IV. Environmental Impact Analysis

D. Geology and Soils—Paleontological Resources

1. Introduction

The Initial Study prepared for the Project, included in Appendix A of this Draft EIR, evaluated potential existing geologic and soils hazards of the Project, including the potential for the Project to cause direct or indirect impacts associated with existing environmental conditions that could cause, in whole or in part, fault rupture, ground shaking, liquefaction of soils, expansion of soils, and/or landslide. As determined in the Initial Study, impacts to Geology and Soils thresholds (a) through (e) were determined to be less than significant. Therefore this section evaluates the potential for the Project to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. This component of the analysis is in part based on a paleontological records search through the Natural History Museum of Los Angeles County (LACM), dated June 26, 2020,,[1] which is included as Appendix E of this Draft EIR.

2. Environmental Setting

a. Regulatory Framework

There are several plans, regulations, and programs that include policies, requirements, and guidelines regarding Paleontological Resources at the federal, state, and local levels. As described below, these plans, guidelines, and laws include the following:

- Society for Vertebrate Paleontology Standard Guidelines
- California Penal Code Section 622.5
- California Public Resources Code (PRC) Section 5097.5

[1] *Natural History Museum of Los Angeles County, Paleontological Resources for the Proposed Artisan Hollywood Project, June 26, 2020.*

- General Plan Conservation Element

(1) Federal

(a) Society for Vertebrate Paleontology Standard Guidelines

The Society for Vertebrate Paleontology (SVP) has established standard guidelines[2] that outline professional protocols and practices for conducting paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, and specimen preparation, identification, analysis, and curation. The Paleontological Resources Preservation Act (PRPA) of 2009 calls for uniform policies and standards that apply to fossils on all federal public lands. All federal land management agencies are required to develop regulations that satisfy the stipulations of the PRPA. As defined by the SVP,[3] significant nonrenewable paleontological resources are:

> *Fossils and fossiliferous deposits here are restricted to vertebrate fossils and their taphonomic and associated environmental indicators. This definition excludes invertebrate or paleobotanical fossils except when present within a given vertebrate assemblage. Certain invertebrate and plant fossils may be defined as significant by a project paleontologist, local paleontologist, specialists, or special interest groups, or by lead agencies or local governments.*

As defined by the SVP,[4] significant fossiliferous deposits are:

> *A rock unit or formation which contains significant nonrenewable paleontologic resources, here defined as comprising one or more identifiable vertebrate fossils, large or small, and any associated invertebrate and plant fossils, traces, and other data that provide taphonomic, taxonomic, phylogenetic, ecologic, and stratigraphic information (ichnites and trace fossils generated by vertebrate animals, e.g., trackways, or nests and middens which provide datable material and climatic information).*

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[2] *Society of Vertebrate Paleontology, Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources, 2010.*

[3] *Society of Vertebrate Paleontology, "Assessment and Mitigation of Adverse Impacts to Nonrenewable Paleontologic Resources: Standard Guidelines," Society of Vertebrate Paleontology News Bulletin 163:22 27, 1995.*

[4] *Society of Vertebrate Paleontology, "Assessment and Mitigation of Adverse Impacts to Nonrenewable Paleontologic Resources: Standard Guidelines."*

> *Paleontologic resources are considered to be older than recorded history and/or older than 5,000 years BP [before present].*

Based on the significance definitions of the SVP,[5] all identifiable vertebrate fossils are considered to have significant scientific value. This position is adhered to because vertebrate fossils are relatively uncommon, and only rarely will a fossil locality yield a statistically significant number of specimens of the same genus. Therefore, every vertebrate fossil found has the potential to provide significant new information on the taxon it represents, its paleoenvironment, and/or its distribution. Furthermore, all geologic units in which vertebrate fossils have previously been found are considered to have high sensitivity. Identifiable plant and invertebrate fossils are considered significant if found in association with vertebrate fossils or if defined as significant by project paleontologists, specialists, or local government agencies.

