APPENDIX F:
PALEONTOLOGICAL RECORDS SEARCH RESULTS LETTER

605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 F 760.632.0164

MEMORANDUM

To:	Adam Browning, BluMax Santa Clarita, LLC
From:	Sarah Siren, M.S., GISP
Subject:	Paleontological Resources Review – MetroWalk Project
Date:	5/22/20
cc:	Michael Williams and Linda Kry, Dudek
Attachment(s):	Paleontological Records Search Results Letter

Dudek is providing this memo after completing a review of the potential for impacts to paleontological resources during construction activities for the MetroWalk Project (project). The project is located within a relatively flat-lying area of the City of Santa Clarita. Underlying the project area are surface-mapped sedimentary deposits derived as alluvial fan and overbank deposits from the Santa Clara River to the north (Dibblee and Ehrenspeck 1996; McLeod 2020). The entire project area is mapped as younger Quaternary alluvium (map unit Qa), consisting of Holocene age (~less than 11,700 years old) alluvial gravel, sand, and clay, according to published mapping by Dibblee and Ehrenspeck (1996). The middle to early late Miocene Mint Canyon Formation (map unit Tmc; ~16-10 million years old) is exposed at the surface in the northeastern portion of the project area, and presumably at an unknown depth elsewhere in the project area, below younger alluvium (Dibblee and Ehrenspeck 1996; McLeod 2020). The coarse-grained, younger, alluvial deposits have a low paleontological resource sensitivity. However, the Mint Canyon Formation has produced scientifically significant vertebrates and has a high paleontological resource sensitivity (McLeod 2020).

According to the records search results received from the Natural History Museum of Los Angeles County (LACM), the closest fossil locality to the project area, locality LACM (California Institute of Technology [CIT]) 206, discovered within the Mint Canyon Formation, is located east-northeast of the project area, along Sand Canyon Road, and produced a specimen of fossil horse (*Hypohippus*) (McLeod 2020). Further to the east-northeast, along the railroad tracks on the south side of the Santa Clara River, locality LACM 4692 yielded rodent (Rodentia), primitive deer-like animals (Paleomerycidae), and camel (Camelidae) (McLeod 2020). In the hills north of the Santa Clara River and east of Sand Canyon, locality LACM (CIT) 98 produced a specimen of a fossil peccary (*Prosthennops*) that was published in the scientific literature (Maxson 1930; Stock 1933). West of locality LACM (CIT) 98, locality LACM (CIT) 351 produced fossil leaves preserved in an ash bed within the Mint Canyon Formation (McLeod 2020).

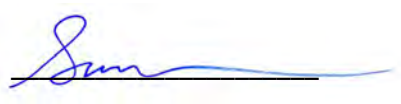
No paleontological resources were identified within the project area as a result of the institutional records search and desktop geological review. Moreover, the project area is not anticipated to be underlain by unique geologic features. While the project area has been disturbed at the surface, intact paleontological resources may be present below the original layer of fill material. Given the proximity of past fossil discoveries in the surrounding area and the Mint Canyon Formation elsewhere, the project area is highly sensitive for supporting paleontological resources. In

the event that intact paleontological resources are located on the project area, ground-disturbing activities associated with construction of the proposed project, such as grading during area preparation, have the potential to destroy a unique paleontological resource or site. Without mitigation, the potential damage to paleontological resources during construction would be a potentially significant impact (SVP 2010). However, upon implementation of a paleontological mitigation program, impacts would be reduced to below a level of significance. Impacts of the proposed project are considered less than significant with the following mitigation (MM-GEO-1) incorporated during construction:

MM-GEO-1 Prior to commencement of any grading activity on-site, the applicant shall retain a qualified paleontologist per the Society of Vertebrate Paleontology (SVP) (2010) guidelines. The paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the project. The PRIMP shall be consistent with the SVP (2010) guidelines and should outline requirements for preconstruction meeting attendance and worker environmental awareness training, where monitoring is required within the project area based on construction plans and/or geotechnical reports, procedures for adequate paleontological monitoring and discoveries treatment, and paleontological methods, reporting, and collections management. The qualified paleontologist shall attend the preconstruction meeting and a paleontological monitor shall be on-site during all rough grading and other significant ground-disturbing activities in previously undisturbed, Mint Canyon Formation. In the event that paleontological resources (e.g., fossils) are unearthed during grading, the paleontological monitor will temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot radius buffer. Once documentation and collection of the find is completed, the monitor will remove the rope and allow grading to recommence in the area of the find.

If you have any questions regarding this memo, please feel free to contact me (760.846.9326 or ssiren@dudek.com).

