

## **IV. Environmental Impact Analysis**

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### **E.2 Cultural Resources—Archaeological and Paleontological Resources**

#### **1. Introduction**

This section provides an analysis of the proposed Project's potential impacts with regard to archaeological and paleontological resources. This section identifies applicable federal, State, and local regulations, describes the archaeological and paleontological setting of the Project area, evaluates the potential for impacts on these resources, and, when required, provides mitigation measures to help reduce potential adverse impacts. Additionally, this section considers whether the proposed Project, in combination with other reasonably foreseeable development projects in the Project's vicinity, would contribute to cumulative environmental impacts related to archaeological and paleontological resources.

The archaeological portion of this section is based on the Determination of Archaeological Potential and Impact Assessment for the 100 West Walnut Project (Tech Report), prepared by Statistical Research, Inc. (SRI) in July 2013 and provided in Appendix D-1 of this Draft EIR. The paleontological portion of this section is based on Paleontological Resources, prepared by Paleo Environmental Associates, Inc. (PEAI) in July 2013 and provided in Appendix D-2 of this Draft EIR. Where appropriate, this section will discuss the effects of the proposed Project on both archaeological and paleontological resources together, otherwise, archaeological and paleontological resources will be discussed separately.

#### **2. Environmental Setting**

##### **a. Regulatory Framework**

###### **(1) State Level**

###### *(a) California Public Resources Code*

Section 5097.98 of the California Public Resources Code (PRC) addresses the procedures for the notification of discovery of Native American human remains and descendants, and the disposition of human remains and associated grave materials. When

the Native American Heritage Commission (NAHC) receives notification of a discovery of Native American human remains, it shall immediately notify those persons it believes to be most likely descended from the deceased Native American, the Most Likely Descendant (MLD). This PRC Section outlines the protocol for inspection and treatment of the remains and other burial items associated with the remains:

*A lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission as provided in Public Resources Code Section 5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans as identified by the Native American Heritage Commission. Action implementing such an agreement is exempt from:*

- (1) The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5); and*
- (2) The requirements of CEQA and the Coastal Act.<sup>1</sup>*

*(b) California Senate Bill 297 (1982)*

California Senate Bill 297 addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the authority of the NAHC to resolve disputes regarding the disposition of such remains. The bill has been incorporated into Section 15064.5(c) of the State CEQA Guidelines.

*(i) SB 18 Tribal Consultation Guidelines (Govt. Code §65300 et seq.)*

Senate Bill 18, signed into law by Governor Arnold Schwarzenegger in 2004, requires local governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places (“cultural places”) through local land use planning. The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early stage, for the purpose of protecting, or mitigating impacts to cultural resources. Prior to the adoption of any amendment of a General Plan or Specific Plan, a local government must notify the appropriate tribes (on the

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<sup>1</sup> *State CEQA Guidelines Section 15064.5(d); see also State CEQA Guidelines Section 15064.5 (e) for requirements in the event of unanticipated discovery of human remains.*

contact list maintained by the NAHC) of the opportunity to conduct consultations for the purpose of preserving or mitigating impacts to cultural places located on land within the local government's jurisdiction that is affected by the proposed plan adoption or amendment.

*(c) California Environmental Quality Act*

State archaeological regulations affecting the Project include the statutes and guidelines contained in CEQA (Public Resources Code Section 21083.2 and Section 21084.1) and the CEQA Guidelines (California Code of Regulations Title 14, Section 15064.5). CEQA requires lead agencies to carefully consider the potential effects of a project on archaeological resources. Several agency publications, such as the series produced by the Governor's Office of Planning and Research, provide guidance regarding procedures to identify such resources, evaluate their importance, and estimate potential effects.

CEQA recognizes that archaeological resources are part of the environment, and a project that "may cause a substantial adverse change in the significance of an historical resource [including archaeological resources] is a project that may have a significant effect on the environment" (Public Resources Code Section 21084.1). For purposes of CEQA, a historical resource is any object, building, structure, site, area, place, record, or manuscript listed in or eligible for listing in the California Register of Historic Resources (Public Resources Code Section 21084.1). The following criteria are used for determining whether a resource is eligible for listing in the California Register of Historic Resources:

- 1. Associated with 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.*
- 2. Associated with the lives of persons important to local, California or national history.*
- 3. Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values.*
- 4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.*

The criteria for determining whether a resource is considered a "historical resource" under CEQA is discussed in Section IV.E.1, Cultural Resources - Historical Resources, of this Draft EIR.

