



September 13, 2024

Megan Rupard
EPD Solutions, Inc.
3333 Michelson Drive, Suite 500
Irvine, California 92612

Subject: Paleontological Records Search for the Del Amo/Crenshaw Boulevard Project, 2421 West 205th Street, Torrance, Los Angeles County, California (APNs 7352-018-067 and -068)

Dear Ms. Rupard:

A paleontological records search and survey report has been completed for the 8.27-acre Del Amo/Crenshaw Boulevard Project located at 2421 West 205th Street, at the southeast corner of Del Amo and Crenshaw boulevards, in the city of Torrance, California (Assessor's Parcel Numbers [APNs] 7352-018-067 and -068). Two industrial warehouses are proposed for construction at the project. The project is situated the northwest area of the United States Geological Survey (USGS) 1:24,000-scale *Torrance, California* (7.5-minute) topographic quadrangle map.

Introduction and Background

The paleontological records search focused upon the property's potential to contain significant paleontological resources that could constrain use of the property for future redevelopment. The scope of work for this paleontological records search included a review of existing records regarding recorded fossil localities within and adjacent to the property, the project's geologic setting, and preparation of this letter report to summarize the results of the search and to present an opinion regarding the potential to encounter significant paleontological resources during development of the project. An on-site survey was not performed since the project parcels are completely covered by existing pavement and buildings.

Paleontological resources are the remains of prehistoric life that have been preserved in geologic strata. These remains are called fossils and include bones, shells, teeth, and plant remains (including their impressions, casts, and molds) in the sedimentary matrix, as well as trace fossils such as footprints and burrows. Fossils are considered older than 5,000 years of age (Society of

Vertebrate Paleontology 2010) but may include younger remains (subfossils) when viewed in the context of local extinction of the organism or habitat, for example. Fossils are considered a nonrenewable resource under state and county guidelines. The current General Plan for the city of Torrance does not discuss paleontological resources (City of Torrance 2010).

Geology

Geologically, the project is mapped as late to middle Pleistocene old alluvium, described as fluvial sediments deposited on canyon floors consisting of consolidated, poorly sorted, gravel, sand, silt, and clay-bearing alluvium (Saucedo et al. 2016).

Below the surface, the Pleistocene deposits mapped by Saucedo et al. (2016) and Dibblee et al. (1999) in the area of the project may be correlative, in part, to the Palos Verdes Sand, the San Pedro Sand, and/or the Timms Point Silt (Kennedy 1975). All are known to be fossiliferous, yielding abundant molluscan and vertebrate faunas (Kennedy 1975; Langenwalter 1975).

Paleontological Records Search

A paleontological collections and locality records search was conducted for the project by Natural History Museum of Los Angeles County (LACM) (Bell 2024, attached). Based on the records search, two fossil localities are within one mile of the project, both consisting of Pleistocene-aged invertebrates (molluscan shells) from unknown or unrecorded depths. The nearest terrestrial Pleistocene locality, represented by fossilized bones from a camel, is located about three miles to the southeast at the southwest corner of the city of Carson, discovered at 12 to 14 feet deep. The area of Lomita, two to three miles south of the project, has yielded the bones and teeth of several Pleistocene large mammals, birds, and fish, as well as invertebrates (likely molluscan shells). The remaining localities reported by Bell (2024) are several miles distant.

The potentially closest known fossil locality, LACM loc. 4444, is reported by Jefferson (1991), consisting of the remains of extinct horse (*Equus* sp.). This fossil locality is situated at the petroleum refinery in Torrance, accessed from 190th Street, just north of the project across Del Amo Boulevard. No other data is provided.

Holocene alluvium is generally considered to be geologically too young to contain significant nonrenewable paleontological resources (*i.e.*, fossils) and is, therefore, typically assigned a low paleontological sensitivity. Pleistocene (more than 11,700 years old) alluvial and alluvial fan deposits in the Los Angeles Basin, however, often yield important Ice Age terrestrial vertebrate fossils, such as extinct mammoths, mastodons, giant ground sloths, extinct species of horse, bison, and camel, saber-toothed cats, and others (Jefferson 1991). These Pleistocene sediments are accorded a high paleontological resource sensitivity.

