as a part of the Bakersfield College Specific Plan. The study was initiated to analyze the significance of converting 225 acres of agricultural lands to urban uses in Kern County.

San Jose Due Diligence, San Jose, CA. Regulatory Analyst who assisted with preparation of a memorandum detailing investigative land use/entitlement issues, preliminary strategies to resolve those issues, and the assessment of implications for future property purchase and development within the City of San Jose. This memorandum was based on a review of relevant zoning ordinances and City plans to determine whether the site would require a rezone or conditional use permit for a proposed use. Examined the performance standards that may apply in a given land-use zone that may constrain development (height restrictions, noise limits, setbacks, etc.). MBA also considered potential land-use compatibility issues that could constrain development, including adjacent residential housing, public schools, and other sensitive land uses. The memorandum was designed to provide the client with due diligence information necessary to make an informed decision about the potential land-use implications of the sites examined.

Phase I Environmental Site Assessments

Argonaut Lane Phase I Environmental Site Assessment (ESA), County of Amador, CA. Aided in the preparation of a Phase I ESA to document environmental conditions of the Argonaut Lane Improvement project site located in unincorporated Amador County adjacent to Highway 49. The purpose of the Phase I ESA was to determine the present environmental condition of the project site and to evaluate whether or not recognized environmental conditions exist on the site as a result of previous usage.

Brownstones at 21st Street Phase I Environmental Site Assessment, Sacramento, CA. Environmental Scientist for the Phase I Environmental Site Assessment of an approximately 3.16-acre property in Sacramento to see whether significant environmental liabilities regarding known or suspected releases of hazardous substances exist on or near the property.

Assessco Inc., Phase I Environmental Site Assessment, Marysville, CA. Conducted an Environmental Site Reconnaissance on the site of a former tire in historic downtown Marysville. Due to historical automotive operations on the property, the site was examined for evidence of any underground storage tanks and related automotive shop items.

School Infrastructure Projects

San Joaquin County Community College District Critical Issues and Development and Feasibility Report, San Joaquin County, CA. Worked on the development of a feasibility report that addressed all the critical development issues related to a proposed campus in San Joaquin County. Issues surrounding the project included the formation of a Municipal Utility District, a campus designed around a wetland, implementation and regulation of the California Department of Education's site evaluation process, traffic analysis, noise analysis, site reconnaissance, and development evaluation.

Galivan Joint Community College District—Hollister Campus, Site Selection and Feasibility Report, Hollister, CA. Assisted with the preparation of a site selection report that addressed all critical development issues related to the final four proposed campus locations in Hollister. Issues surrounding the project included

implementation and regulation of the California Department of Education's site selection process, campus annexation into the city of Hollister, traffic analysis, noise analysis, site reconnaissance, and development evaluation.

Galivan Joint Community College District Site Selection and Feasibility Report Phase II, Hollister, CA. Worked on the ongoing evaluation of the possibility of locating a community college campus in Hollister. The Phase II Critical Issues and Development Feasibility Report focused on an individual parcel located on the outer edge of Hollister. Issues surrounding the project included the development of annexation alternatives, public utility connection evaluations and cost analysis, FEMA flooding evaluations involving the LOMAR process, and a biological assessment.

San Joaquin Delta College—Lodi Campus Centered Community, Critical Issues Review and Feasibility Report, Lodi, CA. Environmental Scientist for the preparation of a report that evaluated critical project development issues for permitting and development of the San Joaquin Delta Community College District's new college campus outside the city of Lodi.

San Joaquin Delta College Valley Springs Campus—On Call Environmental Services, Valley Springs, CA. Environmental Scientist assisting San Joaquin Delta College on an as-needed basis for planning and environmental assessment services to evaluate potential campus locations in the Valley Springs community of Calaveras County.

Bakersfield College Northwest Center Specific Plan and Environmental Impact Report, Kern County, CA. Environmental Scientist for environmental documentation services for the proposed northwest Center Campus of Bakersfield College. Work included the preparation of infrastructure studies, a campus village implementation program, technical environmental studies, and environmental impact report to support the Specific Plan, General Plan Amendment, and Zone Change necessary to entitle the North Campus Community Village.

Transportation Projects

Amador County Transportation Commission, Jackson, CA. Served as the Project Manager and on-call Geographical Information Systems (GIS) Specialist for the Amador County Transportation Commission. Developed GIS base layers of Amador County's land use and zoning, as well as layers detailing road improvement projects within the county.

O'Byrnes Ferry Bridge Feasibility Study, Calaveras and Tuolumne Counties, CA. Served as the environmental Scientist in the completion of a feasibility study and preliminary engineering services for determining the rehabilitation or reconstruction of the O'Byrnes Ferry Bridge over the Stanislaus River at the southeast corner of Calaveras County at the Tuolumne County line.

Conestoga Culvert Replacement Project, Calaveras County, CA. Served as the Environmental Scientist responsible for the preparation of plans, specifications, and estimates for the Horseshoe Drive Reconstruction Project. Due to storm damage sustained by Horseshoe Drive, the two-lane roadway was reduced to a single 10-foot lane. In particular, worked on the timely completion of the necessary biological assessments required to carry out the project.