Archaeologists assess sites based on all four of the above criteria but usually focus on the fourth criterion provided above, which is whether the resource “[h]as yielded, or may be likely to yield, information important in prehistory or history.” The California Code of Regulations also provides that cultural resources of local significance are eligible for listing in the California Register of Historic Resources (California Code of Regulations Title 14, Section 4852).

CEQA also considers project impacts to unique archaeological resources. These are defined as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability of meeting any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person [Public Resources Code Section 21083.2(g)].

No further consideration need be given to a non-unique archaeological resource, “other than the simple recording of its existence by the lead agency if it so elects.”<sup>2</sup>

For unique archaeological resources, the statute also provides examples of methods that can be employed to handle such resources if encountered. If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. Examples of methods that can be employed, in no order of preference, may include, but are not limited to, any of the following:

- Planning construction to avoid archaeological sites;
- Deeding archaeological sites into permanent conservation easements;
- Capping or covering archaeological sites with a layer of soil before building on the sites; or

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<sup>2</sup> *California Public Resources Code Section 21083.2(h).*

- Planning parks, green space, or other open space to incorporate archaeological sites.<sup>3</sup>

The statute also provides that “Excavation as mitigation shall be restricted to those parts of the unique archaeological resource that would be damaged or destroyed by a project. Excavation as mitigation shall not be required for a unique archaeological resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the resource, if this determination is documented in the environmental impact report.”<sup>4</sup>

In addition to having significance in accordance with the applicable criteria, resources must have integrity for the period of significance. The period of significance is the date or span of time within which notable events transpired at a site, or the period that notable individuals made their important contributions to a site. Integrity is the ability of that property to convey its significance.

CEQA requires the lead agency to consider whether a project would have a significant effect on unique archaeological resources or resources eligible for listing in the California Register of Historic Resources, and to avoid these resources when feasible or mitigate any effects to less-than-significant levels (Public Resources Code Section 21083.2 and Section 21084.1).

## (2) Local Level

### *(a) City of Pasadena General Plan Land Use Element*

The following objective and policy from the Land Use Element of the City’s General Plan are applicable to the proposed Project:

- Objective 19—Biological, Paleontological, and Archaeological Resources: Protect and enhance areas of the city containing important biological resources; protect and minimize disturbance of any important paleontological and/or archaeological resources that might remain in the city.
- Policy 19.3—Paleontological/Archaeological Resources Survey: Project proponents proposing substantial grading or earthmoving in areas that might contain important paleontological and/or archaeological resources shall conduct a pre-excavation field assessment and literature search to determine the

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<sup>3</sup> California Public Resources Code Section 21083.2(b).

<sup>4</sup> California Public Resources Code Section 21083.2(d).

potential for disturbance of paleontological and/or archaeological resources. If warranted, grading and other earthmoving activities shall be monitored by a qualified professional who, if necessary, shall undertake salvage and curation. Any paleontological or archaeological resources recovered shall be documented and archived appropriately. Any human remains recovered shall be treated according to applicable State and federal regulations.

## **b. Existing Conditions**

The Project Site is located at 100 West Walnut Street, in the southwest corner of Walnut Street and Fair Oaks Avenue, in an area which has been historically disturbed with residential and commercial uses since 1887, as discussed further below. The Project Site is comprised of two parcels and divided by Holly Street and a pedestrian walkway. The northern portion of the site is currently developed with a 12-story building and three 4-story pods that connect to the 12-story tower. These buildings are surrounded by surface parking lots. The southern portion of the site is currently developed with two 8-story buildings, each with an adjacent above grade parking structure. Development on the Project Site would be limited to the area north of Holly Street.

## **c. Setting and Development History**

### **(1) Archaeological Resources**

#### *(a) Regional Archaeological Setting*

Pasadena has a long cultural history that includes Native American groups, Spanish explorers and settlers, other Euroamericans, Mexicans, and Americans. The native settlement and archaeological chronology for the Southern California region and Pasadena can be divided into the following periods of history:

**Paleoindian (12,000 B.P.–8,500 B.P.).** Southern California was first populated by several related yet distinct cultural groups, generally known as Paleoindians. Along the coast, these cultures are known from the Paleocoastal tradition and are believed to have migrated down the coast from northern California. These groups were maritime adapted and collected shellfish, hunted marine and land mammals and birds, and caught smaller fish. Paleoindians living further inland were known as Clovis, from the original sites excavated near Clovis, New Mexico. They lived in lake and marsh environments, relying on different subsistence skills than coast populations. The coastal and inland Paleoindians shared a few common traits, including: settlements adjacent to a major water source; use of sophisticated stone tools; use of the spear and dart; and seasonal nomadic tendencies.

