

4.4 CULTURAL AND PALEONTOLOGICAL RESOURCES

4.4.1 INTRODUCTION

The following section provides an analysis of the project's potential effects on cultural and scientific resources. The section summarizes the findings of the Cultural Resource Assessment and the Paleontological Assessment, both prepared by LSA Associates, Inc. (LSA, February 2006). These reports are not included in the Appendix to this Preliminary Environmental Impact Report (PEIR); however, they are available at the City of Rolling Hills Estates (City) for review by qualified archaeologists.

4.4.2 EXISTING ENVIRONMENTAL SETTING

This section provides an overview of the existing archaeological, historical, and paleontological resources. This section also addresses the existing regulatory setting.

Archaeological Resources

There are no previously recorded archaeological sites within the project boundaries. Two archaeological sites are recorded within 0.5 mile of the project area. The closest of these sites, CA-LAN-94, is located 2,500 feet to the southeast of the project area. There are no properties listed on the National Register of Historic Places (National Register), California Register of Historical Resources (California Register), California Historical Landmarks, or the California Points of Historical Interest within a 0.5-mile radius of the project area. In addition, no properties are listed in the Historic Properties Directory that match any of the addresses located within the project boundaries. A total of 13 cultural resource studies and/or reports have been completed for projects that were within 0.5 mile of the project area. Two of these reports included a portion of the current project area.

Historical Resources

The project area contains a large number of retail, public, and office buildings constructed in typical contemporary styles between 1960 and 1996; none of the buildings within the project area are 50 years of age or older. Table 4.4.A identifies each property within the project area and the construction date of the building.

Paleontological Resources

The project area is located near the crest of Palos Verdes Peninsula. Palos Verdes Peninsula is an uplifted tectonic fault block of seafloor sediments and volcanics that uncomfortably overlies older metamorphic rocks. The uplift began approximately 1.5 million years ago through movement along

APN	District	ADDRESS	STREET NAME	Year Built
DISTRICT 1				
7586027022	1	00638	SILVER SPUR RD	1964
7586027021	1	00672	SILVER SPUR RD	1964
7586027020	1	00700	SILVER SPUR RD	1963
7586027019	1	00734	SILVER SPUR RD	1989
7586027024	1	00736	SILVER SPUR RD	1963
7586027026	1	00758	SILVER SPUR RD	1970
7586027027	1	00770	SILVER SPUR RD	1978
7586027013	1	00810	SILVER SPUR RD	1976
DISTRICT 2				
7589001011	2	00801	SILVER SPUR RD	1970
7589001010	2	00815	SILVER SPUR RD	1971
7589001008	2	00837	SILVER SPUR RD	1970
7589001005	2	00857	SILVER SPUR RD	1970
7589001006	2	00865	SILVER SPUR RD	1970
7589001003	2	00000	SILVER SPUR RD	1970
7589001001	2	00935	SILVER SPUR RD	1969
7589001002	2	00000	SILVER SPUR RD	1969
7589001004	2	00901	SILVER SPUR RD	1970
DISTRICT 3				
7589002012	3	00601	SILVER SPUR RD	1987
7589002011	3	00600	DEEP VALLEY DR	1978
7589002010	3	00600	DEEP VALLEY DR	1978
7589002009	3	00707	SILVER SPUR RD	1962
7589002008	3	00700	DEEP VALLEY DR	1968
7589002007	3	00715	SILVER SPUR RD	1961
7589002006	3	00727	SILVER SPUR RD	1962
7589002005	3	00727	SILVER SPUR RD	1962
7589002003	3	00735	SILVER SPUR RD	1963
7589002002	3	00777	SILVER SPUR RD	1961
7589003010	3	00655	DEEP VALLEY DR	1975
7589003015	3	00701	DEEP VALLEY DR	1979
7589003009	3	00827	DEEP VALLEY DR	1972
7589003007	3	00927	DEEP VALLEY DR	1961
7589003002	3	00981	SILVER SPUR RD	1974
7586026046	3	27916	SILVER SPUR RD	1966
7586026045	3	27900	SILVER SPUR RD	1962
DISTRICT 3 SUB A				
7586027023	3A	00608	SILVER SPUR RD	1963
7586027012	3A	00828	SILVER SPUR RD	1968
DISTRICT 3 SUB B				
7589004017	3B	00627	DEEP VALLEY DR	1970
DISTRICT 4				
7589003012	4	00924	INDIAN PEAK RD	1981
7589003013	4	00683	DEEP VALLEY DR	1980
7589003014	4	00950	INDIAN PEAK RD	1980
PUBLIC FACILITIES				
7589003901	Public Facilities	00955	DEEP VALLEY DR	1961
7589003903	Public Facilities	00000		1975

* Buildings that will be approaching the 50-year threshold for significance evaluation within the next five years are indicated in **bold**.

