

PALEONTOLOGICAL ASSESSMENT FOR THE COMMERCE LOGISTICS CENTER PROJECT

**5200 SHEILA STREET
COMMERCE, CALIFORNIA 90040**

APN 6335-007-021

Prepared for:

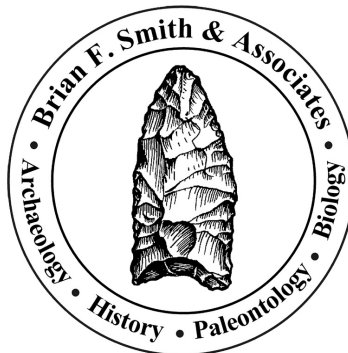
**T&B Planning, Inc.
3200 El Camino Real, Suite 100
Irvine, California 92602**

Submitted to:

**City of Commerce
Planning Division
2535 Commerce Way
Commerce, California 90040**

Prepared by:

**Brian F. Smith and Associates, Inc.
14010 Poway Road, Suite A
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December 13, 2019

Paleontological Database Information

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Report Date: December 13, 2019

Report Title: Paleontological Assessment for the Commerce Logistics Center
Project, 5200 Sheila Street, Commerce, California 90040 (APN
6335-007-021)

Prepared for: T&B Planning, Inc.
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USGS Quadrangle: *Los Angeles, California (7.5 minute)*

Study Area: 5.65 acres

Key Words: Vertebrate fossils; Quaternary alluvium; High paleontological
resource sensitivity; city of Commerce; Los Angeles Basin.

I. INTRODUCTION AND LOCATION

A paleontological resource assessment has been completed for the Commerce Logistics Center Project located in the city of Commerce in Los Angeles County (Figures 1 and 2 in Attachment B). The project property is assigned Assessor's Parcel Number (APN) 6335-007-021 and is located on the 7.5-minute USGS *Los Angeles, California* topographic quadrangle in an unsectioned portion of the former San Antonio (Lugo) land grant, Township 2 South, Range 12 West. This property is bounded on all sides by industrial properties. The project proposes to develop the entire 5.65-acre property for the construction of a two-story, 114,898-square-foot warehouse building, which includes 14,000 square feet of office space, 100,898 square feet of warehouse space, and associated parking and hardscape. The property is currently developed with two structures that include one cafeteria building and one office building. The property has been previously impacted by the development of structures and associated hardscape, as well as the general development of the area over the past 100 years.

II. REGULATORY SETTING

The California Environmental Quality Act (CEQA), patterned after the National Environmental Policy Act (NEPA), is the overriding environmental document that sets the requirement for protecting California's cultural and paleontological resources. The document does not establish specific rules that must be followed, but mandates that governing permitting agencies (lead agencies) set their own guidelines for the protection of nonrenewable paleontological resources under their jurisdiction.

State of California

Under Guidelines for the Implementation of CEQA, as amended March 29, 1999 (Title 1, Chapter 3, California Code of Regulations: 15000 et seq.), procedures define the type of activities, persons, and public agencies required to comply with CEQA. In the Environmental Checklist, one of the questions to answer is, "Will the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?" (Section 15023, Appendix G, Section XIV, Part a). The California Public Resources Code (PRC) Section 5097.5 states:

- a) 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 such lands. Violation of this section is a misdemeanor.

- b) As used in this section, “public lands” means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.

City of Commerce

Sections 6 (“Resource Management Element”) and 9 (“Implementation Element”) of the City of Commerce’s General Plan include language addressing paleontological resources (City of Commerce 2008). Section 6 of the General Plan identifies the State of California’s requirements and natural resources under consideration by the City, while Section 9 serves as a guide for implementation of the General Plan. Both sections use the same text regarding paleontology in verbatim (p. 151 and p. 183 of the General Plan, respectively):

Cultural Resource Management. Should archaeological or paleontological resources be encountered during excavation and grading activities, all work would cease until appropriate salvage measures are established. Appendix K of the California Environmental Quality Act (CEQA) Guidelines shall be followed for excavation monitoring and salvage work that may be necessary. Salvage and preservation efforts will be undertaken pursuant to Appendix K requirements outlined in CEQA.

III. GEOLOGY

The project is located within the Central Basin of the larger Los Angeles Basin, a large structural sedimentary basin bounded by, and cut through by, several active fault systems within the Los Angeles metropolitan area (Hillhouse et al. 2002). As mapped by Campbell et al. (2014), the project area is underlain by late Pleistocene to possibly early Holocene young alluvium, Unit 2, generally consisting of unconsolidated clay, silt, and sand on floodplains, and are clearly related to ongoing depositional processes (light tan area labeled as “Qya₂” on Figure 3 in Attachment B, after Campbell et al. 2014, and Saucedo et al. 2016). In an older study, Yerkes (1997) mapped the sediments under the project as Holocene alluvium with a thickness ranging from zero to three meters, and less than 1,000 years old. The channelized Los Angeles River is less than one mile to the south-southwest (see Figure 2 in Attachment B).

IV. PALEONTOLOGICAL RESOURCES

Definition

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 [SVP] 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, county, and local guidelines (Section II of this report).

Fossil Records Search

A paleontological records search was performed for the Commerce Logistics Center Project by Dr. Sam McLeod of the Vertebrate Paleontology Section of the Natural History Museum of Los Angeles County (LACM; McLeod 2019 in Attachment C). The report by McLeod (2019) did not identify any record of fossils found at the subject property, but identified LACM Locality Nos. 7701 and 7702 as located about one-quarter mile just west of the Commerce Logistics Center Project, consisting of the fossil remains of Pleistocene salamander, lizard, snake, rabbit, three species of rodent, and a fish called a three-spined stickleback. These fossils were recovered from depths ranging from 11 to 34 feet below the surface. At a distance of approximately six miles to the northwest, the fossil remains of a horse were recovered at an unknown depth. Approximately eight miles due west, fossil remains of three-spined stickleback and rodents were recovered from a depth of 16 feet. Also identified nearby are Pleistocene horse and camel bones from LACM Locality No. 1728 in English Canyon of Chino Hills, located just under six miles south-southeast of the Commerce Logistics Center Project (McLeod 2019).