**Millingstone (8,500 B.P.–3,000 B.P.).** The Millingstone period began when human populations began a heavier dependence upon seeds, as opposed to hunting, and ended with the first dramatic increase of regional human population. This period is named for the abundant Millingstone tools associated with sites during this time period. These tools, namely the mano and metate, were used to process small, hard seeds from plants. While there was an abundance of milling tools at these sites, there was a lack of hunting equipment and animal remains showing hunting became less important than gathering vegetable resources for human populations.

**Intermediate (3,000 B.P.–1,000 B.P.).** The Intermediate period started with dramatic increases of human population and is marked by further changes in settlement patterns, economic activities, mortuary practices, and technology. The end of the Intermediate period is marked by the spread of the bow and arrow, an increase in the importance of Obsidian Butte, an increase in ceramics and local wares, and a decrease in the trade of Coso obsidian. Major settlements continued to be occupied on a seasonal basis, burials where bodies are interred in a fetal position continued, and cremation remained uncommon.

**Late (1,000 B.P.–1542 A.D.).** The Late period witnessed extensive population growth along much of the southern California coast and ended with European contact. A greater variety of sites were found from this period than any other period of prehistory. Villages with complex site layouts and burial grounds with highly variable mortuary treatments appeared, suggesting the development of social differentiation.

**Protohistoric (1542 A.D.–1771 A.D.) and Early Historical/Mission (1771 A.D.– 1834 A.D.).** The Protohistoric period in the Los Angeles Basin begins with initial European contact in A.D. 1542 and ends with the establishment of the Mission San Gabriel in 1771, after which direct and recurrent contact between the Gabrielino/Tongva and the Spanish settlers in the Los Angeles Basin was established. The Protohistoric period is possibly the least documented period in the southern California occupational sequence. Components found from the Protohistoric period may have been difficult to identify and distinguish from components of other time periods.

**Gabrielino/Tongva.** Early ancestors of the Gabrielino/Tongva arrived in this area of southern California at the end of the Millingstone period, around 3500 B.P., through the early Intermediate period. They engaged in an intensive hunter-gatherer lifestyle and exploited a wide range of plant and animal resources, such as acorns, deer, yucca, and cacti in the interior of their territory to a wealth of fish and shellfish species associated with the southern California kelp beds and coastline. By 1800, most of the Gabrielino/Tongva had become missionized; had died from violence, imported illness, or illness associated with the cramped mission dormitories; or had fled. However, four important

Gabrielino/Tongva communities were located in nearby San Gabriel and San Marino, all located near the San Gabriel Mission, approximately 3.8 miles southwest of the Project Site.

*(b) Project Site Archaeological Setting*

The land use and development history of the Project Site and surrounding area within a half mile was assembled based on documents, maps, and photographs collected during archival research.

- 1887–1889: This time period was categorized by the beginning of construction of residential dwellings. These dwellings faced the major streets at the time: North Fair Oaks Avenue, West Walnut Street, Mary Street, and North Delacy Street. The interior of the blocks included stables, outhouses, and tents.
- 1890–1894: During this time there was a surge of public-utility installations including water pipelines that provided running water to the entire neighborhood. In addition to the construction of more residential dwellings, the first non-residential use, a Christian church, was added to the Project area.
- 1895–1910: Residential dwellings continued to be added to the Project area along the major streets during this time including multiple boardinghouses. The first strictly commercial use of land within the Project area also appeared during this time when a previous large dwelling was converted to a medical facility. By the end of the period, the land uses within the Project vicinity had changed substantially, particularly along North Fair Oaks Avenue where over 20 storefronts had been built.
- 1911–1931: By this time, roads had been extended to bisect the entire Project area. Automobile garages, gas and oil facilities, and automobile repair shops begin to be developed on the edges of the Project area along the streets. More residential dwellings, automobile garages, and commercial uses continued to be added to the Project area.
- 1932–1952: During this time West Holly Street (now East Holly Street) had been extended to traverse the Project area. Most of the commercial buildings remained unchanged during this time, but there was construction of some additional commercial space, residential dwellings, a U.S. Government Office building, a paint store, and automobile garages.
- 1953–1962: This time periods shows the first example of residential dwellings demolished for the purposes of surface parking for automobiles. This occurred in multiple places throughout the Project area to support the existing commercial buildings and the construction of a large building of unknown function.