LSA

TABLE 4.4.A

Peninsula Village Overlay Zone PEIR
Building Ages in the Project Area

faults. These seafloor deposits are made of deep-water, fine-grained sediments, which, in places, consist primarily of diatoms or volcanic ash. Lava flows erupted upon or within the ocean sediments during the early phases of deposition. These sediments and volcanics are considered part of the Monterey Formation, which was deposited during the Miocene epoch (8–15 million years ago).

The Monterey Formation is a well-studied rock unit that is found along the west coast of North America. In general, the Monterey Formation is composed primarily of deep marine deposits of diatomite, diatomaceous siltstone, mudstone, dolostone, and chert. In Palos Verdes Peninsula, the Monterey Formation has been divided into three units: the Altamira Shale, the Valmonte Diatomite, and the Malaga Mudstone. However, within the project area, only the Altamira Shale is likely to be encountered, as mapped by Woodring et al. (1946). In addition to the abundant microscopic fossils of diatoms, larger fossil remains of bony fish, sharks, rays, whales, dolphins, seals, seal lions, sea cows, desmostylans, bivalves, gastropods, barnacles, bryozoan, sand dollars, leaves, petrified wood, and insects have been found in the Monterey Formation. Therefore, this formation is considered to have a “high sensitivity” for encountering fossils during earth-movement activities.

Colluvium or slope wash is also known to occur throughout the project area. Colluvium is a geologically recent deposit of gravel, sand, silt, or mud that is usually found on the sides or at the base of slopes or cliffs. These deposits are generally loosely consolidated and were primarily deposited by gravity. Therefore, the sediments in colluvium generally did not travel far from their source and are chiefly composed of detritus of the nearby or underlying bedrock formations.

Although not mapped, it is possible that alluvial sediments may exist within the project area beneath the fill in the valley area along Silver Spur Road. Alluvium generally consists of loosely consolidated gravel, sand, and silt ranging from poorly sorted to well sorted, mainly composed of quartz but also containing feldspar and biotite. The sand grains are generally subangular to subrounded, while the gravels and cobbles are rounded to well rounded. The color is usually yellow-brown to reddish-brown. Its age can range from Recent to Latest Pleistocene.

Fossils are known in similar colluvial and alluvial deposits from pit excavations for roads, housing developments, and quarries throughout Los Angeles County. Remains of RanchoLabrean-type animals such as elephants, horses, bison, camels, saber tooth cats, deer, and sloths are known from these activities. There is a potential for these types of fossils in all colluvial and alluvial deposits. Fossils from older, upstream/upslope formations oftentimes are redeposited in these deposits as well.

A geologic report prepared for a project in the southern portion of the project boundaries between Indian Peak Road and Deep Valley Drive revealed that there was up to 10 feet of artificial fill and 40–50 feet of colluvium above the Monterey Formation.¹ However, with a project area as large as the proposed Peninsula Village Overlay Zone, geologic conditions will vary widely from area to area. It is possible that the Monterey Formation may be exposed on the surface, and it is also possible that only artificial fill will be exposed and the underlying geologic units will not be encountered.

¹ T.I.N. Engineering Inc. 2005. Combined Soil and Geotechnical Engineering Investigation and Report for Proposed Four-Story Apartment Building over Two-Story Parking Garage at 627 Deep Valley Drive. Prepared for Rolling Hills Estates by T.I.N. Engineering Company.

Regulatory Setting

California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Chapter 2.6, Section 21083.2 and CCR Title 145, Chapter 3, Article 5, Section 15064.5) calls for the inventory and evaluation of historic and archaeological resources. The criteria for determining the significance of impacts to cultural resources are based on Section 15064.5 of the CEQA Guidelines and Guidelines for the Nomination of Properties to the California Register. Properties eligible for listing in the California Register and subject to review under CEQA are those meeting the criteria for listing in the California Register, National Register, or designation under a local ordinance.