(2) State

(a) California Penal Code Section 622.5

California Penal Code Section 622.5 provides the following: "Every person, not the owner thereof, who willfully injures, disfigures, defaces, or destroys any object or thing of archeological or historical interest or value, whether situated on private lands or within any public park or place, is guilty of a misdemeanor."

(b) California PRC Section 5097.5

California PRC Section 5097.5 provides protection for paleontological resources on public lands, where Section 5097.5(a) states, in part, that:

> *No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.*

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[5] *Society of Vertebrate Paleontology, "Assessment and Mitigation of Adverse Impacts to Nonrenewable Paleontologic Resources: Standard Guidelines."*

(3) Local

(a) City of Los Angeles General Plan Conservation Element

The City's General Plan Conservation Element recognizes paleontological resources in Section 3: "Archeological and Paleontological" and identifies site protection as important, stating, "Pursuant to CEQA, if a land development project is within a potentially significant paleontological area, the developer is required to contact a bona fide paleontologist to arrange for assessment of the potential impact and mitigation of potential disruption of or damage to the site. Section 3 of the Conservation Element, adopted in September 2001, includes policies for the protection of paleontological resources. As stated therein, it is the City's objective that paleontological resources be protected for historical, cultural research, and/or educational purposes. Section 3 sets as a policy to continue the identification and protection of significant paleontological sites and/or resources known to exist or that are identified during "land development, demolition, or property modification activities."

b. Existing Conditions

Paleontology is the study of fossils, which are the remains of ancient life forms. A Project-specific paleontological records search was conducted in June 2020 through the Natural History Museum of Los Angeles County. The following discussion is based on correspondence received from the Natural History Museum, which is included as Appendix E of this Draft EIR. The results of the paleontological records search indicate that there are no previously encountered vertebrate fossil localities located within the Project Site. However, there are localities that have been identified nearby from the same sedimentary deposits that occur subsurface in the Project area, as identified below.

The northeast portion of the Project Site (Development Area) contained one-story single-family residences since at least 1919. These structures were demolished between 1947 and 1950 and the majority of the Development Area was used as a surface parking lot by 1952. The surface parking area, which currently contains approximately 84 parking spaces, remains. The rest of the Project Site is occupied by six one- and two-story structures that contain approximately 33,828 square feet of commercial floor area located generally within the southern and western portions of the Project Site.

The entire Project area consists of surface deposits of soil on top of older Quaternary Alluvium, derived as alluvial fan deposits from the Hollywood Hills to the north of the Project Site. The deposits typically do not contain significant fossil vertebrate remains in the uppermost layers, but the underlying, older deposits found may contain significant vertebrate fossils.

The closest vertebrate fossil localities are LACM 6297, LACM 6298, LACM 6299, and LACM 6300, approximately one mile east-northeast of the Project Site along Hollywood Boulevard between the Hollywood Freeway and Western Avenue. These four localities produced fossil specimens of horse (*Equus*), bison (*Bison*), camel (*Camelops*), and mastodon (*Mammut americanum*). These specimens were collected from late Pleistocene deposits at depths between 47 and 80 feet below the surface. Fossil vertebrates have been recovered at shallower depths further south-southwest of these localities, near the Rancho La Brea asphalt deposits in the Hancock Park region. The closest vertebrate fossil locality in these older Quaternary sediments at a shallow depth is LACM 5845, located approximately 2.03 miles southeast of the Project Site near the intersection of Western Avenue and Council Street, which produced a specimen of fossil mastodon (*Mammutidae*) at a depth of five to six feet below the surface. LACM 3250, to the northeast of LACM 5845 near the intersection of Madison Avenue and Middlebury Street, approximately 2.63 miles southeast of the Project Site, produced a fossil specimen of mammoth (*Mammuthus*) at a depth of approximately eight feet below street level. LACM 3371, located approximately 2.06 miles to the southwest of the Project Site near the intersection of Sierra Bonita Avenue and Oakwood Avenue, produced specimens of fossil bison (*Bison antiquus*) at a depth of 12 feet below the surface.