McLeod (2019) indicated that shallow excavations in the overlying younger alluvium will probably not yield significant vertebrate fossils, but deeper excavations into older deposits of Quaternary alluvium have a greater potential to encounter significant vertebrate fossils. In addition, he pointed out “Any substantial excavations in the proposed area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development.” McLeod (2019) also recommended collecting sediment samples for examination of potential small vertebrate fossils that may be present.

V. PALEONTOLOGICAL SENSITIVITY

Overview

The degree of paleontological sensitivity of any particular area is based on a number of factors, including the documented presence of fossiliferous resources on a site or in nearby areas, the presence of documented fossils within a particular geologic formation or lithostratigraphic unit, and whether or not the original depositional environment of the sediments is one that might have been conducive to the accumulation of organic remains that might have become fossilized over time. Late Quaternary (Holocene, or “modern”) alluvium is generally considered to be geologically too young to contain significant nonrenewable paleontological resources (*i.e.*, fossils) and is thus typically assigned a “Low” paleontological sensitivity. Pleistocene (>

11,000-year-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, camel, saber-toothed cats, and others (Miller 1971, Jefferson 2009a, 2009b). These Pleistocene sediments are thus accorded a “High” paleontological resource sensitivity.

Professional Standards

The Society of Vertebrate Paleontology (SVP) drafted guidelines outlining procedures that include:

[E]valuating the potential for impacts of a proposed action on paleontological resources and for mitigating those impacts. Impact mitigation includes pre-project survey and salvage, monitoring and screen washing during excavation to salvage fossils, conservation and inventory, and final reports and specimen curation. The objective of these procedures is to offer standard methods for assessing potential impacts to fossils and mitigating these impacts. (SVP 2010)

The guidelines include four categories of paleontological sensitivity for geologic units (formations) that might be impacted by a proposed project, as listed below:

- **High Potential:** Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered.
- **Undetermined Potential:** Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment, and that further study is needed to determine the potential of the rock unit.
- **Low Potential:** Rock units that are poorly represented by fossil specimens in institutional collections or based upon a general scientific consensus that only preserve fossils in rare circumstances.
- **No Potential:** Rock units that have no potential to contain significant paleontological resources, such as high-grade metamorphic rocks and plutonic igneous rocks.

Analysis

It is unlikely that significant paleontological resources are present in the near-surface young Quaternary (Holocene) alluvium. Based on the location descriptions of McLeod (2019), all the vertebrate fossils were recovered from below young alluvial deposits, as mapped by Campbell et al. (2014) and Yerkes (1997), indicating the surficial young alluvial deposits overlie locally fossil-bearing, older Quaternary (Pleistocene) alluvial deposits.

VI. RECOMMENDATIONS

The likely existence of Quaternary (*i.e.*, Pleistocene) alluvial deposits beneath the Commerce Logistics Center Project, along with the High paleontological resource sensitivity assigned to these sediments locally (McLeod 2019; Jefferson 2009a, 2009b), and the presence of previously recorded fossil specimens from Pleistocene alluvial deposits just west of the subject property approximately one-quarter mile away all support the recommendation that full-time paleontological monitoring be required in these Pleistocene alluvial deposits. It is recommended that periodic “spot checks” be performed by a qualified paleontologist during grading, excavation, or utility trenching activities at the project, starting at five feet below the surface, to determine the stratigraphic relationships of the sediments underlying the site, and for the presence of fossils. Periodic “spot check” monitoring will consist of approximately one to two scheduled site visits per week by a paleontological monitor during construction ground disturbance. Once a depth of eight feet is achieved during excavation, drilling, or trenching activities, or if fossils are discovered at shallower depths, full-time monitoring for paleontological resources is warranted.

A paleontological Mitigation Monitoring and Reporting Program (MMRP) consistent with the provisions of CEQA, the City of Commerce, McLeod (2019, attached) and the guidelines of the SVP (2010) should be developed and implemented for any mass grading and excavation-related activities, including utility trenching and boring activities, during site preparations for the construction of the proposed Commerce Logistics Center Project. A proposed paleontological MMRP follows.

Proposed Paleontological MMRP:

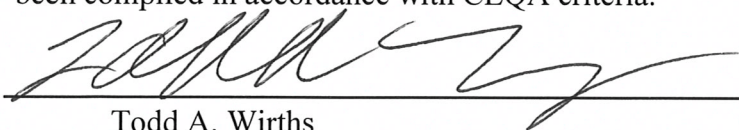
1. Monitoring of mass grading and excavation activities in areas identified as likely to contain paleontological resources shall be performed by a qualified paleontologist or paleontological monitor. Periodic spot checks should be performed from five feet below the surface to a depth of eight feet, to determine the presence of Pleistocene strata or fossils. Once Pleistocene strata are recognized or fossils are discovered, or excavation depths proceed beyond eight feet deep, full-time monitoring for paleontological resources is warranted. Monitoring will be conducted full-time in areas where grading, excavation, or drilling activities occur at eight feet or deeper in order to mitigate any adverse impacts (loss or destruction) to potential nonrenewable paleontological resources.
2. Paleontological monitors will be equipped to salvage fossils as they are unearthed to avoid construction delays and to remove samples of sediment that are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor must be empowered to temporarily halt or divert equipment to allow for the removal of

abundant or large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if they are present, are determined upon exposure and examination by qualified paleontological personnel to have low potential to contain fossil resources.