Conclusions

The review of the records search and geologic data for the property yielded sufficient information to provide an opinion regarding the potential to constrain property redevelopment due to paleontological resources. The following points are salient to the evaluation of potential constraints:

- The surface of the project is mapped as late to middle Pleistocene old alluvium.
- Pleistocene old alluvium has a high potential to yield significant paleontological resources.
- The completed records search indicates paleontological resources are known to be near the property.
- The completed geological and paleontological records search results indicate the property has a high potential to yield Pleistocene-aged vertebrate and invertebrate fossils.

Recommendations

Impacts to potential paleontological resources below the surface could occur if the subject property is planned for future development. The City of Torrance may require a California Environmental Quality Act review of the proposed development, and this would include a formal paleontological assessment and/or monitoring plan.

Based upon the geologic setting at the project and the high paleontological resource sensitivity assigned to the deposits in the area of the subject property by the City of Torrance, monitoring for potential paleontological resources may be required by the City during earth-disturbance activities at the project. The City may require the preparation of a paleontological mitigation monitoring and reporting plan prior to grading that would stipulate the protocols and procedures to deal with any fossils that may be encountered during grading for the proposed development. The potential to encounter fossils during grading of the property is not considered to be a constraint to development. The mitigation for the discovery of fossils is the removal of the fossils from the property, analysis and stabilization of the fossils, and preparation of the fossils for placement in a museum or curation center for permanent storage. Encountering fossils during grading will require that the grading be redirected elsewhere on the project while the paleontologists remove the fossils. Grading can resume when the fossils are safely removed.

The information and conclusions provided in this letter report represent opinions based upon a preliminary review of the property. No significant constraints to development are anticipated based upon this analysis of paleontological resources. The eventual use of the property may require paleontological monitoring during earthwork; however, the cost of this mitigation monitoring program would not be a significant constraint to development.

If you have any questions concerning this evaluation, please feel free to contact us at our Poway address. Thank you for the opportunity to provide paleontological services for this project.

Sincerely,



Todd A. Wirths, M.S., P.G. No. 7588
Senior Paleontologist, California Professional Geologist

Attachment: Letter (Bell 2024)

References

- Bell, A. 2024. Paleontological Resources for the Del Amo/Crenshaw Boulevard Project. Prepared for BFSA Environmental Services, Poway, California, by the Natural History Museum of Los Angeles County, Los Angeles, California. (attached)
- City of Torrance. 2010. City of Torrance General Plan 2009. <https://www.torranceca.gov/our-city/community-development/general-plan>.
- Dibblee, T.W., Ehrenspeck, H.E., Ehlig, P.L., and Bartlett, W.L. 1999. Geologic map of the Palos Verdes Peninsula and vicinity, Redondo Beach, Torrance, and San Pedro quadrangles, Los Angeles County, California. Dibblee Foundation Map DF-70, by the Dibblee Geological Foundation, Santa Barbara Museum of Natural History.
- Jefferson, G.T. 1991. A catalogue of late Quaternary vertebrates from California: Part two, mammals. Natural History Museum of Los Angeles County, Technical Reports, no. 7:I-v + 1-129.
- Kennedy, G.L. 1975. Paleontologic record of areas adjacent to the Los Angeles and Long Beach Harbors, Los Angeles County, California. *In*, Soule, D.F., and Oguri, M., eds., Marine studies of San Pedro Bay, California: Part 9: Paleontology. Published by The Allen Hancock Foundation Harbors Environmental Projects and The Office of Sea Grant Programs, University of Southern California, Los Angeles, California.
- Langenwarter, P.E., II. 1975. Chordates: The fossil vertebrates of the Los Angeles-Long Beach Harbors region, *in*, Kennedy, G.L., Paleontologic record of areas adjacent to the Los Angeles and Long Beach Harbors, Los Angeles County, California. *In*, Soule, D.F., and Oguri, M., eds., Marine studies of San Pedro Bay, California: Part 9: Paleontology. Published by The Allen Hancock Foundation Harbors Environmental Projects and The Office of Sea Grant Programs, University of Southern California, Los Angeles, California.

