

Historical Resource Research Report

Carnival Cruise Line Port of Long Beach Dredge Maintenance & Dock Improvements

December 2018

Prepared by:

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Fieldwork conducted by Sandra Pentney and Maximilian Jewett
Fieldwork conducted on June 9, 2016

USGS Long Beach, CA 7.5' quadrangle, Unsectioned
11.5-Acre Area of Potential Effects

Resources: P-19-180734 RMS Queen Mary; P-19-180753 Hughes Flying Boat HK-1

Contents

Executive Summary.....	1
1.0 Introduction	2
1.1 Report Organization.....	5
1.2 Personnel	5
2.0 Project Setting.....	5
2.1 Natural Setting.....	5
2.2 Cultural Setting	5
3.0 Research Design.....	6
4.0 Methods and Results	10
4.1 Archival Research.....	10
4.2 Field Survey.....	13
4.3 Description of Surveyed Resources	13
5.0 Findings and Conclusions.....	14
5.1 Conclusion.....	15
6.0 Bibliography	16

Appendices

Appendix A: Building Development Information

Appendix B: Preparer(s) Qualifications

Appendix C: Record Search Results

Figures

Figure 1: Area of Potential Effects	3
Figure 2: Location Map	4
Figure 3: Long Beach Pier Circa 1886.....	7
Figure 4: Port of Long Beach Circa 1945	8
Figure 5: Long Beach Pier Circa 1983.....	9

Tables

Table 1: Previous studies performed within one-mile of the proposed project APE.....	10
Table 2: Cultural resources listed on the CHRIS database	12

Executive Summary

In August 2015, Atkins was contracted to evaluate, permit, and design a maintenance dredging project and berth improvement for the Long Beach Cruise Terminal Pier H facility at the Port of Long Beach, since Carnival Cruise Line has revalidated its business plan and is to welcome a larger class of cruise vessels at the facility in 2019. Resulting capital improvements will include a dredging requirement of up to six feet deep and wharf improvements to accommodate this larger class of vessel. The project is led by the U.S. Army Corps of Engineers as the lead agency. The project will require various federal permits that will trigger review by the State Historic Preservation Officer under Section 106 of the National Historic Preservation Act (NHPA).

The Dredge Maintenance and Dock Improvement Project is to be performed of Carnival's Long Beach Cruise Terminal, Pier H of the Port of Long Beach, located at 231 Windsor Way in Long Beach. Archival research and pedestrian field surveys were performed by Atkins' archaeologists on behalf of Carnival Cruise Line. The archival research did not reveal any known resources within the project area. However, the RMS Queen Mary (Queen Mary), a 1930s passenger liner with a deep and storied history; which is listed in the National Register of Historic Places (NRHP) under Criterion A, Criteria Consideration G at the national level of significance for its many contributions to the history of recreation, social history, and military history; is moored adjacent to the project area. For this reason, an evaluation was conducted to ensure this project would not evoke any possible negative effects onto the Queen Mary.

A field survey was performed by Atkins' archaeologists on June 9, 2016. The general character of the area was documented and thoroughly photographed. No new historic or prehistoric resources were observed. Atkins concludes there will be no adverse effect to the Queen Mary, with the proposed project not negatively affecting the Queen Mary's historic integrity and its ability to convey the ship's historic significance.

1.0 Introduction

The Dredge Maintenance and Dock Improvements project is located at 231 Windsor Way, Pier H, Long Beach, California. Carnival Cruise Line will welcome a larger class of cruise vessel to its marine facility in 2019. The proposed project will require dredging of up to six additional feet beyond previously dredged depths and improved mooring arrangements able to accommodate the larger vessel. Two high-capacity mooring dolphins will be installed and connected via gangway platforms to the current wharf deck for improved and safer mooring dynamics during high wind conditions and long-period ocean swell events specifically recorded over the past years.

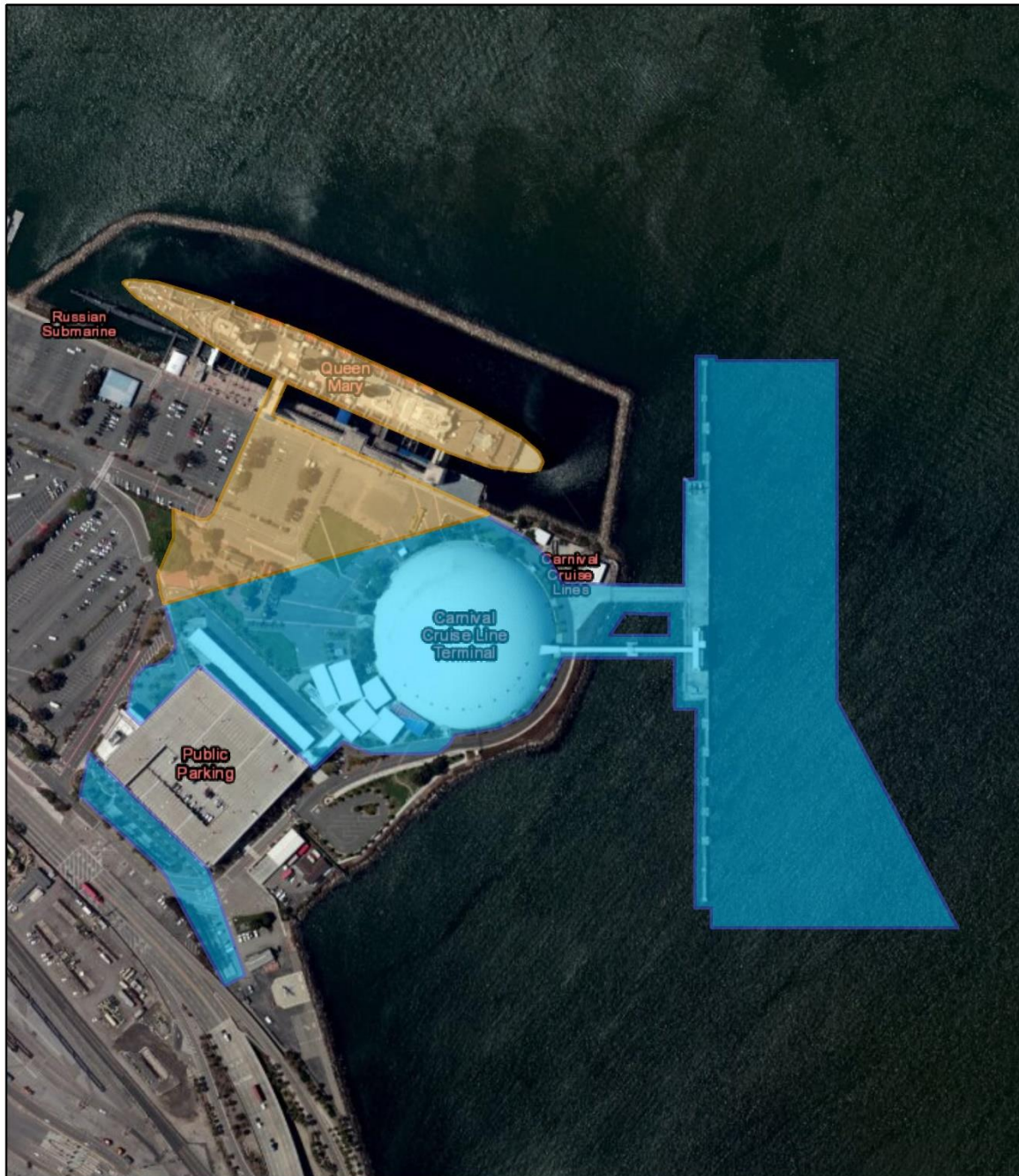
In order to accommodate the increase of Carnival Cruise patrons, Carnival desires to expand the current parking structure. The proposed expansion will resolve congestion currently experienced at the parking structure. The proposed project will increase the structure's capacity with an additional 620 automobile spaces. The intended build-out will expand over the existing roadways on the property, not affecting the flow of customer, commercial, and emergency response vehicle traffic. The proposed project will also remove a dilapidated and abandoned tunnel system, which has been out of service for over 20 years. The area of potential effect (APE) is comprised of the docking apparatus of the cruise terminal, the sea floor immediately below and adjacent to the berth, the facility parking garage, and the viewshed of the cruise terminal (Figure 1). The Queen Mary is included within the APE because although there will be no physical impacts to the vessel itself, its viewshed will be slightly affected. The APE is regionally located within the City of Long Beach. More specifically, it is located on Pier H within the Port of Long Beach and listed as an un-sectioned portion of the 'Long Beach 2015, 7.5-minute United States Geologic Survey (USGS) quadrangle map' (Figure 2). This area includes all addressed facets of the terminal facility and proposed improvements, such as the dock pilings, mooring dolphins, parking garage expansion, and up to six feet of additional subsurface depth of the harbor floor in the footprint of a cruise liner when in port.

The Archaeological Resource Management Report in support of this project identified the Queen Mary, a 1930s passenger liner, as being located immediately to the west of the viewshed APE. The Queen Mary is listed in the NRHP under Criterion A, Criteria Consideration G at the national level of significance for recreation, social history, and military history. For this reason, the possible effects of the project on the Queen Mary were evaluated under Section 106 of the NHPA.

Archival research revealed several previous reports that have surveyed this area. The only known cultural resource within the APE is the Queen Mary (P-19-180734). A field survey was performed to study and document the character of the area. The APE is under water and was not studied; however, the dry land areas relevant to the Queen Mary and cruise terminal were thoroughly documented. No new resources were discovered or expected as Pier H was built less than 50 years ago.

As previously stated the modifications needed within the APE, to allow for a larger Carnival cruise ship, will not affect the Queen Mary's historical integrity and its historic significance.

Figure 1: Area of Potential Effects






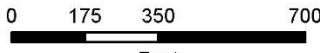

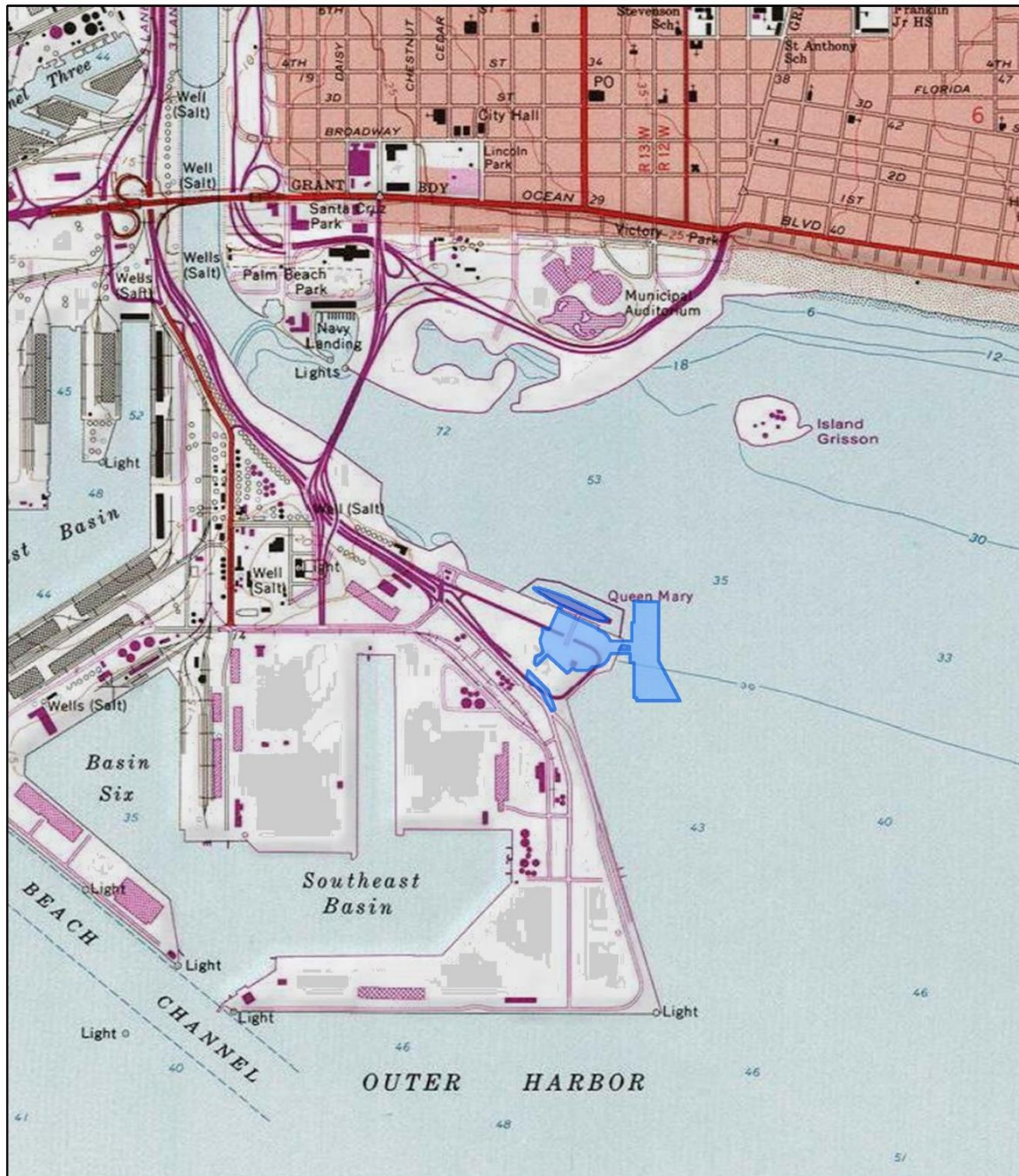



<p>  Area of Direct Effects  Area of Potential Indirect Effects </p>	<p>  1 inch = 350 feet  0 175 350 700 Feet </p>	<p>Figure 1 Area of Potential Effects</p>	
		<p>Job Number: 100046963</p>	<p>Created on: December 12, 2018</p>
		<p>Created by: PERE5707</p>	

Figure 2: Location Map



 Area of Potential Effects	 1 inch = 2,000 feet	Figure 2 Location Map	
		Job Number: 100046963	Created on: December 12, 2018
		Created by: PERE5707	

1.1 Report Organization

Section 1 of this report provides a description of the APE and project personnel. Section 2 provides the natural and cultural setting of the APE. Section 3 explains the research design. Section 4 provides the methods and the significance for resources discovered during monitoring activities. Section 5 details the findings and conclusions as to the impact of the project.