- 1963–Present: The Project area underwent an extreme change in land use during the 1960s. Most of the residential dwellings and commercial storefronts that remained in the beginning of the decade were demolished by 1971. The residential buildings that remained were located in the northwestern quadrant of the Project area. A new building along North Fair Oaks Avenue occupied fully half the block. Much of the land was converted to surface parking. The current building complex located in the North Development Area of the Project Site was completed in 1974 and this portion has remained relatively unchanged since that time. Buildings in the South Area of the Project Site were constructed in 1981. The parking lots located in the North Development Area probably received minimal grading with limited subsurface disturbance, and there is a good chance that intact undiscovered subsurface prehistoric or historic-era archaeological deposits may have survived this latest development.

As described above, the land use and development history of the Project Site and surrounding area was assembled based on documents, maps, and photographs collected during archival research. Analysis of maps and aerial photographs has provided insight to historical-period activity areas and areas where subsurface deposits may have been undisturbed during modern times. Prior to 1930, the extension of North Delacy Street through the northern half of the Project area may have destroyed a swath of subsurface archaeological remains. Given that the road has remained paved since that time, there is the possibility that archaeological deposits could be capped beneath the pavement. In addition, during the historic period, the Project area was situated in a four block area which contains evidence of disturbed or destroyed archaeological features. These features are now situated within the existing building footprints. Further analysis of maps and aerial photographs has revealed a high potential for intact historical-period archaeological remains outside of the existing building footprints (i.e. in paved parking lots and/or landscaped areas). Thus, there is a high sensitivity for intact subsurface historical-period archaeological deposits in the Project area beneath the paved parking lots and landscaped areas.

*(c) South Central Coastal Information Center Records Search*

A records search at the South Central Coastal Information Center (SCCIC), a regional repository of the California Historical Resources Information System (CHRIS), was conducted on July 1, 2013 with the goal of determining whether the Project Site and surrounding vicinity had previously been evaluated for archaeological materials or if any nearby resources had been identified. The search consisted of an in-house records search for the Project parcel and a 0.5-mile radius around the Project Site. Other resources that were consulted include: the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), California Historical Landmarks (CHL), California Points of Historical Interest (SPHI), and the California State Historic Resources Inventory (HRI).

The records search determined that 20 cultural resource evaluations had taken place within a 0.5-mile radius of the Project Site, including a cultural resource survey (LA 5249) which had taken place within the California Department of Transportation (Caltrans) right-of-way within the Project area. According to the SCCIC search, there are no archaeological sites or built-environment resources previously recorded within the Project area. Furthermore, the search determined that there are no known prehistoric archaeological sites or historical-period archaeological sites within a 0.5-mile radius of the Project Site.

*(d) Prehistoric-Resources Literature Review*

In addition to the SCCIC records search, a review of archaeological literature was conducted to determine if archaeological resources have been identified in the Project vicinity. According to the literature reviewed, numerous prehistoric resources have been discovered within two miles of the project area, especially along the Arroyo Seco, to the west of the Project area. The most notable of these resources is the Sheldon Reservoir Site (CA-LAN-26) that dates between A.D. 1000 and 1769. Likely associated with a nearby Native American village, the artifacts found at this site include a variety of large, broken stone tools indicating that the site was a burial ground. Additional artifacts and sites were found within two miles of the Project area at Garifas Springs, Linda Vista, Gidding's Ranch, at a private residence on La Cresta Drive in Pasadena, on Buena Vista Street in South Pasadena, and during construction of another reservoir north of Colorado Street.<sup>5</sup> As noted in the SRI report, prehistoric archaeological sites are probably underrepresented in archaeological records of the Pasadena area because of early and extensive development that precluded adequate archaeological study of the region.

*(e) Native American Heritage Commission Sacred Lands File Search*

On July 5, 2013, a letter was sent to the NAHC to determine if there are sites listed in the Sacred Lands File within a 0.5-mile radius of the Project Site. A response was received from the NAHC on July 8, 2013. The NAHC stated that their search of the Sacred Lands File revealed no known Native American cultural resources within the Project area and they provided a list of Native American tribal entities and individuals to contact for more information. Consultation letters were sent to the contacts listed in the NAHC letter on July 12, 2013. Eight of the 10 Native American contacts commented on the letter. Of the respondents, four expressed no concerns, one did not wish to participate, and three felt that the Project should be treated as sensitive and should have a Native American monitor

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<sup>5</sup> Statistical Research, Inc. (SRI), *Determination of Archaeological Potential and Impact Assessment for the 100 West Walnut Project (Tech Report)*, July 2013.