SR-99/Elkhorn Boulevard Interchange Signalization, Sacramento, CA. Assisted with the compilation of the initial project traffic study which included a traffic signal and lighting design, environmental coordination, and facilitation of a Caltrans encroachment permit. The improvements included the construction of the SR-99 northbound and southbound exit ramp terminus signalization. The exit ramp intersection with Elkhorn Blvd. was to include new striping to include crosswalks and curb ramps to ensure ADA compliance.

SR-99/Elverta Road Intersection Improvements, Sacramento, CA. Assisted with the compilation of the Final PS&E for this project which includes roadway widening, a storm drainage study, traffic signal and lighting design, environmental coordination, and facilitation of a Caltrans encroachment permit. The improvements on

SR-99 include the construction of an additional northbound and southbound through-lane approaching and departing the intersection. On Elverta Road, the construction involves an exclusive eastbound left-turn lane. The intersection will include modifications to the existing traffic signals to accommodate the new geometrics of the intersection.

Thornton Road Widening Project, Stockton, CA. Task Manager responsible for the environmental documentation surrounding civil improvements of approximately 8,000 linear feet of roadway. This project involved the widening of an existing two-lane road to a six-lane section.

Water Resources Management Projects

El Dorado Irrigation District Sewer Forcemain Initial Study/ Mitigated Negative Declaration, El Dorado County, CA. Environmental Scientist for the evaluation of wetlands and the permitting, design evaluation, and monitoring activities involved with the Silver Springs Off-Site Sewer Forcemain project.

Mill Creek Wetlands Natural Water Treatment Facility, Ontario, CA. Served as the Environmental Scientist and Planner for the Mill Creek Wetlands Natural Water Treatment Facility and was a co-author of the tiered mitigated negative declaration that was required for the wetland project. Some of the issues surrounding the project include the design of the wetlands around an existing creek, designing wetlands to be used as recreation, the composition of a mitigated negative declaration tiered off an EIR, and the permitting that is required for such a wetland construction project.

Merced County Phase II Stormwater Management Program, Merced, CA. Assisted with the preparation and editing of a Municipal Stormwater Management Program for the Phase II stormwater regulations for Merced County, City of Merced, City of Atwater, City of Livingston, and Merced Irrigation District. Developed municipally-specific best management practices and implementation schedules with each municipality.

Sawmill Bike Path, El Dorado County, CA. Environmental Specialist for this bike path project near South Lake Tahoe, California in the Lake Tahoe Basin. The project is part of the Tahoe Regional Planning Agency's Environmental Improvement Program (EIP). Project tasks included preparation of a feasibility report to review alignment options; preparation of a monitoring plan that identifies wetlands, waters of the U.S., stream environment zones, wildlife, vegetation, and cultural impacts; preparation of the environmental document; participation in public meetings; preparation of plans, specifications and estimates; and construction design support.

Lake Tahoe Boulevard Lane Reduction & Bike Trail Project, El Dorado County, CA. Environmental Specialist for the project which involved eliminating the east side of the divided Lake Tahoe Boulevard from the City/County limits to Tahoe Mountain Road and converting the road from four-lanes to a two-lane facility. The reduction of lanes allowed for the restoration of four acres of Stream Environment Zone (SEZ) and installation of a Class I Bicycle Trail. The project is part of the Tahoe Regional Planning Agency Environmental Improvement Program (EIP).

Sawmill 2 Erosion Control and Bike Path Project, El Dorado County, CA. Environmental Specialist for the erosion control/bike path project near South Lake Tahoe, California in the Lake Tahoe Basin. The proposed pathway was to meander along Sawmill Road between Highway 50 and Lake Tahoe Boulevard. The project is part of the Tahoe Regional Planning Agency's Environmental Improvement Program (EIP). As Task Manager, Ms. McIntire oversaw the CEQA initial study impact evaluation for areas of concern: vegetation, land use, land capability, land ownership, biology, fisheries and wildlife, and wetlands.

Montgomery Estates Erosion Control Project, El Dorado County, CA. Environmental Scientist and Task Manager responsible for performing the biological site assessment associated with the Montgomery Estates Project. The project's purpose was to perform erosion control measures to improve the water quality of runoff

to Lake Tahoe by reducing erosion and sediment flow originating in the Montgomery Estates development. Performed biological site assessments to evaluate flora and fauna that are endemic to the area.

Twin Ponds CEQA Initial Study, Modesto, CA. Responsible for responding to comments received from the City of Modesto and editing the Twin Ponds Pump Station Initial Study. The purpose of the project was to construct two storm drainage pump stations in existing stormwater ponds to alleviate flooding due to insufficient capacity in the ponds.

Rose Avenue/Celeste Sewer Lift Station CEQA Initial Study, Modesto, CA. Responsible for responding to comments received from the City of Modesto and editing the Rose/Celeste Sewer Liftstation Initial Study. The purpose of the project was to meet the needs of the memorial Hospital expansion by replacing and constructing a new sewer lift station on a corner lot of a residential area.

Research

University of California, Davis, Land and Water Resources. Performed research on lab protocols for the study of mycorrhizal relations in grasses and trees. Analyzed carbon and nitrogen content of plant samples; performed DNA electrophoresis. Collected and organized data statistically.