1.2 Personnel

Project personnel included Atkins Senior Archaeologist Sandra Pentney, who served as Principal Investigator (PI), and Atkins Archaeologist Maximilian Jewett. Sandra Pentney's responsibilities as PI were to manage and oversee archival and field studies as well as provide oversight of the historical resource research report. Maximilian's responsibilities were to conduct the archival research, assist in the field survey, and coauthor the historical report. Atkins Archaeologists Mariela Mendoza and Sara Shouse also assisted in coauthoring this report.

2.0 Project Setting

The APE is located at the Cruise Terminal at 231 Windsor Way, Long Beach, California, which includes the NRHP-listed Queen Mary, within the Port of Long Beach. The Port of Long Beach has grown tremendously over the last century, starting with 800 acres and growing to 7,600 acres of wharves and shipping channels. Population growth and expansion of merchandise demand has allowed the Port of Long Beach to continue to be one of the world's busiest seaports for more than 50 years (POLB 2015a).

2.1 Natural Setting

The project setting is located within the footprint of the Cruise Terminal. The terminal is located on man-made land that was constructed in 1967 (Cunningham and Cunningham 2015). The pier area is artificially landscaped and fully developed. Other than sea life there is no natural habitat or landforms in the APE or general project area.

2.2 Cultural Setting

Southern California has been inhabited for at least the past 10,000 years. Numerous attempts have been made to categorize the population and technological shifts throughout this time. In a general sense, the chronology can be summed up as the Early Period from 10,000 to 8,000 Before Present (BP), the Millingstone Period from 8,000 to 3,000 BP, the Intermediate Period from 3,000 to 1,000 BP, and the Late Prehistoric Period from 1,000 BP to 1771 AD. The year 1771 is when Mission San Gabriel was founded and heralds the onset of the Protohistoric period.

Since the APE is man-made land and has little potential for intact buried cultural resources, the setting will focus on the historical development of the Port of Long Beach. The majority of the port contains several historic commercial and residential structures; however, only the Queen Mary is in notable proximity to the APE.

The Port of Long Beach is one of North America's most notable ports. It is currently the second busiest port in the United States, being involved both directly and indirectly in more than \$47 billion in business sales and is the landfall port of almost 20 percent of shipping containers in the United States (POLB 2015a).

The port was founded in 1911 when the State of California granted 800 acres of slough and salt marshes (Figure 3) in the San Pedro Bay to the City of Long Beach for the purpose of operating a port. Construction and expansion would be continuous throughout its history to the present day. During the 1920s the inner and outer harbor was improved and developed. In the 1940s and 1950s, construction of the eastern leg of the San Pedro Bay breakwater grew to eight miles in length (Figure 4). Piers J and F completed construction in 1965, adding 310 acres of landfill to Long Beach, making it the largest landfill expansion in the world at the time. In 1967, the City of Long Beach acquired the Queen Mary, a historic passenger liner, with the hope of making it into a tourist attraction. Pier J expanded an additional 140 acres in the 1970s for the creation of new inner harbor auto terminals (Figure 5). In 1993, Pier J opened a new cutting-edge expansion of 107 acres, which is capable of dispersing stress and reducing damage in the event of an earthquake. The Port of Long Beach experienced another victory in its continuous battle for the top spot when, in 1995, Long Beach became the largest container port in the United States after moving an equivalent of 2.6 million Twenty Foot Equivalent Units (TEU) (POLB 2015b). In 1999, Carnival Cruise Lines began operations in the Port of Long Beach, which became the first port to launch a commercial satellite into outer space that same year (Cunningham and Cunningham 2015).

3.0 Research Design

The APE is located on man-made land that was constructed in 1967 (Cunningham and Cunningham 2015). The APE and its vicinity have experienced nearly continuous construction since its inception and as such Atkins is approaching this project as a built environment study. Additionally, the APE is located off dry land. This study assumes that the immediate proximity to Pier H and the nature of the pier's construction, being composed of locally dredged material, is likely to have either removed sediment for this area or to have deposited sediment atop it. It is an assumption of this study that these conditions, specifically with the knowledge the Pier H was constructed less than 50 years ago, precludes the possibility of *in situ* historic or prehistoric materials in immediate proximity. Several studies covering the project area have been performed. No cultural resources have been observed within the APE. For this reason, this study also assumes the absence of any historic resources, besides the Queen Mary, which is known to be in close proximity to the terminal, to be of a nature that could be impacted by infrastructure or traffic changes in their surroundings.

Therefore, the primary concern of this study is whether the proposed project or the presence of a larger vessel at the Cruise Terminal, which this project would make feasible, could negatively affect the historic integrity of the Queen Mary, which is listed in the NRHP.

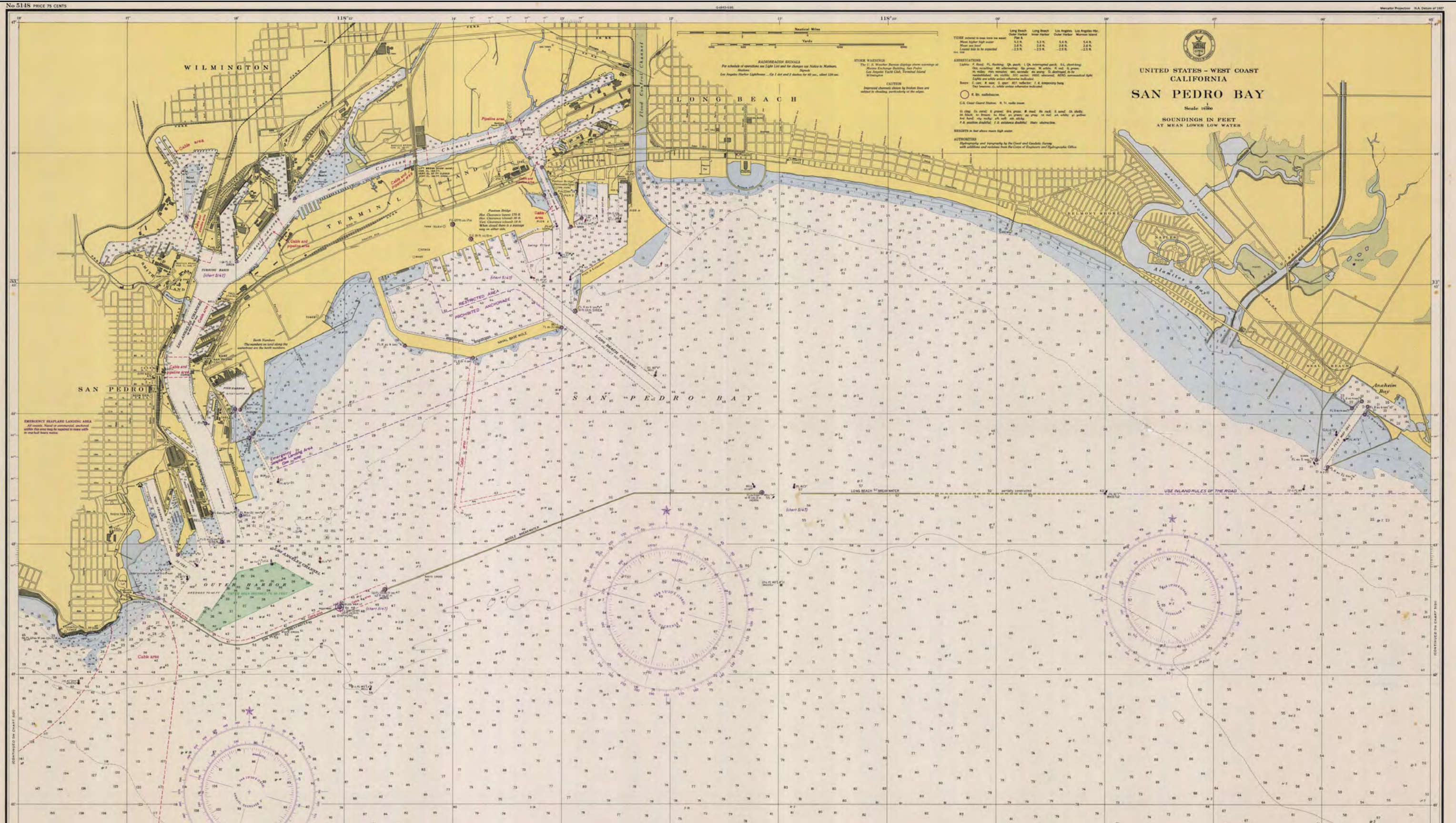


FIGURE 3
Long Beach Pier Circa 1945

Source: United States Office of Coast Survey 2016

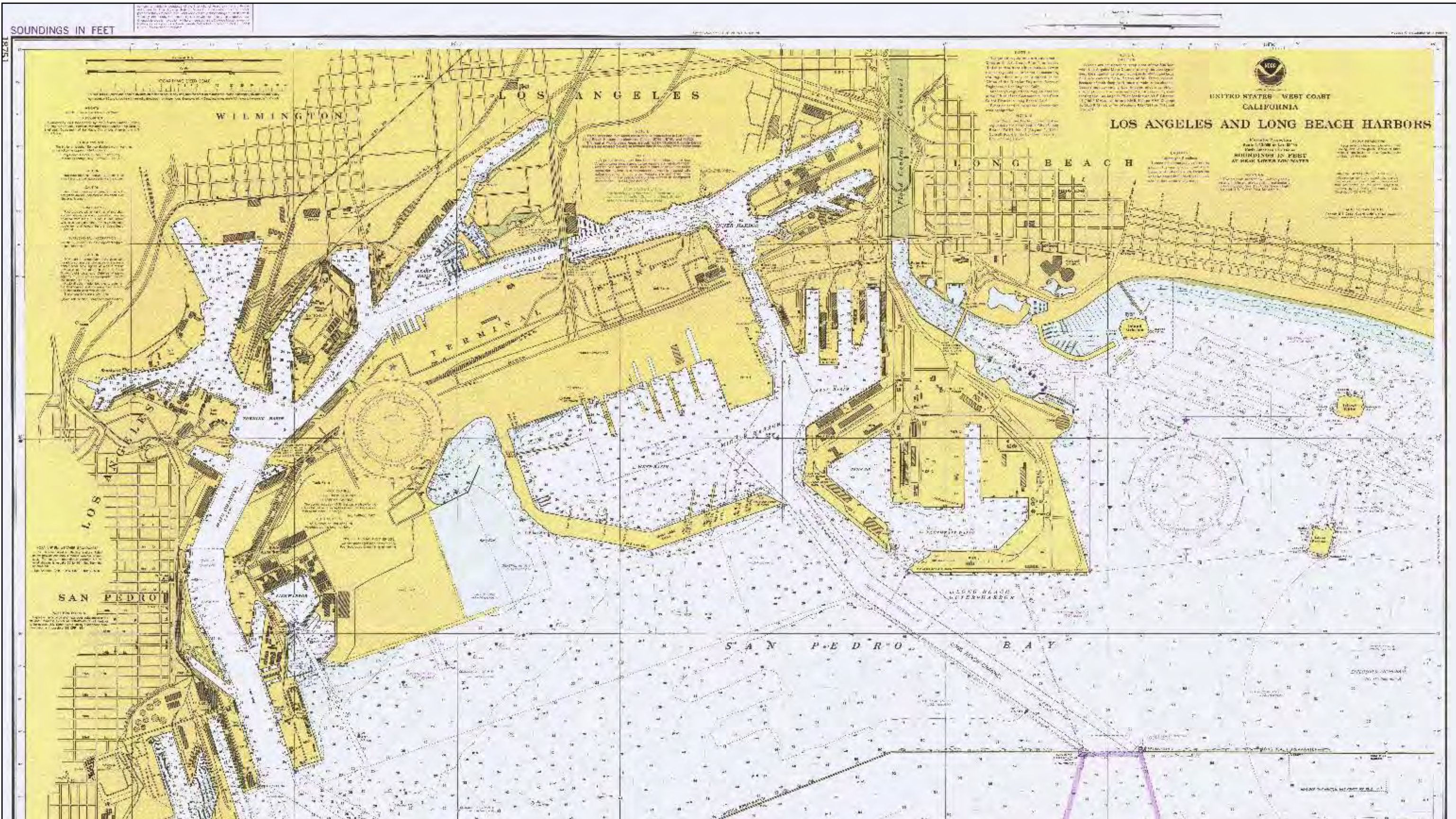


FIGURE 4
Port of Long Beach Circa 1983

Source: United States Office of Coast Survey 2016

4.0 Methods and Results

Archival research included California Historical Resources Information System records search request, which was fulfilled by the South Central Coastal Information Center (SCCIC) at California State University, Fullerton on May 10, 2016. The search encompassed a one-mile search radius around the proposed project APE. Additionally, USGS quadrangle maps and authoritative literature was reviewed. Atkins consulted with the Native American Heritage Commission for the purpose of mitigating possible impacts to tribal cultural resources. Atkins formally notified Native American Tribes who have traditionally inhabited the land surrounding the project area. Atkins did not receive any responses from the Native American Tribes with interest in participating in the Dredge Maintenance and Dock Improvement Project.

The field survey sought to document the current visual conditions of the area surrounding the APE. Because the area is a built environment, transects would not be walked (Figure 1). Photographs were taken of the dock pilings, the Cruise Terminal as seen from the Queen Mary, the Queen Mary as seen from the Cruise Terminal, and additional context shots as deemed appropriate.

4.1 Archival Research

Atkins conducted research with various historical registries such as the California Register of Historical Resources (CRHR), California Historical Resources Inventory (CHRI), California Historical Landmarks (CHL), California Points of Historical Interest (CPHI), and the Los Angeles County Office of Historical Preservation. The records search revealed that 23 previous studies had been performed within the one-mile search radius (Table 1) and that 100 percent of the APE had been previously surveyed. The records search also revealed 11 cultural resources have previously been recorded at the SCCIC, as listed on the California Historical Resources Information System (CHRIS) database (Table 2). These resources include apartment buildings, commercial buildings, a ship, and a carousel. Of particular note is the Queen Mary.