3. Preparation of recovered specimens to a point of identification and permanent preservation, including screen-washing sediments to recover small invertebrates and vertebrates if indicated by the results of test sampling. Preparation of individual vertebrate fossils is often more time-consuming than for accumulations of invertebrate fossils.
4. All fossils must be deposited in an accredited institution (university or museum) that maintains collections of paleontological materials. All costs of the paleontological monitoring and mitigation program, including any one-time charges by the receiving institution, are the responsibility of the developer.
5. Preparation of a final monitoring and mitigation report of findings and significance, including lists of all fossils recovered and necessary maps and graphics to accurately record their original location(s). A letter documenting receipt and acceptance of all fossil collections by the receiving institution must be included in the final report. The report, when submitted to (and accepted by) the appropriate lead agency (e.g., the City of Commerce), will signify satisfactory completion of the project program to mitigate impacts to any nonrenewable paleontological resources.

VII. CERTIFICATION

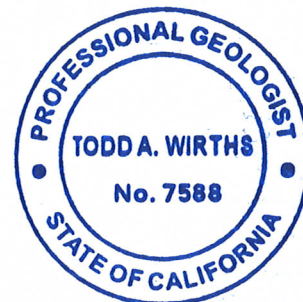
I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this paleontological report, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief, and have been compiled in accordance with CEQA criteria.



Todd A. Wirths
Senior Paleontologist
California Professional Geologist No. 7588

December 13, 2019

Date



VIII. ATTACHMENT A

References

Resume

REFERENCES

- Campbell, R.H, Wills, C.J., Irvine, P.J., and Swanson, B.J. 2014. Preliminary geologic map of the Los Angeles 30' x 60' quadrangle, California. California Department of Conservation, California Geological Survey, v. 2.1, scale 1:100,000.
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- Hillhouse, J.W., Reichard, E.G., and Ponti, D.J. 2002. Probing the Los Angeles Basin—Insights into ground-water resources and earthquake hazards. U.S. Geological Survey Fact Sheet 086-02, <https://pubs.usgs.gov/fs/2002/fs086-02/fs086-02.pdf>.
- Jefferson, G.T. 2009a. [A] Catalogue of late Quaternary vertebrates from California. Unpublished draft manuscript, 1991, revised 11 March 2009; Natural History Museum of Los Angeles County.
- Jefferson, G.T. 2009b. A catalogue of Blancan and Irvingtonian vertebrates and floras from Arizona, southern California, Nevada, Utah, and northwestern Mexico. Unpublished draft manuscript, Colorado Desert District Stout Research Center, Anza-Borrego Desert State Park, Borrego Springs, California.
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- Miller, W.E. 1971. Pleistocene vertebrates of the Los Angeles Basin and vicinity (exclusive of Rancho La Brea). Bulletin of the Los Angeles County Museum of Natural History; Science: Number 10, 124 pp.
- 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.
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- Yerkes, R.F. 1997. Preliminary geologic map of the Los Angeles 7.5' quadrangle, southern California. U.S. Geological Survey Open File Report 97-254.

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Senior Paleontologist

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Education

Master of Science, Geological Sciences, San Diego State University, California	1995
Bachelor of Arts, Earth Sciences, University of California, Santa Cruz	1993
Associate of Arts, Geological Sciences, Santa Barbara City College	1992

Professional Certifications

Professional Geologist, California (#7588), 2003

Riverside County Approved Paleontologist

San Diego County Qualified Paleontologist

Orange County Certified Paleontologist (applied, 2019)

OSHA HAZWOPER 40-hour trained; current 8-hour annual refresher

Professional Memberships

Board member, San Diego Geological Society

San Diego Association of Geologists (President, 2012; Vice President, 2011)

South Coast Geological Society

Publications

Picacho and the Cargo Muchachos: Guns, Gold, and Geology of Eastern Imperial County, California:
San Diego Associations of Geologists/Sunbelt Publications, 2012 (1st ed.), 2014 (2nd ed.).

"Picacho, the Golden Road," *Dezert Magazine*, Winter, 2013.

Experience

Senior Paleontologist

Brian F. Smith and Associates, Inc.

October 2012–Present

Poway, California

Mr. Wirths serves as the director of the paleontology department at BFSa. Mr. Wirths oversees all phases of project-related paleontology, including management of field and junior staff, planning, organizing, and implementing monitoring projects, research, report drafting, regulatory compliance, and laboratory oversight. Mr. Wirths directs or performs resource mitigation monitoring of construction sites, fossil salvage activities, paleontological field surveys and assessments, laboratory fossil preparation and curation. He has drafted dozens of technical reports, including paleontological assessments, site reports, and paleontological resource impact mitigation program (PRIMP) reports. Mr. Wirths created and implemented BFSa-specific fossil-recovery data sheets for field use by monitoring staff. The field

experience of Mr. Wirths includes the use of Trimble GPS data recording, burlap and plaster techniques, collection of microfossils, and wet and dry-screening techniques. Mr. Wirths provides expert identification of fossil marine invertebrates.

**Lead Geological/Paleontological Consultant
Cogstone Resource Management**

**November 2011–February 2009
San Diego and Orange, California**

Mr. Wirths conducted on-site paleontological monitoring, drafted/evaluated RFP responses, work plans, and reports; planned, organized, and implemented projects, and trained and supervised junior staff. Field localities include projects in Calaveras, Merced, Tulare, San Joaquin, Kern, San Bernardino, Los Angeles, and Riverside Counties. At the Highway 99 Caltrans expansion project near Merced, Mr. Wirths recovered dozens of Rancholabrean-age vertebrate fossils using plaster and burlap casting techniques.

