

Paleontological Resources Records Search



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

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Eyestone Environmental 6701 Center Drive West, Suite 900 Los Angeles, CA 90045

Attn: Stephanie Eyestone-Jones, President

re: Paleontological resources for the proposed Hope Street & 8th Street Project, in the City of Los Angeles, Los Angeles County, project area

Dear Stephanie:

I have conducted a thorough check of our paleontology collection records for the locality and specimen data for the proposed Hope Street & 8th Street Project, in the City of Los Angeles, Los Angeles County, project area as outlined on the portion of the Hollywood USGS topographic quadrangle map that Frankie Tong sent to me via e-mail on 24 March 2017. We do not have any vertebrate fossil localities that lie directly within the proposed project area boundaries, but we do have localities nearby from the same sedimentary deposits that occur subsurface in the proposed project area.

The entire proposed project site area has surface deposits that are composed of younger Quaternary Alluvium, derived as fluvial deposits from the flood plain of the Los Angeles River that currently flows to the east and as alluvial fan deposits from the hills just to the north. These younger Quaternary deposits usually do not contain significant fossil vertebrates, at least in the uppermost layers, but the underlying older sedimentary deposits found at varying depths may well contain significant vertebrate fossils. Just west of the proposed project area, immediately east of the Harbor Freeway (I-110), there are exposures of older Quaternary Alluvium, and just to the north at about 6th Street there are exposures of the marine latest Miocene Fernando Formation.

Our closest vertebrate fossil locality from the older Quaternary deposits is LACM 1755, just west of south of the proposed project area near the intersection of Hill Street and 12th Street,

that produced a fossil specimen of horse, *Equus*, at a depth of 43 feet below the surface. Our next closest vertebrate fossil locality from older Quaternary deposits is probably LACM 6204, west-northwest of the proposed project area near the intersection of Wilshire Boulevard and Serrano Avenue, that produced a fossil specimen of mammoth, *Mammuthus*, at unknown depth. West-southwest of the proposed project area, in a cut for the Santa Monica Freeway (I-10) just east of Gramercy Place, our vertebrate fossil locality LACM 1893 in older Quaternary deposits produced fossil specimens of mammoth, *Mammuthus*, and bison, *Bison antiquus*.

Our closest vertebrate fossil locality from the Fernando Formation is LACM 6971, just east of north of the proposed project area west of Pershing Square near the corner of 6th and Flower Streets. Farther east of locality LACM 6971, at the corner of 4th and Hill Streets, our locality LACM 4726 is also from the Fernando Formation. Further east-northeast of the proposed project area, near the intersection of Main Street and 2nd Street, we have an additional Fernando Formation locality, LACM 7730. These localities together have produced a composite fauna from the Fernando Formation including fossil specimens of stingray, *Dasyatis*, eagle ray, *Myliobatis*, skate, *Raja*, chimaerid, Chimaeriformes, bull shark, *Carcharhinus leucas*, dusky shark, *Carcharhinus obscurus*, hammerhead shark, *Sphyrna*, sixgill shark, Hexanchiformes, bonito shark, *Isurus oxyrinchus*, salmon shark, *Lamna ditropis*, white sharks, *Carcharodon sulcidens* and *Carcharodon carcharias*, herring, Clupeidae, hake, *Merluccius*, sheepshead, *Semicossyphus*, mackerel, *Scomber*, bird, Aves, rorqual baleen whale, Balaenopteridae, and toothed whale, Odontoceti.

Shallow excavations in the younger Quaternary Alluvium exposed throughout the proposed project area are unlikely to uncover significant fossil vertebrate remains. Deeper excavations in the proposed project area that extend into the older sedimentary deposits, however, may well encounter significant vertebrate fossils. Any substantial excavations in the proposed project area, therefore, should be closely monitored to quickly and professionally recover any potential vertebrate fossils without impeding development. 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,

Samuel A. McLeod, Ph.D. Vertebrate Paleontology

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enclosure: invoice