

February 25, 2020

George “Geof” Gorman
201 Nevada Street, Suite B
El Segundo, CA 90245

Subject: Cultural and Paleontological Resources for the Diamond Bar Golf Course Renovation Project, City of Diamond Bar, Los Angeles County

Dear Mr. Gorman:

At the request of GPA Consulting, Inc. (GPA), Duke Cultural Resources Management, LLC (DUKE CRM) has conducted an archaeological and paleontological survey in support of the Diamond Bar Golf Course Renovation Project (Project), City of Diamond Bar, Los Angeles County. This study is being conducted as part of compliance with the California Environmental Quality Act (CEQA); the San Gabriel Valley Council of Governments (COG) is the CEQA lead agency. The purpose of this letter is to document an updated records search, field survey, and assist the COG with Native American consultation conducted for the Project under AB 52. The proposed renovation was not covered in the 2010 environmental studies or the revalidation study conducted by DUKE CRM earlier this year for Golden Springs Drive/Grand Avenue. To that end, we have reviewed the following documents:

- Historic Property Survey Report (HPSR, Prepared by ICF, February 2010),
- Archaeological Survey Report (ASR, Prepared by ICF, February 2010),
- Historical Resource Evaluation for Diamond Bar Golf Course (Sapphos Environmental), and
- Diamond Bar Golf Course Renovation Project (HRTR, Prepared by GPA, January 2020).

The following is a summary of the Project related activities. The COG, the Los Angeles County Department of Parks and Recreation, and Metropolitan Transportation Authority propose to renovate the Diamond Bar Golf Course (Golf Course or Project) (see Attachment A for project maps). Grand Avenue divides the existing Golf Course into two parts consisting of six holes on the west and 12 holes on the east which are connected with a golf cart tunnel beneath Grand Avenue. Planned freeway improvements would permanently incorporate 9.4 acres of the Golf Course, reducing the Golf Course from 171.3 acres to 161.9 acres, demolish an existing maintenance facility, and construct a new maintenance facility. Maximum depth of ground disturbance for the Project is eight (8) feet. The Final Environmental Impact Report/Finding of No Significant Impact (EIR/FONSI) for the SR-57/SR-60 Confluence at Grand Avenue project included mitigation measures so that the Project continues to be 18-hole at par 72, golf course. The proposed Project would not require the acquisition of any right-of-way. A new Los Angeles County Flood Control District easement and relocation of Southern California Edison utility easements are needed within the Golf Course.

Background

The Project is located within the northwest portion of the Peninsular Ranges geomorphic province. The Peninsular Ranges geomorphic province is distinguished by northwest trending mountain ranges and valleys following faults branching from the San Andreas Fault. The Peninsular Ranges are bound

to the east by the Colorado Desert and extend north to the San Bernardino – Riverside County line, west into the submarine continental shelf, and south into Baja California¹. The City of Diamond Bar is located on the southeastern edge of the San Gabriel Basin and is bound by the San Jose Hills to the northwest and the Puente Hills to the southeast. Geologically, the Project is situated upon two geologic units: young alluvial fan deposits (*Qyf*), and the Puente Formation (*Tph*). According to surface and near surface soil survey data from the National Resource Conservation Service, nearly the entire Project is composed of urban land of the Sorrento-Arbolado Complex. This complex is composed of 40 percent Urban land, which is fill and of no archaeological or paleontological interest. The remainder of the Complex is natural and is composed of 20 percent Arbolado and Sorrento series soils, and 20 percent minor components. Arbolado and Sorrento series soils all have a geomorphic position of fan aprons/footslope. Less than five percent of the Project is Zaca-Apollo warm complex and Counterfeit Land Urban complex.

Cultural Records Search

The updated cultural resources records search was conducted at the South Central Coastal Information Center (SCCIC) on January 8, 2020, by Megan Wilson, M.A., RPA, of DUKE CRM. The SCCIC is part of the California Historic Resources Information System and is located at California State University, Fullerton. This updated records search was conducted to determine if any cultural resources have been recorded or relevant studies have been completed since the 2010 studies prepared for project.