**Paleontological/Geological Monitor
San Diego Natural History Museum**

**February 2011–November 2011
San Diego, California**

Oversaw construction and development sites for fossil resources and logged and interpreted geology during drilling and trenching activities/recovery of fossils. Monitoring projects include the SDG&E Sunrise Powerlink, several SDG&E Wood to Steel projects, San Diego City College expansion, The Bishops School, and the Prebys Cardiovascular Institute.

**Project Manager/Geologist
Wirths Consulting**

**March 2010–February 2011
San Diego, California**

Provided environmental consulting services for Apex Companies, H.M. Pitt Labs, Ninyo & Moore, and TRC Solutions, providing project management, reporting, and certified professional field oversight, designing/budgeting an *in situ* chemical oxidation project, and obtaining a City of San Diego business license.

**Senior Project Manager
ETIC Engineering, Inc.**

**April 2007–August 2009
Santa Diego, California**

Operated as senior project manager for 10 ExxonMobil retail sites, designed and implemented assessment and remediation projects (including project forecasting/budgeting, managing subcontractors, and composing work plans), composed work plans, assessment reports, and corrective action plans, and managed/mentored staff-level associates.

**Project Manager
TRC Solution, Inc./TRC Alton Geoscience**

**January 2000–April 2007
San Diego and Imperial Counties, California**

Operated as project manager for various projects throughout San Diego County, including ExxonMobil Oil Corporation and Unocal Corporation remediation activities, BNSF Railway Company groundwater assessment and remediation, and Ultramar/Valero, Inc., which involved supervising/managing on-site personnel, collecting/managing soils, groundwater, and wood samples, writing reports, and conducting remediation feasibility testing and remedial planning.

**Staff Geologist
IT Corp./Pacific Environmental Group**

**May 1997–September 2000
San Diego, Orange, and Los Angeles Counties, California**

Tracked progress of excavation and delineation of impact, sampled/managed soil, and conducted drilling and groundwater monitoring/well installation activities.

Selected Technical Reports

Glover, Amy, Todd **Wirths**, and Sherri Gust

- 2012 *Paleontological assessment for the Paradise Creek Housing Development, National City, San Diego County, California.* Prepared for The Related Companies of California, Irvine, CA, by Cogstone Resource Mgt., Inc.

Gust, Sherri, Kim Scott, and Todd **Wirths**

- 2012 *Paleontological resources assessment for the WECC Path 42 Project in Riverside County, California.* Prepared for Southern California Edison, Monrovia, CA, by Cogstone Resource Mgt., Inc.

Horne, Melinda, Todd **Wirths**, and Amy Glover

- 2012 *Paleontological and cultural resources assessment for the town of Yucca Valley General Plan update, San Bernardino County, California.* Prepared for The Planning Center – DC&E, Santa Ana, CA, by Cogstone Resource Mgt., Inc.

Wirths, Todd A., and Sherri Gust

- 2012 *Paleontological resources assessment for the Truckhaven geothermal expansion project, Imperial County, California.* Prepared for NGP Truckhaven, LLC, Reno, NV, by Cogstone Resource Mgt., Inc.

Kennedy, George L., and Todd A. **Wirths**

- 2013 *Paleontological Monitoring Report, Aztec Court Apartments, 6237 Montezuma Road, San Diego, San Diego County, California.* Prepared for Warmington Residential California, Inc., Southern California Division. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2013 *Paleontological Monitoring Report, Citywide Sewer Pump Station Upgrades, Group II, Pump Station 60A, Scripps Ranch neighborhood, City of San Diego, San Diego County, California (PTS No. 31233 and WBS No. S-00304).* Prepared for Ortiz Corporation General Engineering Contractors. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2013 *Paleontological Resource Impact Mitigation Program (PRIMP), Rancho Paseo de Valencia, City of Corona and unincorporated Riverside County, California (Tentative Tract Map 34760; APNs 114-040-019, 114-040-020, 275-100-003, and 275-100-004).* Prepared for Rancho Paseo de Valencia. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2013 *Paleontological monitoring report, Casa Aldea Phase II, University City Village Apartments, 6112, 6122, and 6132 Gullstrand Street, University City, San Diego, San Diego County (LDR No. 98-0408, PTS No. 303550).* Prepared for Wise River Builders, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2013 *Paleontological Resource Assessment, Ballpark Village Development, East Village, San Diego, San Diego County, California.* Prepared for Ballpark Village, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2013 *An Updated Phase I Paleontological Resources Assessment for Tentative Tract Maps 36484 and 36485, Audie Murphy Ranch, City of Menifee, County of Riverside, California.* Prepared for Brookfield Residential. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2013 *Paleontological Resource Impact Mitigation Program (PRIMP), Ridge Park project, city of Temecula, Riverside County, California (APNs 922-210-049; 940-310-013, 940-310-015, and 940-310-016; 940-310-044 through 940-310-048; and 940-320-001 through 940-320-007).* Prepared for Ambient Communities. Report on file at Brian F. Smith and Associates, Inc., Poway, CA.

Kennedy, George L., and Todd A. **Wirths**

- 2014 *Paleontological Monitoring Report, Chino Desalter Phase III Expansion Project, 11301 Harrel Street, City of Jurupa Valley, Riverside County, California.* Prepared for W.M. Lyles Co. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2014 *Paleontological resource and monitoring assessment, proposed Avanti North housing development, Lancaster, Los Angeles County, California (Tentative Tract Map No. 53229).* Prepared for Avanti North, LP. Report on file at Brian F. Smith and Associates, Inc., Poway, CA.