Saucedo, G.J., Greene, H.G., Kennedy, M.P., and Bezore, S.P. 2016. Geologic map of the Long Beach 30' x 60' Quadrangle, California. California Department of Conservation, California Geological Survey Regional Map Series, v. 2.0, scale 1:100,000.

Society of Vertebrate Paleontology. 2010. Standard procedures for the assessment and mitigation of adverse impacts to paleontological resources; by the SVP Impact Mitigation Guidelines Revision Committee. Electronic document, https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines-1.pdf.

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August 25, 2024

BFSA Environmental Services
Attn: Todd A. Wirths

re: Paleontological resources records search for the Del Amo/Crenshaw Boulevard Project (No. 24-231)

Dear Todd:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for proposed development at the Del Amo/Crenshaw Boulevard project area as outlined on the portion of the Torrance USGS topographic quadrangle map that you sent to me via e-mail on August 15, 2024. We do not have any fossil localities that lie directly within the proposed project area, but we do have fossil localities nearby from the same sedimentary deposits that may occur in the proposed project area, either at the surface or at depth.

The following table shows the closest known localities in the collection of the Natural History Museum of Los Angeles County (NHMLA).

Locality Number	Location	Formation	Taxa	Depth
LACM IP 237	Near Crenshaw Blvd and 190th Street	Unknown formation (Pleistocene)	Invertebrates (uncatalogued)	Unknown
LACM IP 21125	Just N of the intersection of Western Ave & Torrance Blvd	Unrecorded (Pleistocene)	Invertebrates (uncatalogued)	Unrecorded
LACM VP 3823	SE corner of Figueroa St & Sepulveda Blvd	Unidentified (Pleistocene; grey buff arenaceous silt)	Camel family (Camelidae) Mastodon (<i>Mammut</i>), Bison (<i>Bison</i>), Camel (<i>Camelops</i> , <i>Tanupolama</i>), sea lion (<i>Eumetopias</i>), ground sloth (<i>Megalonyx</i>), horse (<i>Equus</i>), tapir (<i>Tapirus</i>); Loon (<i>Gavia</i>), grebe (<i>Achmophorous</i>), sea duck (<i>Chendytes</i>), teleost fish, and other unspecified vertebrates; invertebrate-rich	12-14 ft bgs
LACM VP 3249	Lomita, general locality number for specimens without locality data from the area	Unknown formation (Pleistocene)		Unknown (many collected from sand pit operations)

Locality Number	Location	Formation	Taxa	Depth
			sand lenses common	
			Horse (<i>Equus</i>), Bison (<i>Bison</i>), canine (<i>Canis</i>), birds (<i>Manacalla</i> , <i>Parapavo</i> , Aves), rabbit (<i>Sylvilagus</i> , Leporidae), mammoth (<i>Mammuthus</i>), rodent (<i>Thomomys</i> , <i>Microtus</i> , Sciuridae, Rodentia), ground sloth (<i>Paramylodon</i>), turtle (<i>Clemmys</i>)	
LACM VP 1295, 1344, 4206	Harbor Freeway excavations between 112 St & 113 St.*	Unknown formation (Pleistocene)		Unknown

VP, Vertebrate Paleontology; IP, Invertebrate Paleontology; bgs, below ground surface

** Miller 1971; Bulletin of the Los Angeles County Museum of Natural History, science: no. 10*

This records search covers only the records of the NHMLA. It is not intended as a paleontological assessment of the project area for the purposes of CEQA or NEPA. Potentially fossil-bearing units are present in the project area, either at the surface or in the subsurface. As such, NHMLA recommends that a full paleontological assessment of the project area be conducted by a paleontologist meeting Federal (43 Code of Federal Regulations Part 49.110) or Society of Vertebrate Paleontology standards.

Sincerely,



Alyssa Bell, Ph.D.
Natural History Museum of Los Angeles County

enclosure: invoice