present during earthmoving activities. The remaining contacts had not responded as of May 7, 2014.<sup>6</sup>

## (2) Paleontological Resources

Paleontology is the study of life in past geologic time based on fossil plants and animals. Paleontological resources include fossilized remains and their respective fossil localities, associated fossil specimen data and corresponding geologic and geographic locality data, and the fossil-bearing rock units that immediately underlie the ground surface. A paleontological resources study was conducted in July 2013 to assess the potential for such resources to exist on the Project Site. The underlying geology found at the Project Site includes a rock type with the potential for containing the fossilized remains of Pleistocene (Ice Age) land mammals. Although no previously recorded fossil locality has been documented as occurring at the Project Site, the type of surficial strata found at the Project Site has yielded fossilized bones and teeth representing extinct large-bodied species of middle to late Pleistocene land mammals, assignable to the Rancholabrean North American Land Mammal Age (NALMA). Some of those remains were recovered from comparatively shallow depths at two previously recorded fossil localities in, and very near, Pasadena.

Of the two fossil localities, the one nearest the Project Site is Los Angeles County Department of Vertebrate Paleontology (LACM) locality 2027. That locality yielded a tooth fragment of an extinct mammoth approximately 2.2 miles northeast of the Project Site. The other locality, California Institute of Technology (CIT) 342, approximately 3.8 miles west-southwest of the Project Site, was uncovered 14 feet below the previous ground surface and yielded a mammoth skeleton and bones of an extinct bison. The bison first appeared in the Los Angeles area of southern California approximately 320,000 years ago. On the other hand, mammoths and most other large-bodied species of land mammals went extinct in the Los Angeles area approximately 10,750 years ago at the end of the Pleistocene Epoch and the Rancholabrean NALMA. The fossil remains from the surficial strata and their respective species have been critical in determining the Rancholabrean age and continental origin of the fossil-bearing strata. The occurrences of these two recorded fossil localities indicate that there is a potential for fossilized remains to be found within the Project Site.

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<sup>6</sup> *Statistical Research, Inc. (SRI), Determination of Archaeological Potential and Impact Assessment for the 100 West Walnut Project (Tech Report), July 2013.*

### 3. Environmental Impacts

#### a. Methodology

##### (1) Archeological

A number of methods to research the potential of archaeological resources within the Project Site were employed, including:

- A SCCIC records search was conducted for the Project Site and surrounding half mile radius. The purpose of the search was to determine whether the Project Site and surrounding area had been previously investigated for cultural resources and if any cultural resources have been previously recorded. The SCCIC reviewed their records for all investigation reports and resource records, and checked the following sources: NRHP, CRHR, CHL, SPHI, and HRI;
- A NAHC sacred-lands search was conducted for the Project Site and surrounding half mile radius. The NAHC reviewed their records of traditional-use areas and sacred sites and provided a list of Native American groups or individuals who may want to be involved in the consultation process. Each individual or group was contacted by letter, provided information about the Proposed Project, and requested to provide input regarding concerns. All contact letters and responses are included in the version of Appendix D-1 of this Draft EIR on file with the City of Pasadena; and
- An archival research that focused on the identification of the subsurface archaeological potential of the Project Site. The research utilized several types of data including: historical topographic maps, historical Sanborn Fire Insurance Company (Sanborn) maps, and historical aerial photographs. Sanborn maps are informative with regard to the built environment and subsurface features. In addition to providing spatial information such as lot boundaries and the layout of buildings and structures within each lot, they provide information about known or potential archaeological features such as basements, foundations, underground utilities, landscaped/farmed areas, etc. These data sources were used to evaluate the potential significance of possible intact archaeological remains within the Project Site.

##### (2) Paleontological

The paleontological resources portion of this section was prepared in compliance with Society of Vertebrate Paleontology (SVP 2010) standard procedures for evaluating the potential of a rock unit for producing fossilized remains. These procedures included:

- Study of a surficial geologic map of the Project Site to determine if any potentially fossil-bearing rock unit underlay the site;
- Review of paleontologic and geologic literature to document the occurrence of any previously recorded fossil locality in any such rock unit at or near the Project Site; and
- An archival search was conducted at LACM for additional information on any such fossil locality and to document the occurrence of any unpublished fossil locality from the same rock unit in the site vicinity.

## **b. Significance Thresholds**

The Project may have a significant impact on archaeological and paleontological resources if it would:

- Cause a substantial adverse change in the significance of an archeological resource pursuant to CEQA Guidelines Section 15064.5;
- 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.