Table 1: Previous studies performed within one-mile of the proposed project APE

Report Number	Authors	Year	Title	Within the APE
LA-00358	Stickel, Gary E.	1976	An Archaeological and Paleontological Resource Survey of the Los Angeles River, Rio Hondo River, and the Whittier Narrows Flood Control Basin, Los Angeles, California	No
LA-02233	Mason, Roger D.	1990	Ocean Promenade (job #11426) Cultural Resources Records Search	No
LA-02399	Winman, Lois J. and E. Gary Stickel	1978	Los Angeles-Long Beach Harbor Areas Cultural Resource Survey	No
LA-02910	Stickel, Gary E.	1981	A Literature Search for Shipwrecks in the Los Angeles - Long Beach Harbors and at the US Naval Facility at Terminal Island	No
LA-03102	McCawley, William, John Romani, and Dana Slawson	1994	The Los Angeles County Drainage Area Subsequent Environmental Impact Report	No
LA-04130	Anonymous	1984	Los Angeles-Long Beach Harbors Landfill Development and Channel Improvement Studied Cultural Resources Appendix	No
LA-04631	Duke, Curt	1999	Cultural Resource Assessment for Pacific Bell Mobile Services Facility LA 446-02, County of Los Angeles, California	No
LA-05118	Lapin, Philippe	2000	Cultural Resource Assessment for Pacific Bell Wireless Facility LA 446-04, County of Los Angeles, CA	No

Table 1: Previous studies performed within one-mile of the proposed project APE

Report Number	Authors	Year	Title	Within the APE
LA-05403	Moffatt, Nicole	1994	Environmental Impact Report Queensway Bay Master Plan State Clearinghouse No. 94081033 EIR No. E-13-94	No
LA-05878	Duke, Curt	2002	Review of Pacific Bell Wireless Facility LA 446-04, County of Los Angeles, CA	No
LA-06040	Bonner, Wayne H.	2001	Cultural Resource Assessment for Sprint PCS Facility LA 54xc781d located at 880 S. Harbor Scenic Drive in Long Beach, Los Angeles County, CA	No
LA-08480	Billat, Scott	2005	New Tower Submission Packet, FCC Form 620, Project Name: Pier J	No
LA-08488	Tibbet, Casey and Terri Jacquemain	2005	Historic Building Survey: Shoreline Gateway Project in the City of Long Beach, Los Angeles County, CA	No
LA-10404	Mason, Roger	2001	Cultural Resources Record Search and Literature Review Report for an AT&T Telecommunications Facility: Number D189 Ocean Center Building in the City of Long Beach, Los Angeles, CA	No
LA-10527	Weinman, Lois J.	1978	Los Angeles-Long Beach Harbor Areas Regional Cultural History, Los Angeles County, CA	No
LA-10587	Hatoff, Brian	2010	Verizon Cellular Communications Tower Site - LTE Long Beach Convention Center, 110 W. Ocean Blvd., Long Beach, CA 90802	No
LA-11138	Pierson, Larry, Shiner, Gerald, and Slater, Richard	1987	California Outer Continental Shelf, Archaeological Resource Study: Morro Bay to Mexican Border, Final Report	No
LA-11466	Supernowicz, Dana	2011	Cultural Resources Study of the AT&T Mobility Site No. LAD189, 101 Seaside Way, Long Beach, Los Angeles County, CA 90802	No
LA-11910	Meyer, Donna	2012	Port of Long Beach	No
LA-12055	Bonner, Wayne	2012	Cultural Resources Records Search and Site Visit Results for T-Mobile West, LLC Candidate LA02446A (LA446 Reef Restaurant), 880 Harbor Scenic Drive, Long Beach, Los Angeles County, CA	No
LA-12389	Chasteen, Carrie	2012	Identification and Evaluation of Smokehouses Port of Long Beach Long Beach, Los Angeles County, CA	No
LA-12391	Bonner, Wayne and Crawford, Kathleen	2013	Cultural Resources Records Search and Site Visit Results for T-Mobile West, LLC Candidate LA02674A (LA247 Atlantic & Ocean Apt.) 10 Atlantic Avenue, Long Beach, Los Angeles County, CA	No
LA-12808	Chasteen, Carrie, Clark, Tiffany, Hanes, Richard, and Mirro, Michael	2014	Cultural Resources Study of the Wilmington Oil and Gas Field, Los Angeles County, California in Support of Analysis of Oil and Gas Well Stimulation Treatments in California EIR	No

Table 2: Cultural resources listed on the CHRIS database

Primary Number	Date of Construction	Resource Name	Description	Within the APE
P-19-178689	From 1914-1929	Jergins Trust Bldg	Jergins Building: Baroque style; 9-story; stucco, terra cotta, and brick multi-use commercial and residential building.	No
P-19-178693	1929	Villa Riviera	Villa Riviera: Chateausque style; 15-story U-shaped stucco apartment building.	No
P-19-178703	1929	Ocean Center Bldg	Ocean Center Building: Spanish Colonial Revival with Italian Renaissance Revival details; multi-storied concrete office building.	No
P-19-178967	1922	Cooper Arms Apartments	Cooper Arms Apartments: Period Revival style; 12-story; concrete apartment building finished with brick and stucco.	No
P-19-180734	1936	RMS Queen Mary	RMS Queen Mary: 3-funneled steel passenger liner; served as a passenger liner until 1939, served as a troop ship from 1940-1947 and then returned to passenger service until 1967. It was sold to the City of Long Beach, California as a hotel and amusement attraction.	Yes
P-19-180753	1947	Hughes Flying Boat HK-1 aka: "The Spruce Goose"	Hughes Flying Boat HK-1: 8-engine seaplane; at the time of its completion it was the largest aircraft ever constructed. Its last flight was November 2, 1947.	Yes
P-19-187089	1906	Shoreline Loeff Carousel	Shoreline Loeff Carousel: one of 30 full-sized, hand-carved carousels; one of ten remaining built by Charles Loeff.	No
P-19-190079	1958	Reef Restaurant	Reef Restaurant: multi-story commercial restaurant building with stucco, wood, and brick design.	No
P-19-190743	1922	E & T Constructors	E & T Constructors: Modern-style poured concrete commercial building.	No
P-19-190744	1910	645 E Ocean Blvd	645 E Ocean Blvd: 3-story apartment building with stucco and Modern style.	No
P-19-190745	1941	635 E Ocean Blvd	635 E Ocean Blvd: multi-storied apartment with stucco, siding, and stone veneer.	No

The Queen Mary was purchased by the City of Long Beach from the Cunard Line in 1967 and has occupied its present location of a 33-acre addition to Pier G, dubbed Pier H (although, the designation includes a larger area), where it has remained to the present (Cunningham and Cunningham 2015). The area surrounding the APE was generally built or rebuilt in the decades following its lease to Wrather Corp. in 1980, where several non-public enterprises sought to develop the Queen Mary and the surrounding area of Pier H into an amusement attraction. These developments have slowed, except for the appearance of Carnival Cruise Line onto the pier immediately southeast of the Queen Mary in 1999 (Cunningham and Cunningham 2015). A plane, the Spruce Goose—variously referred to as *Hughes Hercules H-4*, *HK-1*, and the *Flying Boat*—was also located on Pier H for some time. It was moved from Pier E to the purposely built geodesic dome on Pier H as a tourist attraction by the Wrather Corp. in 1983. This dome is located across a parking lot immediately south of the Queen Mary and immediately west of the APE. However, the Spruce Goose was moved to an Oregon facility in 1992 and is therefore no longer relevant to this study (Cunningham and Cunningham 2015). The geodesic dome is now used in its entirety as an international travel terminal for Carnival Cruise Line.

4.2 Field Survey

On June 9, 2016, Sandra Pentney and Max Jewett performed the field survey (Figure 1). The vicinity of the Cruise Terminal and Queen Mary was thoroughly photographed. Photographs of the area were taken from the top of the parking structure southwest of the geodesic dome, the area between the Queen Mary and the parking structure, the aft deck of the Queen Mary, the west facing vicinity of the Spruce Goose's domed hangar, the Cruise Terminal berth, and the aft deck of the Carnival ship Imagination. The Queen Mary is the only known historic resource within the immediate area of the survey area and no new cultural resources were discovered.

4.3 Description of Surveyed Resources

The Queen Mary predates the construction of Pier H where it is currently located. The Queen Mary is a three-funneled art deco steel luxury passenger liner designed in 1926, with her construction being completed in 1934 (USDI 1992). The Queen Mary is the last extant large luxury cruise liner dating to this period, having outlasted the likes of the Titanic, Lusitania, Majestic, and the Kaiser Wilhelm der Grosse, among others. She is 118 feet tall, 1,012 feet long, 118 feet wide, and is 89,548 tons. The ship is built with steel plates being connected on girders with steel ribs and contains more than 10 million rivets. The Queen Mary's maiden voyage departed from Clydebank, Scotland in 1936 as a passenger liner owned by the Cunard Steamship Company (USDI 1992). She continued service as a passenger liner until 1940 when she was commissioned as a troop carrier due to World War II. The ship served as a troop ship between the years 1940 and 1947, whereupon she resumed service as a civilian passenger liner (USDI 1992). The Queen Mary continued operation until 1967 when sold by the Cunard Line to the City of Long Beach where she was installed on a specially created 33-acre addition to the pier. The ship has served a number of owners and lessees to present as a hotel, restaurant, museum, and amusement attraction (USDI 1992). In 1978, ownership of the Queen Mary was transferred from the City to the Port of Long Beach, which granted Wrather Corp. a 60-year leasing agreement to the property in 1980. The ship was sold once again in 1987 to Walt Disney Co. and Industry Equity (Pacific) Ltd. of Hong Kong (Cunningham and Cunningham 2015). The Queen Mary's ownership would later be transferred back to the Port, and thereafter the City of Long Beach following a failed Disney theme park proposal.

The Queen Mary has undergone significant modifications since her service in Long Beach began. In 1967, the original main entry doors were sealed (USDI 1992). Several new openings were cut into the ship to serve as visitor and service entrances (Photo 1). A large metal box containing the last intact propeller of the Queen Mary (sitting in fresh water) was also welded to the side of the ship enabling visitors to view it from an opening cut into the side of the ship (USDI 1992).



Photo 1: Queen Mary

The Spruce Goose is still listed at the SCCIC as an extant resource adjacent to the APE. No site update form has been prepared to update the removal of the plane from the area. The geodesic dome that was specifically constructed back in 1983 is not yet of an age for consideration as a historical resource (Cunningham and Cunningham 2015).

5.0 Findings and Conclusions

The Queen Mary is listed in the NRHP under Criterion A and Criteria Consideration G (see below) at the national level of significance for recreation, social history, and military history (USDI 1992). According to the NRHP Criteria for Evaluation, the Queen Mary is included in the NRHP since it exhibits:

“The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. *That are associated with events that have made a significant contribution to the broad patterns of our history”*
- g. *A property achieving significance within the past 50 years if it is of exceptional importance.”*
(National Park Service 1995)

More specifically, as a floating historic vessel she is eligible due to her notable eminence in commerce and military history, as discussed in the 1992 NRHP nomination form. The Queen Mary is the last example of a North Atlantic passenger liner that exhibited luxury on ocean travel in the 1930s. Soon after, the Queen Mary ship regularly crossed oceans worldwide through her use in World War II, carrying over 800,000 soldiers on 72 trips. Although the Queen Mary has always lacked a permanent berth or home, the vessel has been at her current berth for the last 25 years (USDI 1992).

The Queen Mary’s eligibility in the NRHP is not based on the setting of the ship, but rather her historic contributions during World War II. As such, large-scale construction and infrastructure changes surrounding the Port of Long Beach will neither contribute to nor detract from her historic integrity or historic significance and the Queen Mary’s eligibility in the NRHP. This construction, as well as its affiliated modern infrastructure and machinery, is clearly visible from the deck of the Queen Mary, facing southwest (Photo 2). Modern construction thoroughly dominates the character of the port,



Photo 2: Modern infrastructure and machinery visible from the deck of the Queen Mary



Photo 3: Modern construction at the pier

including the Queen Mary berth (Photo 3).

A larger ship docking in proximity to this resource may alter the Queen Mary's viewshed to the east and southeast. However, this alteration is not considered to be a significant adverse effect with cruise liners currently alongside in the same location when they are in port (Photo 4). The larger vessel class under consideration by Carnival Cruise Lines is recommended as not having an adverse effect on the Queen Mary's historic integrity and its ability to adequately convey its historic integrity under which the Queen Mary is listed on the NRHP.



Photo 4: Obstructed views

5.1 Conclusion

The project is the Carnival Cruise Port of Long Beach Dredge Maintenance and Dock Improvements Project, which plans to deepen the current harbor floor by up to six feet, to increase the rigidity of dock pilings by jacketing them in additional concrete, adding two mooring dolphins, and extending the current parking garage. This will serve to perform maintenance of the berth as well as allow for possible accommodation of a larger class of cruise vessel.

Due to this section of the Port of Long Beach being man-made land created from harbor dredge in 1967, Atkins has determined that there is little sensitivity for significant buried cultural resources. Additionally, the geodesic dome structure built to house the Spruce Goose is too young to be considered a historical resource and suffered a loss of context and association when the plane was moved out of the Long Beach area to its new home in Oregon. The only significant historic resource within or adjacent to the APE is the NRHP-listed Queen Mary.

The Archaeological Resource Management Report in support of this project identified the Queen Mary, a 1930s passenger liner, as being located immediately adjacent to the APE. The Queen Mary is listed in the NRHP under Criterion A, Criteria Consideration G at the national level of significance. For this reason, the possible effects of the project on the Queen Mary were evaluated under Section 106 of the NHPA.

Archival research revealed several previous reports that have surveyed this area. The Queen Mary is the only known cultural resource within or adjacent to the APE. A field survey was performed to study and document the character of the area. However, the dry land areas relevant to the Queen Mary and Carnival Terminal were thoroughly documented. No new resources were expected or discovered because Pier H, where the terminal is located, was built fewer than 50 years ago.

Because the Queen Mary's historic integrity and ability to convey its historic significance are not negatively affected by the modification of modern dock structures or identical proximity to a vessel larger than the current Carnival Cruise Line ships operating out of this terminal, Atkins recommends that there will be no adverse effects and no mitigation is required. Atkins recommends no further work under Section 106 is required.