Map data from the SCCIC indicates that there are five prehistoric archaeological sites, one prehistoric isolate, and one historic resource located within one mile of the Project. Three of these prehistoric archaeological sites are small lithic scatters, each with two chert cores and between one and fifteen chert flakes. A fourth site is also a small artifact scatter but it consists of a pestle, mano fragment, stone bowl fragment, lithic flake, and a taring pebble. Charcoal flecks were also noted within the artifact scatter. This site underwent Phase II testing in 2003, during which the stone bowl fragment was relocated and recovered but the rest of the surface scatter was not relocated. The Phase II excavation recovered several lithic flakes and small, ground stone tool fragments. The last is a large prehistoric archaeological site consisting of approximately 400 artifacts, six hearth features, as well as ceremonial artifacts including discoidals and stone balls. The sole historic resource consists of the Union Pacific Railroad. There are no listings for the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR) within one mile of the current Project. As part of the current Project, the Diamond Bar Golf Course has been evaluated under the NRHP and CRHR and been found to not constitute a significant resource².

Primary No.	Common Name/ Identifier	Age	Description	Approx. Distance & Direction from Project
P-19-000852		Prehistoric	Small lithic scatter – 2 chert cores, 1 chert flake	0.35 miles east
P-19-000853		Prehistoric	Small lithic scatter – 2 chert cores, 10-15 chert flakes	0.3 miles east
P-19-000854		Prehistoric	Small lithic scatter – 2 chert cores, ~5 chert flakes	0.3 miles east
P-19-001414	Currier Property	Prehistoric	Small artifact scatter – pestle, mano fragment, stone bowl fragment, lithic flake, taring pebble	0.6 miles west

¹ *Geology of California*, R. M. Norris and R. W. Webb (1976)

² *Diamond Bar Golf Course Renovation Project*, GPA (2020)

Primary No.	Common Name/ Identifier	Age	Description	Approx. Distance & Direction from Project
P-19-002805		Prehistoric	Large lithic artifact scatter of approximately 400 milling tools, choppers, cores, discoidals, and stone balls as well as 6 FAR features.	0.9 miles east
P-19-101010		Prehistoric	Isolate – unifacial mano	0.8 miles east
P-19-186112		Historic	Union Pacific Railroad	0.9 miles west
Unknown	Diamond Bar Golf Course Clubhouse	Historic	A Ranch-style with Polynesian-influence style clubhouse built in 1964 which was previously determined eligible for listing in the Los Angeles County Register of Landmarks and Historic Districts.	Within

In April 2019, DUKE CRM contacted the Native American Heritage Commission (NAHC) to request a Sacred Lands File (SLF) search, which was returned positive. The NAHC indicated that the Gabrieleño Band of Mission Indians – Kizh Nation should be contacted for more information about the positive result. Native American consultation efforts are ongoing and will be updated under separate cover.

Paleontological Records Search

On January 27, 2020, the Natural History Museum of Los Angeles County (LACM) performed a paleontological records search to locate fossil localities within the Project and its vicinity. The paleontological records search produced no fossil localities within the Project, though eleven fossil localities are within five miles in similar deposits to those underlying the Project:

- LACM 8014 produced remains of bison (*Bison*) in young alluvial fan deposits approximately four miles east of the Project at an unspecified depth;
- LACM 1728 produced remains of horse (*Equus*) and camel (*Camelops*) in young alluvial fan deposits east of the Project at 15 – 20 feet below ground surface;
- LACM 7190 produced extensive remains of boney fish, including deep sea smelts (Bathylagidae), lantern fish (Myctophidae), jacks (Carangidae), and herrings (*Ganolytes* and *Etringus*) in the Puente Formation approximately 0.75 miles northwest of the Project at an unspecified depth;
- LACM 7153 produced extensive remains of pipefish (Syngnathidae), including the holotype of *Syngnathus emeritus*, in the Puente Formation approximately two miles north of the Project at an unspecified depth;
- LACM 6171 produced remains of herring (*Ganolytes*) in the Puente Formation approximately four miles northwest of the Project at an unspecified depth;
- LACM 5837 and LACM 6170 produced remains of scad (*Decapterus*) and oilfish (*Thyrsoles kriegeri*) from the Puente Formation approximately 4 miles west of the Project at an unspecified depth;
- LACM 7490-7492 produced extensive remains of deep sea smelt (Bathylagidae), scad (*Decapterus*), herrings (*Etringus scintillans* and *Ganolytes cameo*), croaker (*Lompoquia*), mackerel (*Scomber*), and snake mackerel (*Thyrsoles kriegeri*) in the Puente Formation approximately five miles east of the Project at an unspecified depth and;
- LACM 8017 produced remains of herring (*Etringus scintillans* and *Ganolytes cameo*), mackerel, (Scombridae), cod (*Eclipes*), and eel (Anguilliformes) in the Puente Formation approximately four miles southwest of the Project at an unspecified depth.

