

MEMORANDUM

DATE: July 31, 2017

To: Alyssa Helper

FROM: Ivan Strudwick, Archaeologist/RPA

SUBJECT: Cultural Resources Technical Memorandum for the Alamitos Beach Concession Stand Project, City of Long Beach, Los Angeles County, California

This LSA memorandum documents the results of a review of historic maps and aerial photographs for purposes of providing recommendations as to whether a cultural resources survey is warranted for the Alamitos Beach Concession Stand Project (project) in the City of Long Beach (City), Los Angeles County, California.

PROJECT LOCATION AND DESCRIPTION

As illustrated by Figure 1, the 1.22-acre project area is located in the Alamitos Beach area of the City, generally described as adjacent to the waterfront area near the City's downtown. It is located at the very west end of the sandy beach from which Long Beach obtained its name. This locale is on the east bank at the mouth of the now channelized Los Angeles River, 700 feet (ft) directly south of the junction of Ocean Boulevard and East Shoreline Drive, and 2.6 mile south-southwest of Signal Hill, a local prominent landmark. The project area is depicted on the United States Geological Survey (USGS) *Long Beach, California* topographic quadrangle map in Township 5 South, Range 12 West in the southwest corner of Section 6, San Bernardino Baseline and Meridian (USGS 1981). The project is located at an elevation of approximately 14 to 17 ft, NAVD88.¹

As illustrated by Figure 2, the proposed project includes the replacement of an existing concession stand and café on the project site with an improved concession stand, restroom facility, and a facility for the rental of aquatic equipment. The project also includes an outdoor recreational area and improvements to the southern portion of the existing on-site surface parking lot. The project will add a landscaped median between the existing pedestrian and bicycle pathway and an additional dedicated bike lane farther south of the pedestrian path on the beach, and will also relocate five existing volleyball courts south of the site to accommodate the additional bicycle lane. A water feature, ornamental landscaping, flagpole, and a relocated monument sign will define the proposed project entrance. Several other changes, such as replacing an existing hardscape plaza and

¹ NAVD88 refers to the North American Vertical Datum of 1988, which is the control datum for the height of the tidal bench mark.

picnic tables with a vehicular drop-off zone, and relocating palm trees from the existing hardscape plaza to the outdoor recreational area, are also proposed.

HISTORIC AERIAL PHOTOGRAPHS

A review of online aerial photographs (www.historicaerials.com) was conducted to provide the background for more extensive research. However, this review indicates that no additional research or field survey is necessary.

Based on recent aerial photographs, the project area is approximately 700-900 ft inland from its closest point to the ocean. The project is adjacent to a rock jetty that forms the east side of the marina located at the west end of the wide sandy beach that runs nearly 4.0 miles east-southeast to the mouth of the San Gabriel Rivermouth. Near the current project area and Shoreline Drive at the westernmost end of this long beach, the beach widens and curves southwest, ending at the rock jetty that is the east side of the marina. Island Grissom, a human-made island for drilling oil, forms a naturally-appearing island in the marina entrance. Island Grissom was constructed sometime between 1963 and 1972, prior to the construction of the marina and the marina's eastern jetty. Based on available aerial photographs, the history of the development of the beach is as follows.

The earliest available aerial photograph dates to 1953. At this time, the original beach parallels Ocean Boulevard, extending west all the way to the Los Angeles River. At this time, a building had been constructed at the end of Long Beach Boulevard on the coastal side of Ocean Boulevard on what was originally beach. A semi-circular rock jetty with a road on top ran around this building extending into the ocean like a horseshoe, connecting Pine Street on the west with Linden Street on the east. A pier extended farther southward into the ocean from the south tip of this semicircular horseshoe-shaped jetty road. A breaking ocean wave is visible on the east side of this jetty road (indicating no outside Harbor jetty) over 700 ft directly west of what is now the current project area. The point where the wave is breaking is now located near the Convention Center, west of Shoreline Drive. The north end of the current project would have been at the shoreline, whereas the south end of the current project area would have been an estimated 4-6 ft underwater.

A 1963 aerial photograph shows little change in the vicinity of the current project area, although the ocean inside the horseshoe-shaped jetty road had been in-filled. Most of the changes to the coast at this time were occurring west of the horseshoe-shaped jetty road.