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Appendix A

Building Development Information

PERMIT DRAWINGS FOR CARNIVAL CRUISE LINE WHARF H IMPROVEMENTS LONG BEACH, CALIFORNIA

SCOPE OF WORK

THE CARNIVAL WHARF H DOCK IMPROVEMENT PROJECT GENERALLY CONSISTS OF, BUT IS NOT LIMITED TO THE FOLLOWING SCOPE OF WORK SUMMARY.

CIVIL WORK:

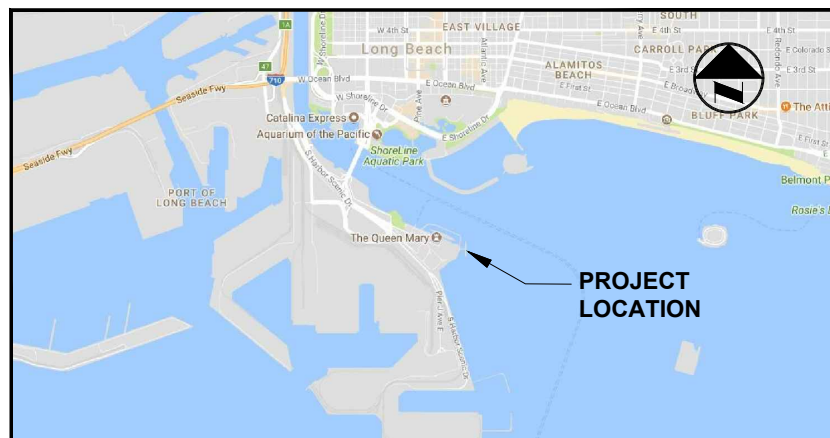
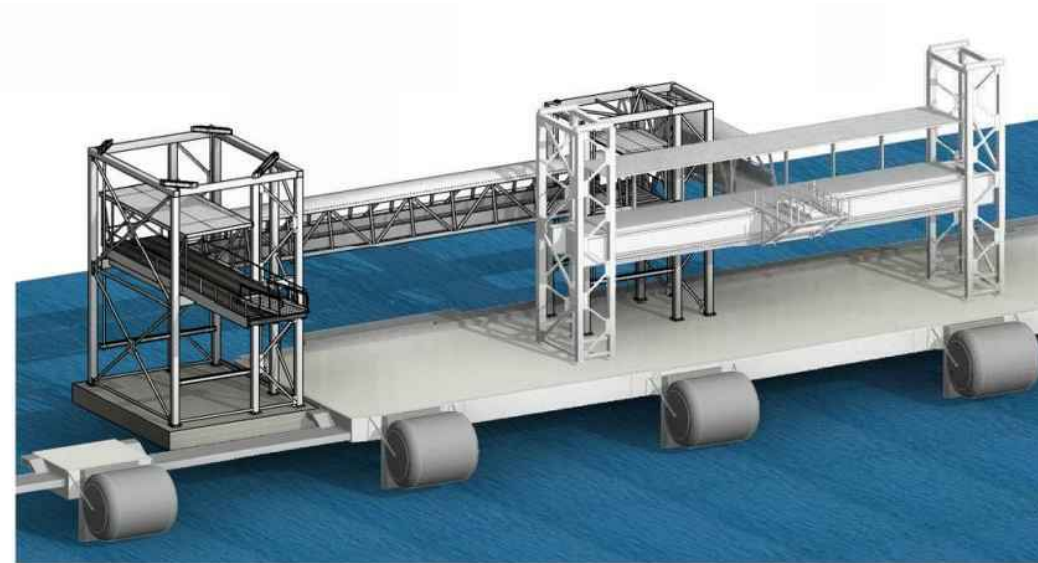
- THERE IS NO CIVIL WORK INVOLVED IN THIS PROJECT.

STRUCTURAL WORK:

- CONSTRUCTION OF TWO (2) 38' x 30' MOORING DOLPHINS CONSISTING OF A CONCRETE CAP SUPPORTED ON STEEL PIPE PILES.
- PROCUREMENT AND INSTALLATION OF SIX (6) 150 METRIC TON SINGLE BITT MOORING BOLLARDS. THREE (3) MOORING BOLLARDS WILL BE LOCATED ON EACH PROPOSED MOORING DOLPHIN.
- PROCUREMENT AND INSTALLATION OF ONE (1) 75 METRIC TON SINGLE BITT MOORING BOLLARD AND REPLACEMENT OF FOUR (4) 100 METRIC TON BOLLARDS ON THE EXISTING WHARF.
- PROCUREMENT AND INSTALLATION OF FIFTEEN (15) FOAM FILLED FENDERS. EIGHT (8) FENDERS ARE LOCATED ON THE PLATFORM AND SEVEN (7) FENDERS ARE LOCATED ON THE BERTHING DOLPHINS.
- PROCUREMENT AND INSTALLATION OF TWO (2) CATWALK WALKWAYS CONNECTING THE EXISTING MOORING DOLPHINS AND THE PROPOSED MOORING DOLPHINS.
- CONSTRUCTION OF 39.5' x 34.5' CONCRETE FOUNDATION FOR NEW GANGWAY TOWER SUPPORT SUPPORTED ON STEEL PIPE PILES.
- CONSTRUCTION OF NEW SOUTH CATWALK AROUND NEW GANGWAY FOUNDATION STRUCTURE.

DEMOLITION WORK:

- REMOVAL OF EXISTING FOAM FILLED FENDERS.
- SELECTIVE DEMOLITION OF EXISTING SOUTH OPEN-GRATING CATWALK AND STAIRS.



LOCATION MAP

PREPARED BY:
ATKINS

3780 KILROY AIRPORT WAY
LONG BEACH, CA 90806

AUGUST 2018

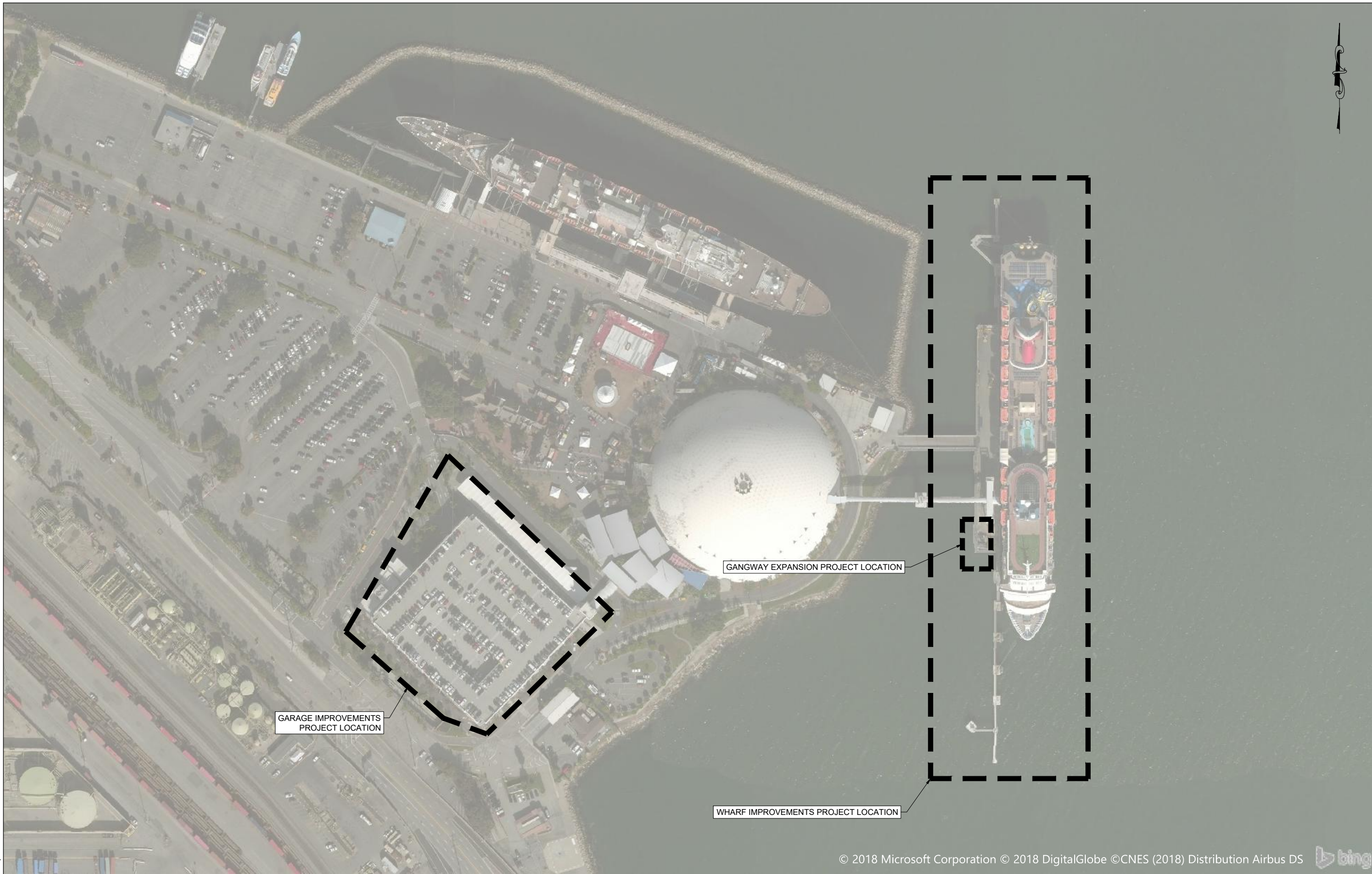
FOR PERMIT ONLY - NOT FOR CONSTRUCTION

ATKINS PROJECT NUMBER:
100054883

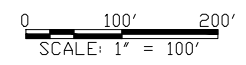
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CARNIVAL CRUISE LINE	WHARF H IMPROVEMENTS PERMIT DRAWINGS	COVER SHEET
<small>CLIENT</small>	<small>PROJECT</small>	<small>TITLE</small>
ATKINS <small>CORPORATE OFFICE: 4000 W. BOY SCOUT BOULEVARD TAMPA, FLORIDA 33607 AUTHORIZATION NO. 24 www.atkinsglobal.com</small> <small>LOCAL OFFICE: 1720 KATY FREEWAY, HOUSTON, TX 77054 TEL: 281.483.5100 FAX: 281.483.1047</small>		
<small>JOB NO.:</small>	100054883	
<small>DRAWN:</small>	A.D.	
<small>DESIGN:</small>	D.M.	
<small>CHECKED:</small>	XXX	
<small>APPROVED:</small>	XXX	
<small>SHEET NO.:</small>	COVER	<small>REV.</small>
FOR PERMIT NOT FOR CONSTRUCTION		



OVERALL SITE PLAN
 SCALE: 1" = 100'

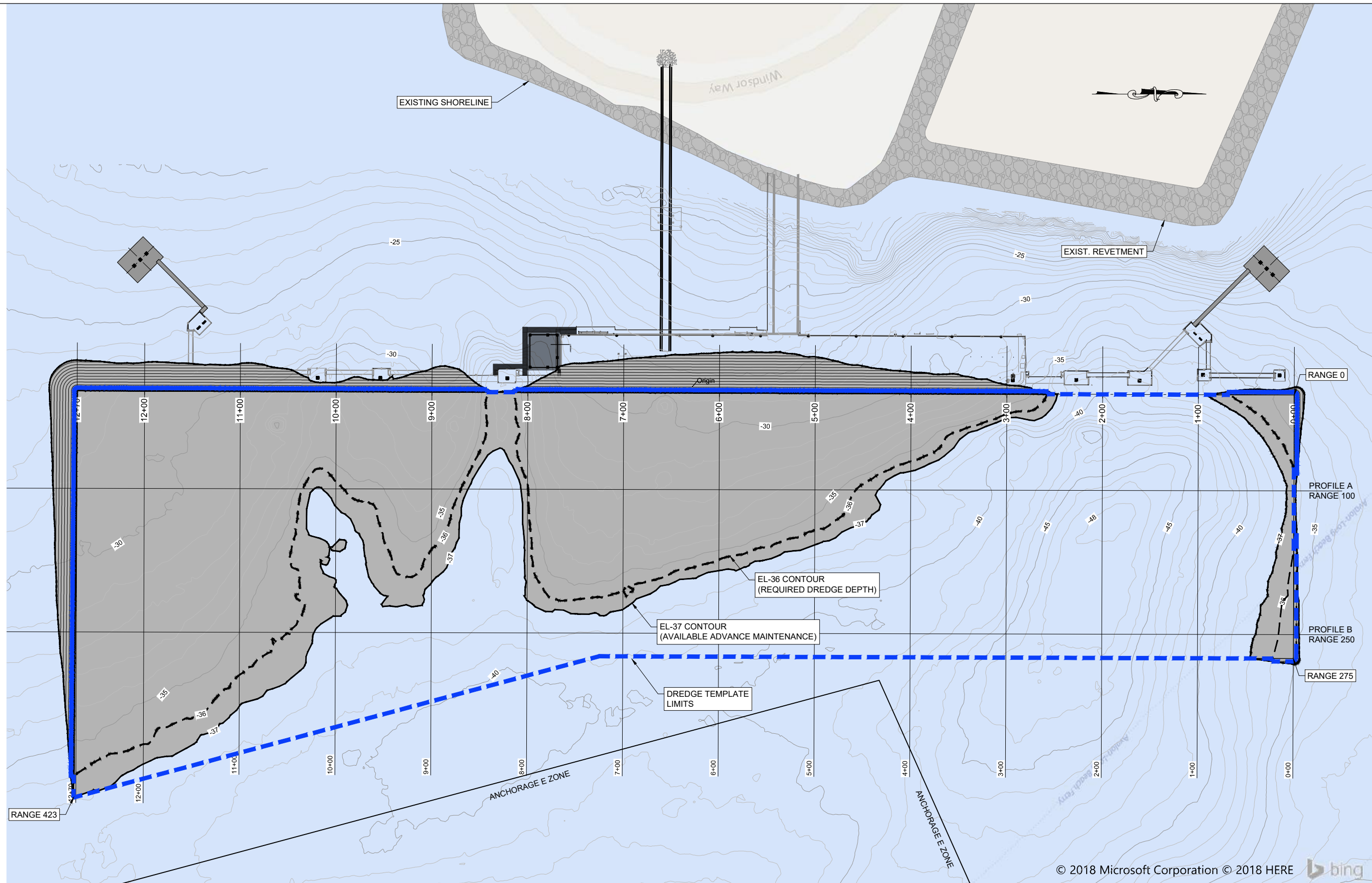


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<p>CLIENT CARNIVAL CRUISE LINE</p>	
<p>PROJECT WHARF H IMPROVEMENTS PERMIT DRAWINGS</p>	
<p>TITLE OVERALL SITE PLAN</p>	
<p>ATKINS <small>CORPORATE OFFICE: 400 W. BOY SCOUTS BOULEVARD TAMPA, FLORIDA 33607 LOCAL OFFICE: 17220 KATY FREEWAY, HOUSTON, TX 77054 FBPR CERT #CATE OF AUTHORIZATION NO.04 TEL: 281-483-1100 FAX: 281-483-1447 www.atkinsglobal.com</small></p>	
<p>JOB NO.: 100054883</p>	<p>DRAWN: A.D.</p>
<p>DESIGN: D.M.</p>	<p>CHECKED: XXX</p>
<p>APPROVED: XXX</p>	<p>SHEET NO. REV.</p>
<p>EX-100</p>	<p>FOR PERMIT NOT FOR CONSTRUCTION</p>
<p>DATE: JULY 2018</p>	<p>REV. DATE</p>
<p>DESCRIPTION</p>	<p>DESCRIPTION</p>