Cultural/Paleontological Field Survey

A combined intensive and reconnaissance level pedestrian survey of the Project was conducted on November 13, 2019, by Nicholas Hearth, M.A., RPA, of DUKE CRM. Photographs were taken of the Project area, and location information for each photograph was also noted on a printed map of the Project. The golf course is landscaped and heavily vegetated, with soils rarely exposed (<1% visibility) in roughs between fairways. Areas of exposed soil were subject to 10-15 meter pedestrian transects. All observed soil was fill, and no archeological resources were observed during the survey. See Attachment B for Project photographs.

Cultural Resource Recommendations

Due to the high level of ground disturbance that likely occurred within the golf course during its construction, the golf course portion of the Project can be considered to have low sensitivity for archaeological deposits. DUKE CRM finds that the Project has a low potential to yield intact subsurface archaeological deposits, which downgrades the potential assigned to the previous project APE in 2010. No archaeological monitoring is recommended.

In the event of unanticipated archaeological discoveries, all construction personnel shall be informed of the need to stop ground disturbing work within 50 feet of the find until a qualified archaeologist has been retained to assess the nature and significance of the find and implement appropriate measures to protect or scientifically remove the find. Construction personnel shall also be informed that unauthorized collection of cultural resources is prohibited. In the absence of a determination, all archaeological resources shall be considered significant. If the resource is determined to be significant, the archaeologist shall prepare a research design and recovery plan for the resource(s). If the resource is prehistoric in nature, Native Americans shall be consulted.

If human remains are discovered during construction or any earth-moving activities, the County Coroner must be notified of the find immediately. No further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. If the human remains are determined to be prehistoric, the Coroner must notify the NAHC, which will determine and notify a Most Likely Descendent (MLD). The designated MLD may make recommendations to the COG for means of treating of, with appropriate dignity, the human remains and any associated grave goods.

Paleontological Resource Recommendations

Based on a review of the geologic map and the paleontological records search results, the young alluvial fan deposits (*Qyf3*) and Puente Formation (*Tph*) that underlie the Project have documented history of producing fossil remains. The upper, young alluvial fan deposits (*Qyf3*) are too young to contain fossil remains, but transition with depth into older deposits of high paleontological sensitivity and are assigned a high sensitivity at approximately five (5) feet below the surface. Puente Formation deposits are assigned a high sensitivity at the surface. A review of as-builts for the existing Golf Course indicated initial and finished grade but do not indicate the depth of grading the Golf Course underwent to achieve the current topography. Though no geotechnical reports or boring logs for the Project were available for review, it was indicated that the geotechnical borings were unable to discriminate between fill and native sediment. The high sensitivity of the geologic formations in the Project indicate that it has a high potential to impact paleontological resources.

Upon final project design and prior to the beginning of construction, a qualified paleontologist shall review the final project plans and all geotechnical reports including boring logs, to determine whether

construction activities would affect native sediments containing sensitive paleontological resources. Possibly, any native sediment will be highly sensitive for paleontological resources as all young alluvial fan deposits were potentially removed during golf course construction. The qualified paleontologist shall provide his/her findings in writing and provide recommendations for paleontological monitoring during construction, if necessary. If construction activities would not disturb native sediments, no further mitigation would be required. If construction activities would occur in native sediments identified as being sensitive for paleontological resources, the qualified paleontologist shall prepare a Paleontological Resources Impact Mitigation Plan (PRIMP) consistent with the guidelines of the Society of Vertebrate Paleontology (SVP)³.

Thank you for contacting DUKE CRM on this request. If you have any questions or comments, you can contact me at (949) 356-6660 or by e-mail at curt@dukecrm.com.

Sincerely,

DUKE CULTURAL RESOURCES MANAGEMENT, LLC



Curt Duke, M.A., RPA
President/Principal Archaeologist

Attachments:

- A- Project Maps
- B- Project Photographs

³ *Best Practice Guidelines for Repositing and Disseminating Contextual Data Associated with Vertebrate Fossils*. SVP (2019)