A 1972 aerial photograph shows substantial changes had occurred in the vicinity of the project area. Island Grissom had been constructed, Queensway Bay Bridge was built, and Ocean Boulevard was under construction. From this aerial, it is evident that construction of Ocean Boulevard had first involved constructing a rock wall (jetty) along the outside of the infilled area. This rock jetty later formed the north edge of the marina. The east end of this jetty is approximately where the west edge of the current project area is located.

A 1980 aerial photograph shows that a long rock jetty had been constructed from the shore at the southwestern edge of the current project area (the west end of the additional bicycle lane) southeast to Island Grissom. As mentioned, this jetty now forms the eastern side of the marina.

Based on a 1994 aerial photograph, the marina was constructed between 1980 and 1994. The beach, which originally was less than 700 ft south of Ocean Boulevard in the vicinity of the project area, was over 1,000 ft south of Ocean Boulevard by 1994, when the jetty was constructed (1980-1994). Aerial photographs taken after 1994, subsequent to construction of the marine and final jetty, show that the beach slowly increased in width as naturally deposited sand was not removed by ocean currents, which were blocked by jetties. Today, the beach in the vicinity of the project area extends to a point that at its greatest extent is nearly 1,500 ft south of Ocean Boulevard.

SUMMARY AND CONCLUSIONS

Aerial photographs taken in 1953 and 1963 show that the north end of the current project area was along the water line, and that the south end of the project area was situated where waves broke in the ocean. Construction of Shoreline Drive between 1963 and 1972, and construction of the jetty forming the east side of the marina between 1972 and 1980, in-filled the area where the current project is located increasing the width of the beach over 300 ft. From 1980 to the present, aerial photographs show that natural sand accumulation slowly widened the beach another 500 ft to its current width, nearly 1,500 ft south of Ocean Boulevard.

Because the project area was originally located along the beach at and below water level, it is evident that the area was never occupied prehistorically and that the substrate is composed of sand that was bulldozed into place, as well as sand that accumulated naturally due to placement of the jetties. As such, neither a cultural resource record search nor a cultural resource survey is warranted, and it is unlikely the site contains cultural resources.

REFERENCES

United States Geological Survey (USGS)

- 1981 *Long Beach, California* 7.5-minute quadrangle map. U.S. Geological Survey, Denver, Colorado, 80225.