## **c. Regulatory Compliance Measures and Project Design Features**

### **(1) Regulatory Compliance Measures**

No Regulatory Compliance Measures are required with regard to archaeological or paleontological resources.

### **(2) Project Design Features**

No project design features are proposed with regard to archaeological or paleontological resources.

## d. Project Impacts

### (1) Project Construction

#### (a) *Archaeological Resources*

The SCCIC records search revealed no previously recorded archaeological resources within 0.5 mile of the Project Site. As noted in the SRI report, prehistoric archaeological sites are probably underrepresented in archaeological records of the Pasadena area because of early and extensive development that precluded adequate archaeological study of the area. The archaeological sensitivity of the Project area is demonstrated by the presence of at least eight archaeological sites within two miles of the Project Site. Most of these are located on the bluffs on the west bank of the Arroyo Seco.<sup>7</sup>

The NAHC sacred-land search revealed no known Native American cultural resources within the Project area. Consultation letters were sent to all ten Native American contacts listed by the NAHC and eight responses were received. Of the eight responses, four expressed no concerns regarding the Project, one did not wish to participate, and three requested that the Project be treated as sensitive and have a Native American monitor present during earthmoving activities. As of May 7, 2014, two contacts had not responded.

While the records search and Native American consultation did not identify any archaeological resources on or near the Project Site, a review of maps and aerial photographs has determined that subsurface prehistoric and historic-era archaeological resources may exist that have remained undisturbed during modern times. As described above, during the historic period, the Project area was situated in a four block area which contains evidence of disturbed or destroyed archaeological features. These features are now situated within the existing building footprints. Furthermore, the analysis of maps and aerial photographs has revealed a high potential for intact historical-period archaeological remains outside of the existing building footprints (i.e. in paved parking lots and/or landscaped areas). Thus, there is a high sensitivity for intact subsurface historical-period archaeological deposits in the Project area beneath the paved parking lots and landscaped areas. Accordingly, the possibility remains that previously undiscovered subsurface prehistoric or historic-era archaeological resources could be damaged or destroyed by earth-disturbing Phase 1 and Phase 2 construction activities, such as excavation, which is a potentially significant impact. Furthermore, the Project Site is located in a region where archaeological resources are known to occur. Thus, it is recommended that Mitigation Measures D.2-1 and D.2-2 be implemented to reduce potential Project effects on previously

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<sup>7</sup> *Statistical Research, Inc. (SRI), Determination of Archaeological Potential and Impact Assessment for the 100 West Walnut Project (Tech Report), July 2013.*

undiscovered subsurface archaeological resources. With implementation of Mitigation Measures D.2-1 and D.2-2, potential impacts related to archaeological resources during Phase 1 and Phase 2 construction activities would be reduced to a less-than-significant level.

*(b) Paleontological Resources*

A paleontological records search indicates that the Project Site is immediately underlain by Quaternary surficial strata (unit Qa) composed of unconsolidated alluvial sediments. At and very near the surface, such strata are normally too young to contain remains old enough to be considered fossilized. However, a stratigraphic sequence becomes progressively older with increasing depth below the ground surface. Although no previously recorded fossil locality has been documented as occurring at the Project Site, the occurrences of two previously recorded fossil localities (LACM 2027 and CIT 342) underlain by Quaternary surficial strata have been documented in and very near Pasadena at comparatively shallow depths which supports the conclusion that there is a potential for fossilized remains to be found on site. LACM 2027 yielded a tooth fragment of an extinct mammoth approximately 2.2 miles northeast of the Project Site, while CIT 342 yielded a mammoth skeleton and bones of an extinct bison 14 feet below the ground surface and approximately 3.8 miles west-southwest of the Project Site. While most of the Project vicinity has been previously developed and no known paleontological resources have been recorded on site, paleontological resources have the potential to be found at depths greater than previously disturbed. Thus, earth-moving activities associated with construction of the proposed Project, particularly with the excavation associated with construction of the subterranean parking structure, has the potential to disturb paleontological resources. Consequently, impacts associated with construction activities are considered potentially significant. Implementation of Mitigation Measures IV.D.2-3 through IV.D.2-12, which would allow for the recovery and preservation of paleontological resources which may be exposed during Phase 1 and Phase 2 construction activities, would reduce this potentially significant impact to a less-than-significant level.