Professional Affiliations

- California State Bar Association Member
- American Bar Association Member
- Sacramento County Bar Association Member
- California Association of Environmental Professionals Member

CORPORATE RESUME

Kathleen A. Crawford, M.A.

Senior Architectural Historian

Overview

Kathleen Crawford has over 26 years of experience in the preparation of a wide range of historical and architectural projects. She meets the Secretary of the Interior Standards for Architectural History and History (36 CFR Part 61). She has extensive experience with 19th- and 20th-century architecture in California and has prepared over 12,000 historic and architectural assessments of structures in California for a variety of historical projects conducted for various types of city, state, and federal agencies. The majority of these projects required compliance with Section 106 of the National Historic Preservation Act. Ms. Crawford has extensive experience in the implementation of Section 106 in reference to historic buildings from all historic periods and architectural styles. The vast majority of these projects required preparation of California Department of Parks and Recreation (DPR) 523 forms for submittal to the State Historic Preservation Office. She has prepared several Historic American Building Survey (HABS) surveys and documentation over the years and has worked with the Secretary of the Interior's Standards for the Treatment of Historic Properties in the course of the historic and architectural evaluations. In addition, Ms. Crawford has participated in the production of numerous cultural resources reports and assessments, environmental impact reports, and historic building surveys of potential historic districts in California, Arizona, and Kentucky. She has been a Lecturer in the History Department at San Diego State University since 1989, and her extensive teaching experience in U.S. History has aided her understanding of the historical assessment and evaluation process.

HISTORIC AND HISTORIC ARCHITECTURAL WORK EXPERIENCE

Crawford Historic Services, Historical and Architectural Consulting. 1985–Present.
Sole proprietor of historical projects consulting service with clients including:

Michael Brandman and Associates, Irvine, California. 2001–Present

Ms. Crawford meets the Secretary of the Interior's Standards as an Architectural Historian and has prepared over 750 Section 106 Compliance Reports for Historical and Architectural Assessments for Cell Tower sites in California, Nevada, Arizona, and New Mexico. All projects required Section 106 compliance level assessments and preparation of DPR 523 forms for the project sites and submittal to the State Historic Preservation Office for concurrence with the findings of effect. Clients include AT&T, T-Mobile, Verizon, Cingular. Assessments include 19th- to 20th-century historic buildings (civic, hospitals, private residences, businesses, churches, schools), cemeteries, structures, telephone poles, water tanks, and steel lattice towers. Over 75 of the projects have taken place in Northern California in Alameda, San Francisco, Sacramento, and San Jose counties.

Selected projects include:

Standard Aero Buildings, Los Angeles International Airport (LAX). Preparation of Historic and Architectural Assessment of circa 1940s Airport Structures for Cell Tower construction, January 2011

California State Capitol Building Complex, Sacramento. Preparation of Historic and Architectural Assessment of circa 1860s–1950s California State Capitol Building for installation of new cell tower service for entire State Capitol complex – April 2011

HABS Survey of Niven Nursery, Larkspur. Preparation of Historic American Building Survey (HABS) documentation of circa 1940s Niven Nursery, Larkspur, California, July 2011

Independent Order of Odd Fellows Cemetery, Sacramento. Preparation of Historic and Architectural Assessment of circa 1890s National Register-eligible historic Sacramento cemetery – January 2011

L**eamington Hotel, Oakland.** Preparation of Historic and Architectural Assessment of circa 1920s National Register-eligible hotel in downtown Oakland – July 2010

East Bay Alliance Chinese Church, Oakland. Preparation of Historic and Architectural Assessment of circa 1940s church complex – September 2010

Piedmont Apartments, Oakland. Historic and Architectural Assessment of circa 1930s apartment complex, Oakland – December 2010

Oakland Coliseum, Oakland. Preparation of Historic and Architectural Assessment of circa 1960s sports stadium – May 2010

Sheraton Palace Hotel, San Francisco. Preparation of Historic and Architectural Assessment of circa 1900 National Register-listed landmark historic hotel for cell tower construction, November 2010

University of San Jose Stadium, San Jose. Preparation of Historic and Architectural Assessment of circa 1950s sports stadium – July 2010

University of Santa Clara, Swig Hall, San Jose. Preparation of Historic and Architectural Assessment of circa 1960s residence hall – May 2010

Swedish American Hall, San Francisco. Preparation of Historic and Architectural Assessment of circa 1890s National Register-eligible building for proposed cell tower placement – May 2010

Seton Medical Center, San Francisco. Preparation of Historic and Architectural Assessment of circa 1950s Seton Medical Center for cell tower construction – August 2010

United Pipe Foundry, Union City. Historic and Architectural Assessment of circa 1930s historic water tank on historic foundry property – August 2010

Palo Alto Apartment Complex, Palo Alto. Historic and Architectural Assessment of circa 1950s apartment complex – October 2010

Petaluma Hotel, Petaluma. Historic and Architectural Assessment of circa 1920s hotel in National Register-listed historic downtown business district – May 2011

Paramount Studios, Los Angeles. Preparation of Historic and Architectural Assessment of several buildings on Paramount Studios lot that dated to earliest development of the Paramount Studios Corporation in the 1920s – April 2010