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Aug 15, 2018 - 3:04pm D:\48952\PROJECTS\100054883 - Carnival Long Beach Permit\02_30_Permit_Dredge Drawings\DR-100 - 300.dwg DR-100
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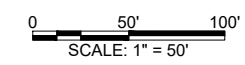


- NOTES:**
- BATHYMETRY SHOWN ON THE PROJECT PLAN IS BASED ON MULTIBEAM DATA COLLECTED ON JANUARY 20TH, 2018 BY GAHAGAN BRYANT ASSOCIATES, INC. ALL DEPTHS ARE REFERENCED TO THE LOCAL NGVD MLLW DATUM.
 - THE CONTOURS SHOWN ON THE PROJECT PLAN ARE APPROXIMATE AND THE ACTUAL DREDGING LIMITS WILL BE DETERMINED BY ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION.
 - ALL PROPOSED DREDGING IS TO BE PERFORMED WITHIN THE LIMITS REPRESENTED BY THE DREDGING PRISM TO THE DESIGN DEPTHS INDICATED IN THE PROJECT PLAN. A PROPOSED 3H:1V SIDE SLOPE WILL BE INCORPORATED BEYOND THE BASE DREDGING PRISM.

LEGEND:
 [Grey Box] DREDGE AREA TO EL. -37 WITH 3:1 SIDE SLOPES

DREDGE SITE PLAN
 SCALE: 1" = 50'

Fall 2019 Projected Dredge Quantities			
Dredge Template	Required Dredging Volume to 36.0' MLLW	1.0 ft Advance Maintenance Overdepth	Total Est. Quantity Available to 37.0' MLLW
Proposed Dredge Template	27,166 cy	8,254 cy	35,420 cy



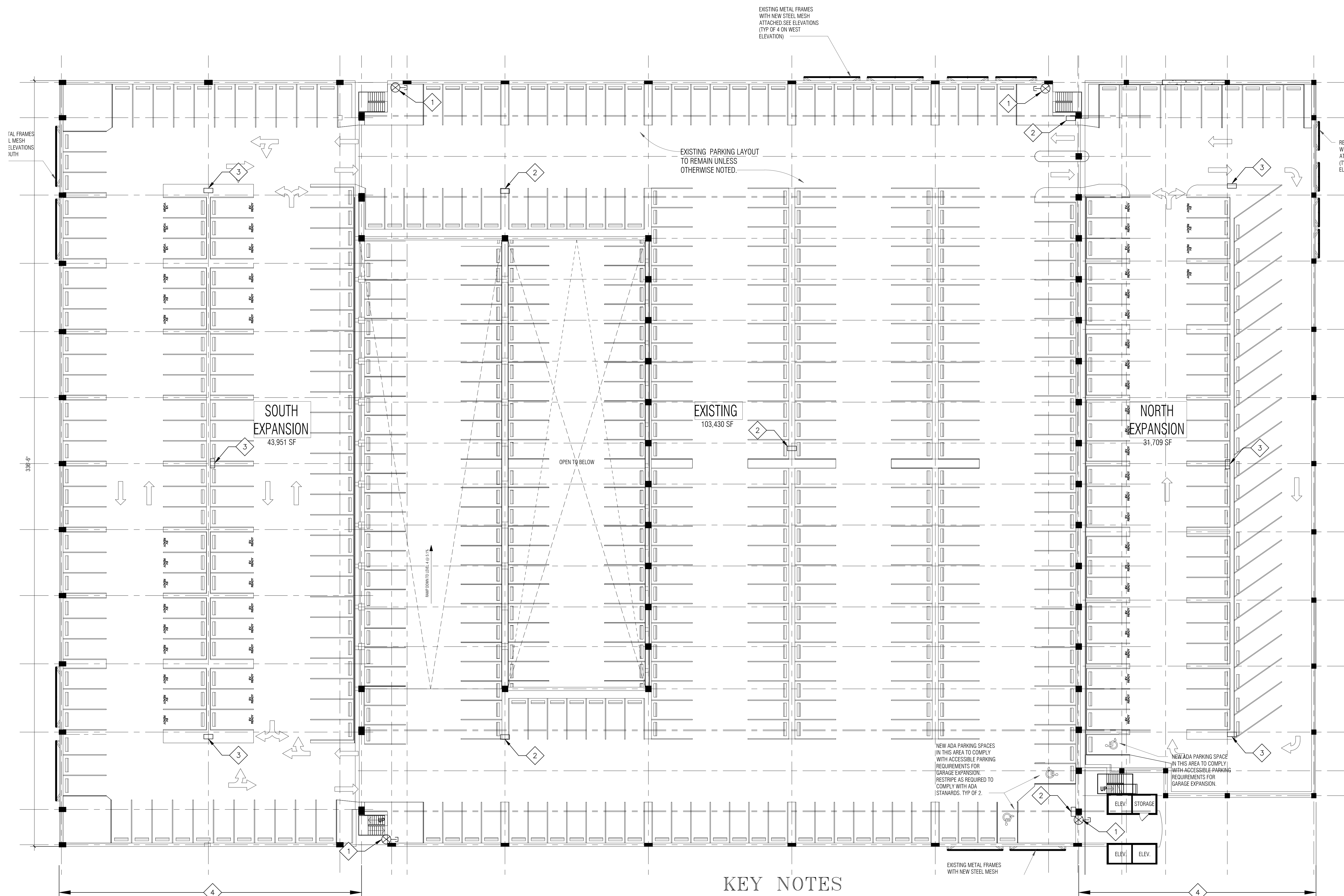
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<p>PROJECT WHARF H IMPROVEMENTS PERMIT DRAWINGS</p>		<p>DESCRIPTION</p>	
<p>TITLE DREDGE SITE PLAN</p>		<p>DATE: JULY 2018</p>	
<p>ATKINS CORPORATE OFFICE: 4035 W. BOY SCOUT BOULEVARD TAMPA, FLORIDA 33607 AUTHORIZATION NO. 24 LOCAL OFFICE: 1720 KATHY FREEWAY HOUSTON, TX 77054 TEL: 281.483.5100 FAX: 281.483.1047 www.atkinsglobal.com</p>			
<p>JOB NO.: 100054883</p>		<p>DATE: JULY 2018</p>	
<p>DRAWN: A.D.</p>		<p>REV. DATE</p>	
<p>DESIGN: D.M.</p>		<p>DESCRIPTION</p>	
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<p>APPROVED: XXX</p>		<p>REV. DATE</p>	
<p>SHEET NO. DR-100</p>		<p>DESCRIPTION</p>	
<p>FOR PERMIT NOT FOR CONSTRUCTION</p>			

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REVISIONS:

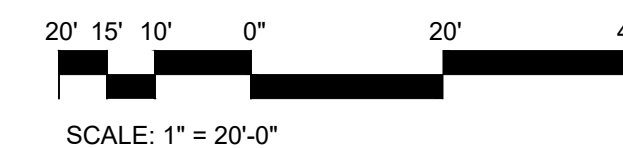
SCALE 1" = 20'-0"
PROJ. NO. 18026 LBCT
DATE 07/20/2018



KEY NOTES

- 1 EXISTING 6" CLASS I STANDPIPE RISER WITH 2 1/2" HOSE VALVE
- 2 EXISTING 2 1/2" CLASS II STANDPIPE RISER, HOSE CABINET, 1 1/2" HOSE VALVE W/ 100' HOSE
- 3 NEW 2 1/2" CLASS II STANDPIPE RISER, HOSE CABINET, 1 1/2" HOSE VALVE W/ 100' HOSE
- 4 PROVIDE NEW FIRE ALARM NOTIFICATION APPLIANCES (STROBES AND HORN/STROBES) THROUGHOUT THE NEW NORTH AND SOUTH PARKING STRUCTURES. ALL DEVICES ON THE ROOF LEVEL SHALL BE WEATHERPROOF

1 FIFTH FLOOR PLAN
FA-140 Scale: 1" = 20'-0"



Appendix B

Preparer(s) Qualifications

Sandra P. Pentney, RPA

Senior Archaeologist

Sandra Pentney has 15 years of experience and has managed and conducted numerous cultural resource investigations throughout California. Veteran principal investigator, having performed numerous cultural resource inventories; archaeological surveys, evaluations, and mitigation; consultation with involved agencies, interested parties, and Native American groups; and evaluation of compliance with California state and federal laws. Her projects include archaeological testing, monitoring, and surveys; record searches; artifact analysis; and report writing. A skilled technical report writer, prepares cultural resource sections for environmental assessments, reports, and impact statements as required by the National Environmental Policy Act, Sections 106 and 110 of the National Historic Preservation Act, stipulations of the Federal Energy Regulatory Commission, and state legislation.

Ms. Pentney's Atkins project experience includes:

Mitigation Monitoring Oversight, Palomar Community College District, San Marcos, CA. Project manager overseeing the mitigation monitoring and reporting plan for Palomar Community College District's master plan improvement projects across the campus. Worked with various subconsultants to provide paleontological, archaeological, and biological resource monitoring services for three projects. The projects have involved blasting and mass excavation during nesting bird breeding season. Creative work sequencing was devised to allow blasting activities to continue near an active birds nest. **Duration:** 2013-2015

Murrieta Hills Specific Plan Environmental Impact Report, City of Murrieta, CA. Archaeological principal investigator overseeing cultural resources studies for this project that involves environmental review and environmental impact report preparation for an urban land development project and Specific Plan amendment. Tasks include records search, comprehensive review of previous studies, intensive level field survey of nearly 1,000 acres, and preparation of a report and cultural resources testing plan. The survey resulted in recordation of several newly discovered archaeological sites including petroglyphs, fertility symbols, and extensive lithic scatters. **Duration:** 2014-2016

Otay Mesa Conveyance and Disinfection System, Otay Mesa Water District, Spring Valley, CA. Senior archaeologist who conducted a cultural resources survey for this project and contributed to both the cultural resources survey report and the project environmental impact report. Atkins is providing engineering design services for the design of the Otay Mesa conveyance and disinfection system project. The project includes a pipeline, disinfection facility, and a pump station to convey potable water from Otay Mesa to the 571-1 Reservoir. Work activities for the project include investigation of existing conditions and facilities; utility coordination; geotechnical investigation; preliminary design report for the pipeline, disinfection facility, and pump station; environmental documentation; professional surveying; public outreach and community relations; California Department of Public Health compliance regulations; water quality and corrosion study of desalinated water; preparation of construction contract documents for 30, 60, 90, and 100 percent phases; easement appraisal and acquisition; construction phase services; and water quality testing. **Duration:** 2013-2016

Buchanan Canyon Emergency Sewer Project Archaeological Monitoring Services, Spring Valley, CA. As part of Atkins' as-needed environmental services

Education

M.A., Archaeology, University of Saskatchewan, 2002

B.A., Anthropology (Honors), Lakehead University, 1997

Registrations/licenses

Registered Professional Archaeologist (RPA), 2004

Certifications

San Diego County Qualified Archaeological Consultant

Professional affiliations

Register of Professional Archaeologists, 2004-present
Society for American Archaeology, 1996-present

Sandra P. Pentney, RPA
Senior Archaeologist

contract with the City of San Diego, served as senior archaeologist providing cultural resources monitoring services for an emergency sewer repair project. This project included the widening of an access road through a canyon with a documented controversial cultural resource, and the potential for previously undiscovered cultural resources to be disturbed from the required ground disturbance. Completed background research on the recorded site, monitored ground disturbing activities, and conducted archival research on a historic feature that was in danger of being impacted by trenching activities. A report of findings is currently being prepared for submittal to the City. **Duration:** 2013–2015

Richmond Ferry Terminal and Route Environmental Assessment, Water Emergency Transportation Authority, San Francisco, CA. This project involves changes to existing infrastructure at the Richmond Ferry Terminal to accommodate upgrades to an existing ferry line. As Atkins California-based archaeologist, oversaw the completion of a Section 106 report for this project and assisted the Federal Transit Authority with Section 106 Consultation efforts. Impact considerations for this project included consideration of the National Register of Historic Places listed Rosie the Riveter Ford Assembly Plant Building. **Duration:** 2014-2015 est.


Environmental Impact Report, Academy of Arts University, San Francisco, CA. Assisted with the review and response to comments on the draft environmental impact report section. This long term project pertains to building modifications under the control of the Academy of Arts University in San Francisco. Many of the buildings are historic resources and required an in-depth review of impacts. The comments were extensive due to a large number of historical resources that will potentially be affected by the project. **Duration:** 2014-2015 est.

Black Mountain Access Road Repair Cultural Resources, City of San Diego, CA. As part of Atkins' as-needed environmental services contract with the City of San Diego, served as senior archaeologist who oversaw a sub consultant specializing in historic-era resources as they reviewed project impacts to potentially historic water infrastructure elements. **Duration:** 2014-2015 est.