ATTACHMENT A

FIGURES 1 AND 2

Figure 1—Project Location

Figure 2—Proposed Project Features

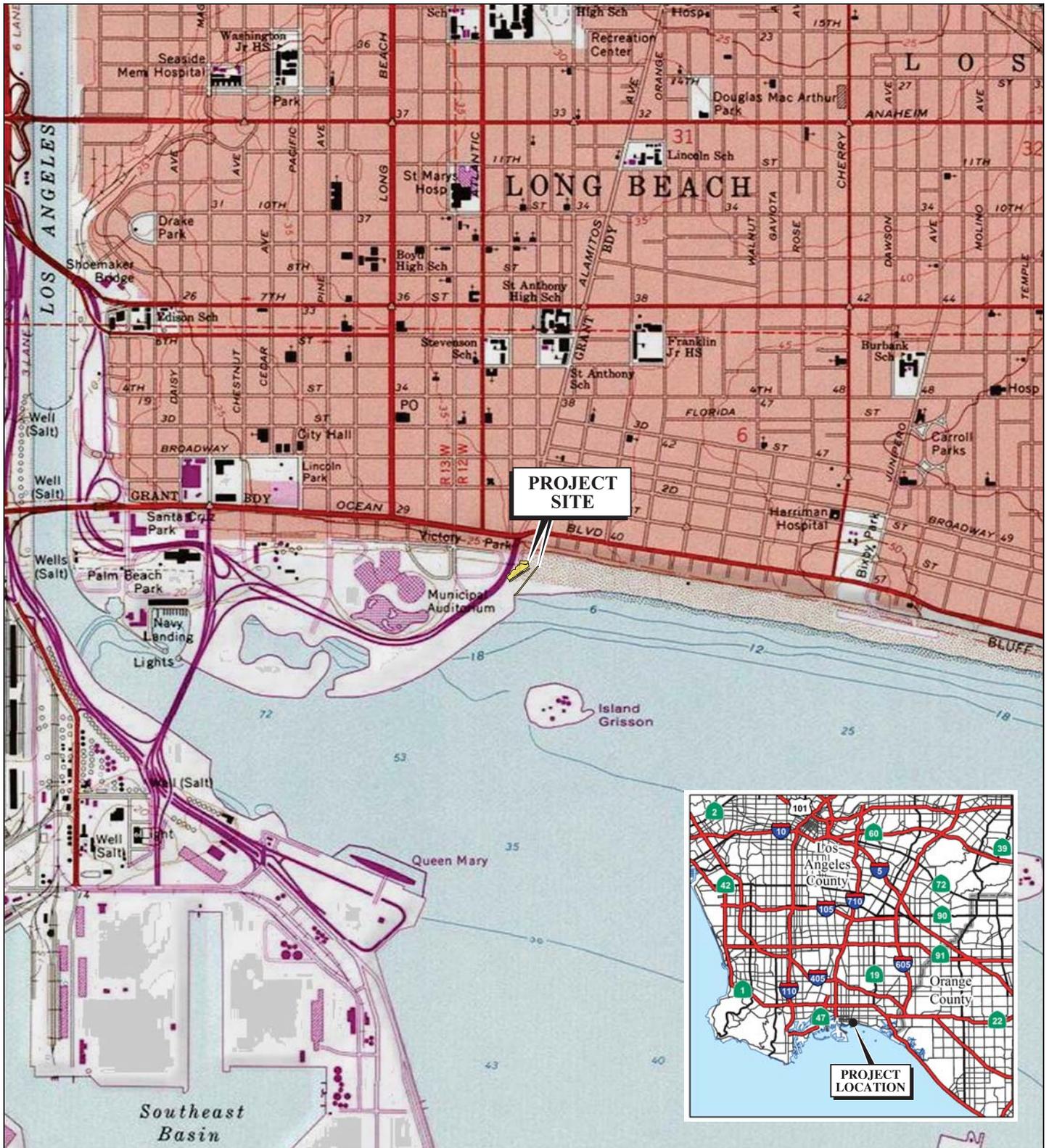
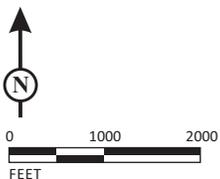


FIGURE 1

LSA



SOURCE: USGS 7.5' Quad - Long Beach, CA (1981)

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Alamitos Beach Concession Stand
Regional Project Location