St. Mary's Hospital, Tucson, Arizona. Historic and Architectural Assessment of circa 1930s hospital in Tucson – July 2011

Historic Hotel, Elko, Nevada. Preparation of Historic and Architectural Assessment of circa 1930s hotel in Elko, Nevada – October 2010

Sunwest Building, Roswell, New Mexico. Preparation of Historic and Architectural Assessment of potentially circa 1950s National Register-eligible building in Roswell, New Mexico – December 2010

KP Environmental LLC, Tempe, Arizona and Carlsbad, California. 2011

Borrego Springs, California. Preparation of Cultural Resources Report for CA-SDI-20016 and Historic Assessment of former circa 1940s DiGiorgio Fruit Corporation property in Borrego Springs, California for County of San Diego – October 2011

Hell, California. Preparation of Cultural Resources Report and Historic Assessment of Hell, California for historic documentation of circa 1950s P-33-18794 archaeological site for County of Riverside – September 2011

C&S Environmental Services. 1999–2007

Federal Aviation Administration, Quieter Home Program. Historical and Architectural Assessment of approximately 1,000 circa 1910–1960 historic homes in Point Loma and San Diego for sound retrofitting program conducted by the Federal Aviation Administration. State of California DPR 523 forms were prepared for each property for submittal to City of San Diego Planning Department and San Diego Historical Resources Board.

Ogden Environmental and Energy Services, Incirca

- 1990–1997, Senior Historian
- 1997–2001, Historical Consultant

Responsible for all phases of research, analysis and preparation of cultural resources reports, environmental impact reports, and historic building surveys for compliance with federal, state, and local agencies and regulations. Section 106 compliance assessments were conducted for all properties and preparation of DPR 523 forms were completed for all properties. Selected projects included:

San Diego Naval Training Center – Preparation of National Register nomination for property including approximately 400 buildings

Chollas Heights Radio Station – Preparation of Historic American Buildings Survey for radio station for approximately 100 buildings

Seal Beach Naval Weapons Station – Preparation of Historical and Architectural Assessment of properties including approximately 300 buildings

Long Beach Naval Station and Shipyard – Preparation of Historical and Architectural Assessment of properties including approximately 750 buildings

Marine Corps Air Station, Camp Pendleton – Preparation of History of Air Station

Hickam Air Force Base, Hawaii – Preparation of History of Air Base

Naval Air Station, Guam – Preparation of Base Closure Documentation for approximately 150 structures

San Diego Naval Air Station, Coronado – Preparation of Historical and Architectural Assessment of selected air base facilities

Naval Air Station, El Centro – Preparation of Historical and Architectural Assessment of air base properties, including approximately 100 buildings

San Diego Naval Station, 32nd Street – Preparation of Historical and Architectural Assessment of properties including approximately 350 buildings

Caltrans – Preparation of Historical and Architectural Assessments for approximately 200 properties in San Diego and Riverside counties

Kentucky Department of Transportation (KDOT) – Preparation of Historical and Architectural Assessments of approximately 100 properties in Louisville, Kentucky

Miramar Naval Air Station – Preparation of Historical and Architectural Assessment of properties including approximately 250 buildings

Marie Burke Lia, Attorney at Law, San Diego, California. 1988–Present

Preparation of Historical and Architectural Assessments for over 800 circa 1880–1965 properties in San Diego, La Jolla, and County of San Diego. These projects required preparation of historic and architectural

assessments, preparation of DPR 523 forms, and final reports for submittal to City of San Diego Planning Department and San Diego Historic Resources Board.

Scott Moomjian, Attorney at Law, San Diego, California. 1993–Present

Preparation of Historical and Architectural Assessments for over one hundred circa 1880–1965 properties in San Diego, La Jolla, and County of San Diego, These projects required preparation of historic and architectural assessments, preparation of DPR 523 forms, and final reports for submittal to City of San Diego Planning Department and San Diego Historic Resources Board.

Archaeos, Incirca, San Diego, California. 1999–2009

Preparation of Historical and Architectural Assessments of properties in San Diego, Chula Vista, Orange County, and Riverside County dating from 1900–1960. These projects required preparation of historic and architectural assessments, preparation of DPR 523 forms, and final reports for submittal to City of San Diego Planning Department and San Diego Historic Resources Board.

Wright and L'Estrange, Robert Wright, Attorney at Law, San Diego, California. 2004–2008

Preparation of Historical and Architectural Assessments for properties in San Diego County. These projects required preparation of historic and architectural assessments, preparation of DPR 523 forms, and final reports for submittal to City of San Diego Planning Department and San Diego Historic Resources Board.

Matthew Peterson, Attorney at Law, San Diego, California. 2003–2004

Preparation of Historical and Architectural Assessments for properties in San Diego County. These projects required preparation of historic and architectural assessments, preparation of DPR 523 forms, and final reports for submittal to City of San Diego Planning Department and San Diego Historic Resources Board.

Island Architects, La Jolla, California. 2004

Preparation of Historical and Architectural Assessments for properties in San Diego County. These projects required preparation of historic and architectural assessments, preparation of DPR 523 forms, and final reports for submittal to City of San Diego Planning Department and San Diego Historic Resources Board.