*(c) Human Remains*

Human remains and associated artifacts are of considerable concern to Native Americans and archaeologists, and are protected by federal and State law. As described above, the Project area has been continuously disturbed with development since 1887 and, as such, it is unlikely that any human remains exist on site. However, it is possible that the Project Site contains undocumented human remains, the disturbance of which would constitute a significant impact. If human remains were to be discovered during construction of Phase 1 and Phase 2 of the Project, Mitigation Measure D.2-13 would require that work in the immediate vicinity be halted immediately, the construction manager and other entities be notified, and disposition of the human remains and any associated grave goods be

conducted in accordance with applicable regulations including Public Resources Code Sections 5097.91 and 5097.98, as amended. Thus, with implementation of Mitigation Measure D.2-13, potential impacts related to human remains during Phase 1 and Phase 2 construction activities would be reduced to a less-than-significant level.

## (2) Ongoing Operation

Ground disturbance would not take place during operation of the proposed Project and, thus, there is no potential to encroach or disturb unknown archeological or paleontological resources. Therefore, no operational impacts during Phase 1 and Phase 2 development as well as at Project buildout to archaeological or paleontological resources would occur.

## 4. Cumulative Impacts

Cumulative impacts occur when impacts from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. As indicated in Section II, Environmental Setting, of this Draft EIR, fifty-five related projects have been identified within the City of Pasadena. Collectively, cumulative projects near the Project Site comprise a variety of residential (apartments, condominiums, etc.), office, hotel, retail, restaurant, and entertainment uses, consistent with existing uses in the area.

As described above, there are no known archaeological or paleontological sites within a 0.5-mile radius of the Project Site. Furthermore, the proposed Project and related projects are located within an urban area that has been substantially disturbed and developed and redeveloped over time. In the event that archaeological and paleontological resources are uncovered, each related project would be required to comply with regulatory requirements. In addition, as part of the environmental review processes for the related projects, it is expected that mitigation measures would address the potential for the uncovering of archaeological and paleontological resources. As such, cumulative impacts related to archaeological and paleontological resources are considered less than significant.

## 5. Mitigation Measures

The following mitigation measures would reduce the potential impacts to archaeological and paleontological resources. The paleontological measures (Mitigation Measures D.2-3 through D.2-12) provided below would be in compliance with SVP (2010) standard measures for reducing the impact of construction on paleontological resources



and for the transfer of a paleontological mitigation program fossil collection to a museum repository for permanent storage and maintenance:

**Mitigation Measure D.2-1:** A qualified Principal Archaeologist meeting the Secretary of the Interior's Qualification Standards for Archaeology shall be retained prior to the start of excavation. The Principal Archaeologist shall prepare and implement a monitoring plan to reduce potential Project effects on unanticipated discoveries of buried prehistoric archaeological resources. The plan should include the professional qualifications required of key staff, monitoring protocols, provisions for evaluating and treating sites discovered during ground-disturbing activities, and reporting requirements. The monitoring protocols could include the following:

- 1) Prior to construction in any given area, the Principal Archaeologist shall evaluate the extent to which construction activities have the potential to unearth cultural resources;
- 2) Activities with a high potential for unearthing cultural resources shall be monitored continuously during ground-disturbing activities. Areas with a moderate potential shall be monitored on a part-time basis. Areas with a low potential shall be monitored on a periodic basis. Areas evaluated as having no potential require no monitoring. The Principal Archaeologist shall be empowered to change the status rating of any given area based on field observations.
- 3) If cultural resources are discovered during construction that may be eligible for listing in the CRHR, all ground disturbing activities in the immediate vicinity of the find shall be halted until the find can be evaluated by the Principal Archaeologist. If the find is recommended eligible by the Project Archaeologist, the project proponent and City of Pasadena shall be notified and a treatment plan developed and implemented to reduce project effects on the newly discovered resource to a less than significant level.
- 4) If human remains are discovered, all ground-disturbing activities shall cease in the immediate area and the Los Angeles County Coroner shall be contacted. Disposition of human remains and any associated grave goods, if encountered, shall be treated in accordance with procedures and requirements set forth in California Health and Safety Code Section 7050.5 and PRC 5097.91 and 5097.98, as amended.

The monitoring plan would also include a provision for Native American monitoring during ground-disturbing activities.

**Mitigation Measure D.2-2:** Prior to construction, an inventory and a testing plan shall be prepared to identify and evaluate the buried historical-period

archaeological deposits suspected to exist within the North Development Area. The testing plan shall include: a summary of pertinent background information, including the environmental and cultural settings of the Project area; a research design, to guide the testing program; proposed field and laboratory methods; reporting methods; plans for curation of collected materials; and a schedule for completing the proposed work.