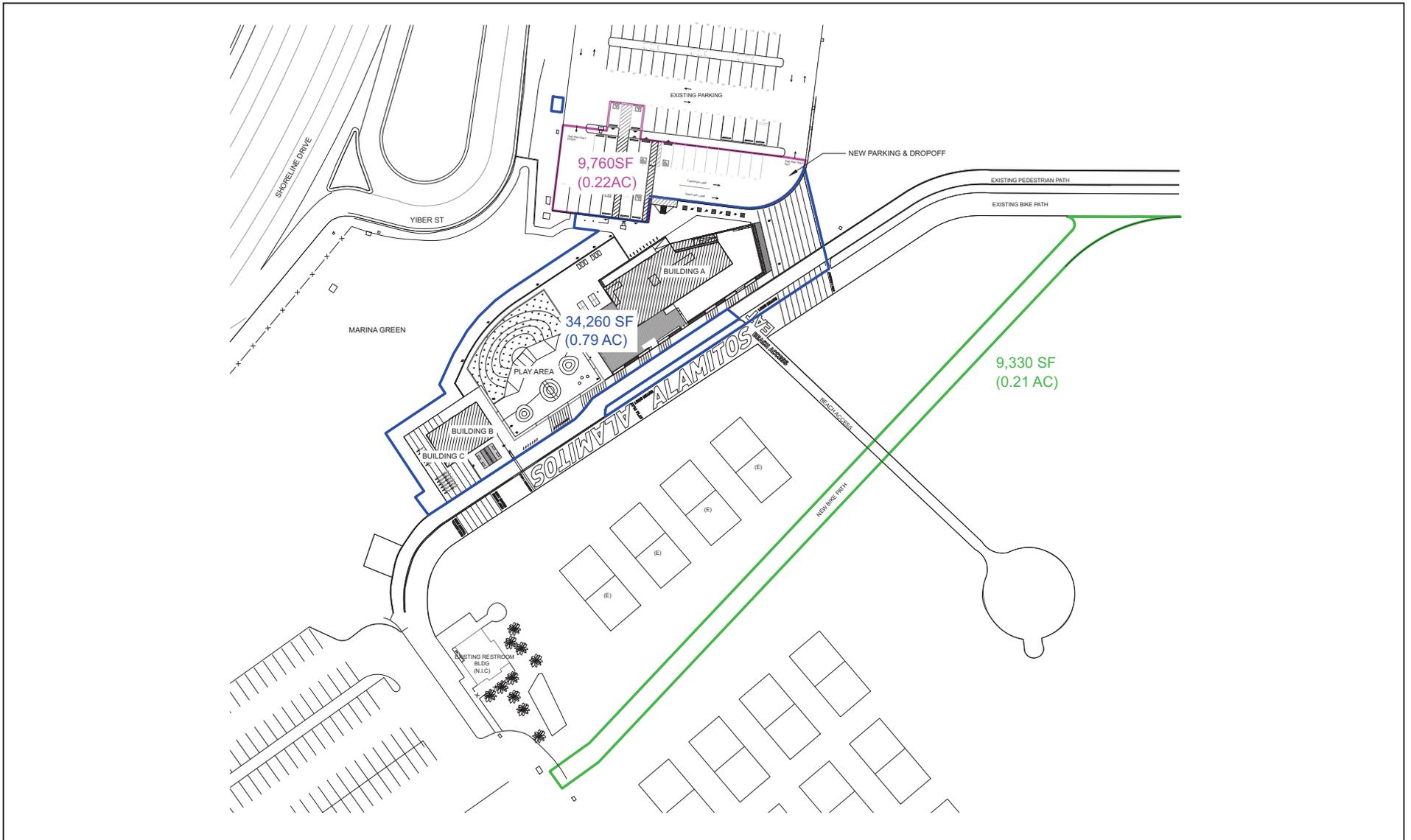


FIGURE 2

LSA

LEGEND

- Parking Lot Improvements
- Concession Stand & Play Area Improvements
- Bike Path Lane Addition



SOURCE: City of Long Beach

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Alamos Beach Concession Stand
Proposed Project Features

MEMORANDUM

DATE: July 12, 2017

TO: Alyssa Helper

FROM: Sarah Rieboldt, Ph.D.

SUBJECT: Paleontological Analysis of the Alamitos Beach Concession Stand Project,
City of Long Beach, Los Angeles County, California

INTRODUCTION

This memorandum was prepared to ensure the Alamitos Beach Concession Stand Project (project) in the City of Long Beach (City), Los Angeles County, California, is in compliance with all applicable State regulations regarding paleontological resources, as well as guidelines of the Society of Vertebrate Paleontology (SVP, 2010). The applicable regulations include the California Environmental Quality Act (CEQA): Public Resources Code (PRC) Division 13, Chapter 2.6; the *State CEQA Guidelines*: California Code of Regulations, Title 14, Chapter 3, Appendix G; and PRC 5097.5. This memorandum addresses the potential for the project to impact paleontological resources and, if needed, includes mitigation measures and other recommendations to minimize these impacts. The City is the Lead Agency under CEQA.

PROJECT LOCATION AND DESCRIPTION

The project site is on Alamitos Beach just southeast of the intersection of Alamitos Avenue/ East Shoreline Drive and East Ocean Boulevard. The project site is depicted on the United States Geological Survey (USGS) *Long Beach, California* 7.5-minute topographic quadrangle map in Township 5 South, Range 12 West, Section 6 (USGS, 1978; Figure 1, Attachment A).

The proposed project includes the redevelopment of the existing concession stand and café on the project site with three buildings, an outdoor recreational area, and improvements to the southern portion of the existing on-site surface parking lot. The project would be aligned with the existing pedestrian and bicycle paths east of the site, creating a promenade area in front of the site, facing the beach.

The proposed project would also add a landscaped median between the existing pedestrian and bicycle pathway and an additional dedicated bike lane further south of the pedestrian path on the beach. The proposed project would relocate five of the existing volleyball courts south of the site to accommodate the additional bicycle lane; however, relocation of the existing palm trees currently present south of the site would not be required. The addition of a bicycle lane as proposed as part of

the project would reposition a sharp curve in the existing alignment, which currently poses a problem for pedestrian safety.

