

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

7 December 2016

CAJA Environmental Services, LLC
15350 Sherman Way, Suite 315
Van Nuys, CA 91406

Attn: Rachel Zacuto, Assistant Environmental Planner

re: Paleontological resources for the proposed 3600 Wilshire Project, in the City of Los Angeles, Los Angeles County, project area

Dear Rachel:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for the proposed 3600 Wilshire 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 you sent to me via e-mail on 17 November 2016. 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 in the proposed project area.

The entire proposed project area has surface deposits composed of older Quaternary Alluvium, derived as alluvial fan deposits from the elevated terrain to the northeast. The uppermost layers of Quaternary Alluvium in this general portion of Los Angeles usually do not contain significant vertebrate fossils, but vertebrate fossils do occur at varying depths. Our closest vertebrate fossil locality from older Quaternary deposits, LACM 6204, occurs immediately to the west of the northern border of the proposed project area. Locality LACM 6204 produced a fossil specimen of mammoth, *Mammuthus*, at a depth of 65 feet below grade near the intersection of Wilshire Boulevard and Serrano Avenue. Just west of north of the proposed project area, near the intersection of Western Avenue and Council Street, our locality LACM 5845, also from these older Quaternary sediments, produced a specimen of fossil

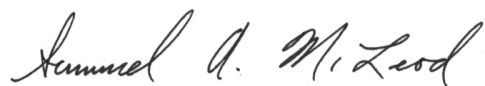
mastodon, Mammutidae, at a depth of only 5-6 feet below the surface. North-northeast of the proposed project area, at about the intersection of Madison Avenue and Middlebury Street, our locality LACM 3250, produced a fossil specimen of mammoth, *Mammuthus*, at a depth of about eight feet below street level.

Beginning east-northeast of the proposed project area, west of Vermont Avenue between 5th Street and 6th Street, there are exposures of the marine late Miocene Puente Formation (also sometimes referred to as the Upper Modelo Formation or as an unnamed shale in this area), and these deposits probably underlie the Quaternary Alluvium in the proposed project area at depth. East of the proposed project area, around the intersection of Vermont Avenue and Wilshire Boulevard, we have the vertebrate fossil localities LACM 6202 and 6203 from the Puente Formation discovered during excavation for the Metrorail Wilshire / Vermont station at a depth of 60 to 80 feet beneath the surface. Fossil specimens of eels, Anguilliformes, and needlefishes, Belonidae, were recovered at locality LACM 6203. Locality LACM 6202, however, was an extremely productive locality that contained an extensive fauna of fossil fish. A list of the fossil fish taxa from locality LACM 6202 is provided in the attached appendix.

Very shallow excavations of only a few feet in the older Quaternary Alluvium exposed throughout the proposed project area may not encounter any significant fossil vertebrate remains. Deeper excavations that extend down into older sedimentary deposits, particularly if they extend down into the Puente Formation, however, may very well uncover significant vertebrate fossils. Any substantial excavations in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. Also, sediment samples from the finer-grained deposits 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, reading "Samuel A. McLeod".

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosures: appendix; invoice

Fossil fish taxa from LACM 6202, Metrorail Red Line Vermont / Wilshire Station

Osteichthyes	- bony fishes		
Anguilliformes	- eels		
Atheriniformes			
Belonidae	- needlefishes		
Beryciformes			
Anoplogasteridae	- fangtooths		
<i>Anoplogaster</i>			
Melamphaeidae	- bigscales		
<i>Scopelogadus</i>			
Clupeiformes			
Clupeidae	- herrings		
<i>Ganolytes</i>	<i>cameo</i>		
<i>Xyne</i>	<i>grex</i>		
Gadiformes			
Gadidae	- cods		
<i>Physiculus</i>			
Macrouridae	- grenadiers		
Merlucciidae	- hakes		
<i>Merluccius</i>			
Moridae	- flatnoses		
Lophiiformes	- frogfishes		
Linophrynidae			
Oneirodidae			
<i>Oneirodes</i>			
Myctophiformes			
Myctophidae	- lanternfishes		
<i>Diaphus</i>			
<i>Lampanyctus</i>			
Perciformes			
Carangidae	- jacks		
<i>Pseudoseriola</i>			
Gempylidae	- snake mackerals		
<i>Thyrsoctes</i>			
Sciaenidae	- croakers		
<i>Lompoquia</i>			
Scombridae	- tunas & mackerals		
<i>Sarda</i>			
<i>Scomber</i>			
Serranidae	- groupers		
Trichiuridae	- cutlassfishes		
		Pleuronectiformes	
		Citharidae	- sanddabs
		<i>Citharichthys</i>	
		Pleuronectidae	- fluounders & soles
		<i>Hippoglossus</i>	
		<i>Pleuronichthys</i>	
		Salmoniformes	
		Alepocephalidae	- slickheads
		Argentinidae	- argentinas
		Bathylagidae	- smoothtongues
		<i>Bathylagus</i>	
		Opisthoproctidae	- spookfishes
		Searsiidae	- tubeshoulders
		Scorpaeniformes	
		Scorpaenidae	- rockfishes
		<i>Sebastes</i>	
		Stomiatiiformes	
		Chauliodontidae	- viperfishes
		<i>Chauliodus</i>	<i>eximius</i>
		Gonostomidae	- bristlemouths
		<i>Cyclothone</i>	
		<i>Vinciguerria</i>	
		Sternoptychidae	- hatchetfishes
		<i>Argyropelecus</i>	
		Stomiidae	- dragonfishes
		<i>Stomias</i>	