**Mitigation Measure D.2-3:** A qualified Principal Paleontologist approved by the City of Pasadena shall be retained prior to the start of excavation to implement the following mitigation measures during or following excavation, as appropriate. The Paleontologist shall have an M.S. or Ph.D. degree in paleontology or geology and shall be familiar with paleontological salvage or mitigation procedures and techniques.

**Mitigation Measure D.2-4:** The Principal Paleontologist shall examine bore logs of the Project Site to determine if the strata underlying the site are sufficiently fine grained to contain fossilized remains and, if so, what level of paleontological monitoring shall be implemented during excavation.

**Mitigation Measure D.2-5:** If it is determined that the strata underlying the Project Site are sufficiently fine grained to contain fossilized remains, the Principal Paleontologist shall develop a written storage agreement with a recognized museum repository such as the LACM regarding the permanent storage and maintenance of any such remains recovered as a result of implementing these mitigation measures.

**Mitigation Measure D.2-6:** If the review of the bore logs, per Mitigation Measure D.2-4, reveals that monitoring is appropriate, the Principal Paleontologist and/or his Field Supervisor shall be present at a preconstruction meeting to consult with appropriate City of Pasadena and Construction Contractor staff. During the meeting, the Paleontologist and/or the Field Supervisor shall conduct an employee environmental awareness training session for all personnel who will be involved in excavation.

**Mitigation Measure D.2-7:** If the review of the bore logs, per Mitigation Measure D.2-4, reveals that monitoring is appropriate, a Paleontological Monitor, under the direction of the Principal Paleontologist or the Field Supervisor, shall be on site to inspect new exposures created by excavation once that earth-moving activity has reached a depth 5 feet below the current ground surface. Monitoring will allow for the recovery of fossil remains that might be uncovered by excavation.

**Mitigation Measure D.2-8:** If fossil remains are discovered, the monitor shall recover them. If necessary, excavation at the fossil locality shall be halted or diverted temporarily around the locality until the remains have been recovered. The Paleontological Monitor shall be equipped

to allow for the timely recovery of such remains. If necessary to reduce the potential for a delay of excavation, additional personnel shall be assigned to the recovery of an unusually large or productive fossil occurrence. Following the discovery of the remains, monitoring shall be raised to full time if full-time monitoring is not already in effect. On the other hand, if too few or no fossil remains have been found once 50 percent of the base of the excavation has been exposed, the Principal Paleontologist can recommend that monitoring be reduced.

**Mitigation Measure D.2-9:** Bulk samples of fine-grained sediment shall be recovered and processed to allow for the recovery of micro vertebrate remains. The total weight of those samples shall not exceed 6,000 pounds. Splits of the samples shall be submitted to commercial laboratories for microfossil or radiometric dating analysis.

**Mitigation Measure D.2-10:** Recovered fossil remains shall be prepared to the point of identification, identified by knowledgeable paleontologists, curated, and cataloged in compliance with designated museum repository requirements.

**Mitigation Measure D.2-11:** The entire fossil collection (along with associated specimen data and corresponding geologic and geographic locality data and copies of pertinent field notes, photos, and maps) shall be transferred to the repository for permanent storage and maintenance. Associated specimen data and corresponding geologic and geographic locality data shall be archived at the repository and, along with the fossil specimens, shall be made available to paleontologists for future study.

**Mitigation Measure D.2-12:** Within three months following completion of excavation, a final report of findings that summarizes the results of the work conducted under these mitigation measures shall be prepared by the Principal Paleontologist and submitted to the City of Pasadena. A copy of the report shall be filed at the museum repository. Submission of the report shall signify completion of the mitigation program.

**Mitigation Measure D.2-13:** If human remains are encountered during ground-disturbing activities, work in the affected area and the immediate vicinity shall be halted immediately. The construction manager at the Project Site shall be notified, and shall notify the Native American Heritage Commission and the County Coroner pursuant to procedures and requirements set forth in California Health and Safety Code Section 7050.5. Disposition of the human remains and any associated grave goods shall also be in accordance with this regulation and Public Resources Code Sections 5097.91 and 5097.98, as amended. The archaeologist and the Native American monitor, with the concurrence of the City, shall determine the area of

potential impact and the timing when construction activities can resume.

## **6. Significance after Mitigation**

Implementation of Mitigation Measures D.2-1 through D.2-13 would ensure that any potential impacts associated with archaeological or paleontological resources would be reduced to a less-than-significant level.