Kennedy, George L., and Todd A. **Wirths**

- 2014 *Paleontological monitoring report for the Montezuma Trunk Sewer project, College and Mid-Cities Community Plan Areas, San Diego, San Diego County, California (Project No. 240104).* Prepared for Ortiz Corporation General Engineering Contractors. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2014 *Paleontological resource impact assessment for the Lake Ranch project site, unincorporated Riverside County, California (APNs 270-060-010, 270-160-001, 270-170-010, 270-170-011, and 270-180-010; TR 36730).* Prepared for Christopher Development Group. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2014 *Paleontological Resource Impact Mitigation Program (PRIMP) for the Menifee Heights Development, City of Menifee, Riverside County, California (Tract No. 32277).* Prepared for CV Communities, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2014 *Paleontological Resource Assessment, Shoshone Valley Road solar array project, Twentynine Palms, San Bernardino County, California (APNs 613-233-01, -02, -03, -04, -27, -28, -29, and -30).* Prepared for Ecos Energy, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, CA.

Kennedy, George L., and Todd A. **Wirths**

- 2014 *Paleontological Resource Assessment, Utah Trail solar array project, Twentynine Palms, San Bernardino County, California (APNs 621-281-22 through 621-281-25).* Prepared for Ecos Energy, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2014 *Paleontological Monitoring Report, San Diego Community College District, César Chávez Campus, Barrio Logan, San Diego, California.* Prepared for San Diego Community College District. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2014 *Paleontological Monitoring Report, Sewer and Water Group 761, Uptown Community Plan Area, San Diego, San Diego County, California.* Prepared for Burtech Pipeline. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2014 *Paleontological Resource Impact Mitigation Program (PRIMP) for the Blessed Teresa of Calcutta Catholic Parish project site, French Valley, unincorporated Riverside County, California (APN 480-040-044; Project No. PP24903).* Prepared for Blessed Teresa of Calcutta Catholic Parish, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2014 *Paleontological Resource Impact Mitigation Program (PRIMP), Salton City Landfill Expansion Project, unincorporated Imperial County, California (SCH No. 2010071072).* Prepared for Burrtec Waste Industries, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2014 *Paleontological Resource Impact Mitigation Program (PRIMP) for the Yates Road housing development site, Tract Map TR 36437, northeast of Murrieta, unincorporated Riverside County, California (APNs 467-390-001 through 467-390-016).* Prepared for CV Communities, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2014 *Paleontological Monitoring Report, Construction of the Park and G Project, East Village, Downtown San Diego, San Diego County, California.* Prepared for Oliver McMillan. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2014 *Paleontological Monitoring Report, Construction of Pinnacle 15th & Island Project, East Village, Downtown San Diego, San Diego County, California.* Prepared for Pinnacle International Development, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., N. Scott Rugh, and Todd A. **Wirths**

- 2012 *Paleontological Monitoring Report, Construction of 13th & Market Project, East Village, Downtown San Diego, San Diego County, California.* Prepared for The Hanover Company. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., N. Scott Rugh, and Todd A. **Wirths**

- 2013 *Paleontological Monitoring Report, Ariel Suites, Little Italy, City of San Diego, San Diego County, California.* Prepared for Ariel Suites, LP. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., N. Scott Rugh, and Todd A. **Wirths**

- 2013 *Paleontological Monitoring Report, Village Lindo Paseo Dormitories, SDSU College Area, City of San Diego, San Diego County, California.* Prepared for Village Lindo Paseo, L.P. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., N. Scott Rugh, and Todd A. **Wirths**

- 2013 *Paleontological Monitoring Report, Grit Processing Improvements Project, Point Loma Wastewater Treatment Plant, San Diego, San Diego County, California (Sewer WO No. 176001; WBS No. S-00315).* Prepared for Archer Western Contractors. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., N. Scott Rugh, and Todd A. **Wirths**

- 2013 *Paleontological Monitoring Report, Harbor Drive Trunk Sewer, City of San Diego, San Diego County, California (Project No. 38789).* Prepared for Burtech Pipeline. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., Todd A. **Wirths**, and Brian F. Smith

- 2013 *Paleontological and Archaeological Monitoring and Mitigation Report, Lake Forest Sports Park, City of Lake Forest, Orange County, California.* Prepared for Road Builders, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2013 *Negative Paleontological Monitoring and Mitigation Report, San Clemente Senior Housing Project, 2350 South El Camino Real, City of San Clemente, Orange County, California (CUP No. 06-065; APN 060-032-04).* Prepared for Primus Building Solutions. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Wirths, Todd A., and George L. Kennedy

- 2014 *Paleontological Monitoring Report, Sewer Main Replacement Group Job 685 (Part of Sewer and Water Group Job 685 (Part of Sewer and Water Group 3014), City Heights Neighborhood of the City of San Diego, San Diego County, California (Project No. 131446; Sewer WBS No. B-00333).* Prepared for Ortiz Corporation General Engineering Contractors. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Wirths, Todd A., and George L. Kennedy

- 2015 *Paleontological Monitoring Report, 951 South Beach Boulevard Project, La Habra, Orange County, California (MND No. 14-01).* Prepared for Fairfield 951 Beach, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2015 *Paleontological Monitoring Report, Casa Aldea Lots 4 & 6, Fairbanks Ranch-Santaluz Area, Northern San Diego, California.* Prepared for Wise River Builders, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2015 *Paleontological Monitoring Report, Pendry Hotel San Diego, Gaslamp Quarter, Downtown San Diego, California.* Prepared for The Robert Green Company. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Wirths, Todd A., and George L. Kennedy

- 2016 *Paleontological Monitoring Report, The Rey Project, 840 B Street, Downtown San Diego, San Diego County, California.* Prepared for Blue/WP San Diego, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2016 *Paleontological Monitoring Report, Atmosphere Affordable Housing Project, 1453 Fourth Avenue, Downtown San Diego, San Diego County, California.* Prepared for Wakeland Housing & Development Corp. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Wirths, Todd A., and George L. Kennedy

- 2017 *Paleontological Monitoring Report, Ballpark Village, Lower East Village, Downtown San Diego, California.* Prepared for Ballpark Village, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Wirths, Todd A., and George L. Kennedy