Sincerely,



Sarah A. Siren, M.S., GISP

Senior Paleontologist

Att. Paleontological Records Search Results Letter

References Cited

Dibblee, T.W. and H.E. Ehrenspeck. 1996. Geologic map of the Mint Canyon quadrangle, Los Angeles County, California: Dibblee Geological Foundation, Dibblee Foundation Map DF-57, scale 1:24,000.

Maxson, J.H. 1930. A Tertiary mammalian fauna from the Mint Canyon Formation of southern California. In: Contributions to Palaeontology. Carnegie Institution of Washington Publication. No.404. Carnegie Institution of Washington , Washington, DC, pp. 77-112.

McLeod, S.A. 2020. Vertebrate Paleontology Records Check for Paleontological Resources for the Proposed MetroWalk Development Project, Dudek Project #12636, in the City of Chino, San Bernardino County, Project Area. Unpublished Records Search Results Letter from the Natural History Museum of Los Angeles County, Los Angeles, California.

Society of Vertebrate Paleontology (SVP). 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. 11 p. Available; http://vertpaleo.org/PDFS/68/68c554bb-86f1-442f-a0dc-25299762d36c.pdf.

Stock, C. 1933. Hyaenodontidae of the Upper Eocene of California. Proceedings of the National Academy of Sciences, 19(4):434-440).

Attachment A

Paleontological Records Search Results Letter

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

tel 213.763.DINO
www.nhm.org

NATURAL HISTORY MUSEUM
LOS ANGELES COUNTY

Vertebrate Paleontology Section
Telephone: (213) 763-3325

e-mail: smcleod@nhm.org

30 April 2020

Dudek
605 Third Street
Encinitas, CA 92024

Attn: Sarah Siren, Paleontologist

re: Vertebrate Paleontology Records Check for paleontological resources for the proposed MetroWalk Development Project, Dudek Project # 12636, in the City of Santa Clarita, Los Angeles County, project area

Dear Sarah:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for the proposed MetroWalk Development Project, Dudek Project # 12636, in the City of Santa Clarita, Los Angeles County, project area as outlined on the portion of the Mint Canyon USGS topographic quadrangle map that you sent to me via e-mail on 16 April 2020. 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, either at the surface or at depth.

Surface deposits in almost all of the proposed project area consist of younger Quaternary Alluvium, derived as alluvial fan deposits from the surrounding more elevated terrain or as overbank deposits from the Santa Clara River that currently flows immediately to the north. These deposits typically do not contain significant vertebrate fossils in the very uppermost layers, but at relatively shallow depth older sedimentary deposits may well contain significant fossil vertebrate remains.

According to geologic mapping, in the very northeastern-most corner of the proposed project area there are exposures of the late Miocene Mint Canyon Formation. Our closest Mint

Canyon Formation locality is LACM (CIT) 206, just east-northeast of the proposed project area along Sand Canyon Road, that produced a fossil specimen of horse, *Hypohippus*. Further east-northeast of the proposed project area, along the railroad tracks south of the Santa Clara River, our Mint Canyon Formation locality LACM 4692 produced fossil specimens of rodent, Rodentia, primitive deer-like animals, Paleomerycidae, and camel, Camelidae. To the northeast of the proposed project area, in the hills north of the Santa Clara River and east of Sand Canyon, our Mint Canyon Formation locality LACM 4627 produced a fossil specimen of elephant, Gomphotheriidae. South-southeast of the proposed project area, on the west side of Sand Canyon at the northern end of Reynier Canyon, our Mint Canyon Formation locality LACM (CIT) 98 produced a specimen of the fossil peccary, *Prosthennops*, figured in the scientific literature by J. H. Maxson (1930. A Tertiary mammalian fauna from the Mint Canyon Formation of southern California. Carnegie Institution of Washington Publication, 404(7):77-112) and additionally published in the scientific literature by C. Stock (1933. Hyaenodontidae of the Upper Eocene of California. Proceedings of the National Academy of Sciences, 19(4):434-440). Just west of locality LACM (CIT) 98 our Mint Canyon Formation locality LACM (CIT) 351 produced fossil leaves in an ash bed.

Shallow excavations in the younger Quaternary Alluvium exposed in almost all of the proposed project area probably will not uncover significant vertebrate fossil remains. Deeper excavations there that extend down into older sedimentary deposits, as well as any excavations in the Mint Canyon Formation exposed in the very northeastern-most portion of the proposed project, however, may well encounter significant fossil vertebrate specimens. 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 while not impeding development. Sediment samples from the proposed project area should also be collected and processed to determine the small fossil potential of the site. 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

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: invoice