Building A

Building A is the concession stand/café building and would be 4,315 square feet (sf) in size and a maximum of 27 feet (ft) in height. The concession stand/café building would consist of a semi-enclosed ground level topped by an open outdoor roof deck. The first floor would feature a modern restaurant and café, a kitchen, and restroom facilities. It would also include indoor seating that would spill out into a larger ground-level deck containing outdoor seating areas. The open rooftop deck would feature outdoor seating, providing visitors a comfortable vantage point of the Pacific Ocean and the Long Beach Marina. The rooftop deck would include an enclosed space for mechanical equipment, a data room, and a service bar. The service bar would feature a cooler, sinks, multiple taps, and storage space.

The proposed concession stand/café building would be a low rectilinear building that would incorporate architectural features reminiscent of shipping container structures. The building would include metal panels that would slide open, revealing the building's interior spaces and interior cedar siding. The southeastern side of the building would feature tall glass doors connecting ground-floor interior seating with exterior uses on the ground-level deck, which itself would be 6 inches above the existing pedestrian path in front of the café and 18 inches above the existing pedestrian path in front of the restaurant. The roof deck would feature acid-etched glass guardrails designed to be visible and safe for birds in flight. The project would also have sliding doors on the southwestern end of the site to provide access to a games counter that would house board games and amenities for games in the grassy area east of the site.

Building B

Building B would be 817 sf in size and 12 ft in height. Plans for the building include restroom and storage facilities to serve patrons of the project and visitors to the beach. It would be locked for security purposes during the evening hours.

Building C

Building C would be 430 sf in size and 12 ft in height. This building would include recreational equipment for rent by visitors to the beach and park. The project also includes the installation of pedestrian furniture and a rinse station directly east of Buildings B and C.

Building Design

Building materials consist of profiled metal panels (similar to shipping containers) on the building exterior. As the panels would slide open, they would reveal a softer inner material (e.g., cedar siding) to give the building a softer appearance.

Open Space and Recreation

In addition to Buildings A through C, the project also features the installation of a playground and recreational area on the southern portion of the site. The proposed playground would include

concrete seating with skateboard guards, a grassy mound, a scramble wall with wood, a slide, a wobble pod, and a small pedestrian pathway. The outdoor recreational area would also include outdoor games, including a cornhole station and ping pong tables. An outdoor shade structure would be installed within this area to provide relief to visitors from weather conditions.

Based on the recommendations in the geotechnical report prepared for the project, excavation for the project is expected to extend to a minimum depth of 5 ft for the entire project footprint or to competent material as determined by the project geologist (AESCO, 2017).

METHODS

LSA examined geologic maps of the project site and reviewed relevant geological and paleontological literature to determine which geologic units are present in the project site, as well as whether fossils have been recovered in the project site or from those or similar geologic units elsewhere in the region. A search for known fossil localities was also conducted through the Natural History Museum of Los Angeles County (LACM) in order to determine the status and extent of previously recorded paleontological resources within and surrounding the project site.

RESULTS

Literature Review

The project is located at the northern end of the Peninsular Ranges Geomorphic Province, a 900-mile (mi) long northwest-southeast-trending structural block that extends from the Transverse Ranges in the north to the tip of Baja California in the south and includes the Los Angeles Basin (California Geological Survey, 2002; Norris and Webb, 1976). This province is characterized by mountains and valleys that trend in a northwest-southeast direction, roughly parallel to the San Andreas Fault. The total width of the province is approximately 225 mi, extending from the Colorado Desert in the east, across the continental shelf, to the southern Channel Islands (i.e., Santa Barbara, San Nicolas, Santa Catalina, and San Clemente) (Sharp, 1976). It contains extensive pre-Cenozoic (more than 66 million years ago [Ma]) igneous and metamorphic rock covered by Cenozoic (less than 66 Ma) sedimentary deposits (Norris and Webb, 1976).

Geologic mapping by Saucedo et al. (2003) shows that the project site contains only Artificial Fill. The geotechnical report prepared by AESCO (2017) identified silts and silty sands, consistent with Artificial Fill, in borings extending to depths of up to 50 ft within the project site. Artificial Fill consists of sediments that have been removed from one location and transported to another location by human activity rather than by natural means. The transportation distance can vary from a few feet to many miles, and composition is dependent on the source and purpose. Artificial Fill will sometimes contain modern debris such as asphalt, wood, bricks, concrete, metal, glass, plastic, and even plant material. While Artificial Fill may contain fossils, these fossils have been removed from their original location and are thus out of stratigraphic context. Therefore, they are not considered important for scientific study. As such, Artificial Fill has no paleontological sensitivity.