- 2017 *Paleontological Monitoring Report, 460 16th Street, East Village, Downtown San Diego, San Diego County, California.* Prepared for Lennar Multifamily Communities, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Wirths, Todd A., and George L. Kennedy

- 2017 *Paleontological Resource Impact Mitigation Program (PRIMP) for the La Habra North Project, La Habra, Orange County, California (Tract Map 17809).* Prepared for City Ventures. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2017 *Paleontological Monitoring Report, Imagine Coachella project at the Jordan Christian Academy, West of Coachella in Unincorporated Riverside County, California.* Prepared for M-13 Construction, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

- 2017 *Paleontological Monitoring Report, Kettner and Ash Condominiums Project, Columbia District of Downtown San Diego, San Diego County, California.* Prepared for Bosa Development California, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., Todd A. **Wirths**, and N. Scott Rugh

- 2018 *Paleontological Monitoring Report, Manning Canyon Sewer and Water Replacement Project, Linda Vista, City of San Diego, San Diego County, California.* Prepared for Red Tail Monitoring & Research, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., Todd A. **Wirths**, and N. Scott Rugh

- 2018 *Paleontological Monitoring Report, Westfield University Towne Center Expansion Project, Phase 2A, La Jolla Village Drive, San Diego, San Diego County, California.* Prepared for Westfield UTC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Wirths, Todd A., and George L. Kennedy

- 2018 *Negative Paleontological Monitoring Report, Verizon Capistrano Depot Project, 32400 Paseo Adelanto, San Juan Capistrano, Orange County, California (CUP No. 16-003; APN 668-10-023).* Prepared for Trileaf Environmental and Property Consultants. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., Todd A. **Wirths**, and N. Scott Rugh

- 2019 *Paleontological Monitoring Report, Saint Demiana Coptic Orthodox Church, Santaluz-Torrey Highlands Neighborhood, San Diego, San Diego County, California.* Prepared for Barnhart-Reese Construction, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

IX. ATTACHMENT B

**Project Maps:
General Location Map
USGS Project Location Map
Geologic Map**

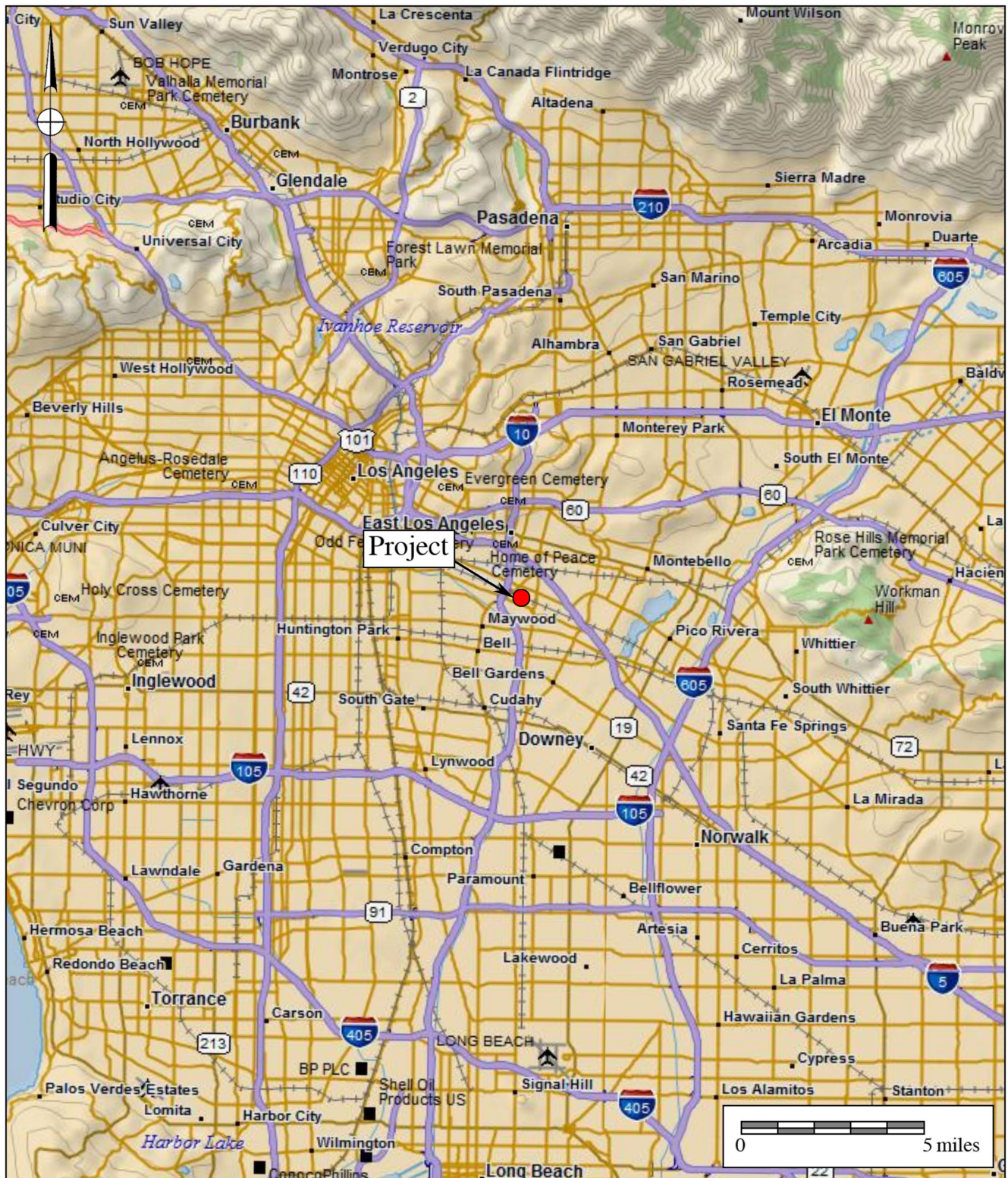


Figure 1

General Location Map

The Commerce Logistics Center Project

DeLorme (1:250,000)