Lake Camanche Village Water Storage Tank, Amador Water Agency, Amadore County, CA. Atkins provided services for the replacement of an aging water transmission pipeline tank and associated pipeline. Provided cultural resources review of the project under the California Environmental Quality Act and Section 106 which included archival research, a field survey and subsequent report. **Duration:** 2014

R-10A Reservoir Project, City of Henderson, NV. Atkins is providing engineering and environmental services to the City of Henderson for this access road project. Provided Section 106 cultural resources services to support the project including archival research, field surveys and report preparation. The road alignment travels through portions of an National Register of Historic Places listed site. **Duration:** 2014

Gilman Drive Bridge Environmental, University of California, San Diego, CA. The University of California, San Diego in cooperation with the California Department of Transportation wishes to construct a bridge over Interstate 5. Atkins was contracted to provide California Environmental Quality Act environmental review for the project, including cultural resources studies. Prepared a historic



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Senior Archaeologist

properties survey report in consultation with Caltrans archaeologists to support the project. **Duration:** 2013-2014.

Prior to joining Atkins, Ms. Pentney's project experience included:

NAS Fallon Environmental Assessment, Naval Facilities and Engineering Command Southwest, NV. In coordination with over five different Navy departments, served as deputy project manager for this multi-faceted project to modify and enhance the existing Training Range, Bravo-16. Oversaw all aspects of the project from inception to completion; provided client liaison, prepared work plans and schedules, oversaw preparation of the environmental assessment, and prepared monthly progress reports. The project proposed closure of public land widely used for recreational activities, as the addition of a C-130 landing strip and expansion of a surface danger zone would put the public and military personnel in too close proximity to gunfire. Assisted the Navy in conducting targeted public meetings that presented the proposed closure and alternatives. **Duration:** 2012-2013

Confidential Client, Confidential Project, CA. For a confidential client, served as project manager to help complete a Department of Energy grant application, prepare a Form 200 application to obtain a waste discharge requirements permit, and identify an appropriate type of waste discharge facility to dispose of sludge of an unknown origin at a project site in Imperial County. This project had short timelines and a very eclectic mix of tasks.


Port Angeles Harbor, Washington State Dept. of Ecology, Port Angeles, WA. Under a statewide toxics cleanup program for the Washington State Department of Ecology, was the cultural resources task manager for the Port Angeles Harbor sediment study and the upland dioxin sampling project associated with investigations of the former Rayonier Pulp Mill located on the Port Angeles Harbor shoreline. Both projects supported State efforts to address and remediate nearshore and submerged contaminated sites in the greater Puget Sound basin, as part of the Governor's Puget Sound Cleanup Initiative. Completed record searches, consulted with agency and tribal archaeologists, and oversaw field monitoring for harbor coring and grab sample activities. The investigation for the sediment study resulted in documentation of a submerged prehistoric site.

Biosolids Ordinance Environmental Impact Report, Kern County, CA. For the Kern County Planning Department, prepared the cultural resources section of an environmental impact report addressing a proposed amendment to Kern County's highly controversial ordinance for the land application of biosolids (treated sewage sludge) within its jurisdiction.

Solar and wind energy projects

Solar Star Project, SunPower Corporation, Kern and Los Angeles Counties, CA. Provided on-call services for construction monitoring, which involves construction of a 579-MW, 3,230-acre project that will be the world's largest solar power plant when completed in 2015. On-call work required being able to mobilize with little notice to assess cultural resources finds.

West Chocolate Mountains Renewable Energy Programmatic Environmental Impact Statement, Imperial and Riverside Counties, CA. For the Bureau of Land Management's California Desert District Office, prepared the cultural resource



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Senior Archaeologist

section of the National Environmental Policy Act environmental impact statement addressing the issuance of solar and wind energy rights-of-way and geothermal leasing within the West Chocolate Mountains Renewable Energy Evaluation Area.

California Valley Solar Ranch, SunPower Corporation, San Luis Obispo County, CA. Core contributor for the National Environmental Policy Act environmental assessment (EA) submitted in support of a loan guarantee from DOE for this project, which includes a proposed 250-MW solar photovoltaic power plant to be located on an approximately 4,700-acre site and reconductoring of a 35-mile segment of the Morro Bay-Midway transmission line of Pacific Gas and Electric, which crosses both San Luis Obispo and Kern Counties. Conducted limited field studies pertaining to the inadvertent discovery of a National Register of Historic Places-eligible resource, prepared cultural resources reports, and oversaw the work of a cultural resource subconsultant. Also prepared the cultural resource section for the EA, prepared and presented data to Native American Tribal contacts for the project, provided guidance on appropriate Tribal outreach, interacted with the California State Historic Preservation Office to ensure proper compliance for the EA process, and facilitated Native American consultation.

Silver State Solar Project, Clark County, NV. Prepared the cultural resource section of a third-party environmental impact statement addressing the 400-MW solar development project of First Solar Development, Inc., proposed for location on 2,900 acres of land under jurisdiction of U.S. Department of the Interior, Bureau of Land Management (BLM). Assisted in the public scoping meetings and collected data, reviewed studies prepared by the proponent on behalf of BLM, and worked with BLM and other agency staff to identify appropriate mitigation measures to reduce project impacts.

Lucerne Valley Solar Project, San Bernardino County, CA. Member of the team that prepared a third-party environmental impact statement for Chevron's 49-MW Lucerne Valley photovoltaic solar project on Bureau of Land Management (BLM) land, for submission to the BLM Barstow field office, contributed to the cumulative impact analysis, provided peer reviews, and helped finalize the section.

Solar PV Project, Los Angeles County, CA. On behalf of a confidential client, was a member of the team that provided permitting support for a 225-acre PV site.

Solar Power Generating Facilities, Fresno and Kings Counties, CA. For a confidential client, conducted field studies and archival research and contributed to the initial studies for nine potential solar project sites.

Mule Mountain Photovoltaic Solar Project, Riverside County, CA. For a confidential client, conducted a Class I cultural resource inventory for a photovoltaic solar project that was planned for location on Bureau of Land Management land.

Solar Energy Sites, California and New Mexico. For a confidential client, conducted a desktop critical issues analysis addressing cultural resources and potential conflicts for 11 potential solar energy sites.

Clipper Wind Energy Sites, Clipper Windpower Development Company; Washington, Oregon, Colorado, Oklahoma. As part of critical issue analyses, completed file searches and cultural resource assessments of four proposed wind farm sites in Washington, Oregon (two sites), and Oklahoma. To support the environmental constraints analysis for a proposed 25,000-acre wind energy project

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site in El Paso County, Colorado, conducted a Class I site file search, developed a cultural resource constraints map, and prepared the cultural resource section of the final report. Based on the recommendations provided in the constraints analysis, the client retained the project team to provide full permitting and environmental studies for the proposed project site.

Mineral Mountain Wind Project, enXco Development Corporation (now EDF Renewable Energy), Beaver County, UT. Contributed to the critical issues and environmental permitting analysis for this 80-MW wind turbine project, being considered for location in a very archaeologically sensitive area near two large prehistoric obsidian quarries and many prehistoric archaeological sites on land administered by Bureau of Land Management (BLM). Conducted an intensive site file and archival records search, and then completed a fatal flaw analysis with recommendations for further study. Subsequently, conducted intensive field surveys and completed the survey report that was submitted to BLM.

Noble Power Wind Farm Sites, Noble Environmental Power, LLC, TX. Managed the archaeological field survey of areas of the Great Plains wind project in Hansford County that were covered under a U.S. Army Corps of Engineers Nationwide Permit. Also completed a cultural resources review as part of a site characterization study for a proposed Noble wind farm in Mitchell County.

Four Wind Energy Facilities, BP Wind Energy North America, Multiple Location in Texas. Conducted Class I cultural resource studies as part of the constraints analysis for four proposed wind farm projects located in Wichita, Archer/Young, Childress, and Hardeman counties.

Wind Energy Projects, Nevada and California. For a confidential client, contributed to the constraint reviews focusing to support planning for two potential wind energy sites in Washoe County, Nevada. For AltaGas, also conducted a Class III cultural resource survey and prepared the associated report for the proposed Walker Ridge wind project in Lake and Colusa counties, California.

Multiple Wind Energy Sites; California, Arizona, and Nevada. For a confidential client, was a member of the team that completed critical issue analyses (fatal flaw/feasibility studies) addressing visual resources, biological resources, hydrology, and cultural resources for seven very large areas of interest in California, Arizona, and Nevada. Conducted similar critical issue analyses for another client with six potential solar sites in six California counties.

Proposed Wind Farm, Lea County, NM. In support of critical issues analysis for this proposed wind energy site, conducted a site file search, completed cultural resources assessment, and oversaw the field survey conducted by a cultural resources subcontractor.

Transmission lines

Santa Barbara Reliability Enhancement Project, California Public Utilities Commission, Santa Barbara and Ventura Counties, CA. The project team prepared a third-party California Environmental Quality Act addressing the reconductoring and upgrading of an existing 66-kV subtransmission line and eight substations operated by Southern California Edison. Worked with the project manager to establish an appropriate tribal outreach program for the project. Because it traverses some areas of sensitivity to the Chumash, also worked with

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Senior Archaeologist

several Chumash contacts to establish a complete tribal notification contact list and to ensure that pertinent tribal members were afforded the opportunity to comment and participate in the project.

Alberhill Substation and Transmission Lines, California Public Utilities Commission, Riverside County, CA. The project team prepared the third-party draft EIR for construction and operation of a SCE substation and transmission lines. Worked with the project manager and CPUC to establish an appropriately scoped tribal outreach program for the project, which traverses areas of sensitivity to the Soboba and Pechanga Tribes, including ethnographic village sites, sites with human remains, and traditional cultural landscapes. Worked with the tribes to ensure their concerns were taken into consideration in the EIR.


Eldorado-Ivanpah Transmission Project, California Public Utilities Commission and U.S. Dept. of the Interior, Bureau of Land Management; Nevada to California. Cultural resources team leader for the award-winning, joint third-party environmental impact report (EIR)/environmental impact statement (EIS) that was prepared under California Environmental Quality Act and National Environmental Policy Act for this 35-mile transmission line and substation project of Southern California Edison. Wrote the cultural resources section of the EIR/EIS; reviewed technical reports prepared by the applicant; and coordinated with Bureau of Land Management (BLM) archaeologists and the State Historic Preservation Offices of both California and Nevada to ensure that impacts on cultural resources were adequately assessed and that appropriate mitigation measures were delineated. A Historic Architecture and Engineering Report was required as part of project mitigation because the Eldorado-Ivanpah Transmission Project required the destruction of a historic transmission line. Reviewed the report to verify that it provided adequate documentation to mitigate for this loss of this resource. Also supported BLM in its Native American notification and consultation process, to help ensure that the EIR/EIS adequately addressed potential effects on the Native American community.

Valley-Ivyglen Subtransmission Line and Fogarty Substation, California Public Utilities Commission, Riverside County, CA. Identified and addressed data gaps, then helped prepare the cultural resources section of the draft environmental impact report for the 25-mile, 115 kV Valley-Ivyglen subtransmission line and the Fogarty substation, on behalf of CPUC.

Aliso Canyon Natural Gas Turbine Replacement Project, California Public Utilities Commission, Aliso Canyon, CA. Prepared the cultural resource section of the third-party environmental impact report for this natural gas turbine replacement project, which involves Southern California Edison's proposed installation of new electric-driven compressors, a new compressor station, a new substation, and over 25 miles of new fiber optic cable; as well as replacement of over 8 miles of existing transmission line. Also commented on a historic architectural and engineering report for a historic transmission line.

Power Plant, Northern Oregon. For a confidential client, helped complete the site certificate application that was submitted to the Oregon Department of Energy, Energy Facility Siting Council for a 400-MW, natural gas-fired, combined cycle generating station and associated transmission line.

Baja Transmission Line, Sempra Generation, San Diego County, CA. Conducted a Class II archaeological investigation to ascertain compliance with



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Senior Archaeologist

Section 106 of the National Historic Preservation Act, as part of the preparation of an environmental assessment for this 1-mile transmission line extending from the Mexico border to the South West Power Link Line.

Oil and gas industry

Natural Gas Flex Plant, Pipeline, and Transmission Line; Umatilla and Morrow Counties, OR. For a confidential client, the project team conducted a preliminary site investigation to examine the proposed location for a natural gas flex (combined heat and power) generation plant and the proposed and alternative routes for a natural gas pipeline and transmission line. The objective was to look for the presence of wetlands, bodies of surface water, noxious weeds, and special status plants and wildlife, including raptors (e.g., golden and bald eagles); burrowing owls; and Washington ground squirrels. Provided peer review of consultant-prepared reports and assessed them for adequacy per FERC guidelines. The project was subject to several delays which required expedited turnaround of reviews.

Clearwater LNG Port, Clearwater Port, LLC; Oxnard, CA. Provided cultural resource evaluations to support the preparation of a third-party environmental impact report (EIR)/environmental impact statement (EIS) under direction of the U.S. Coast Guard (lead agency). Participated in public scoping meetings, reviewed cultural resource studies, and prepared the cultural resource sections of the EIR/EIS. Also responsible for devising the cultural resource mitigation and monitoring plans.

Ruby Natural Gas Pipeline, El Paso Corporation (now Kinder Morgan, Inc.), Wyoming to Oregon. Conducted a cultural resource records search as part of the critical issues and alternatives analysis for this 675-mile, four-state natural gas pipeline crossing private, state, and federal lands, including those managed by U.S. Department of the Interior, Bureau of Land Management and the U.S. Department of Agriculture, Forest Service. Delineated areas that might have cultural resource issues that could hinder project development.

Oil and Gas Development Projects, British Columbia, Canada. Based in Fort St. John, crew chief for an archaeological survey of oil and gas developments located in remote areas of northeastern British Columbia. Developed the testing strategy, supervised the field crews, and wrote and submitted interim reports for several clients including PetroCanada, Shell, and El Paso Corporation. The work included application of GPS technology and use of both all-terrain vehicles and helicopters to access the sites.

Department of Defense

Navy Base Point Loma, Naval Facilities Engineering Command Southwest, San Diego, CA. Prepared the cultural resource section of the Phase II base realignment and closure (BRAC) environmental assessment (EA) and compiled the site administrative records for both phases of the BRAC EA and associated documents. The project included reviews of prior cultural resource surveys and management plans for archaeological and architectural resources at Naval Base Point Loma, Naval Base San Diego, and Naval Base Coronado.