Fossil Locality Search

According to the locality search conducted by LACM, there are no known fossil localities within the boundaries of the project. The LACM reports that the project site is underlain by Artificial Fill and active beach sands. The museum notes that these surface deposits typically do not contain scientifically significant fossils in the uppermost layers, but older deposits that may be encountered at depth may produce important fossils. The closest vertebrate locality in these older deposits is LACM 6896, which is located northwest of the project site at the intersection of Magnolia Avenue/ West Ocean Boulevard. This locality produced specimens of fossil whale (*Cetacea*) at a depth of less than 100 ft below the surface. Along the beach to the east of the project site, between the shoreline and the Bluff Park parking lot, is locality LACM 7739, which, at a depth of 25 ft, produced a variety of fossil marine vertebrates (e.g., bony fish, sharks, and rays), as well as invertebrate fossils (e.g., snails, clams, tusk shells, barnacles, crabs, and sea urchins). Just to the west of this locality across from Bixby Park, south of East Ocean Boulevard, is vertebrate fossil locality LACM 1005. This locality produced fossils of mammoth (*Mammuthus columbi*) and ground sloth (*Nothrotheriops shastensis*) at a depth of about 60 ft.

The LACM believes that shallow excavations in the surface deposits at the project site are unlikely to recover any scientifically important vertebrate fossils. However, deeper excavations may encounter scientifically significant vertebrate remains and should be monitored to recover any such remains. The LACM also suggests sediment samples be collected and processed for small fossil potential. A copy of the letter describing the locality search results from the LACM is provided in Attachment B.

CONCLUSIONS AND RECOMMENDATIONS

The entire project site is underlain by Artificial Fill, which has no paleontological sensitivity. Based on the fossil locality search conducted by the LACM, the shallowest depth at which fossils were recovered near the project site was 25 ft below the surface. However, ground-disturbing activities for the project are expected to extend to approximately 5 ft. Therefore, LSA recommends that no paleontological mitigation measures are required for this project using current project plans. In the unlikely event that fossil remains are encountered, paleontological mitigation will need to be developed (including paleontological monitoring; collection of the observed resources; preservation, stabilization, and identification of collected resources; curation of resources into a museum repository; and preparation of a monitoring report of findings). If project plans change to include more substantial excavation or to include additional areas, this recommendation must be revisited.

Attachments: References

A – Figure 1: Project Location and Vicinity Map

B – Paleontological Locality Search Results from the Natural History Museum of Los Angeles County

REFERENCES

AESCO, Inc.

- 2017 *Geotechnical Report Alamitos Beach Concessions Buildings, 780 E Shoreline Drive, Long Beach, California*. Prepared for RA-DA May 30, 2017. AESCO, Inc. Project No. 20171705-E5129.

California Geological Survey

- 2002 *California Geomorphic Provinces*. California Geological Survey Note 36. California Department of Conservation.

Norris, R.M., and R.W. Webb

- 1976 *Geology of California*. New York: John Wiley and Sons, Inc. 379 pp.

Saucedo, George J., H. Gary Greene, Michael P. Kennedy, and Stephen P. Bezore

- 2003 *Geologic Map of the Long Beach 30' x 60' Quadrangles, California*. Version 1.0. California Geological Survey. Map Scale 1:100,000.

Sharp, R.P.

- 1976 *Geology: Field Guide to Southern California*. Kendall/Hunt Publishing Company, Second Edition. 181 pp.

Society of Vertebrate Paleontology (SVP)

- 2010 *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*. Society of Vertebrate Paleontology. Impact Mitigation Guidelines Revision Committee. 11 pp.

United States Geological Survey (USGS)

- 1978 *Long Beach, California 7.5-minute topographic quadrangle*. Published 1964, photorevised 1978. Denver, Colorado: United States Geological Survey.