National Register

A cultural resource is evaluated for eligibility for listing in the National Register under four criteria. These criteria generally require that the resource be 50 years of age or older and significant at the local, State, or national level under one or more of the following criteria:

- It is associated with events that have made a significant contribution to the broad patterns of local or regional history; or
- It is associated with the lives of persons significant in our past; or
- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values, or that represent a significant and distinguishable entity whose components lack individual distinction; or
- It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

The National Register also requires that a resource possess integrity, which is defined as “the ability of a property to convey its significance.” The aspects of integrity are location, design, setting, materials, workmanship, feeling, and association. To determine which of these factors are most important will depend on the particular National Register criterion under which the resource is considered eligible for listing.

California Register

The California Register criteria are based on National Register criteria. For a property to be eligible for inclusion on the California Register, one of the following criteria must be met:

- It is associated with the events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
- It is associated with the lives of persons important to local, California, or national history; or
- It embodies the distinctive characteristics of a type, period, region, or method or construction, or represents the work of a master, or possesses high artistic values; or
- It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition to meeting one or more of the above criteria, the California Register requires that sufficient time has passed since a resource's period of significance to "obtain a scholarly perspective on the events or individuals associated with the resource." A general estimate of 50 years is used as time needed to develop the perspective to understand the resource's significance (CCR 4852 [d] [2]).

The California Register also requires that a resource possess integrity. In general, properties eligible for listing in the California Register will meet the same criteria for listing in the National Register but may have a lower level of integrity.

City of Rolling Hills Estates Landmark Ordinance (Chapter 17.38)

Although the City of Rolling Hills Estates (City) does not have a Historic Preservation ordinance, Chapter 17.38 of the Municipal Code allows the City to designate a Landmark Overlay Zone for properties or sites having a special character or special historical, archaeological, architectural, or aesthetic interest of value. One or more of the following criteria must be met in order to establish a Landmark Overlay designation to one or more individual structures or areas in one or more lots or sites:

- Structures, sites, or areas particularly representative of a distinct style, region, or way of life
- Structures, sites, or areas connected with a business or use that was once common but is now rare
- Buildings and/or associated structures of greater age than surrounding structures
- Buildings and/or associated structures containing original materials or workmanship that are valued in themselves

One or more of the following criteria may be considered in measuring the appropriateness of a potential Landmark Overlay designation:

- Buildings and/or associated structures that are preserved or capable of being restored to their former condition
- Buildings and/or associated structures particularly well related to their site or area
- Buildings and/or associated structures expressing their function well
- Structures, sites, or areas visible or accessible to the public
- Buildings and/or associated structures existing in appropriate settings (e.g., trees, walls, yard)
- Structures, sites, or areas surrounded by land use significant for preservation of the structure, site, or area (Prior Code § 1937)

City of Rolling Hills Estates General Plan Conservation Element

Implementation Measure 3.3.1 of the Cultural Resources section of the Conservation Element, outlined in the City's General Plan, requires that archaeological monitoring be conducted within areas designated as having a high sensitivity for cultural resources. The sensitivity rating is described below.

Low Sensitivity. Areas of low cultural resource sensitivity include those lands that have been surveyed with the express purpose of identifying cultural resource sites but provided negative results. Low-sensitivity areas also include land where development or grading has resulted in the movement or relocation of massive amounts of earth. The project area is designated as an area of low sensitivity in the Conservation Element.

Moderate Sensitivity. Areas of moderate sensitivity include those lands that have been developed or altered by means that may not have resulted in the removal or relocation of earth on a large scale. Depending on the methods by which urbanization was accomplished, varying degrees of destruction to cultural resources can result. For example, agricultural fields represent areas where the surface has been disturbed, although any buried artifacts have been preserved.

High Sensitivity. High-sensitivity areas within the Peninsula planning area include those areas that have not been previously surveyed or have been subject to historic human disturbance other than agriculture. Based on the demonstrated prehistoric settlement pattern for coastal Southern California and on the density of recorded archaeological sites within the planning area, those portions of the planning area that retain their natural character and have not been subject to surveys specifically related to the identification of cultural resources are considered to have a high potential for the presence of cultural resource sites.

4.4.3 METHODOLOGY AND FINDINGS

Cultural Resources

Records Search. A records search was conducted through the South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System, located at California State University, Fullerton. The records search provided LSA with documentation for all previously recorded prehistoric and historic archaeological sites within a 0.5-mile radius of the project site, as well as a summary of known cultural resource survey and excavation reports.

Field Survey. A field survey of the project area was conducted on November 10, 2005. The project area consists of a relatively flat landscape. No archaeological resources were observed during the field survey. The project area is developed and urbanized, and ground visibility is less than 5 percent.