3. Project Impacts

a. Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines decision, the Project would have a significant impact related to geology and soils if it would:

Threshold (f): Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

For this analysis, the Appendix G Thresholds are relied upon. The analysis utilizes factors and considerations identified in the 2006 *L.A. CEQA Thresholds Guide*, as appropriate, to assist in answering the Appendix G Threshold questions.

The *L.A. CEQA Thresholds Guide* identifies the following criteria to evaluate paleontological resources:

- Whether, or the degree to which, the project might result in the permanent loss of, or loss of access to, a paleontological resource; and
- Whether the paleontological resource is of regional or statewide significance.

b. Methodology

To address potential impacts associated with paleontological resources, a formal records search was conducted by the Natural History Museum to assess the paleontological sensitivity of the Project Site and vicinity. In addition, an evaluation of existing conditions and previous disturbances within the Project Site, the geology of the Project Site, and the anticipated depths of grading were evaluated to determine the potential for uncovering paleontological resources.

c. Project Design Features

No specific project design features are proposed with regards to geology and soils.

d. Analysis of Project Impacts

Threshold (f): Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

(1) Impact Analysis

The Project Site and surrounding area are fully developed and generally characterized by flat topography. There are no unique geologic features on the Project Site. Therefore, the Project would not destroy any distinct and prominent geologic features. In addition, as discussed in Subsection 2.b. above, according to the paleontological records search conducted for the Project Site, there are no previously encountered fossil vertebrate localities identified within the Project Site. The closest vertebrate fossil localities to the Project Site were identified approximately one mile east-northeast of the Project Site and were collected at depths between 47 and 80 feet below the surface. Specimens have been recovered at shallower depths further from the Project Site, as described above. Therefore, the Project would not impact previously recorded paleontological localities.

As previously discussed, the Project Site is currently developed and has been previously graded. The paleontological records search indicates that very shallow excavations in the older Quaternary Alluvium exposed throughout the Project area are unlikely to uncover significant vertebrate fossils. However, deeper excavations into the older deposits have the potential to inadvertently encounter significant vertebrate fossil remains. The Project would require maximum excavation depths of approximately 50 feet. Thus, the possibility exists that paleontological artifacts that were not discovered during prior construction or other human activity may be present.

Therefore, the Project could potentially result in significant impacts to paleontological resource.

(2) Mitigation Measures

As analyzed above, the Project would have the potential to result in a significant impact related to paleontological resources. Therefore, the following mitigation measure is provided to reduce this impact.

GEO-MM-1: In the event that any prehistoric subsurface cultural resources are encountered at the Project Site during construction or the course of any ground disturbance activities, all such activities shall halt immediately, at which time the Applicant shall notify the City and consult with a qualified paleontologist to assess the significance of the find. In the case of discovery of paleontological resources, the assessment shall be done in accordance with the Society of Vertebrate Paleontology standards. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined to be unnecessary or infeasible by the City. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted.

(3) Level of Significance After Mitigation

With implementation of Mitigation Measure GEO-MM-1, the potential impact related to paleontological resources would be reduced to a less than significant level. **Thus, the Project's impact to paleontological resources would be less than significant with mitigation.**

e. Cumulative Impacts

(1) Impact Analysis

Cumulative impacts related to paleontological resources are generally site specific as they relate to the particular underlying conditions of a site. The Project and the related projects are located within an urbanized area that has been disturbed and developed over time. As such, paleontological resources that may have been present within some of the related project sites may have already been discovered. In addition, as part of the environmental review processes for the related projects, it is expected that mitigation measures would be established similar to the Project to address the potential for uncovering of paleontological resources. **Therefore, cumulative impacts related to paleontological resources would be less than significant.**

(2) Mitigation Measures

Cumulative impacts to paleontological resources would be less than significant. Therefore, no mitigation measures are necessary.

(3) Level of Significance After Mitigation

Cumulative impacts to paleontological resources would be less than significant. Therefore, no mitigation measures were required or included, and the impact level would remain less than significant.