ATTACHMENT A

FIGURE 1: PROJECT LOCATION MAP

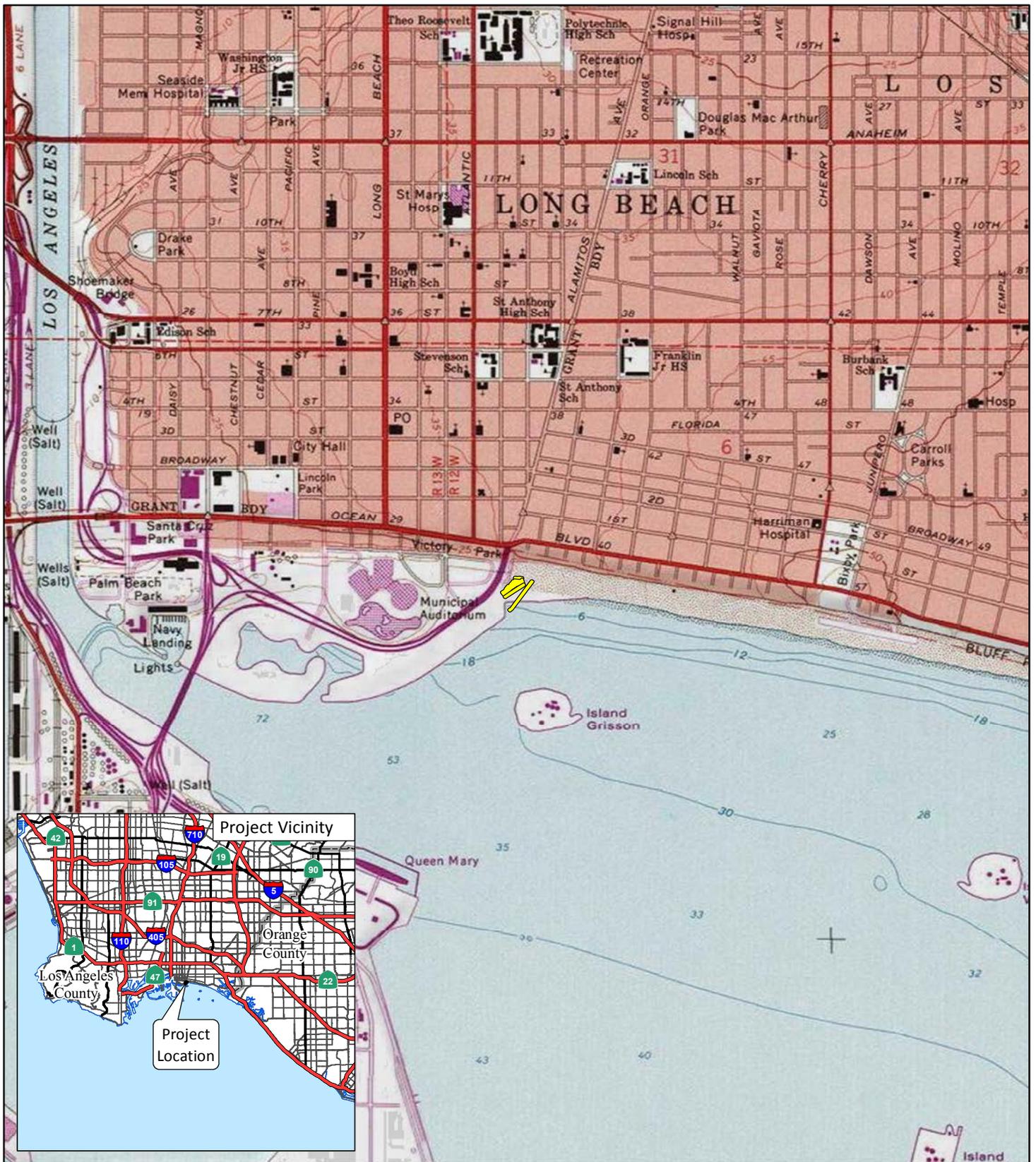


FIGURE 1

LSA

LEGEND

Project Location



SOURCE: USGS 7.5' Quad - Long Beach (1978)

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Alamitos Beach Concession Stand
Project Location

ATTACHMENT B

PALEONTOLOGICAL LOCALITY SEARCH RESULTS FROM THE NATURAL HISTORY MUSEUM OF LOS ANGELES COUNTY

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
www.nhm.org



Vertebrate Paleontology Section
Telephone: (213) 763-3325

e-mail: smcleod@nhm.org

5 July 2017

LSA Associates, Inc.
20 Executive Park, Suite 200
Irvine, California 92614

Attn: Sarah Rieboldt, Ph.D., Senior Paleontological Resources Manager

re: Paleontological Resources Records Check for the proposed Alamitos Concession Stand Project, LSA Project # CLB1702, in the City of Long Beach, Los Angeles County, project area