Corky MacMillan Incirca, San Diego, California. 1994–1999

Preparation of Historical and Architectural Assessments for Properties in San Diego; Historical assistance with Naval Training Center Historic District issues.

County of San Diego, San Diego, California. 1990

Preparation of Historic Survey of Sweetwater/Bonita area for over 300 properties. These projects required preparation of historic and architectural assessments, preparation of DPR 523 forms, and final reports for submittal to County of San Diego Planning Department and San Diego Historic Resources Board.

Jennings, Engstrand and Henrickson law firm, San Diego, California. 1986

Preparation of research for San Diego County water rights case for successful presentation to U.S. Supreme Court.

MUSEUM EXPERIENCE:

Women's Museum of California, San Diego, California. 2011

Historical Consultant. Preparation of Research and Exhibit Panels for 1911–2011 Women's Suffrage Exhibit

Coronado Historical Association, Coronado, California. 2009–2010

Historical and Architectural Consultant conducting research for:

- 2009–2010 Annual Historic Home Tours
- "Wings of Gold, 100 Years of Naval Aviation" exhibit
- "Coronado We Remember" exhibit, 2009–2010.

Coronado Historical Association, Coronado, California. 2010

Interim Registrar and Archivist

La Jolla Historical Society, La Jolla, California. 2006

Archivist for historical collection

San Diego Museum of Man. 1984–1985; 1997–2000

Assistant Education Coordinator. Responsible for all phases of Education Department activities including teaching anthropology courses, preparation of newsletter, lecture and film series, trips, and overall programs for museum visitors.

San Diego Historical Society, 1985–1988.

Assistant Curator of Collections. Responsible for all phases of collection management and administration, research and exhibition for 20,000+ piece collection of San Diego history displayed in four local museums; supervision and management of Facade Easement Program for donation of historic building facades to Society; served as Museum Registrar, which included documentation and management of all curatorial files, archival materials, object documentation, photograph collection, and art collection; supervision of volunteer program, student interns, and preparation of visitor materials and tours.

TEACHING EXPERIENCE:

History, Anthropology and Political Science Lecturer. 1987–Present

San Diego State University – 1989–Present

- Early/Modern World History
- Early/Modern U.S. History
- Early/Modern Latin American History
- Early/Modern Western Civilization

University of San Diego – 1987–2006

- Early/Modern World History
- Early/Modern U.S. History
- Renaissance History

- Early/Modern Western Civilization
- History of San Diego
- Historian's Methods

United States International University –1990–2000

- The American Presidency
- Introduction to Political Science
- Early/Modern History of Asia
- Early/Modern Western Civilization
- Early/Modern World History
- Intercultural Communication
- American Culture

Grossmont College – 1988–2002

- Early/Modern History of Women in Western Civilization
- Early/Modern Western Civilization
- Early/Modern World History
- Early/Modern Latin American History

Cuyamaca College – 1995–1996

- United States History, Early and Modern

COMMUNITY INVOLVEMENT:

San Diego Historical Society – Volunteer in Education Department, Planning programs, assistance with newsletter and docent training, 1987–1996.

San Diego Museum of Man – Volunteer in Education Department, Planning programs, assistance with newsletter and docent training, 1993–1996.

Mesa Southwest Museum – Volunteer, Editorial Services and Assistance with publications, 2002–2005.

Denver Historical Society – Volunteer, Editorial Services and Assistance with publications, 2006–Present.

University of San Diego – Co-Chair of Native American Arts Festival, annual festival held on university campus showcasing Native American art and culture, 2003–2005.

Mulege Natural History Museum – History Coordinator for Museum in Baja California. "Hands across the border," joint venture between the San Diego Natural History Museum and Baja California, 2001–2003.

Confucius Institute – Board Member/San Diego State University

San Diego State University – Volunteer, Prepared grant for Dean Paul Wong, for funding for ethnomusic teacher in Music Department. Grant was for Artist in Residence Program in the department, 2007.

San Diego State University – Mentor to students from China brought to SDSU as part of Chinese Studies Institute, Fall 2007–Spring 2008

PUBLICATIONS:

Crawford, Kathleen A., "Fifty Years of the Journal of San Diego History," Journal of San Diego History, Fall 2006.

Engstrand, Iris H.W. and Kathleen A. Crawford, *Reflections: A History of the San Diego Gas & Electric Company*, 1881–1991, Heritage Press: Los Angeles, 1991.

Davie, Theodore and Kathleen A. Crawford, *A History of San Diego Trust & Savings Bank, 1888–1988*, San Diego Trust and Savings Bank: San Diego, 1988.

Crawford, Kathleen A, *A History of the San Diego Transit Corporation, 1886–1986*, San Diego Transit Corporation: San Diego, 1986.

Crawford, Kathleen A. "God's Garden: A History of the Grossmont Art Colony," Journal of San Diego History, Volume XX, Summer, 1985.

Crawford, Kathleen A. and Bruce Kammerling, "The Serra Museum and its Collections," Some Reminiscences of Fray Junipero Serra, Santa Barbara Mission Press: Santa Barbara, 1984.

Crawford, Kathleen A., "The General's Lady: Maria Amparo Ruiz Burton," Journal of San Diego History, Volume XIX, Fall, 1984.