Archival Research. Primary and secondary source materials relating to the history and development of the project area were reviewed.

Paleontological Resources

On December 5, 2005, a paleontological locality search was conducted through geological references and paleontological records maintained at LSA. It included a review of the area geology and any known paleontological resources recovered from the surrounding area, as well as the geologic formations that will likely be encountered during excavation activities. The purpose of the locality search was to establish the status and extent of previously recorded paleontological resources within and adjacent to the project area.

Field Survey. A field survey of the project area was conducted on November 10, 2005. The project area consists of a relatively flat landscape. No paleontological resources were observed during the field survey. The project area is developed and urbanized, and ground visibility is less than 5 percent.

4.4.4 THRESHOLDS OF SIGNIFICANCE

Thresholds of Significance

The City of Rolling Hills Estates has adopted the following thresholds of significance to determine whether a project will have a significant impact on cultural and scientific resources. Based on professional standards and practices, the project will, at a minimum, be considered to have a significant effect on cultural and/or scientific resources if the proposed project is found to:

- be located in a high cultural sensitivity area as defined by the Rolling Hills Estates General Plan and will result in grading in excess of 20 cubic yards of soil;
- cause a substantial adverse change in the significance of a historical or archaeological resource as defined in CEQA Guidelines Section 15064.5 (a);
- directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;
or
- disturb any human remains, including those interred outside of formal cemeteries.

4.4.5 IMPACTS AND MITIGATION

Less Than Significant Impacts

No less than significant impacts were identified.

Potentially Significant Impacts

The following impacts were evaluated and considered potentially significant cultural or paleontological resource impacts of the proposed project. Mitigation measures are provided where feasible.

Archaeological Resources. As stated earlier, no archaeological resources were identified through the records search or field survey. However, the surrounding vicinity is known to contain archaeological

sites. Therefore, the project site may contain unknown subsurface archaeological resources. Potentially unique archaeological resources could be significantly impacted by earth-movement activities associated with the specific development proposed within the project area. As such, monitoring will be required during any project construction to avoid impacts to unknown archaeological resources as described in Mitigation Measure 4.4-1. With implementation of Mitigation Measure 4.4-1, potential impacts to unknown archaeological resources would be reduced to less than significant levels.

No human remains are known to exist on the project site but may be encountered during excavation activities. Mitigation Measure 4.4-2 contains standard provisions to be implemented if human remains are encountered on site. With implementation of Mitigation Measure 4.4-2, potential impacts to unknown resources will be reduced to less than significant levels.

Historical Resources. The project area contains a large number of architectural resources, all of which were built between 1960 and 1996. Archival research conducted for the project area confirmed that none of the buildings within the project area are 50 years of age or older (Table 4.4.A). However, several of the buildings within the project area are approaching the 50-year threshold for significance evaluation. Potentially significant architectural resources could be impacted by development within the project area. Prior to approval of any construction or demolition within the project area, a qualified Architectural Historian shall conduct a site-specific historical resources assessment evaluation of any buildings that may be impacted by a proposed project. The assessment will (1) evaluate the buildings for potential eligibility for listing in the National Register, the California Register, and local registers; and (2) determine potential effects of the project on the resource (Mitigation Measure 4.4-3).

If the building is determined not eligible for listing in the National Register or California Register and does not meet the criteria of the City's Landmark Ordinance, project-related impacts would not be considered significant and would not require additional evaluation or mitigation. However, if a building is determined significant for eligibility and there is potential for adverse impacts to the building, subsequent CEQA documentation may be required.

Paleontological Resources. As stated earlier, a paleontological locality search conducted for the project site indicates that sensitive paleontological sediments that contain fossil remains may exist within the project area. Implementation of the project may require excavation and trenching to depths exceeding 10 feet below grade; thus, impacts to paleontological resources would occur as a result of the project. Therefore, a site-specific paleontological resource assessment shall be required for each new development within the project area to determine the potential for encountering fossil-containing geologic formations. For projects where potential impacts could occur, the project shall be conditioned to prepare and implement a monitoring program to protect unknown paleontological resources. Mitigation Measures 4.4-4 and 4.4-5 include such mitigation and will reduce impacts related to this issue to less than significant levels.