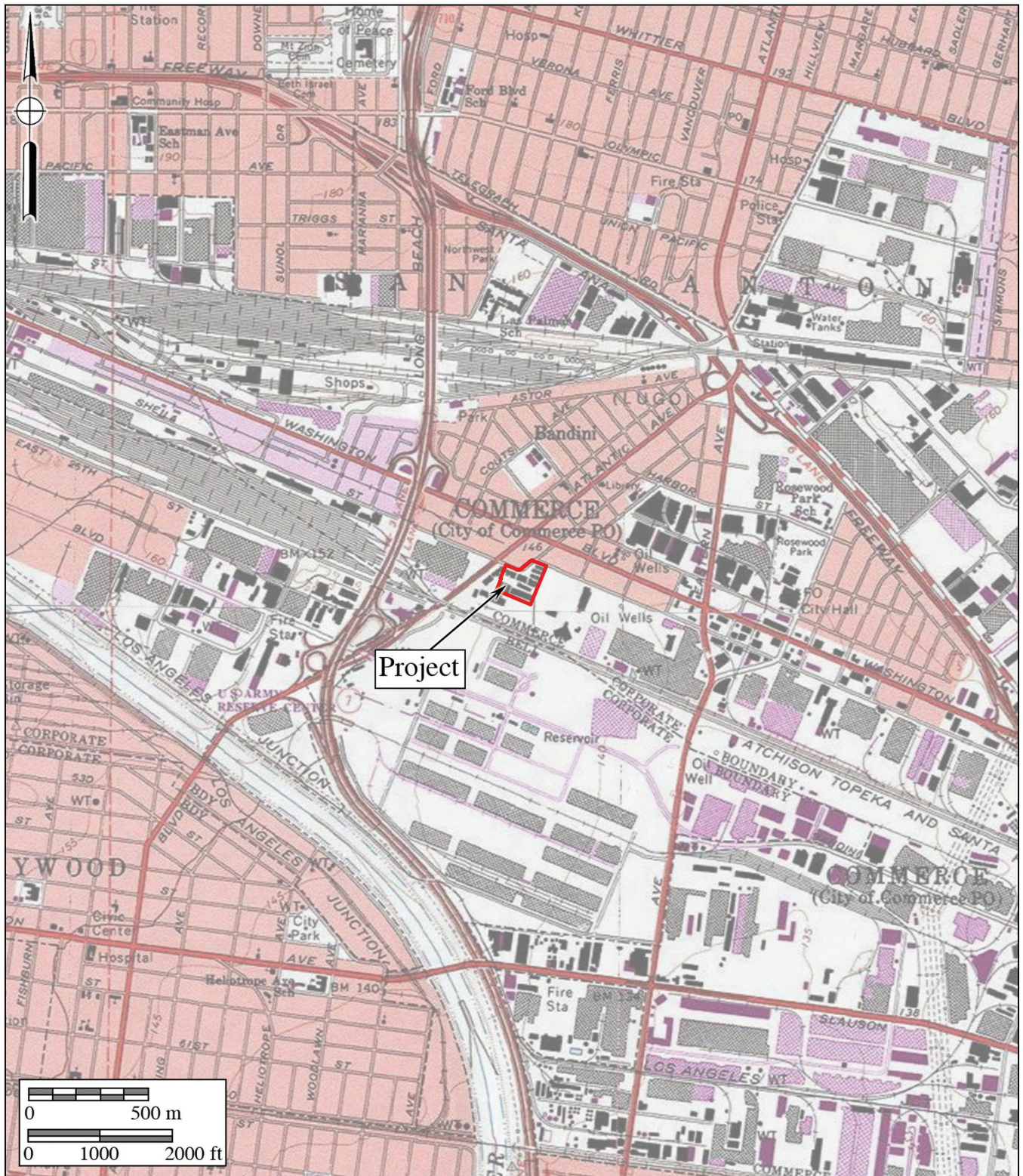


Figure 2

Project Location Map

The Commerce Logistics Center Project

USGS Los Angeles and South Gate Quadrangles (7.5-minute series)