Scripps Institutions for Medicine and Science – Preparation of 75th Anniversary History of Scripps Institutions for Medicine and Science, 1989–1990.

San Diego Gas & Electric Company – Preparation of 110th Anniversary History for SDG&E, 1989.

San Diego Trust and Savings Bank – Preparation of 100th Anniversary History of bank, 1988.

Great American Savings Bank – Preparation of 100th Anniversary History of bank, 1987.

San Diego Transit Corporation – Preparation of 100th Anniversary of corporation, 1986.

EDUCATION:

University of San Diego

Master of Arts, History, 1987

- Valedictorian/Summa cum laude
- Thesis: History of San Diego Transit Corporation

Bachelor of Arts, History, 1984

- California and Latin American emphasis
- Magna cum laude

Bachelor of Arts, Anthropology, 1984

- California and Latin American emphasis
- Magna cum laude

Grossmont College

Associate of Arts, General, 1982

- With Honors

Appendix E:
Regulatory Framework

REGULATORY FRAMEWORK

Government agencies, including federal, state, and local agencies, have developed laws and regulations designed to protect significant cultural resources that may be affected by projects regulated, funded, or undertaken by the agency. Federal and state laws that govern the preservation of historic and archaeological resources of national, state, regional, and local significance include the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA). In addition, laws specific to work conducted on federal lands includes the Archaeological Resources Protection Act (ARPA), the American Antiquities Act, and the Native American Graves Protection and Repatriation Act (NAGPRA).

Because there is no federal undertaking for the proposed project, compliance with the federal process is not required. CEQA criteria were used to evaluate the significance of potential impacts on cultural resources for the proposed project. An impact would be considered significant if it would affect a resource eligible for listing to the California Register of Historical Resources (CRHR), or if it is identified as a unique archaeological resource.

State-Level Evaluation Process

An archaeological site may be considered a historical resource if it is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military or cultural annals of California pursuant to Public Resources Code PRC Section 5020.1(j) or if it meets the criteria for listing on the CR pursuant to California Code of Regulations (CCR) at Title 14 CCR Section 4850.

The most recent amendments to the CEQA guidelines direct lead agencies to first evaluate an archaeological site to determine if it meets the criteria for listing in the CR. If an archaeological site is a historical resource, in that it is listed or eligible for listing in the CR, potential adverse impacts to it must be considered pursuant to PRC Sections 21084.1 and 21083.2(l). If an archaeological site is considered not to be a historical resource, but meets the definition of a “unique archeological resource” as defined in PRC Section 21083.2, then it would be treated in accordance with the provisions of that section.

With reference to PRC Section 21083.2, each site found within a project area will be evaluated to determine if it is a unique archaeological resource. A unique archaeological resource is described as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information

2. Has a special and particular quality such as being the oldest of its type or the best available example of its type

3. Is directly associated with a scientifically recognized important prehistoric or historic event or person

As used in this report, "non-unique archaeological resource" means an archaeological artifact, object, or site that does not meet the criteria for eligibility for listing on the CR, as noted in subdivision (g) of PRC Section 21083.2. A non-unique archaeological resource requires no further consideration, other than simple recording of its components and features. Isolated artifacts are typically considered non-unique archaeological resources. Historic structures that have had their superstructures demolished or removed can be considered historic archaeological sites and are evaluated following the processes used for prehistoric sites. Finally, OHP recognizes an age threshold of 45 years. Cultural resources built less than 45 years ago may qualify for consideration, but only under the most extraordinary circumstances.

Title 14, CCR, Chapter 3 Section 15064.5 is associated with determining the significance of impacts to archaeological and historical resources. Here, the term historical resource includes the following:

1. A resource listed in, or determined eligible by the State Historical Resources Commission, for listing in the CR (PRC Section 5024.1; Title 14 CCR, Section 4850, et seq.).

2. A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the PRC Section 5024.1(g) requirements, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3. Any object, building, structure, site, area, place, record, or manuscript, which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be historically

significant if the resource meets the criteria for listing on the California Register of Historical Resources (PRC Section 5024.1; Title 14 CCR Section 4852) including the following:

A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage

B. Is associated with the lives of persons important in our past

C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values

D. Has yielded, or may be likely to yield, information important in prehistory or history

Typically, archaeological sites exhibiting significant features qualify for the CR under Criterion D because such features have information important to the prehistory of California. A lead agency may determine that a resource may be a historical resource as defined in PRC Sections 5020.1(j) or 5024.1 even if it is:

- Not listed in or determined to be eligible for listing in the CR
- Not included in a local register of historical resources pursuant to PRC Section 5020.1(k)
- Identified in a historical resources survey pursuant to PRC Section 5024.1(g)

Threshold of Significance

If a project will have a significant impact on a cultural resource, several steps must be taken to determine if the cultural resource is a "unique archaeological resource" under CEQA. If analysis and/or testing determine that the resource is a unique archaeological resource and therefore subject to mitigation prior to development, a threshold of significance should be developed. The threshold of significance is a point where the qualities of significance are defined and the resource is determined to be unique under CEQA. A significant impact is regarded as the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource will be reduced to a point that it no longer meets the significance criteria. Should analysis indicate that project development will destroy the unique elements of a resource; the impacts to the resource must be mitigated for under CEQA regulations. The preferred form of mitigation is to

preserve the resource in-place, in an undisturbed state. However, as that is not always possible or feasible, appropriate mitigation measures may include, but are not limited to:

1. Planning construction to avoid the resource
2. Deeding conservation easements
3. Capping the site prior to construction

If a resource is determined to be a "non-unique archaeological resource," no further consideration of the resource by the lead agency is necessary.