Mitigation Measures

- 4.4-1** Prior to issuance of a grading permit for a project within the Peninsula Overlay Zone, the City Engineer shall verify that the applicant has contracted with a certified archaeologist

to monitor all trenching and excavation activities. Should any archaeological resources be identified during the grading, trenching, or excavation, the certified archaeologist shall (1) ascertain the significance of the resource; (2) establish protocol with the City to protect such resources; (3) ascertain the presence of additional resources; and (4) provide additional monitoring of the site, if deemed appropriate.

Upon completion of the project grading, the qualified archaeologist shall submit a follow-up report to the City Planning Department. This report shall provide adequate documentation of any resources found within the project area and shall follow guidelines presented in the Office of Historic Preservation "Archaeological Resource Management Reports (ARMR): Recommended Contents and Format" Preservation Planning Bulletin.

- 4.4-2** If human remains are encountered during construction of a project within the Peninsula Overlay Zone, the contractor shall notify the County Coroner of the find immediately. State Health and Safety Code Section 7050.5 requires that 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 remains are determined to be prehistoric, the Coroner is required to notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the owner of the land or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.
- 4.4-3** Prior to approval of a project within the Peninsula Village Overlay Zone, a qualified architectural historian shall be retained by the project applicant to conduct a Historical Resources Assessment to evaluate architectural resources within the project for listing in the National Register and the California Register and for local significance. Any architectural resources that are identified will be photographed, documented, and evaluated on a Department of Parks and Recreation (DPR) Primary Record form (DPR 523A), a Building, Structure, and Object Record form (DPR 523B), and a Location Map (DPR 523J). The assessment shall be reviewed and approved by the Planning Director or designee and minimization or avoidance measures incorporated in the CEQA documentation for that project.
- 4.4-4** As part of the environmental review for each individual future project, a qualified paleontologist shall be retained by the project applicant to evaluate the project's potential to encounter paleontological resources. The paleontological assessment shall be viewed and approved by the Planning Director, and any minimization and/or avoidance measures identified in the assessment shall be incorporated in the CEQA documentation for the project and/or project conditions of approval.
- 4.4-5** Prior to issuance of a grading permit for a project within the Peninsula Overlay Zone, the City Engineer shall review and approve a Paleontological Resources Impact Mitigation Program (PRIMP). The PRIMP shall be prepared and implemented to mitigate potential impacts to paleontological resources that may be present on the surface and to depth

within the Monterey Formation or at depths below 10 feet within alluvial or colluvial sediments. The PRIMP shall contain the components listed below.

- A preconstruction field assessment shall be conducted to locate fossils at surface exposures. Salvage of fossils from known localities, including processing standard samples of matrix for the recovery of small vertebrate fossils, must be accomplished prior to excavation.
- Monitoring of excavation activities by a qualified paleontological monitor will be conducted in areas identified as likely to contain paleontological resources. The monitor should be equipped to salvage fossils and/or matrix samples as they are unearthed in order to avoid construction delays. The monitor must be empowered to temporarily halt or divert equipment in the area of the find in order to allow removal of abundant or large specimens.
- Because the underlying sediments may contain abundant fossil remains that can only be recovered by a screening and picking matrix, it is recommended that these sediments occasionally be spot screened through one-eighth- to one-twentieth-inch mesh screens to determine whether microfossils exist. If microfossils are encountered, additional sediment samples (up to 6,000 pounds) shall be collected and processed through one-twentieth-inch mesh screens to recover additional fossils.
- A section that discusses preparation of any recovered specimens to a point of identification and permanent preservation. This includes the washing and picking of mass samples to recover small invertebrate and vertebrate fossils and the removal of surplus sediment from around larger specimens to reduce the volume of storage for the repository and the storage cost for the developer.
- A section should be included that discusses the identification and curation of specimens into a museum repository with permanent retrievable storage.
- A report of findings with an appended itemized inventory of specimens shall be prepared after the completion of grading.

4.4.6 CUMULATIVE IMPACTS

The proposed project has the potential to result in a cumulative impact due to the loss of unknown cultural or paleontological resources. Other cumulative development within the City would be required to evaluate potential impacts to cultural and paleontological resources and appropriate mitigation required. Incorporation of Mitigation Measures 4.4-1, 4.4-2, 4.4-4, and 4.4-5 would reduce the proposed project's incremental contribution to cumulative impacts to paleontological and archeological resources to less than significant.

4.4.7 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Implementation of Mitigation Measures 4.4-1 through 4.4-5 would reduce the project's impacts to known or unknown cultural and paleontological resources to less than significant levels.