ATTACHMENT A
PROJECT MAPS

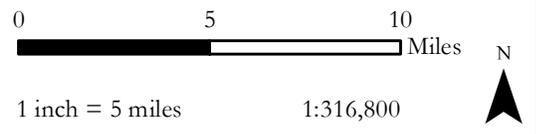


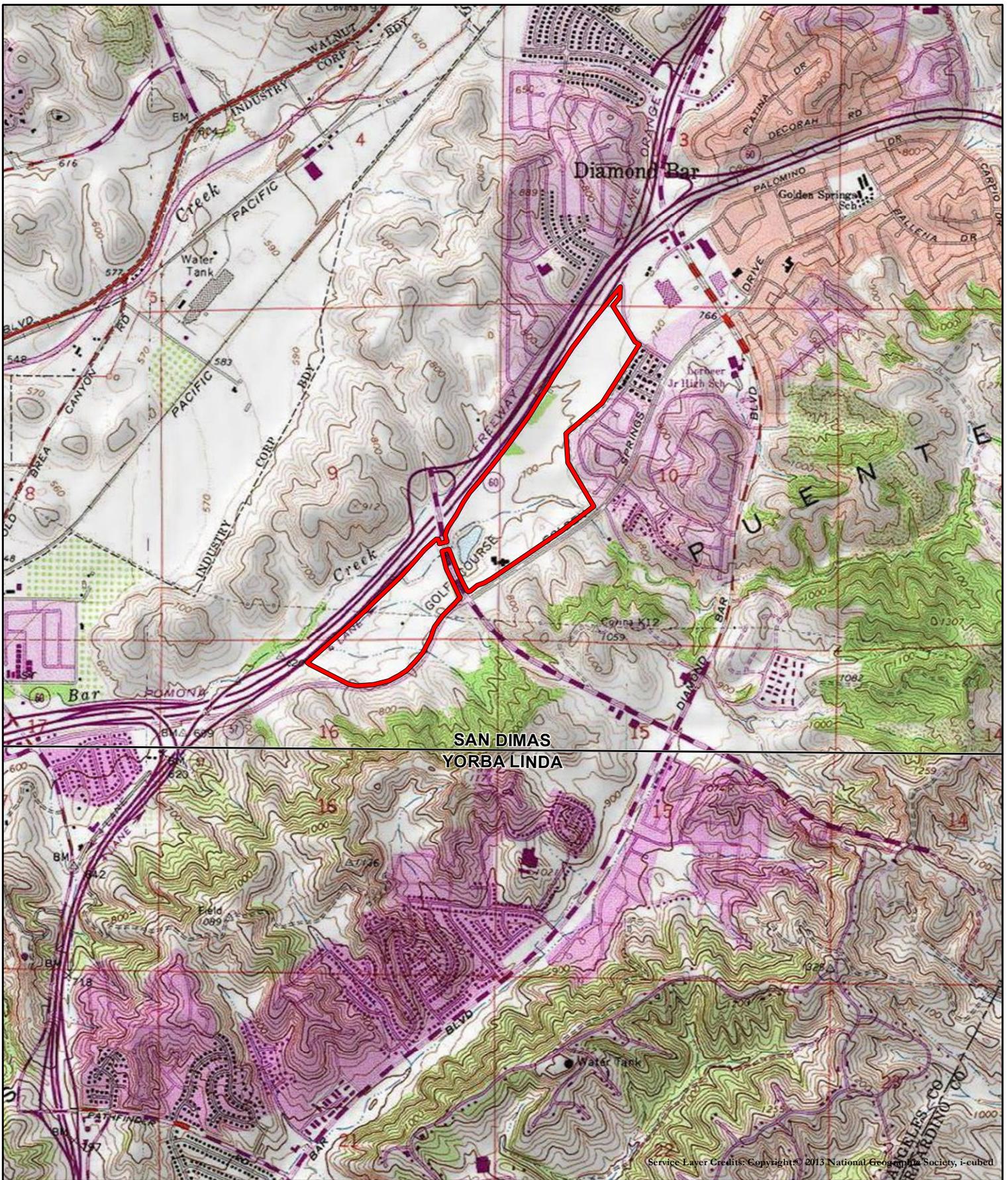
Map 1- Project Vicinity

SR 57/SR 60 Confluence at Grand Ave. Project, C-0310



● Project Area





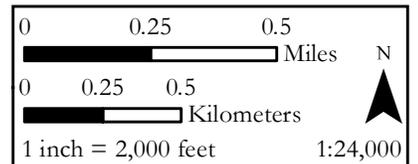
Service Layer Credits: Copyright © 2013 National Geographic Society, i-cubed