SB 18 TRIBAL CONSULTATION

The following serves as an overview of the procedures and timeframes for the tribal consultation process; for the complete Tribal Consultation Guidelines, please refer to the State of California Office of Planning and Research web site.

Prior to the adoption or amendment of General or Specific Plans, local governments must notify the appropriate tribes of the opportunity to conduct consultation for the purpose of preserving or mitigating impacts to cultural places located on land within the local government's jurisdiction that is affected by the plan adoption or amendment. Tribal contacts for this list are maintained by the Native American Heritage Commission (NAHC), and it is distinct from the Most Likely Descendent list. It is suggested that local governments send written notice by certified mail with return receipt requested. The tribes have 90 days from the date they receive notification to request consultation. In addition, prior to adoption or amendment of a General or Specific Plan, local government must refer the proposed action to tribes on the NAHC list that have traditional lands located within the city or county's jurisdiction. Notice must be sent regardless of prior consultation. The referral must allow a 45-day comment period.

In brief, notices from government to the tribes should include:

- A clear statement of purpose
- A description of the proposed General or Specific Plan, or amendment, the reason for the proposal, and the specific geographic areas affected
- Detailed maps to accompany the description
- Deadline date for the tribes to respond
- Government representative(s) contact information
- Contact information for project proponent/applicant, if applicable

The basic schedule for this process is:

- 30 days - time NAHC has to provide tribal contact information to the local government; this is recommended, not mandatory.
- 90 days - time tribe has to respond indicating whether or not they want to consult. Note: tribes can agree to a shorter timeframe. In addition, consultation does not begin until/unless requested by the tribe within 90 days of receiving notice of the opportunity to consult. The consultation period, if requested, is open-ended. The tribes and local governments can discuss issues for as long as necessary, or productive, and need not result in agreement.
- 45 days - time local government has to refer proposed action, such as adoption or amendment to General Plan or Specific Plan, to agencies, including the tribes. Referral required even if there has been prior consultation. This opens the 45-day comment period.
- 10 days - time local government has to provide tribes of notice of public hearing.

Appendix C

Mitigation Monitoring and Reporting Program

C. South Field Airport Traffic Control Tower Demolition Mitigation Monitoring and Reporting Program

Introduction

The California Environmental Quality Act requires that feasible mitigation measures be adopted to reduce the severity and magnitude of potentially significant environmental impacts associated with project development. Any public agency that adopts measures to mitigate or avoid the significant impacts of a proposed project is required to ensure that the measures are fully enforceable, through permit conditions, agreements, or other means (Public Resources Code Section 21081.6[b]). If a public agency requires that mitigation measures be taken to reduce or avoid significant project impacts that are not incorporated into the design or program for the project, these mitigation measures may be made conditions of project approval as set forth in a Mitigation Monitoring and Reporting Program (MMRP). The program must be designed to ensure project compliance with mitigation measures during project implementation. Monitoring of the implementation of adopted mitigation measures is required by Public Resources Code Section 21081.6.

This MMRP includes the mitigation measures identified in the Initial Study and Draft EIR for the South Field Airport Traffic Control Tower (ATCT) demolition, which are required to address the significant impacts associated with the Proposed Project. The required mitigation measures are summarized in this program; the full text of the impact analysis and mitigation measures is presented in the Draft EIR and Initial Study.

Purpose

The purpose of this MMRP is to ensure compliance with all mitigation measures identified in the Initial Study and Draft EIR to mitigate or avoid potentially significant adverse environmental impacts resulting from the project. Implementation of this MMRP shall be accomplished by the Port of Oakland. Project-

specific mitigation measures will be implemented (1) as part of design development of the project, (2) during project construction, or (3) as part of project operations.

Format

The MMRP is organized in a table format (see **Table 1**), keyed to each significant impact and each Initial Study and Draft EIR mitigation measure. Each mitigation measure is set out in full, followed by a tabular summary of monitoring requirements. The column headings in the tables are defined as follows:

- **Mitigation Measures Adopted as Conditions of Approval:** This column presents the mitigation measure identified in the Initial Study and Draft EIR.
- **Implementation Procedures:** This column identifies the procedures associated with implementation of the migration measure.
- **Monitoring Responsibility:** This column contains an assignment of responsibility for the monitoring and reporting tasks.
- **Monitoring and Reporting Action:** This column presents the steps for implementing and documenting compliance with the mitigation measure.
- **Mitigation Schedule:** This column presents the general schedule for conducting each mitigation task, identifying where appropriate both the timing and the frequency of the action.
- **Verification of Compliance:** This column will be used by the lead agency to document who verified the implementation of the mitigation measure, and the date on which this verification occurred.