Chocolate Mountain Aerial Gunnery Range, Naval Facilities Engineering Command Southwest, Niland, CA. Cultural resource task leader for the preparation of National Environmental Policy Act environmental assessment (EA)

Sandra P. Pentney, RPA
Senior Archaeologist

documentation addressing ongoing training activities conducted by the Naval Special Warfare Group ONE at this desert training facility. Identified cultural resource survey requirements, developed the survey field strategy, and prepared the cultural resource section of the EA.

Naval Air Weapons Station China Lake, Naval Facilities Engineering Command Southwest, Ridgecrest, CA. Member of the cultural resource team for the base realignment and closure environmental assessment for the Weapons Survivability Laboratory at Naval Air Weapons Station China Lake. Many existing structures at the site are eligible for listing on the National Register of Historic Places, either individually or as contributing elements to a historic district. Reviewed the cultural resource report.

Other federal clients

Truckhaven Geothermal Leasing Area Environmental Impact Statement, U.S. Dept. of the Interior, Bureau of Land Management, Salton Sea, CA. Provided cultural resource evaluations for the environmental impact statement addressing environmental impacts of the proposed Truckhaven Geothermal Leasing Area in California's Imperial Valley.

Circuit Rider Program, U.S. Environmental Protection Agency; California, Nevada, and Arizona. Supported Environmental Protection Agency, Region 9 in its Public Water Systems Supervision and Underground Injection Control programs, assessed the content of ongoing Native American water/wastewater system operation and management training seminars.

Additional cultural resources

Lancaster Water Reclamation Plant, Lancaster, CA. Led a 7,500-acre survey in the western Mojave Desert to support facility expansion. The project resulted in the discovery of three previously unrecorded prehistoric archaeological sites and 15 isolates. Subsequently completed the testing phases for the sites and also completed a separate Section 106 report for a later project phase.

Planning Area 6, The Irvine Company, Irvine, CA. Managed full-time cultural resource monitoring at the Planning Area 6 urban land development. At times, the project required up to six cultural resource monitors working concurrently to keep up with a hectic grading schedule. The cultural resource monitoring resulted in the discovery of 13 archaeological sites—some more than 25 feet below ground surface. Oversaw and conducted test and data recovery excavations for the newly recorded sites. In support of the Planning Area 6 land development project, also managed field and laboratory work involving a crew of up to 18 field and laboratory employees at the Tomato Springs site.

Hellman Ranch, Seal Beach, CA. For nearly a year, provided archaeological monitoring and data recovery excavation for a new housing development. Excavation of a shell midden, included responsibility for the careful excavation and reburial of human remains in close coordination with Native American site monitors.

Additional Cultural Resource and Archaeological Investigations, Multiple Locations in California. Project archaeologist based in Irvine, California, supervised archaeological testing, monitoring, and survey projects; conducted lithic analyses for excavation projects; and consulted with clients on projects that

Sandra P. Pentney, RPA
Senior Archaeologist

involved Native American organizations and communities. Contributed to the development of a historic properties treatment plan for a residential development project, and completed Phase I cultural resource assessments and associated reports for two proposed bicycle path rights-of-way in El Dorado County.

Highway 63 Expansion Project, Government of Alberta Ministry of Transportation, Edmonton, Alberta, Canada. For two years, as project archaeologist and cataloging/analysis coordinator, was responsible for over 250,000 artifacts collected from 17 prehistoric archaeological sites. During the same period, catalogued and analyzed lithic artifacts recovered from many additional sites in northeastern Alberta.

Forest and Wood Industry Sites, Prince George, British Columbia, Canada. In 2000, was assistant field supervisor for an archaeological survey of wood industry cut blocks that included a walkover survey; shovel testing; and the coring and recording of culturally modified trees, including trees with bark removed and trees with scars from plank removal. In addition to providing periodic crew supervision, helped identify botanical species in the field and was a major contributor for the project report. In addition, was the technical writer and coauthor for archaeological impact assessments for the Small Business Forest Enterprise Program and the Evans Forest Products Golden Woodlands Division in the Columbia Forest District, Wardell Woodlot 12564 in the Invermere Forest District, and Fraser Lakes Sawmills in the Lakes Forest District. **Duration:** 2000

Additional Archaeological Projects, Canada.


- Field supervisor for the Lac La Ronge Historical Society, planned and oversaw all aspects of an archaeological field project in northern Saskatchewan.
- Master's thesis project for the University of Saskatchewan involved archaeological project planning, scheduling/cost control, and on-site management of a seven-person field crew conducting archaeological excavations at four sites in northern Saskatchewan.
- Field/laboratory technician supporting a joint research project of Lakehead and Brandon Universities; cleaned, identified, and catalogued artifacts from the Vera site in southwestern Manitoba.

Additional archaeological laboratory experience included cleaning and cataloging of artifacts and research on aboriginal history and prehistory for the Royal Saskatchewan Museum. At Lakehead University, reviewed 19th-century fur trade reports and diaries and helped create a multimedia software package focusing on archaeological education.

Instructor, University of Saskatchewan, Canada. Graduate teaching assistant with the University of Saskatchewan, co-supervised the laboratory section of an archaeology course focusing on map reading, artifact identification, and analytical techniques. Helped create exercise materials and examinations and assisted in test evaluation.

Additional training

To support her fieldwork in remote areas, completed training in wilderness first aid, standard first aid, and cardiopulmonary resuscitation (St. John's Ambulance). Trained spotter for the Civil Air Search and Rescue Association in Dryden, Ontario and Edmonton, Alberta, Canada.



Sandra P. Pentney, RPA
Senior Archaeologist

Publications (Heading)

McCollum C., G. Timothy Gross, and S. Pentney, "Class I and III Cultural Resources Inventory for the Proposed Walker Ridge Wind Project, Lake and Colusa Counties, California," 2011.

Pentney, Sandra, "Cultural Resources Investigations for Energia Sierra Juarez Gen-Tie Project, Jacumba, California," 2009.

Pentney, Sandra, "Cultural Resources Monitoring for Port Angeles Upland Dioxin Characterization Study," 2009.

Pentney, Sandra, M. Pritchard-Parker, H. Roberts, S. Eskenazi, J. Stout, V. Parker, "A Class I and III Cultural Resources Inventory of the Mineral Mountain Wind Project Area, Beaver County, Utah," 2009.

Pentney, Sandra, C. McCollum, G. Cardenas, and G. Timothy Gross, "Cultural Resources Investigations in Portions of the Naval Special Warfare Desert Warfare Training Facility," 2009.

Pentney, S., and H. Thomson, "Cultural Resources Monitoring for Port Angeles Harbor Sediment Characterization Study," 2008.

Pentney, Sandra, "Port Angeles Harbor Sediment Investigation Cultural Resources Monitoring and Reporting Protocols," 2008.

Pentney, Sandra. "Port Angeles Upland Sediment Investigation Cultural Resources Monitoring and Reporting Protocols," 2008.

Pentney, Sandra, "Phase 1 Cultural Resources Assessment of a Proposed Bicycle Path Right-of-Way along Sawmill Road, El Dorado County, California," 2006.

Pentney, Sandra. "Phase 1 Cultural Resources Assessment of a Proposed Bicycle Path Right-of-Way along Lake Tahoe Boulevard, El Dorado County, California," 2006.

Pentney, Sandra and G. Archer. "Cultural Resource Inventory for the Lancaster Water Reclamation Plant 2020 Facilities Plan," 2006.

Pentney, Sandra, "Analysis of Lithic Artifacts from the Center Village Sites, Irvine, California," 2006.

Archer, Gavin H. and S. Pentney, "Historic Properties Treatment Plan for the Planning Area 6, Phase 2 Residential Project," 2005.

Brandzin, Vera, Bruce Low, and Sandra Pentney, "Results of the Year 2000 Archaeological Impact Assessment for the Small Business Forest Enterprise Program, Columbia Forest District," 2000.

Brandzin, Vera, Bruce Low, and Sandra Pentney, "Results of the Year 2000 Archaeological Impact Assessment for Evans Forest Products, Golden Woodlands Division, Columbia Forest District," 2000.

Sandra P. Pentney, RPA

Senior Archaeologist

Brandzin, Vera, Bruce Low, Paul Harrison, and Sandra Pentney, "Results of the Archaeological Impact Assessment of Wardell Woodlot 1564, Invermere Forest District," 2000.

Low, Bruce, Vera Brandzin, and Sandra Pentney, "Results of 2000 Archaeological Impact Assessment within the Lakes Forest District, for Fraser Lake Sawmills," 2000.

Low, Bruce, Vera Brandzin, and Sandra Pentney, "Results of 2000 Archaeological Impact Assessment within the Vanderhoof Forest District, for Fraser Lake Sawmills," 2000.

Pentney, Sandra., L. Carson, et al. 10th Annual Anthropology, Physical Anthropology, Linguistics, and Archaeology (APALA) Student Conference, Proceedings and Abstracts. University of Saskatchewan, Saskatoon, January 28-30, 2000.

"The Archaeology of Brabant Lake: Interactions between Two Archaeologists, a Lake, and the Family Who Grew Up There," In 10th Annual APALA Student Conference, Proceedings and Abstracts, University of Saskatchewan, Saskatoon, January 28-30, 2000. pg 143-146.

"Proceedings and Abstracts of the 8th Annual APALA Student Conference January 23-25, 1998." Edited by Carson, L.L., N. Friesen, J. Taylor-Hollings, and S. Pentney. University of Saskatchewan, Saskatoon.

"Intra-Site Artifact Distributions at the Jackson Site (DiMe-17)," in Proceedings and Abstracts: 6th Annual APALA Student Conference: January 12-14, 1996. pp. 5-10. Edited by B. D. Low and R. Wondrasek, University of Saskatchewan Printing Services, Saskatoon.

Presentations (Heading)

Pentney, Sandra P., "California Archaeology and Climate Change," presented at the Society for American Archaeology (SAA) Annual Meeting, San Francisco, CA, April 16, 2015.

Pentney, Sandra P., "Climate Study in San Diego County," presented at the Society for California Archaeology Annual Meeting, Redding, CA, March 14, 2015.

Maximilian Jewett

Archaeology Crew Chief

Max Jewett currently serves as Archaeology Crew Chief for Atkins based in San Diego, Ca. He has also participated in various projects in Arizona, California, Colorado, Louisiana, and Texas. Projects have included surveys for pipelines, waterline, well pads, and housing developments as well as testing and evaluation excavations. Max has also conducted background research, tribal contact, and report writing.

Mr. Jewett's project experience includes:

Murrieta Hills Specific Plan Amendment Cultural Resources Survey and Phase II Testing and Evaluation, City of Murrieta, Murrieta, CA. Participated in an intensive level cultural resources survey of approximately 1,000 acres in Southern California. Aided in recordation of 84 isolated artifacts and bedrock milling features, recording 11 newly discovered archaeological sites, and updating the site condition of 10 previously recorded archaeological sites. Mr. Jewett also aided in preparation of the resulting Department of Parks and Recreation 523 Series site recordation forms, the survey report, and made substantial contributions to the Phase II Test Investigation for the project.

City of San Diego As-Needed Environmental Services, City of San Diego, CA. Atkins currently holds an as-needed contract through which it offers engineering, planning, biological, and cultural resources services. Mr. Jewett serves as a Crew Chief and report preparer for all cultural resources services provided under this contract. He has completed 4 projects for the City.

R-10A Reservoir Project, City of Henderson, NV. Atkins is providing engineering and environmental services to the City of Henderson for this access road project. Provided Section 106 cultural resources services to support the project including archival research, field surveys and report preparation. The road alignment travels through portions of an National Register of Historic Places listed site. **Duration:** 2014

Lake Camanche Water System Compliance Project: Cultural Resources Survey, Amador Water Agency, Amador County, CA. Responsible for requesting records searches from the Native American Heritage Commission, both the North Central and the Central Information Centers of the California Historical Resources Information Center system,

Front Range Pipeline, Enterprise Products, Adams, Arapahoe, Bent, Otero, and Weld counties, CO. The project consisted of two months of construction monitoring and survey for a 561 mile long natural gas pipeline.

Bakken to Cushing Proposed Natural Gas Pipeline Survey, Wyoming and Colorado. Mr. Jewett aided in the class I background survey for cultural resources conducted for Enterprise Products.

Aegis pipeline, Acadia, Calcasieu, Jefferson Davis, Lafayette, St. Martin, and Vermillion Parishes, Enterprise Products, LA. Mr. Jewett participated in a 103-mile-long Phase I surveys with shovel tests in accordance with Louisiana Field Standards for Terrestrial Phase I Cultural Resources Surveys.

Education

B.A., University of Denver, 2013

Professional affiliations

Society for American Archaeology, 2014-present

Maximilian Jewett

Field Technician

Cross Valley Pipeline, Brownsville Public Utility Department, Hidalgo and Cameron Counties, TX. For the field survey and geo-archaeology study, Mr. Jewett participated in test pit, shovel test, soil analysis, and photographic documentation of the primary 45 mile-long survey.

Lone Ranger Natural Gas Pipeline Lateral, Shovel Tests, Enterprise Products, Walker County, TX. Participated in Phase I survey with shovel tests on a natural gas pipeline 20-mile-long right-of-way.

Colburn Lateral Pipeline, Enterprise Products, Walker County, TX. Participated in Phase I survey with shovel tests on a 12-mile-long natural gas pipeline right of way.

74 Ranch, Atascosa and McMullen counties, TX. Survey was conducted for Marathon Oil at request of 74 Ranch. Phase I pedestrian survey and shovel testing of 8 proposed well pads and an access road.

74 Ranch, Atascosa County, TX. Survey was conducted for Marathon Oil at request of 74 Ranch. Phase I pedestrian survey of proposed 4.9-mile-long central gathering pipeline. Junior author of report.

Reports

2016 *Cultural Resources Survey of the North City Advanced Water Purification Facility, San Diego, California.* Atkins San Diego, California.

2016 *Cultural Resources Survey of the San Vicente Reservoir Geotechnical Boing Project, San Diego, California.* Atkins San Diego, California.