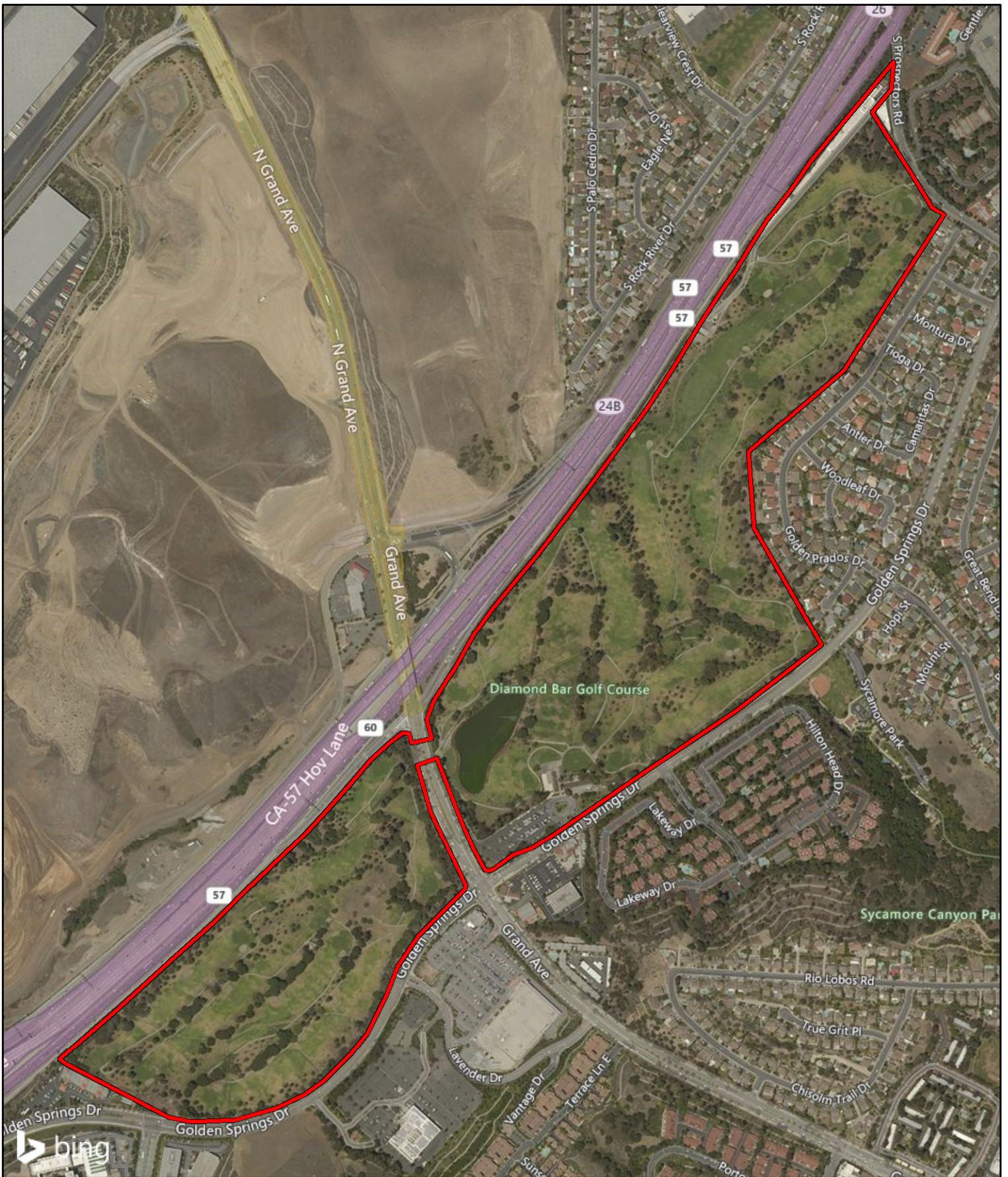
Map 2- Project Location

SR 57/SR 60 Confluence at Grand Ave. Project, C-0310



- Project Area
- USGS 7.5' Quads



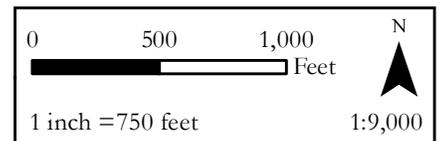


Map 3- Project Aerial

SR 57/SR 60 Confluence at Grand Ave. Project, C-0310



 Project Area



ATTACHMENT B
PROJECT PHOTOGRAPHS



Figure 1. Overview of Hole 12. View northeast.



Figure 2. Overview from Hole 9. View to east.



Figure 3. Overview from Hole 5, showing exposed soil. View northwest.



Figure 4. Example of fill at Hole 2.