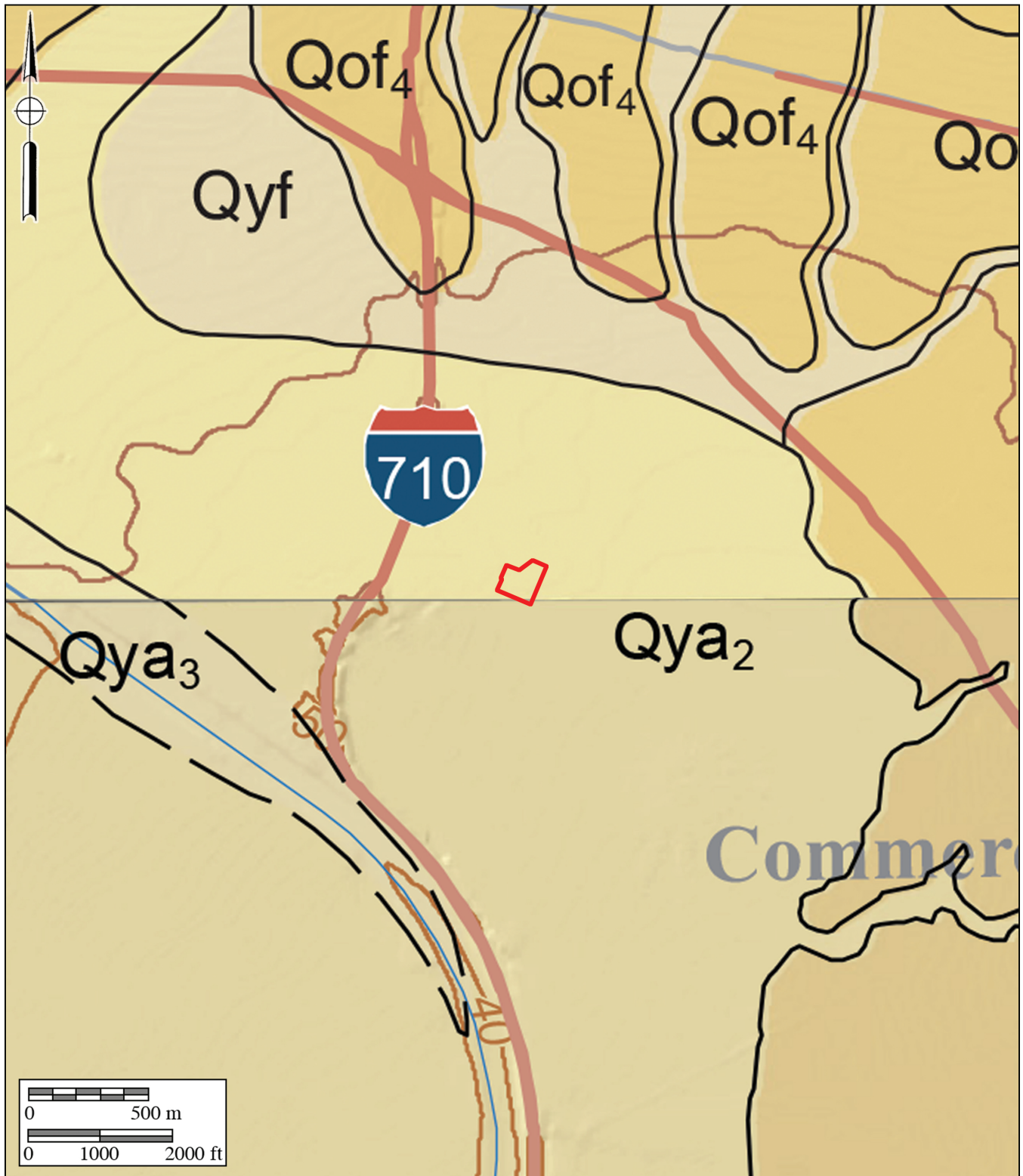


Figure 3
Geologic Map

The Commerce Logistics Center Project

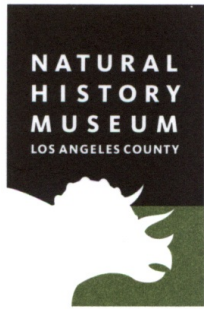
Geology after Campbell et al. (2014) and Saucedo et al. (2016)



X. ATTACHMENT C

Paleontological Records Search Results

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

6 December 2019

Brian F. Smith & Associates, Inc.
14010 Poway Road, Suite A
Poway, CA 92064

Attn: Todd Wirths, Senior Paleontologist

re: Paleontological Resources Records Search for the proposed 5200 Sheila Street Project, BFSA
Project # 19-212, in the City of Commerce, Los Angeles County, project area

Dear Todd:

I have thoroughly searched our paleontology collection records for the locality and specimen data for the proposed 5200 Sheila Street Project, BFSA Project # 19-212, in the City of Commerce, Los Angeles County, project area as outlined on the portion of the Los Angeles USGS topographic quadrangle map that you sent to me via e-mail on 22 November 2019. We have no vertebrate fossil localities that lie directly within the boundaries of the proposed project area, but we do have localities nearby from the sedimentary deposits that occur at depth in the proposed project area.

Surface deposits in the entire proposed project area consist of younger Quaternary Alluvium, derived predominantly as fluvial deposits from the flood plain of the Los Angeles River that currently flows in a concrete channel just to the west and south of the proposed project area. These younger Quaternary deposits typically do not contain significant fossil vertebrates in the uppermost layers, but the underlying older Quaternary deposits found at varying depths may well contain significant vertebrate fossils.

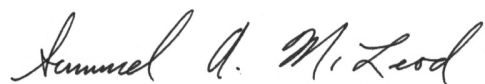
Our closest vertebrate fossil localities from these deposits are LACM 7701-7702, immediately west of the southern-most part of the proposed project area just north of the intersection of Atlantic Avenue and the Long Beach Freeway (I-710), that produced fossil

specimens of threespine stickleback, *Gasterosteus aculeatus*, salamander, *Batrachoseps*, lizard, Lacertilia, snake, Colubridae, rabbit, *Sylvilagus*, pocket mouse, *Microtus*, harvest mouse, *Reithrodontomys*, and pocket gopher, *Thomomys*, at depths of 11 to 34 feet below grade. Our next closest vertebrate fossil locality from these deposits is LACM 1755, west-northwest of the proposed project area near the intersection of Hill Street and 12th Street, that produced a fossil specimen of horse, *Equus* at unknown depth. Also due west of the proposed project area, near the intersection of 46th Street and Western Avenue, our vertebrate fossil locality LACM 7758 produced fossil specimens of three-spine stickleback, *Gasterosteus aculeatus*, meadow vole, *Microtus*, deer mouse, *Peromyscus*, pocket gopher, *Thomomys*, and pocket mouse, *Perognathus*, at a depth of 16 feet below the surface.

Shallow excavations in the younger Quaternary Alluvium exposed in the proposed project area probably will not uncover significant vertebrate fossil remains. Deeper excavations that extend down into older Quaternary deposits, however, may well encounter significant fossil vertebrate specimens. 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 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 black ink, reading "Samuel A. McLeod". The signature is written in a cursive, flowing style.

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: invoice