Dear Sarah:

I have thoroughly searched our paleontology collection records for the locality and specimen data for the proposed Alamitos Concession Stand Project, LSA Project # CLB1702, in the City of Long Beach, Los Angeles County, project area as outlined on the portion of the Long Beach USGS topographic quadrangle map that you sent to me via e-mail on 27 June 2017. We do not have any vertebrate fossil localities that lie directly within the proposed project boundaries, but we do have localities nearby from the same sedimentary deposits that may occur at depth in the proposed project area.

From the level of geologic mapping available to me, it appears that the surface deposits in the proposed project area consist of artificial fill and active beach sands. These deposits are highly unlikely to contain significant fossil vertebrate remains, at least in the uppermost layers, but the underlying older *in situ* deposits found at varying depths may well contain significant vertebrate fossils.

Our closest vertebrate fossil locality from underlying older deposits is LACM 6896, just north of west of the proposed project area near the intersection of Magnolia Avenue and Ocean Boulevard, that produced a specimen of fossil whale, Cetacea, from pile driving activities at a

depth of less than 100 feet. To the east of the proposed project area along the nearby beach our vertebrate fossil locality LACM 7739, situated between the parking lot of Bluff Park and the shoreline, at a depth of 25 feet produced a rich suite of fossil marine vertebrates (see appendix for faunal list) in addition to associated fossil invertebrates including snails, clams, tusk shells, barnacles, crabs, and sea urchins, probably from the marine older Quaternary San Pedro Sand. Just to the west of locality LACM 7739, across from Bixby Park south of Ocean Boulevard at approximately 17th Place, our fossil vertebrate locality LACM 1005 produced fossil specimens of mammoth, *Mammuthus columbi*, and ground sloth, *Nothrotheriops shastensis*, at approximately 60 feet from the surface.

Shallow excavations in the artificial fill and active beach sands exposed in the proposed project area probably will not uncover any significant vertebrate fossils. Deeper excavations that extend down into older in situ deposits, however, may well encounter significant vertebrate fossils. Any substantial excavations below the uppermost layers in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered. Also, sediment samples should be collected and processed to determine the small fossil potential in the proposed project area. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,

A handwritten signature in cursive script that reads "Samuel A. McLeod".

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosures: appendix, invoice

Fossil fish fauna from locality LACM 7739

Chondrichthyes

Carcharhiniformes

Carcharhinidae - requiem sharks

Carcharhinus

Galeorhinus galeus

Sphyrnidae - hammerhead sharks

Sphyrna

Triakidae - smoothhounds

Triakis semifasciata

Heterodontiformes

Heterodontidae - horn sharks

Heterodontus francisci

Myliobatiformes

Dasyatidae - stingrays

Dasyatis

Myliobatidae - eagle rays

Myliobatis californica

Rajiformes

Rajidae - skates

Raja

Rhinobatidae - guitarfish

Rhinobatos productus

Squaliformes

Squalidae - dogfish sharks

Squalus acanthias

Squatiniiformes

Squatinae - angel sharks

Squatina californica

Osteichthyes

Batrachoidiformes

Batrachoididae - toadfishes

Porichthys notatus

Clupeiformes

Clupeidae - herring

Ophidiiformes

Ophidiidae - cusk-eels

Chilara taylori

Perciformes

Embiotocidae - surfperches

Cymatogaster aggregata

Damalichthys vacca

Embiotoca jacksoni

Hyperprosopon argenteum

Micrometrus aurora

Phanerodon furcatus

Gobiidae - gobies

Sciaenidae - croakers

Genyonemus lineatus

Seriphus politus

Sphyraenidae - barracudas

Sphyraena argentea

Pleuronectiformes

Citharidae - sanddabs

Citharichthys sordidus

Citharichthys stigmaeus

Pleuronectidae - flounders

Glyptocephalus zachirus

Lyopsetta exilis

Scorpaeniformes

Cottidae - sculpins

Scorpaenidae - rockfish

Sebastes goodei