1.1 Responsibilities and Duties

Monitoring will consist of demonstrating that mitigation measures were implemented, and that the responsible entity monitored the implementation of the measures. The responsible entity for determining compliance with all mitigation measures will be the Port of Oakland. Monitoring is intended to ensure that the following have occurred:

- The specific issues identified in the mitigation measures were considered in the design development phase.
- Construction contracts included the provisions specified in the mitigation measures.
- Implementation of the mitigation measures have been accurately documented, including corrective actions and completion of activities.

Table 1 Mitigation Monitoring and Reporting Program Matrix

MITIGATION MEASURES ADOPTED AS CONDITIONS OF APPROVAL	IMPLEMENTATION PROCEDURES	MONITORING RESPONSIBILITY	MONITORING AND REPORTING ACTION	MONITORING SCHEDULE	VERIFICATION OF COMPLIANCE
A. Historic Resources					
HR-1. Historic Documentation of the South Field ATCT. A report documenting the historic features of the South Field ATCT shall be prepared by the Port. Documentation shall adequately explicate and illustrate the character defining features that are truly significant or valuable about the South Field ATCT including: • Design drawings dated December 1959 • Digital photography of the exterior; interior photographs of the FAA cab • History and description (including existing photos of interest, brochures, newsletters, and other memorabilia from the early 1960's)	Photography shall be collected prior to commencement of demolition. Paper and/or electronic copies of the historic documentation shall be submitted to the Northwest Information Center (NWIC) of the California Historical Resources Information System, the City of Oakland Public Library-Oakland History Room (main branch), and the Port Archives.	Port		Photographs taken prior to commencement of demolition activities; completion of documentation within 12 months of EIR certification.	*Verified by:* *Date:*
HR-2. Online History of the South Field ATCT. A history of the South Field ATCT, would be developed and posted online for public information.	Materials will include the historic documentation prepared under mitigation measure HR-1, which will be posted on the Port website. The Port will also submit electronic documentation to the Docomomo US/Northern California[1] to update the information on the South Field ATCT on their website. Lastly, the Port will update Wikipedia's Oakland International Airport webpage.	Port	Online public information of South Field ATCT history.	Within 12 months of EIR certification.	*Verified by:* *Date:*

[1] A non-profit organization dedicated to the documentation and conservation of buildings, sites, neighborhoods of the modern movement. The Northern California Chapter was established in San Francisco in 1996. See www.docomomo-us.org.

[DRAFT]

MITIGATION MEASURES ADOPTED AS CONDITIONS OF APPROVAL	IMPLEMENTATION PROCEDURES	MONITORING RESPONSIBILITY	MONITORING AND REPORTING ACTION	MONITORING SCHEDULE	VERIFICATION OF COMPLIANCE
	B. Hazards and Hazardous Materials				
Mitigation Measure HZ-1 – Hazardous Material Handling Documentation. During construction, hazardous materials (i.e., fuel, waste oil, solvents, paint, and other hydrocarbon-based products) would be used in quantities that are typical of the construction industry. The construction contract documents would require that these materials be stored, labeled, and disposed of in accordance with applicable regulations. The contractors would be held responsible for reporting any discharges of hazardous materials or other similar substances (in amounts above their reportable quantities).	Project applicant and its contractor(s) shall incorporate in the contract documents the requirements for storage, labeling, and disposal of hazardous materials in accordance with relevant regulations.	Port	Verify incorporation of hazardous materials and spill prevention measures into the SWPPP. Verify incorporation of the SWPPP into construction plans.	Prior to commencement of demolition activities.	*Verified by:* *Date:*
Mitigation Measure HZ-2 – Asbestos Materials. During demolition activities, if any building materials are known, or suspected, to have asbestos-containing materials, the contractor's demolition plans and specifications would include requirements for the testing, handling, removal, and disposal of asbestos in accordance with federal, State, and local regulations.	The contractor's demolition plans and specifications would include requirements for the testing, handling, removal, and disposal of asbestos-containing materials in accordance with federal, State, and local regulations. The contractor performing the abatement would be required to have a California Class A contractor's license and the appropriate asbestos certification. In addition, the contractor will be required to develop an asbestos abatement program, which must be approved by the Port of Oakland.	Port	Verify incorporation of asbestos-handling measures into the contract documents.	Prior to commencement of demolition activities.	*Verified by:* *Date:*
Mitigation Measure HZ-3 – Health and Safety Plan. Development and implementation of a Health and Safety Plan in accordance with local, State and federal safety regulations.	To maintain safe operations during the partial demolition of the South Field ATCT, the contractor will prepare a Health and Safety Plan, which must be approved by the Port of Oakland, and adhere to all local, State, and federal safety regulations.	Port	Verify incorporation of measures associated with hazardous materials into the contract documents.	Prior to commencement of demolition activities.	*Verified by:* *Date:*

NOTES: ATCT = AIRPORT TRAFFIC CONTROL TOWER, PORT = PORT OF OAKLAND, SWPPP = STORMWATER POLLUTION PREVENTION PLAN.

Sources: Ricondo & Associates, Inc., Initial Study: South Field Airport Traffic Control Tower Demolition, December 2012; Ricondo & Associates, Inc. Draft Environmental Impact Report, South Field Airport Traffic Control Tower Demolition, March 2013.

Prepared By: Ricondo & Associates, Inc. March 2013.

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