2014 *Cultural Resources Assessment of the 4.9 Mile Long Central Gathering Pipeline on the 74 Ranch, Atascosa County, Texas.* Atkins Denver, Colorado.
Junior author with R.A. Rowe.

2014 *Cultural Resources Survey for Right of Way Application 14-116653, Lake Havasu City, Mohave County, Arizona.* Atkins Denver, Colorado. Junior author with C. Rucker and R.A. Rowe

2014 *Appendix B Class III Cultural and Class I Paleontological Resources Survey of Spread 1 of the Front Range pipeline project, Weld, Adams, Arapahoe, Elbert, and El Paso counties, Colorado.* Atkins Denver, Colorado. Junior author with R.A. Rowe, and C. Rucker.

2014 *Addendum to Results to a Phase I Cultural Resources Survey for the Proposed Cross Valley Pipeline Project, Cameron and Hidalgo Counties, Texas.* Atkins Project 100033612, Atkins Denver, Colorado. Junior author with R.A. Rowe.

2014 *Cultural Resources Assessment, Plan Murrieta Hills Specific Plan Amendment EIR, Murrieta, California.* Atkins project 100038635, Atkins, San Diego, California, Junior author with S. Pentney.

2014 *Phase II Testing and Evaluation Plan Murrieta Hills Specific Plan Amendment EIR, Murrieta, California.* Atkins project 100038635, Atkins, San Diego, California, Junior author with S. Pentney.

Appendix C

Record Search Results

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-00358	Paleo -	1976	Stickel, Gary E.	An Archaeological and Paleontological Resource Survey of the Los Angeles River, Rio Hondo River and the Whittier Narrows Flood Control Basin, Los Angeles, California	Environmental Research Archaeologists	19-000858, 19-001009, 19-001311
LA-02233		1990	Mason, Roger D.	Ocean Promenade (job #11426) Cultural Resources Records Search.	The Keith Companies Archaeological Division	
LA-02399		1978	Winman, Lois J. and E. Gary Stickel	Los Angeles-long Beach Harbor Areas Cultural Resource Survey.		19-167246, 19-167265, 19-167266, 19-167267, 19-174912, 19-176737, 19-186116, 19-186554
LA-02910		1981	Stickel, Gary E.	A Literature Search for Shipwrecks in the Los Angeles - Long Beach Harbors and at the US Naval Facility at Terminal Island	Environmental Research Archaeologists	
LA-03102		1994	McCawley, William, John Romani, and Dana Slawson	The Los Angeles County Drainage Area Subsequent Environmental Impact Report	Greenwood and Associates	19-000693, 19-000696
LA-04130		1984	Anonymous	Los Angeles-long Beach Harbors Landfill Development and Channel Improvement Studied Cultural Resources Appendix	Los Angeles-Long Beach Harbors Landfill Development and Channel	19-000145, 19-000146, 19-000147, 19-000149, 19-000150, 19-000283, 19-000285, 19-001129
LA-04631		1999	Duke, Curt	Cultural Resource Assessment for Pacific Bell Mobile Services Facility La 446-02, County of Los Angeles, California	LSA Associates, Inc.	
LA-05118		2000	Lapin, Philippe	Cultural Resource Assessment for Pacific Bell Wireless Facility La 446-04, County of Los Angeles, Ca	LSA Associates, Inc.	
LA-05403		1994	Moffatt, Nicole	Environmental Impact Report Queensway Bay Master Plan State Clearinghouse No. 94081033 Eir No. E-13-94	City of Long Beach	
LA-05878		2002	Duke, Curt	Review of Pacific Bell Wireless Facility La 446-04, County of Los Angeles, California	LSA Associates, Inc.	
LA-06040		2001	Bonner, Wayne H.	Cultural Resource Assessment for Sprint Pcs Facility La54xc781d Located at 880 S. Harbor Scenic Drive in Long Beach, Los Angeles County, California	Michael Brandman Associates	
LA-08480		2005	Billat, Scott	New Tower ("nt") Submission Packet, Fcc Form 620, Project Name: Pier J	EarthTouch, Inc.	
LA-08488		2005	Tibbet, Casey and Terri Jacquemain	Historic Building Survey: Shoreline Gateway Project in the City of Long Beach, Los Angeles County, California	CRM Tech	19-190743, 19-190744, 19-190745

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-10404		2001	Mason, Roger	Cultural Resources Record Search and Literature Review Report for an AT&T Telecommunications Facility: Number D189 Ocean Center Building in the City of Long Beach, Los Angeles, California	Chambers Group, Inc.	
LA-10527		1978	Weinman, Lois J.	Los Angeles-Long Beach Harbor Areas Regional Cultural History, Los Angeles County, California		
LA-10587		2010	Hatoff, Brian	Verizon Cellular Communications Tower Site - LTE Long Beach Convention Center, 110 W. Ocean Blvd., Long Beach, CA 90802	URS	19-002660, 19-150350, 19-150352, 19-150356, 19-178703
LA-11138		1987	Pierson, Larry, Shiner, Gerald, and Slater, Richard	California Outer Continental Shelf, Archaeological Resource Study: Morro Bay to Mexican Border, Final Report.	PS Associates	
LA-11466		2011	Supernowicz, Dana	Cultural Resources Study of the AT&T Mobility Site No. LAD189, 101 Seaside Way, Long Beach, Los Angeles County, California 90802	Historic Resource Associates	19-178703
LA-11910		2012	Meyer, Donna	Port of Long Beach	FEMA	
LA-12055		2012	Bonner, Wayne	Cultural Resources Records Search and Site Visit Results for T-Mobile West, LLC Candidate LA02446A (LA446 Reef Restaurant), 880 Harbor Scenic Drive, Long Beach, Los Angeles County, California	MBA	19-180753, 19-183734
LA-12389		2012	Chasteen, Carrie	Identification and Evaluation of Smokehouses Port of Long Beach Long Beach, Los Angeles County, California	Parsons	19-190588
LA-12391		2013	Bonner, Wayne and Crawford, Kathleen	Cultural Resources Records Search and Site Visit Results for T-Mobile West, LLC Candidate LA02674A (LA247 Atlantic & Ocean Apt.) 10 Atlantic Avenue, Long Beach, Los Angeles County, California	MBA	19-002660, 19-178689, 19-178693, 19-178702, 19-178703, 19-178955, 19-178967, 19-187096, 19-187097, 19-187168, 19-187230, 19-187243, 19-189874, 19-190040

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-12808		2014	Chasteen, Carrie, Clark, Tiffany, Hanes, Richard, and Mirro, Michael	Cultural Resources Study of the Wilmington Oil and Gas Field, Los Angeles County, California in Support of Analysis of Oil and Gas Well Stimulation Treatments in California Environmental Impact Report	Applied EarthWorks	19-000098, 19-000126, 19-000148, 19-000149, 19-000693, 19-000694, 19-000695, 19-002135, 19-002208, 19-002660, 19-002788, 19-002850, 19-003067, 19-004279, 19-004313, 19-004325, 19-150149, 19-150150, 19-150151, 19-150152, 19-150153, 19-150154, 19-150155, 19-150156, 19-150157, 19-150158, 19-150159, 19-150160, 19-150161, 19-150162, 19-150163, 19-150164, 19-150165, 19-150166, 19-150167, 19-150168, 19-150169, 19-150170, 19-150171, 19-150172, 19-150173, 19-150174, 19-150175, 19-150176, 19-150177, 19-150178, 19-150179, 19-150180, 19-150181, 19-150182, 19-150183, 19-150184, 19-150185, 19-150186, 19-150187, 19-150188, 19-150189, 19-150190, 19-150191, 19-150192, 19-150260, 19-150261, 19-150262, 19-150263, 19-150264, 19-150265, 19-150266, 19-150267, 19-150268, 19-150269, 19-150270, 19-150271, 19-150272, 19-150273, 19-150274, 19-150275, 19-150276, 19-150277, 19-150278, 19-150279, 19-150280, 19-150281, 19-150282, 19-150283, 19-150284, 19-150285, 19-150286, 19-150287, 19-150288, 19-150289, 19-150290, 19-150291, 19-150292, 19-150293, 19-150345, 19-150346, 19-150347, 19-150348, 19-150349, 19-150350, 19-150351, 19-150352, 19-150353, 19-150354, 19-150355, 19-150356, 19-150357, 19-150358, 19-150361, 19-150362, 19-150363, 19-150364, 19-150392, 19-150394, 19-150395, 19-167294, 19-167314, 19-173042, 19-175277, 19-176737, 19-178682, 19-178683, 19-178689, 19-178693, 19-178699, 19-178702, 19-178703, 19-178955, 19-178967, 19-180670, 19-180734, 19-180753, 19-180784, 19-186116, 19-186623, 19-186624, 19-186625, 19-186626,

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
						19-186627, 19-186628, 19-186629, 19-186630, 19-186631, 19-186672, 19-186681, 19-186687, 19-186745, 19-186752, 19-186868, 19-186992, 19-187005, 19-187016, 19-187017, 19-187020, 19-187021, 19-187022, 19-187023, 19-187024, 19-187051, 19-187078, 19-187085, 19-187089, 19-187096, 19-187097, 19-187116, 19-187121, 19-187124, 19-187125, 19-187126, 19-187127, 19-187128, 19-187129, 19-187131, 19-187134, 19-187135, 19-187138, 19-187140, 19-187141, 19-187143, 19-187144, 19-187146, 19-187148, 19-187149, 19-187163, 19-187165, 19-187166, 19-187167, 19-187168, 19-187169, 19-187170, 19-187171, 19-187172, 19-187173, 19-187174, 19-187178, 19-187179, 19-187181, 19-187182, 19-187184, 19-187185, 19-187186, 19-187187, 19-187188, 19-187189, 19-187190, 19-187193, 19-187194, 19-187197, 19-187198, 19-187199, 19-187200, 19-187201, 19-187202, 19-187203, 19-187206, 19-187210, 19-187211, 19-187214, 19-187216, 19-187217, 19-187218, 19-187219, 19-187220, 19-187221, 19-187223, 19-187225, 19-187226, 19-187227, 19-187229, 19-187230, 19-187231, 19-187232, 19-187233, 19-187235, 19-187236, 19-187239, 19-187240, 19-187243, 19-187244, 19-187245, 19-187246, 19-187247, 19-187249, 19-187250, 19-187252, 19-187287, 19-187288, 19-187289, 19-187292, 19-187293, 19-187294, 19-187295, 19-187296, 19-187297, 19-187300, 19-187301, 19-187302, 19-187303, 19-187304, 19-187305, 19-187307, 19-187312, 19-187314, 19-187315, 19-187316, 19-187641, 19-187642, 19-187643, 19-187644, 19-187645, 19-187646, 19-187647, 19-187648, 19-187649, 19-187650, 19-187651,

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
						19-187652, 19-187653, 19-187654, 19-187682, 19-187683, 19-187684, 19-187685, 19-187686, 19-187687, 19-187689, 19-187690, 19-187691, 19-187957, 19-187958, 19-187971, 19-188092, 19-188178, 19-188197, 19-188198, 19-188201, 19-188776, 19-188864, 19-188865, 19-188866, 19-188867, 19-188906, 19-189317, 19-189318, 19-189426, 19-189429, 19-189430, 19-189874, 19-190040, 19-190079, 19-190080, 19-190081, 19-190096, 19-190103, 19-190105, 19-190107, 19-190108, 19-190109, 19-190112, 19-190277, 19-190309, 19-190321, 19-190327, 19-190508, 19-190588, 19-190597, 19-190598, 19-190670

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-19-178689		OHP Property Number - 029369; Resource Name - Jergins Trust Bldg; Other - Site of Markwell Bldg	Building	Historic	HP07 (3+ story commercial building)	1984 (S. Rose, Long Beach Foundation for Architectural and Cultural Heritage)	LA-12391, LA-12808
P-19-178693		OHP Property Number - 029373; Resource Name - Villa Riviera; OHP Property Number - 103113	Building	Historic	HP02 (Single family property)	1996 (T. Grimes, HRG)	LA-12391, LA-12808
P-19-178703		OHP Property Number - 029386; Resource Name - Ocean Center Bldg	Building	Historic	HP07 (3+ story commercial building); HP95 (Concrete Construction)	1977 (Pamela Lee Gray, NHM); 1980 (Debra Milges, L.B. Planning Department); 2010	LA-10587, LA-11466, LA-11570, LA-12391, LA-12808
P-19-178967		OHP Property Number - 029653; Resource Name - Cooper Arms Apts	Building	Historic	HP03 (Multiple family property)	2000 (Portia Lee, California Archives)	LA-12391, LA-12808
P-19-180734		OHP Property Number - 077364; Resource Name - RMS Queen Mary; Other - H M T Queen Mary	Structure	Historic	HP23 (Ship)	1992 (D. Rubin, The Queen Mary Foundation)	LA-12808
P-19-180753		OHP Property Number - 029579; Resource Name - Hughes Flying Boat HK-1; Other - The Spruce Goose; Other - "Hercules"	Structure	Historic	HP39 (Other) - Airplane	1980 (W. Burke, Committee to Save Hughes Flying Boat)	LA-12055, LA-12808
P-19-187089		OHP Property Number - 090797; Resource Name - Shoreline Loeff Carousel; Other - PHI-LAN-035	Structure	Historic	HP27 (Folk art)		LA-12808
P-19-190079		Resource Name - Reef Restaurant; Other - T-Mobile West LLC LA02446A/Reef Restaurant	Building	Historic	HP06 (1-3 story commercial building)	2012 (K. A. Crawford, Crawford Historic Services)	LA-12808
P-19-190743		Resource Name - E & T Constructors; Other - CRM TECH 1741-1H	Building	Historic	HP06 (1-3 story commercial building)	2005 (Casey Tibbet, CRM Tech)	LA-08488
P-19-190744		Resource Name - 645 E Ocean Blvd; Other - CRM TECH 1741-2H	Building	Historic	HP03 (Multiple family property)	2005 (Casey Tibbet, CRM Tech)	LA-08488
P-19-190745		Resource Name - 635 E Ocean Blvd; Other - CRM TECH 1741-3H	Building	Historic	HP03 (Multiple family property)	2005 (Casey Tibbet, CRM Tech)	LA-08488